بررسی تاثیر واکسن‌های انفلوآنزا در غیبت‌های کاری کارکنان بیمارستان های تحت پوشش دانشگاه علوم پزشکی مشهد در سال‌های ۱۳۹۰-۱۳۹۴.

خلاصه

مقیده‌های علمی: شیب انفلوآنزا شایع‌ترین علل غیبت از محل کار می‌باشد. نقش یپرسل بیمارستانی در کاهش انفلوآنزا و نقش مصرف سیگار در نیاز بیماریها و افراد با دارایی‌هایی از دومین نگرش و استفاده از نسبت بسیار می‌باشد.

روش کار: این مطالعه بررسی مقیاسی کارکنان دانشگاه علوم پزشکی مشهد در سال ۱۳۹۴ بر اساس دریافت یا عدم دریافت واکسن انفلوآنزا در دو گروه قرار گرفتند و سپس افراد در طی دوره ۹ ماهه مطالعه از نظر ابتدایی به بیماری‌های دستگاه تنفسی ممکن گرفتند.

نتایج: در این مطالعه ما ۱۲۶ نفر وارد مطالعه شدند. میانگین سنی در گروه دریافت کننده و واکسن انفلوآنزا ۶۹.۶۳ سال و در گروه کنترل ۳۷.۱۲ سال بود (P=0.۷۳۹). همچنین از نظر جنسیت نیز زن در گروه تفاوت معناداری وجود نداشت (P=۰.۸۷۶). در نظر گرفتن گروه کنترل و گروه دریافت کننده، این نتایج با نگرشی که با چرخش، سطح تحقیقات، صرف سبیگر و سابقه دارای‌اندازه‌ای بود. آن‌ویی، تمام کارکنان با کودک‌داران نگه‌داری دارند از جویان خانگی تفاوت معناداری بین دو گروه وجود داشته‌ام اما این نظر بخشی کار تفاوت‌های معناداری بود (P=0.۰۱۰) در مجموع تعداد افرادی که بی‌لیمیت انفلوآنزا در محل کار غیبت کردند، بودند در ۳ ماه اول و سه ماه در مجموع ۹ ماه در گروه دریافت کننده واکسن بصورت معناداری نسبت به گروه کنترل کاهش یافته بود. در ۳ ماه جویان نیز در تماس واکسن منتشری غیبت اما نیز میزان دارایی این تفاوت معنادار نبود. در مطالعه ما همچنین مشاهده شد که علامت انفلوآنزا شایع‌ترین علائم فیزیولوژیک بود. در نظر گرفتن گروه کنترل، بودجه و کف دارند این نکته به مورد میل یا تفاوت معناداری نبود. در ۳ ماه سوم نیز در مورد هیچ‌کدام از علائم تفاوت معنادار نبود که این مورد می‌تواند بدلیل کافی باشد که لازم است که این نکته باشد.

نتیجه‌گیری: نتایج این مطالعه، نشان داده که کارکنان واکسن انفلوآنزا بهبود بیشتری از ابتلا به این بیماری در یپرس و شرایط درمانی می‌باشد. بنابراین پیشنهاد می‌شود واکسن‌های این افراد با واکسن انفلوآنزا می‌تواند بهبود کمک کند. باید نکته کلیه: واکسن- انفلوآنزا- غیبت.
The efficacy of personal productive herbal mouthwash for protection of oral infections

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Abstract

Introduction & Objective: Dental problems are of three types, formation of dental plaques, dental caries and periodontal diseases. Streptococcus mutans is one of the main opportunistic pathogens of dental caries (1). In addition, other microflora like Escherichia coli and Candida are also associated with active caries lesions. C. albicans is the most common yeast isolated from the oral cavity (2). Poor oral hygiene is one of the reasons for growth of these microbes and their harmful activities. The aim of this study was to determine in vitro antimicrobial effects of herbal-made mouthwash containing the extracts of Artemisia dracunculus, Satureja khuzestanica and Myrtus communis against oral pathogens related to caries and periodontal diseases. Materials and methods: Antimicrobial effectiveness an herbal-made mouthwash was evaluated against five microorganisms: Streptococcus mutans, Lactobacillus casei, Streptococcus sanguis, Streptococcus salivarius and Candida albicans by agar well diffusion method. Agar well diffusion method. The herbal-made mouthwash was tested at four different concentrations: 1:4(25%), 1:1(50%), 3:4(75%) and full strength (100%) with sterile distilled water as the diluent [2]. Results: After 24 hours of incubation, the maximum mean diameter of inhibition zone against tested oral pathogens by C. albicans (20-35mm), Lactobacillus casei (18-30mm), Streptococcus mutans (15-25mm), Streptococcus salivarius, and Streptococcus sanguis (15-25mm). Conclusions: The results indicate tested herbal mouthwash was a significant product to inhibit the growth of plaque bacteria and yeast.

Key words: Herbal mouthwash, protection, Oral infections
Infectious Disease Assessment among Hospital Patients in Yazd, Iran

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Background:

infectious disease assessment is a qualitative survey that used to assay interviews among hospitalized patients.

Method:

A questionnaire was used to obtain relevant information regarding demographic status such as age, weight, family size, education, health condition etc. The questionnaire was pre-tested before finalization. We visited one of general hospital which is located in Yazd, for the collection of data from the patient. statistical program for social science (SPSS) software was used for data analysis. 20 infectious disease patients were randomly chosen. All participants were interviewed by using standard questionnaires that evaluated infectious disease.

Results:

Our result showed that among the infectious disease, 9.4% were pneumonia and 4.8% asthma and 7.4 were gastrointestinal infection. Other disease including infectious disease are mild, such as cold 5.1%, bleeding 1.2%, urinary problem 1.7%, fever 3.7%. We can also specify relationship between two variables, such as disease and age, disease and body weight, disease and education, etc.

Conclusion:

we concluded that the people of this hospital suffering from some infectious disease such as asthma, pneumonia, diarrhea etc. Data shows that there is not much difference in food habit among the patients. We have found in our study that the occurrence of disease is less frequent in male than the female.

Keywords:

Infectious Disease, hospitalized patients, demographic status
Survey of relation between levels of serum Visfatin and inflammatory factors in diabetic patients infected with *Helicobacter Pylori* in Tabriz City

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**Introduction and Objective:** *Helicobacter pylori* is one of the human pathogens that commonly affects the mucous membrane of the stomach and upper gastrointestinal tract and causes permanent inflammation in it. The prevalence of *Helicobacter pylori* infection in diabetic patients is reported to be associated with obesity and associated metabolic disorders. In particular, the aim of this study is to find a logical relationship between *H. Pylori* infection in people with hyperglycemia syndrome with visfatin and inflammatory factors, including hs-CRP and serum myeloperoxidase enzymes.

**Materials and Method:** This study was a case-control study. 58 subjects in case group were diabetic patients with gastrointestinal symptoms and infected with *H. Pylori*, and 58 subjects in control group who had diabetic subjects without gastrointestinal and non-infected symptoms were Helicobacter pylori. HbA1C measured by ion exchange chromatography, hs-CRP, visfatin, and myeloperoxidase enzyme activity detected by ELISA method. The results were analyzed by SPSS software version 21.

**Results:** The results of this study showed that HbA1C (p=0.012), hs-CRP(p=0.0001), visfatin (p=0.009) and the activity of the myeloperoxidase enzyme activity(p=0.002). In the case group, the *H. Pylori*-infected diabetic patients had a significant increase compared to the control group.

Conclusion: It seems that *H. Pylori* infection in diabetic patients causes severe hyperglycemia in the control of diabetes mellitus and more chronic inflammatory diseases than non-Helicobacter pylori diabetic patients.

**Keywords:** *Helicobacter Pylori*, Diabetes Mellitus, Visfatin, Inflammatory Factors
Overview of neonatal sepsis

Maryam Kalateh Molaei *

Abstract

Background: Neonatal infections currently cause about 1.6 million deaths annually in developing countries. The purpose of this article is to give an overview of the burden of bacterial sepsis and meningitis in the newborn population in developing countries.

MATERIALS AND METHODS: We searched Pubmed, Ovid Medline, Embase, and Popline (2017) using as key words neonatal sepsis, neonatal meningitis, developing countries, Africa, Asia, and Latin America.

Findings: This review highlights several important features of neonatal sepsis in the developing world. In general, it is more common than in developed countries, the pathogen distribution is different with a predominance of Gram negative bacteria and Staph aureus, and the mortality is higher.

Discussion and Conclusion: Without such a platform, the introduction of new methods of prevention is difficult. Possible strategies to be considered might include intrapartum antibiotic prophylaxis, the use of antiseptic solution to disinfect the birth canal, and implementation of simple infection control methods of proven efficacy such as hand washing and barrier nursing, promotion of clean deliveries, exclusive breast feeding, restriction of antibiotic use, and rationalisation of admissions to and discharges from neonatal units.

Keywords: Neonatal infections, sepsis, neonatal intensive care unit (NICU)

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**Injectable Amikacin-loaded thermo-responsive Chondroitin sulfate derivative prevents infection in a Mice model.**

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Site of research: Islamic Azad University, Sanandaj Branch

Introduction: The surgical fixation of open fractures with osteosynthesis implants is associated with rates of infection. Antibiotic-loaded biomaterials (ALBs) are increasingly suggested in implant surgeries across physical specialties to deliver high concentrations of this antibiotics to the surgical zone and reduce the risk of implant-associated infections. ALBs which are either less restricted in terms of spatial distribution complex wounds could offer improved protection against infection in open fracture care.

Materials and Methods: A thermo-responsive Chondroitin sulfate derivative (Chondroitin sulfate-poly(N-isopropylacrylamide) (CSpN) was prepared by amidation reaction between the N-acetylgalactosamine (Nag) sugar of Chondroitin sulfate and amine-terminated poly(N-isopropylacrylamide) (pN). The degree of grafting, and gelation properties of this gel were characterized, and the composition was loaded with Amikacin. The rheological- and release properties of this Amikacin-loaded CSpN composition were tested in vitro and its efficacy in preventing infection was tested in a Mice model of osteosynthesis contaminated with Staphylococcus aureus.

Result: The Amikacin-loaded CSpN composition was able to prevent bacterial colonization of the implant site as shown by quantitative bacteriology. This finding was supported by histopathological evaluation of the humeri samples where no bacteria were found in the stained sections.

Conclusion: this Amikacin-loaded CSpN hydrogel effectively prevents infection in a complex wound, simulating a contaminated fracture treated with plating osteosynthesis. Fracture fixation after trauma is associated with high infection rates. Antibiotic loaded biomaterials (ALBs) can provide high local concentrations without systemic side effects. However, the currently available ALBs have limited accessibility to contaminated tissues in open fractures because of predetermined shape. Thus, a novel thermo-responsive Glycosaminoglycan based hydrogel with control over gelation temperature is reported. The efficacy of this Amikacin loaded Glycosaminoglycan derivative is demonstrated in an in vivo fracture model in the presence of fracture fixation hardware.

**KEYWORDS:** Biomaterial-associated infection; Chondroitin sulfate; Prophylaxis; Staphylococcus aureus;
Study Hospital-acquired infections of hospitalized people in Khatam Al Anbia Hospital (S) of Shushtar City

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Introduction Hospital-acquired infections as a big problem and non avoidable involve hospitalizated people, employees and visitors people that it caused to death occasionally.

Metodes: In this study were done on eighteen hospitalizated people in Khatam Al Anbia Hospital (S) 2017 mostly with fever, wound drainage, abscess, and local tense.

Results: obtained results indicated that 16.6% (3 case) E. Coli, 22.2% (4 case) Staphylococcus epidermidis, 5.5% (1 case) coagulase-positive staphylococci and 5.5% (1 case) Pseudomonas aeruginosa were seen with culture method in laboratory also 50% without any bacteria reported.

Conclusion: Regard to important acquired hospital infection for applying on time and prevent drug resistance of micro organism to antibiotic it is necessary on time applying and detect them with laboratory method and physician considering.
Study of Urinary tract infection(UTI) in Dr. Ganjavian Hospital, Dezful – Iran

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Introduction: Urinary tract infection(UTI) is one of the important hospital infection that many women and men suffering from it. In this study we investigate percent of infection between who hospitalized in also OPD patient to Ganjavian Hospital, Dezful - Iran.

Method: In this study urine culture were done for OPD and hospitalized people in different department including infant, baby, surgery women and men department

First urines accumulated in sterile bag and cultured on blood agar and MacConkey agar then they incubated in 37 C and searched after 24hours.

Results: The results of examination of 1611 urine culture of men and women showed that 314 (27%) case of women and 191(16.4%) of men sample were reported positive culture also Escherichia coli 109(9.4%), Shigella sonnei 49(4.2%), Acinetobacter 26(2.2%), Staff Areas 17(1.46%), Klebsiella 27(2.3%), Enterococcus 30(2.6%), Enterobacter 11(0.9%) and contamination 236 (20.3%) were showed.

Conclusion: In this study, women had infection rate higher than men, regard to sensitivity subject about infectious diseases hospital such as urinary tract infections also reduce these infections especially in women with early onset diagnosis of infection, a continuous examination of microorganisms, carried out to prevent of urinary tract infections, considering of hospital sanitation, disinfect and provide health education to people and hospitalized patients also hospital staff.

Key: Urinary tract infection, Hospital infection, Ganjavian hospital
The most important nursing diagnoses in patients with health care associated infections

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Introduction and Objectives: Health care associated infections are one of the most common reasons for mortality and the increase of disability among hospitalized patients. Nurses play the main role in preventing hospital infections. Although there are a lot of preventing actions in health centers and hospitals, one patient out of twenty suffers from hospital infections. Nurses play the key role in treatment and controlling the symptoms related to hospital infections. This study has been conducted with the purpose of reviewing the most important nursing diagnoses in hospitalized patients which are suffering from hospital infections.

Materials and Methods: This study is a review article and data bases such as SID, Pubmed, Science Direct, Magiran were searched with the key words “Nursing diagnoses in patients suffering from hospital infections” and “Health care associated infection”. Five articles were selected from twenty-five ones were used to edit.

Results: Regarding the reviews of the articles and the articles, the most important common diagnoses among hospitalized patients which are suffering from hospital infections are as follows; weakness and disability in self care, ineffective cleaning of the airway, risk of aspiration, unbalanced nutrition, acute pain, shock risk and possibility of bleeding and anxiety owing to hospital infections.

Conclusion: Nursing diagnoses needs planning nursing care in nursing process. While earning knowledge about nursing diagnoses and care planning, a nurse would be able to play an important role in treating and preventing the complications which are related to hospital infections.

Key Words: Nursing diagnosis, Health care associated infection, Nurse.

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The role of nurses in the prevention of health care associated infections

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Introduction and Objectives: Infections related to hospitalization has been one of the worries for nursing teams since Florence Nightingale's time because preventing hospital infections plays an important role in patient’s outcome. Nurses receive basic information about microbiology and infectious diseases and they are trained frequently during their period of employment. This study was conducted with the purpose of the role of nurses in the prevention of health care associated infections.

Materials and Methods: This is a review study. Data bases such as SID, Pubmed, Science Direct, Magiran were searched with the key words "Role of nurses in prevention of health care associated infections". From twenty-one articles which were reviewed, six of them were selected to review.

Results: According to the study, nurses play an important role in preventing hospital infections. The most important nurses’ duties are as follows; implementation of hand hygiene, caring patients with sterile equipment, using personal protective equipment, teaching hand hygiene to patients, controlling and supervising the disinfection of the hospital environment, management of the waste, implementation of private precautions (air borne, Contact, droplet precautions) and maintaining their job health. Other nurses’ duties are participating infection control training programs, periodic visits by professional nursing teams and patients reporting.

Conclusion: Regarding the findings of the study, nurses, play a very important role in preventing hospital infections. It is necessary to train nurses continuously and remind them of their key role in the prevention of hospital infections.

Key Words: health care associated infections, Nurse, Nursing role.

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Application of nanoparticles as new methods in treatment of parasitic infections

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ABSTRACT

Introduction and objective: Nanoparticles (NPs) are particles which size range from approximately from 1 to 100 nanometers and made in different shapes. Recently, some of parasites demonstrated drug resistance, which increased the need for new effective and safer agents against parasitic infection or improvement of the present drugs and there is no vaccine available for the prevention of many parasitic infection, and hence chemotherapy is the current mainstay of control. However, little attention has been deal to the use of nanoparticle derivatives as an antiparasitic drugs.

Materials and methods: In this paper developments in the use of nanoparticles as anti-parasitic drugs are reviewed. Scientific sites such as Medline, Pubmed and Google scholar were used.

Results: The results of the collected literature finalized that gold nanoparticles, oxidized metals, silver, chitosan and have growth inhibitory or cytotoxic effect on diverse parasites, including *Giardia*, *Leishmania*, *Plasmodium*, *Toxoplasma* and helminthes. Nanoparticles are encouraging future sources for the development of new drugs or for therapeutic application.

Conclusion: Nanoparticles could be used separately or in combination of current drug against parasites. Then, nanomedicine has the potential to establish the use of old and toxic drugs by improving their biodistribution, modify bioavailability and decreasing toxicity.

Keywords: Nanoparticles, Antiparasitic, Parasitic infections.
استفاده از نانوذرات به عنوان روش‌های نوین در درمان عفونت‌های انگلی

روش‌های نوین در درمان عفونت‌های انگلی

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چکیده

مقدمه و هدف: نانوذرات (NPs) نانومتر هستند که به اشکال مختلف ساخته می‌شوند. این جذب احساس می‌گردد و نیز به دلیل عدم وجود واکسن جهت پیشگیری از عفونت‌های انگلی، استفاده از داروهای شیمیایی را بهترین راه پیشگیری محسوب می‌گردد.

مواد و روش‌ها: در این مقاله، روند پیشرفت استفاده از نانوذرات به عنوان داروهای ضد انگلی مرور شده است و از سایت‌های علمی مانند Google Scholar و PubMed و Medline استفاده گردیده است.

نتایج: نتایج حاصل از متن‌های علمی جمع‌آوری شده، نشان می‌دهد که نانوذرات طلا، اکسید‌های فلزی، نقره و کیتوزان بر روی انگل‌هایی مانند جریان‌های پلی‌پیپترید، لیزه‌ها، بلاک‌‌پروتئین‌ها و کروما‌ها تأثیر بادارندگی از رشد، سیتوتوکسیکی که از این رو، نانوذرات به عنوان منابع دارویی جدید جهت اهداف درمانی در آینده مطرح می‌شوند.

نتیجه‌گیری: نانوذرات می‌توانند به طور جداگانه یا در ترکیب با داروهای رایج ضد انگلی مورد استفاده قرار گیرند. بنابراین، نانومدیسین دارای پتانسیل بالایی جهت بهبود بخشیدن به توزیع پیانولوزیک داروهای دسترسی و کاهش سهیت داروهای قدیمی و سمی است.

کلید واژه‌ها: نانوذرات، خاصیت ضد انگلی، عفونتهای انگلی.
Important natural product against protozoan infections

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ABSTRACT

Introduction and objective: Parasitic diseases are spread in the world. Their unfavorable and social-economic effect in the population causes enormous public health problems. Parasitic diseases affect millions of people globally and they involve many limitations in treatment methods. Recently, some parasites demonstrated drug resistance, which increased the need for new alternative and safer agents against parasitic infection or improvement of the present drugs and there is no vaccine accessible for the prevention of many parasitic infection, and hence chemotherapy is the current mainstay of control. Medicinal plants are being widely utilized and appraised as a important source of unique natural products against different protozoal diseases.

Materials and methods: In this article, recently published papers about plants against protozoan infections were reviewed. Scientific sites such as Medline, Pubmed and Google scholar were used. The terms used included: plants, antiprotozoa, herbal medicine, medicinal plants and herbal drug.

Results: The results of the collected literature finilized that these plants are encouraging future sources for the development of new drugs or for therapeutic application.

Conclusion: Herbal medicine has the potential to use of old drugs by modifying their biodistribution, improve bioavail-ability and reducing toxicity. Therefore, natural products of plants are recommended more effective and less harmful drugs and also beneficial vaccines for the prevention and control of the parasites.

Key words: Herbal products, protozoan infections, Iran.
اهمیت محصولات گیاهی علیه عفونت‌های تک باخته‌ای

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چکیده
مقدمه و هدف: بیماری‌های انگلی دارای پراکندگی جهانی هستند. تأثیر نامطلوب و اجتماعی‐اقتصادی آنها در جامعه باعث ایجاد مشکلات فراوانی در سلامت عمومی می‌شود. بیماری‌های انگلی میلیون‌ها نفر از مردم جهان را مبتلا می‌کنند و محدودیت‌های زیادی در روش‌های درمانی دارند. اخیراً در بعضی از انگل‌ها مقاومت دارویی اثبات شده است بنابراین نیاز به داروهای موثر و بدون عارضه جانبی عفونت‌های انگلی بیش از پیش احساس می‌گردد و نیز به دلیل عدم وجود واکسن جهت پیشگیری از عفونت‌های انگلی، استفاده از داروهای شیمیایی را از چهره‌ی راه‌نشان‌های پیشگیری محصولات می‌گردد. گیاهان دارویی به طور گسترده‌ای مورد استفاده قرار می‌گیرند و به عفونت‌های شیمیایی‌بای داروهای ترکیبی متوجه می‌شوند.

مواد و روش‌ها: در این مقاله، مقالات نیز به جامعه، مقالات تازه به صورت رسمی در مورد گیاهان مورد استفاده علیه عفونت‌های تک باخته‌ای مورور شده است و از سایت‌های علمی مانند Google Scholar و PubMed، Medline استفاده گردیده است. کلیمات مورد استفاده شامل گیاهان است. گیاهان ضد تک باخته‌ای، گیاه پزشکی، گیاهان دارویی و گیاه درمانی می‌باشد.

نتایج: نتایج حاصل از متون علمی جمع‌آوری شده، نشان می‌دهد که گیاهان، به عفونت‌های شیمیایی بسیاری از گیاهان، به عنوان مدل‌های جدید مطرح می‌شوند.

کلید واژه‌ها: محصولات گیاهی، عفونت‌های تک باخته‌ای، ایران.
Application of nanoparticles as new methods in treatment of parasitic infections

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ABSTRACT

Introduction and objective: Nanoparticles (NPs) are particles which size range from approximately from 1 to 100 nanometers and made indifferent shapes. Recently, some of parasites demonstrated drug resistance, which increased the need for new effective and safer agents against parasitic infection or improvement of the present drugs and there is no vaccine available for the prevention of many parasitic infection, and hence chemotherapy is the current mainstay of control. However, little attention has been dealt to the use of nanoparticle derivatives as an antiparasitic drugs.

Materials and methods: In this paper developments in the use of nanoparticles as anti-parasitic drugs are reviewed. Scientific sites such as Medline, Pubmed and Google scholar were used.

Results: The results of the collected literature finalized that gold nanoparticles, oxidized metals, silver, chitosan and have growth inhibitory or cytotoxic effect on diverse parasites, including Giardia, Leishmania, Plasmodium, Toxoplasma and helminthes. Nanoparticles are encouraging future sources for the development of new drugs or for therapeutic application.

Conclusion: Nanoparticles could be used separately or in combination of current drug against parasites. Then, nanomedicine has the potential to establish the use of old and toxic drugs by improving their biodistribution, modify bioavailability and decreasing toxicity.

Keywords: Nanoparticles, Antiparasitic, Parasitic infections.
Application of nanoparticles as new methods in treatment of parasitic infections

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Keywords: Nanoparticles, Antiparasitic, Parasitic infections
Investigating the incidence of nosocomial infections in hospitals affiliated to Mashhad University of Medical Sciences in 1395

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Introduction & Objective:

Hospital infection is an infection that occurs after the patient is admitted to the hospital (48 or 72 hours later) or during a specified period (10 to 30 days) after discharge, and at the time of admission the patient does not exist and during the period Your impulse should not be. The purpose of this study was to evaluate the status of nosocomial infections in the hospitals affiliated with Mashhad University of Medical Sciences in Mashhad, Iran.

Method:

This is a retrospective descriptive study in which all patients with nosocomial infections in the program hospitals were enrolled and analyzed according to INIS software.

Results:

In 1395, 4489771 patients admitted in these hospitals had 3589 hospitalized infections with an infection rate of 0.79. 77% of cases of positive culture and 23% of cases have been clinically diagnosed. The incidence of infection in men was 47% and women 53%. The age group of 15-64 years old with 52.57% had the highest incidence. The highest incidence of infection in the burns was reported with 21%, followed by blood with 88.8% and lung with 19.5%. The most important risk factor is intravenous catheter with 21.67% and the most important underlying disease of diabetes with 26.17%. PNEU was the highest with 22.27% and SSI with the lowest incidence of 15.96%.

Discussion and Conclusion:

According to the performed studies, the most important way to reduce hospital infections is to provide continuous training in the washing of hands and the use of personal protective equipment by the personnel.

Key words: Hospital Infection, INIS, Mashhad
Deaths from hospital infections in hospitals affiliated to Mashhad University of Medical Sciences in 1395

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2. Director of the Department of Communicable Diseases - Mashhad University of Medical Sciences
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Introduction & Objective:

It has been shown that annual hospital infection directly leads to death of 19,000 people and indirectly causes death of 58,000 people. The mortality rate is 25% to 50%, followed by pneumonia 7% to 27%. The purpose of this study was to investigate the deaths from nosocomial infections in INIS program hospitals affiliated to Mashhad University of Medical Sciences in 1395.

Method:

This is a retrospective descriptive study in which all deaths due to hospital infection in the program hospitals were studied and analyzed according to INIS software.

Results: Out of 6250 registered deaths in these hospitals, 236 cases were reported due to nosocomial infections in 1395. 47.8% of deaths were in women and 52.2% were in males. The most common deaths were in the age group 65 years and above With 41.5%. PNEU infection accounts for 33.81% of the most deaths. The most significant underlying disease in patients with hypertension is 14.8%. The most invasive procedure in patients with death The catheter is 73%.

Conclusion:

The establishment of the Committee for the control of nosocomial infections and careful and continuous monitoring of the personnel’s work on the use of personal protective equipment, hand washing and standard precautions in reducing the number of infections and deaths are very effective.

Key words: Death, INIS, Mashhad
Evaluation of Hand washing compliance rates in five positions in Medical and nursing staff in shahid Beheshti hospital in Hamadan

M. Aieni¹, P. Rasouli²

Abstract

Introduction and Objectives: The staff hand medical were instruments maximum contact with the surface and patient’s body and most important element is the transfer and dissemination of bacteria in hospital. The study to Evaluation of compliance hand hygiene five positions in Medical and nursing staff in shahid Behesti hospital in Hamadan in first six months of 1396.

Methods and materials: In this descriptive cross-sectional study 2990 Hand Hygiene position in 12 Hospitalization and Outpatient ward staff on five position Hand Hygiene were evaluated. The variables studied include hand washing in five situations, occupational groups (physician and nurse and nursing assistance), work shift, relevant department. The data were collected using the standard WHO Wash Assessment Form in five positions with direct and subtle observation. Data analysis was performed with SPSS-16.

Results: The findings of the study showed that from 2990 the position in 987 (33 %) were hand hygiene compliance by staff. But in 2002 position (67%) did not observe hand hygiene. Hand washing compliance in employment rates between groups were significant differences So that the nurses 36%, the nurse assistants 35 %, and physicians' (30%) position of the hand hygiene were compliance. According to the findings, the lowest level of hand hygiene in the position before contact with the patient was 27% and the highest level of hand hygiene in the post-exposure condition was 90% and the difference was statistically significant.(p<0/05)

Conclusion: The findings of the study indicate the low sensitivity of the treatment staff to the importance of five positions Hand Hygiene and On the other hand, hygiene is considered by the staff as an effective tool in the prevention of hospital infections. The results of the hospital Infection Control Committee will be discussed and it was decided that the relevant resolutions would be implemented in the second six months of the year.

Keyword: Hand hygiene, nosocomial infections and Hospital staff.

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Abstract:

Frequency determination of bacterial factors of nosocomial infections in selective military hospitals of Mashhad during 2015 to 2017.

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Introduction and goal: nosocomial infections are important factors to increase hospitalization duration and hospital cost beside to death. The first stop to control nosocomial infections is determination of type of infection and prevalence. The goal of present study is determination of frequency of bacterial factors of nosocomial infections in selective military hospitals of Mashhad during 2015 to 2017.

Materials and Methods: This study is cross- descriptive during 2/5 years that is performed based on nosocomial infections. Patients who infected after hospitalization in ICU, CCU, infants, women, and surgery have been studied. Separation and identification of bacteria’s have been performed using lab standard methods. Antibiotic sensitivity pattern has been evaluated using disc diffusion and CLSI table. Data analysis has been performed using SPSS software based on frequency and percentage.

Findings: Infection prevalence has been reported in 2015 (4/5%), 2016 (5/4%) and first six months of 2017 (7/9%). Among evaluated bacteria’s E.coli was most prevalent and Acinetobacterbaumanniwas multidrug resistance microorganism (resistance against imipenem, Meropenem, ciprofloxacin, cefepim, ceftazidim, pipractam) in ICU and respiratory below organ infection sectors.

Conclusion: Prevention and control strategies have been emphasized to achieve better results from nosocomial infection treatment. Finally with identification of nosocomial infections, we can decrease them using preventive methods and acceptance of said strategies by hospital personnel.

Key words: nosocomial infections, bacterial factors, multidrug resistance.

REFERENCES


Hand Hygiene Compliance in Infection Control

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Introduction:

Hospital infections are considered as one of the most important risk factors in health care departments and health is the first step in controlling these infections

Method: This descriptive study by reviewing the large number of research papers published and is available on the Internet.

Results:

Hygiene is a general term that refers to any handwashing action. Includes:

• Wash hands with soap and water, soap solution • Use an antimicrobial solution to rub hands on the surface of the hands. When hand sanitization is done correctly, the results are a reduction in the microorganisms of the hands. Among the hygienic objectives of the hand can be mentioned:

• Breaking the transmission chain by hand through direct or indirect contact • Reducing health-care-related infections • Improving individual health and controlling epidemics • Reducing the burden of disease Infectious diseases caused by health care • Prevention of infection

Conclusion:

The prevalence of infection due to inappropriate hand sanitation will increase mortality and morbidity. Hand-hygiene can effectively reduce health care infections. Therefore, having the knowledge and attitude of the staff in doing hand sanitization alone is not enough and in addition to training staff, training hospital officials and physicians, and creating an appropriate environment for behavior behavior. Hand sanitation is necessary.

Key words:

Hand hygiene, nosocomial infection, infection transmission
The role of vaccination in children's health

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Introduction:

One of the effective factors in promoting the health of the community, especially children, is the prevention of diseases by immunization, so that in the absence of complete, correct and timely immunization of children, infectious diseases will threaten their life.

Methods:

This descriptive study by reviewing a massive buildup of a large number of research papers published and is available on the Internet.

Results

The vaccine is a microbial or viral antigens whose pathogenicity is either eliminated or modified.Vaccinated vaccines are diseases that can be prevented or minimized by the vaccine. These diseases in our country currently include diphtheria, black cough, tetanus, tuberculosis, polio, etc. These diseases are routinely routinely performed according to the relevant vaccination tables against them.

Conclusion:

Vaccination as an important component of the primary health care system has a significant role in maintaining and improving the health of the community. Vaccination protects children against some dangerous childhood illnesses.

Children who have received the vaccine will be immunized against vaccine-preventable diseases, and the vaccine will strengthen the child's child's ability to fight. Vaccination is an important measure by which it can be used to prevent infectious diseases at a low cost.

Key words:

Vaccination-preventable disease by vaccine-immunization.
Strategies for Prevention of Hospital Acquired Infections: A Systematic Review

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Site of Research:
Not restricted

Introduction and Objectives:

Hospital acquired infections is a major safety concern for both clinicians and the patients and is also important with regard to the increased length of stay and the cost. Every year, lives are lost because of the spread of infections in hospitals. Efforts should be made to make the hospitals as safe as possible by preventing such infections. In this study, we tried to systematically review all the existing evidence on the effective strategies on preventing the hospital acquired infections.

Materials and Methods:

For conducting this study, due to the great bulk of research in this area, we first searched for the systematic reviews conducted since 2010 and then we added the primary studies conducted since the last published systematic review. We searched for all the publications reporting strategies found to be significantly effective in preventing hospital acquired infections. We used the following search terms or keywords in PubMed, Scopus • Web of Science • Science direct • ProQuest • Elsevier • Cochran and google scholar: "Hospital Acquired Infections", "Infection prevention strategy", "hospital", "control of hospital infection". Initially, 54 review studies and 18 primary studies were found and after reading their abstract and full-text, finally 5 systematic review and 6 primary studies were selected.

Result:

The following strategies were found to be the most effective ones in prevention of hospital acquired infections:

manage antibiotics, monitor the disinfection process, cleaning and processing the environment, hospital waste management, hand washing, all patients should bathe or shower prior to surgery, surgical hand preparation using antimicrobial soap and water or alcohol-based hand rub, remove
unnecessary catheters, limit operating room traffic to essential movement only and hospital room cleaning performed daily.

**Conclusion:**

As this study reviewed the findings of the systematic reviews, in addition to the most recent primary studies, the findings provide a comprehensive evidence on the most effective strategies on prevention of hospital acquired infections, which could be highly valuable for hospital administers, policy makers as well as clinicians.

**Keywords:**

Strategies, Prevention, Hospital Acquired Infections, Systematic Review

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Positive cultures in NICU

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Site of research: Pubmed and ISI

Introduction and Objectives: Nosocomial infection in NICU is more common than others intensive care units. Blood culture is one of the most common lab test which is done in neonatal intensive care unit (NICU). Each newborn with any sign and symptoms is required to roll out for positive blood culture. The exact taking blood culture is necessary to get result sooner, because the time for getting result of blood culture is long, on the other hand the mortality of newborn due to infection is higher. The aim of this study was to determine positive cultures in NICU of Imam Reza hospital.

Materials and Methods: During 3 months in fall, since 1.7.1396 all positive culture extracted from patients documents and analyzed for location, organism and antibiotic sensitivity.

Result: During 3 months 185 newborns admitted to NICU. We found 8 (4.3%) positive eye discharge culture, 6 (3.2%) positive blood cultures and 2 (1.08%) positive CSF culture. The most common organism was staphylococci epidermidis and next one entrobacter aerogenes. The most location of positive culture was eye, blood culture and CSF respectively. The sensitive antibiotic was Co-trimoxazol, and the resistance antibiotics were Clindamycin, Gentamycin, Ciprofloxacin and Cefotaxime.
**Conclusion:** As Imam Reza NICU is one of the referral intensive care unit, indeed its maternity ward is also high risk pregnant center fortunately prevalence of infection is low. It is due to policy of hospital for hand washing education.

**Keyword:** nosocomial infection, blood culture, CSF culture, Newborn, NICU
مميزی بالینی فرآیند بهداشت دست مراقبین بهداشتی در یکی از بیمارستان های شهرستان میانه

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زمینه و هدف: عفونت های بیمارستانی به عنوان یکی از مهم ترین عوامل خطر در بخش مراقبت بهداشتی و درمانی شناخته می‌شوند و راه‌یافته بهداشت دست اولین و مهم‌ترین گام در کنترل این عفونت ها می‌باشد. مطالعه حاضر با هدف ارزیابی فرآیند رعايت 5 موقعيت بهداشت دست به روی مميزی بالینی در یکی از بیمارستان های شهرستان میانه صورت گرفت.

مواد و روش ها: مطالعه حاضر، از نوع مداخله ای به روش مميزی بالینی در تمامی بخش های بیمارستان در سال 69 به مدت 9 ماه انجام گرفت. مطالعه با همکاری رابطین کنترل عفونت در تمامی شیفت های کاری انجام شد. ابزار مطالعه چک لیست پایش عملکرد و روش مشاهده بهداشت دست سازمان بهداشت جهانی می‌باشد.

نتایج: از 2229 تعداد کل موقعيت های بیمارستان در سه ماهه اول 333 مورد بهداشت دست رعایت شده است که با اجرای مداخلات در سه ماه دوم سال، از 2965 موقعيت مورد بهداشت دست 359 مورد رعایت شده است. نتایج حاصل از مميزی بالینی فوق نشان می‌دهد که میزان کلی مطابقت با استاندارد بهداشت دست قبل از مداخله 15.95/00 بوده که بعد از اجرای مداخلات به 19.61/00 ارتقاء یافته.

نتیجه‌گیری: این مطالعه نشان می‌دهد که استفاده از مميزی بالینی به عنوان یکی از روش‌های ارتقای کیفیت منجر به بهبود فرآیند بهداشت دست می‌شود و این ارتقای مداخلات اصلاحی باعث بسیاره مصروف مستمر ادامه داشته باشد.

کلید واژه: مميزی بالینی، بهداشت دست، مراقبین بهداشتی

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Self-reported infection control practices and perceptions of HIV/AIDS risk amongst emergency department nurses in Iran

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Introduction and Objectives: The risk of transmission of HIV and other blood borne diseases in health care settings is dependent on the practices of health care personnel. Emergency department personnel are at greater risk of exposure to blood-borne pathogens such as Hepatitis B virus (HBV) and HIV/AIDS because of frequent exposure to blood, the unknown status of patients and the performance of invasive procedures. The urgency of response required in The Emergency Department for patients, such as those in cardiac arrest or with multiple trauma, may lead health care workers to perform procedures without proper adherence to universal precautions resulting in contamination with blood and or body fluids. This descriptive exploratory study investigated the reported practices and perceptions of emergency nurses related to infection control in the context of the Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) pandemic in Iran.

Materials and Methods: Data were collected at one of the two Educational Hospital in Iran. Quantitative and qualitative data were collected using a self-administered questionnaire. Thirty questionnaires were distributed to Nurses with emergency department experience in Iran, with a response rate of 50% (n = 15). Quantitative data were analyzed using descriptive statistics while qualitative data were subjected to thematic and content analysis.

Result: In this study, there is some concurrence between quantitative and qualitative findings. Overall the quantitative data analysis results show that the majority of the respondents reported that they comply with infection control procedures and universal precautions. The qualitative findings show that, although the nurses reported practicing universal precautions, there were some constraints to compliance. The main themes reported included lack of adequate resources to provide good quality personal protective clothing particularly masks, gowns and protective eye wear. The nurses identified shortage of manpower as another resource constraint, particularly for staffing both the emergency and infection control department at the hospital. Lack of appropriate resources to provide the necessary equipment and materials has been documented previously.

Conclusion: The emergency department nurses who participated in this study described considerable fear of transmission, despite self-reported compliance with Universal Precautions. Resource constraints and lack of a sustainable approach to education were highlighted.

Keyword: Universal precautions; Accident and emergency nursing; HIV/AIDS, infection control
Urinary Tract Infections In Out Born Admitted Newborns at NICU of Imam Reza Hospital Northeast Iran

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Introduction and Objectives: UTI in Neonates is very important. It is more prevalent in the first year of life in comparison to other ages, and its sexual ratio in the neonatal age is different too.

UTI creates broad spectrum, nonspecific signs and symptoms in neonates that are identical to many other diseases. We decided to study for the first time the urinary tract infections (UTI) frequency at NICU of Imam Reza hospital northeast Iran.

Maternal & Methods: A descriptive – retrospective study of UTI in out born admitted newborn in NICU in Imam Reza hospital for four years has been done. Information about them were given from medical records. All neonates had routine suprapubic puncture during sepsis workup.

Results: Among 2340 neonates who were admitted 12 neonates had UTI. Frequency of neonatal UTI in this study was 0.51%. Boy girl ratio was 1.4/1. Their 36.36% were preterm, 88.88% of them had Apgar score more than 7 at 5 and 7 minutes after birth.

77.77% of neonates had multipare mothers, normal vaginal delivery were recorded for 90% of neonates. PROM had 8.3% of these neonates mother and 83.33% of neonates were breast feeder. The most common clinical feature was fever (50%). The most prevalent germ either in term or in preterm was Ecoli (58.33%) and 25% of the neonates had septicemia.

All case cases were resistant to ampicillin and 44.44% to aminoglycosides. 16.66% of neonates had associate anomaly and mortality rate was 8.3%.

Conclusion: The UTI frequency were high because we studied just out patient neonates and the most common clinical feature was fever and finally all bacteria were resistant to ampicillin and our mortality was high. Thus we must attention on UTI during neonates fever.

Key word: UTI. Neonates, Infection
Frequency of Etiological Factors of Post Cardiac Surgery Infections at Mazandaran Heart Center - 2016

Maryam Mirzakhani, Alireza Davoodi, Afsane Mirzakhani, Reza Kalantari

INTRODUCTION & OBJECTIVES: Infections are of the most prevalent complications in open heart surgery (OHS) patients. Regarding the widespread use of antibiotics, antibiotic resistance and infection producing organisms are rapidly increasing. This study aims to determine the etiologic factors of various nosocomial infections (NI) in post- OHS patients at Mazandaran Heart Center.

METHOD: The present study is descriptive and cross-sectional. The study population consists of this hospital inpatients, afflicted by NI symptoms within the last two years after OHS and the most important analyzed infections include wound, blood, urinary tract, pulmonary (based on the Country Guide to Hospital Infections Care System) and mediastinal and endocarditis infections.

RESULTS: Out of 1312 operated patients, 123 got infected (9.2%), of which, 62.3% were men. The mean age of the nosocomial infected patients was 75.2 ± 38.4. The most common infections were pneumonia (44 cases, 35.7%), sepsis (31 cases, 25.2%), deep chest (21 cases, 17%), deep foot (12 cases, 9.7%), mediastinal (6 cases, 4.8%), surface chest, urinary tract and endocarditis infections in both cases (3 cases, 2.4%), respectively. The organism responsible for isolated infection, the most prevalent of which were positive Staphylococcus aurous, Ecoli and Acinetobacter, respectively. Other germs include Staph Acupressure, and other species of Enterobacteriaceae.

CONCLUSION: Given observing different microbial strains after spotting NI in OHS, it is required to impose stricter policies in line with the cares provided before, during and after OHS.

Key words: OHS, NI, Acinetobacter
The relationship of standards of physical space, equipment, safety and health on general health operating rooms personnel in hospitals affiliated with the Birjand university of Medical Sciences

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Introduction and Objectives: The health of nurses is always threatened by prolonged work shifts and the resulting fatigue. Certainly, nurses who do not have good general health will not be able to provide good care for patients. The operating room is one of the most complex working environments and one of the critical parts of the hospital that complies with the standards of physical space, equipment, safety and health in providing appropriate therapies. Since standards are among the most valuable elements in organizations, standardized assessment is among the factors contributing to improving the standardization of hospitals and increasing the overall health of staff.

Materials and Methods: The statistical population of this study is all hospitals affiliated with Birjand University of Medical Sciences and its personnel. The research tool has 4 checklist including a checklist for reviewing equipment standards, a physical space, a checklist for reviewing health standards and a checklist for examining the operating room safety standards. The general health questionnaire of GHQ-28 was used to measure the general health of personnel. The data were entered into SPSS version 18 and analyzed using descriptive statistics and correlation tests.

Result: This research showed that between general health of personnel and standards of physical and Equipment has a positive and significant relationship; this means that as the level of standards increases, the level of personnel health will also increase.

Conclusion: on average 86.29% of the standards of operating room of Birjand Medical Sciences Hospitals have been observed. There is a significant relationship between general health and standard of staff (p-value <0.05) with a significant correlation (r = 0.767).

KEYWORDS: Operating room standards _ General health _ Standards _ Physical space _ Safety _ Health _ Equipment

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Clinical Audit of Hand Hygiene Process of Healthcare Providers in a General Hospital in Miyaneh city

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Introduction and Objectives: Nosocomial infections are among the important risk factors in healthcare sector, and hand hygiene also has an important role in nosocomial infections which may be the first recommended control step. This study aimed at assessing the five moments for hand hygiene process of nurses by clinical audit method in a selected general hospital in Miyaneh city.

Materials and Methods: this study was an interventional one using clinical audit method which was conducted during six months in all units in a selected general hospital in Miyaneh in 2017. The study was conducted in collaboration with infectious disease control team in all work shifts. Study instrument were monitoring performance checklist and hand washing observation Checklist was developed by WHO.

Result: the total number of situation in pre-intervention was 338 of 2246 in the first quarter of the 2017, which increased to 350 of 2095 by the interventions implementation in the second quarter of the 2017. The overall rate of compatibility of hand hygiene process with standards was 15.05% in pre-intervention which promoted to 16.71% after intervention implementation.

Conclusion: This study reveals using clinical audit is a method to improve quality of hand hygiene process.

Keyword: Clinical audit, Hand hygiene, Healthcare Providers
Infection: a threatening factor in Graft-Versus-Host-Disease

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Introduction and Objectives:

Pre-transplantation care has a vital role in reducing the symptoms of Graft-Versus-Host-Disease (GVHD). Paying attention to hygiene is one of the most important factors in GVHD prevention. Infections have become increasingly important during GVHD therapy. Endogenous and exogenous infections are associated with GVHD. An important aspect of the gastrointestinal mucosal injury is the resultant leakage of endotoxins and pathogen-associated molecular products into the circulation.

Materials and Methods:

Relevant English-language literature were searched and retrieved from PubMed search engine (2010-2017). The following keywords were used: "Graft-Versus-Host-Disease", "Bacterial infection" and "relapse".

Results:

Infection is prevented by either continued monitoring for reactivation of endogenous viruses, or prophylactic medication regimens against the common exogenous pathogens. Reactivations of endogenous herpes viruses are frequent, including cytomegalovirus, varicella zoster virus, and Epstein–Barr virus which is associated with post-transplant lympho-proliferative disorder. Candida infections are uncommon during GVHD treatment, but may include thrush or catheter infection. These patients are at risk for acquisition of exogenous infections with Pneumocystis, Aspergillus, other inhaled molds, encapsulated bacteria and respiratory viruses.

Discussion:

It's forbidden for hematopoietic stem cell transplantation recipients with GVHD to receive any vaccine after 6 months of immunosuppressive therapy. However, yearly influenza vaccination is still advised. Inactivated influenza vaccine is the preferred product for health-care workers and importantly for their household and close workplace contacts. Although vaccination is an appropriate method for prevention of infection but further studies should be done for achievement better ways for this aim.
Key words: Graft-Versus-Host-Disease, Infection, Relapse.
Review survey of surgical site infections (SSIs) with the type of suture

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Site of research: Surgical site infections (SSIs)

Introduction and objectives: Surgical site infections (SSIs) are infections of the incision or organ or space that occur after surgery. Surgical sutures can promote migration of bacteria and thus start infections. Antiseptic coating of sutures may inhibit proliferation of adhered bacteria and avoid such complications. Half of SSIs are preventable by application of evidence-based strategies. So this article aim to understand the Relation of postoperative wound infection with the type of suture.

Materials and Methods: In a systematic review method, valid databases such as Pub Med, Google Scholar, Scopus, Magiran, IranMedex, Cochrane Library and Science Direct were searched using related keywords. Fifty medical articles were found; there were few articles published in Iran. Relevant documents were selected and the related content and information were analyzed.

Result: Infection can occur at an incision site within 30 days of an operation. There was no significant difference in the degree of infection which occurred with any of the nonabsorbable multifilament suture materials tested, these being braided siliconized silk, braided waxed silk, braided untreated silk, braided nylon, twisted steel wire, and machine-twist surgical cotton. Braided silk suture material withstood contamination slightly better than a type of machine-twist silk which had a rather loose arrangement of the fibers. Monofilament sutures withstood contamination better than multifilament sutures made of the same material. Both chromicized catgut and iodized catgut withstood contamination better than plain catgut, but the difference between iodized catgut and chromicized catgut was not statistically significant. It would appear from these experimental studies that the use of multifilament suture materials and plain catgut should be avoided in wounds having known gross bacterial contamination.

Conclusion: The development of wound infection in such instances could best be prevented by the use of monofilament sutures the type of which would be dictated by clinical circumstances. Surgical site infection still is a major complication of surgery and trauma. So the type of suture, as an important factor in SSIs, should be managed.

Key words: Surgical site infections (SSIs), type of suture
مقایسه میزان عفونت های برقشته بعد از عمل در بیمارستان آموزشی دولتی در شهرکرج

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مقدمه: عفونت‌های بیمارستانی همیشه با گسترش بیمارستان‌های عمومی، به‌طور گسترده‌ای در بیمارستان‌ها مشاهده می‌شوند و در نتیجه میزان به‌پرورش و به‌پرورش بازمانده بیمارستان‌های انتقالی کاهش می‌یابد. این امر به‌طور مداوم باعث افزایش مصرف دارو در بیمارستان‌ها و افزایش تعداد عفونت‌های برقشته می‌شود.

روش بررسی: در این مطالعه مطلوعه مقطعی گروهی مورد مطالعه در این بیمارستان، مراجعه و تعداد عمل‌ها در نیمه اول سال 59 و 59 با میزان مشابه و با پرسشنامه پژوهشگر ساخته بررسی شد. داده‌ها از جمع آوری توسعه نرم‌افزار spss (69) مورد تجزیه و تحلیل قرار گرفت.

یافته‌ها: این مطالعه که با هدف بررسی عفونت‌های برقشته در بیمارستان‌های دولتی شهر کرج انجام شده بود، به تشخیص عفونت‌های برقشته در بیمارستان‌های دولتی شهر کرج انجام شده بود.

نتیجه‌گیری: به طور کلی در میزان حاضر، به‌طور کلی در میزان حاضر، با‌راه‌کارهای مذکور در بیمارستان‌های شهر کرج و اجرای اصول و اقدامات پیشگیریکننده کاهش وقوع ان به‌بیماران راه‌بسته.

مراجعه‌های مربی‌شده:
1. کنترل و نظارت بر دریافت آنتی‌بیوتیک پروفیلاکسی قبل از عمل
2. نظارت بر بی‌ثبات نسخه دارویی بیماران در انتظار عمل
3. فوریت‌های مصرف نسخه دارویی در منزل
4. نظارت بر انجام کلیه فرایندهای انتظار عمل در خصوص رعایت کنترل عفونت
5. اعمال به‌صورت به‌جای اجرای نظام مراقبت عفونتهای بیمارستانی در بیمارستان‌های استان، می‌تواند به‌جای درخواست اقدامات تخصصی و محاسبات به‌جای داشته باشد. شاهد کاشت و فروش ان باشیم.
کلید واژه: عفونت بیمارستانی - پروφیλکسی
Where Is The Appropriate Place For Hair Removal Of The Surgical Site? (Action Research Study)

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Abstract:

Introduction: Surgical site infection is a common complication after surgery. One way to prevent this complication is preparing the skin by hair removal from the surgical site. The place of hair removal from the surgical site, is one of the concerns of surgeons and health care providers. The purpose of this study is to suggest a solution for the appropriate hair removal place in the treatment center.

Methods: The present study was carried out through participatory action research during five months in 2016 in one of the hospitals of Isfahan. During the interview with the experts and the operating room personnel about hair removal of the surgical site, 6 solutions to the problem were presented, and the solution with the highest score was selected and implemented. Based on the selected strategy, the surgeon recorded the hair removal order in the patient records, and the nurses were required to perform the hair removal in the ward and before transferring the patient to the operating room. The impact of the intervention was assessed with a researcher-constructed checklist that was designed by interviewing the experts and staff of the operating room and its validity was confirmed by 10 faculty members.

Results: Of 20 samples completing the checklist, 70% were female and 30% were male, 65% had the surgical technologist and 35% were technicians. A total of 64 checklists were collected during 3 weeks after the intervention. By assessing the checklist, it was determined that the surgical site was adequately shaved in 40 patients, hair removal was insufficient in 10 patients, 8 patients were shaved again in the operating room, which caused the delaying of the onset of the surgeries in 6 patients.

Conclusion: Based on the evidence from this study and considering the need for hair removal of surgical site due to the interference with the surgical incision and increasing the risk of infection, hair
removal should be done in a place other than the surgical room, to prevent the spreading of the hair in the surgical site, wasting of time and delaying the surgery.

Key words: hair removal, surgical site, prevention infection.
Study of the proper method for cleaning the tip of the Kutter pen during surgery in Shahid Beheshti Hospital, Yasuj, in 2017

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Abstract:

Background and Purpose: Electrosurgery is used in a variety of ways in all surgical specialties. The electric current can be used for cutting or coagulation of tissue. The burning and choking of excess tissue prevents wound healing and increases the likelihood of infection. The dirty tip of the electrode prevents the flow of effective flow into the tissues. And the need to increase the power of the device increases, the greater the power of the device, the greater the passage of the patient's body as a result of the possibility of burn, tissue necrosis, delay in wound healing and postoperative healing.

Methods: this study was conducted using Participatory Action Research methodology during five months of July to March 2017, with the implementation of necessary interventions. During the interview with the surgeons and the operating room personnel, six methods were used to solve the problem of the proper cleaning of the Kotter Pen tip, and six solutions were chosen and the solution with the highest score was selected and implemented. The intervention was evaluated using a checklist of the researcher, which was completed by interviewing the surgeons and the operating room staff.

Results: Participants in this study completed 45 surgical technologists working in the operating room of Yasuj Shahid Beheshti Hospital who completed the checklist for evaluation intervention. The mean age of participants was 28.5 ± 3.3. Of these, 28 were female (62%) and 17 were male (38%), of which 31 were technologist experts (69%) and 14 were technician (31%). A total of 45 checklists were collected within three weeks after the intervention. During the review of checklists (84.4%), 38 of the personnel used Cliner during major surgeries, (66.7%) 30 staff reported that tissue adhesion to the tip of the electrode decreased in this way, (91.1%) 41 personnel reported that there is a safety requirement for patients and the surgical team, (82.2%) 37 staff reported that this method reduces the individual scrub stress during the operation, (26.7%) 12 personnel reported that, despite the cleansing of the active tip electrode with Cliner, the surgeon requested an increase in the strength of
the device, (64.4%) 29 personnel reported that in this method, particle propagation has decreased during the operation leading to wound infections.

**Conclusion:** Based on the results of this study, it seems that the use of a cliner is a suitable method for cleaning the tip of the electrode of the cuticle pen. However, further studies are recommended in this area.

**Key words:** abrasive cleaning pad, Clearing, Electrosurgery, Kutter pen tip
Retained Surgical Items: Its Causes And The Incidence Of Sepsis Arising From It.

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ABSTRACT

INTRODUCTION: Retained surgical items (RSIs) refer to surgical materials and instruments, which are left inadvertently in patients' body during a surgery and may lead to serious negative health consequences such as sepsis, internal bleeding, and even death. The aim of this review is to evaluate the incidence of sepsis arising from RSIs and common leading causes of RSIs.


RESULTS: From 45 articles, 20 relevant studies were included in the review. In these 20 studies, 533,562 patients were examined in terms of RSI that 59.2% were male and 40.8% female. Incidence of sepsis arising from RSI was 0.2% (n=848) and the most common causes include: emergency procedures, not counting the sponges, inadequate work conditions, patient's obesity, surgical accidents during surgery, and fatigue.

CONCLUSION: RSI can cause serious problems for patients. Although sponge counting is used as a standard technique to prevent RSI, but failure to maintain an accurate count is a common error. Therefore, studies suggested that enhancing teamwork between nurses, surgeons, anesthesiologists, and radiologists and rule-based practice actions can significantly reduce the incidence of RSIs.

KEY WORDS: Retained surgical items, Causes, Incidence, Sepsis.
Evaluation of nurses’ performance for managing and preventing Middle East Respiratory Syndrome (MERS-CoV) in selected educational hospitals of Tabriz

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Introduction and Objective: Despite the importance of evaluating nurses’ performance on preventing emerging infectious disease such as Middle East Respiratory Syndrome (MERS-CoV), a literature review demonstrates a vital need to conduct a research in this regard using a valid and reliable tool. The aim of this research was evaluation of nurses’ performance on managing and preventing MERS-CoV in selected educational hospitals of Tabriz University of Medical Sciences.

Materials and Methods: This descriptive study was performed with participating 155 nurses of two selected Tabriz hospitals and utilizing stratified random sampling method during 1395-96. The data collection tool was a questionnaire designed based on guidelines provided by WHO, the Center for Communicable Diseases Management, and CDC. Nurses participating completed data collection tool with self-explanatory technique. Data were analyzed by descriptive statistical methods (Frequency, Mean, and Standard Deviation) in SPSS-21 software.

Results: The findings indicate that 66.61% of nurses carried out standard precautions actions, mostly including monitoring of patients traveled to neighbor Arabian countries (62.6%), hospitalizing patients in an isolation room with negative pressure (76.8%), and disinfecting hospital equipment after referring or transferring of patients (77.4%).

Conclusion: Despite performing standard precautions actions, it is essential to determine an appropriate location for patients triage, maintain standards of the isolation room, and perform self-monitoring in nurses dealing with suspected cases of MERS-CoV.
Keywords: Middle East Respiratory Syndrome (MERS-CoV), healthcare providers, performance, nurses
in the name of God

Hospital Infections

Abstract

From the beginning of life on earth, man has always been struggling against natural factors such as cold, heat, and many infectious and pathogenic factors. When a man refuses to accept weakness and failure, he is deprived of the present privileged position and is gradually destroyed. His generation will face.

The culture expressly expresses the degradation of the inflammation of the infection or the return of the taste, but to highlight some of the more specialized aspects we mention some of the definitions.

1. The presence of pathogenic organisms that can disrupt vital signs (temperature, change in the number of blood cells), and balance and balance of the body.

key words

Hospital Infections, Its Types
Healthcare workers and MMR and Varicella Vaccination

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Introduction and objectives: MMR or Measles, Mumps and Rubella and Varicella vaccination is important for many jobs, healthcare workers in hospitals or health and care centers need to these vaccines. The objective of this study was introduction the necessity of MMR and Varicella vaccines for healthcare workers.

Materials and methods: In the review article, the author searched about the health care workers and health risk factors in scientific websites, journals and literature. The researcher found the new results. These results must be paid attention in healthcare settings.

Results: MMR and Varicella vaccines were necessity for healthcare workers who had not vaccination or previous same diseases. Health care workers in emergency departments, pediatrics, infectious diseases department and diseases prevention and management systems should be protected. Each vaccine had two doses by four weeks interval. MMR vaccine was necessary for both women and men and varicella vaccine was recommended for women. But author recommended for both of them.

Conclusion: MMR and Varicella vaccines were recommended and had protection for healthcare workers in exposure to biological hazards.

Keywords: Healthcare workers, MMR(Measles, Mumps and Rubella), Varicella, Vaccination
Survey of the prevalence of hospital infections in different parts of the hospital in 1396

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Introduction & Objective: Hospital infections are a group of infections that infect patients who are admitted to a hospital or other treatment center and have a high prevalence. There is a risk of their occurrence even in the most equipped and modern hospitals in the advanced countries. These infections cause many problems in the process of treatment of patients. Therefore, the present study was conducted to determine the prevalence of infectious diseases in different departments of Dehdasht hospital in 1396.

Materials and Methods: This is a descriptive cross-sectional study. The population of this study was comprised of patients admitted to women, internal, surgical, pediatric, ICU and nicu wards of Imam Khomeini Hospital in Dehdasht. At first, the infection control nurse and the physician diagnosed the patients with infectious disease symptoms and then the data were analyzed by spss software.

Results: The number of patients with nosocomial infections was 75. The domestic section had the highest rates of infected patients (40 patients). The number of people in the surgical wards, ICUs, women, NICUs and pediatrics was also 7, 15, 11, 1 and 1, respectively. NICU and pediatrics had the lowest number of patients with infectious disease, and pneumonia was the most common cause of hospitalization.

Conclusion: The possibility of completely eliminating these infections is not present anywhere in the world, but the need for successful prevention is the attention to the sources of infection and the correct and comprehensive application of the infection control methods. Therefore, with appropriate measures such as environmental health control the hospital can reduce the rate of these infections.

Keywords: Hospital infections, Dehdasht
Frequency of Maternal Risk Factors and Neonatal Complications of Prolong Premature Rupture of Membranes

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Abstract

BACKGROUND AND OBJECTIVE: Premature rupture of membranes (PROM) is a serious complication during pregnancy, which is accompanied by prenatal, neonatal and maternal complications including premature delivery, infection and fetal death. This research aimed to study the frequency of maternal risk factors and neonatal complications of premature rupture of membranes.

MATERIALS AND METHODS: This cross-sectional study was conducted among 309 infants with prolong premature rupture of membranes (more than 18 hours before delivery) from 2009 to 2015. After confirming premature rupture of membranes based on history and speculum examination, a researcher-made questionnaire containing pregnancy and delivery information and infant characteristics was completed and assessed.

RESULTS: Maternal risk factors included diabetes (23 cases, 12.7%), hypertension (17 cases, 9.5%), smoking (16 cases, 8.9%), history of premature rupture of membrane (16 cases, 8.9%), urinary tract infection (13 cases, 7.2%), thyroid disorders (9 cases, 5%), previous premature birth (8 cases, 4.4%) and cerclage (7 cases, 3.8%). Delivery complications included cesarean (117 cases, 38.1%), oligohydramnios (61 cases, 33.9%), chorioamnionitis (14 cases, 11.6%), placental abruption (17 cases, 9.5%), fetal distress (6 cases, 3.3%), intrapartum fever (6 cases, 3.3%) and placenta previa (5 cases, 2.8%). Neonatal complications included prematurity (165 cases, 73%), jaundice (108 cases, 59%), neonatal infection (94 cases, 52%), respiratory distress syndrome (65 case, 30.4%) and asphyxia (52 cases, 17%). There was a significant difference between infants with infection and without infection in terms of first- and fifth-minute Apgar scores, erythrocyte sedimentation, platelet and gestational age (p=0.000).

CONCLUSION: Results of the study demonstrated that diabetes and hypertension are the most frequent maternal risk factors of premature rupture of membranes. Prematurity, respiratory disorders, asphyxia and infection are the most serious associated problems. It may be possible to reduce neonatal problems with proper management in delivery.

KEY WORDS: prolong premature rupture of membranes, Infants, Risk factors, Infection.
Some Herbal drugs Effective in Leishmaniasis

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Abstract

Introduction

Leishmaniasis is an important parasitic problem. It is endemic in the tropics and the neotropics. 1 - 1.5 million cases of this disease reported yearly worldwide. It is endemic in 88 countries on five continents. In Persian medicine (PM) is referred to "Balkhieh". PM scholars prescribed some herbal drugs to treat this disease. This study aimed to introduce some herbal drugs affecting the leishmaniasis mentioned in PM.

Materials and methods

This is a review study by searching in PM books such as the Canon of Avicenna and Exir-e-Azam and also some electronic databases including Pubmed and Google scholar with the keywords such as Balkhieh, Ghoruh and Leishmanaiasis.

Results

Leishmaniasis is caused by protozoan Leishmania spp. The gold standard for leishmaniasis treatment is intralesional or systemic antimonial drugs. The cause of leishmeniasis in PM relates to an abnormal heat. Ancient scholars prescribed some herbal drugs such as honey, carob and vinegar with TinArmani in this disease. Based on the new findings, all of these plants have antiseptic or analgesic or antiulcer agents.

Conclusion
It is suggested conducting clinical trials with the anti leishmaniasis herbal drugs mentioned in PM books to get a faster, cheaper and safe treatment results for this disease.

Keywords
Leishmaniasis, Balkhieh, herbal drugs

References
Some Herbal Drugs in Bedsores

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Abstract

Introduction

Bedsores (pressure ulcers or decubitus ulcers) are a serious skin and underlying tissue injuries from a prolonged pressure on the skin. They are a common and financial problem among the patients with long lasting pressure on their blood vessels. Bedsore healing is performed for a long time. In Persian medicine (PM), bedsores is referred to as "TagharroheGhetat" resulting from a prolonged pressure on the skin. In PM, it is mentioned some herbs to manage this disease. The aim of this study is to introduce some useful herbs from PM to help the management of these patients.

Material and methods

This is a review study of the reliable books of PM such as the Canon of Avicenna as well as the electronic databases such as Pubmed and Google scholar with the keywords like bedsore, ulcer and TagharroheGhetat.

Result

The management of decubitus ulcers includes routine care, topical ointment (such as collagenase, phenytoin, and insulin) and also surgery like muscle transplantation. In conventional medicine, bedsores occur during four stages including erythema (burning), open wound or blister, pus/or drainage, mussels or bone injuries and also in PM; this disease has two stages including redness stage and ulcer stage. In PM, it is mentioned some herbs to manage this disease for the two stages,
for example the plants such as Gulnar, acacia, sandals in stage 1 (all of them are astringent) and also willow, algae in stage 2 (all of them anti ulcer properties).

Conclusion

Given that PM has some useful herbs in bedsores, it is suggested conducting clinical trials along with the routine cares to confirm the results of this article and then use them for a better and faster response.

Keywords

Bedsore, ulcer, TagharroheGhetat, Ghorouh

References


Review of anti-trichomonas vaginalis plants and their therapeutic effects

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Site of research: Mashhad

Abstract

Introduction and Objectives: Trichomonas vaginitis is the most common non-viral disease transmitted through sexual contact. Metronidazole is the most effective medication that has same adverse effects as other synthetic drugs. Since medicinal plants have less side effects and more popularity among most people, this study was conducted to review effects of anti-trichomonas vaginalis plants and their therapeutic effects.

Materials and Methods: In this study, Persian and English databases of Pub Med, Medline Scopus, Google Scholar, SID and Magiran were searched with keywords of "complementary OR herbal medicine, trichomonas vaginalis" between 1976 and 2017 for identification of relevant articles. All in vivo and in-vitro trials were included. An initial number of 120 papers were found which ultimately resulted in 25 papers being critically reviewed.

Results: assessed studies in this review show that herbal compounds including Zataria Multiflora, Allium Staivum, Achillea millefolium, Viola odorata, Stachys, Hypericum, Seaweed, Rheumribes, Curcuma, Lamiaceae, Arbutus, Chaerophyllum, Lavandula Stoechas, Eucalyptus and Myrtus are effective in inhibiting the growth of Trichomonas vaginalis, but more human studies are needed to apply them to the treatment of trichomonas's vaginitis.

Conclusion:

In spite of the beneficial effects of medicinal herbs on the treatment of Trichomonas, since most of studies were in vitro, the use of these plants requires more in vivo studies in order to be effective step towards recognizing many natural treatments as a low cost, low risk and more accessible way. Therefore, the use of the results of this study should be done with caution

Key words: Trichomonas vaginalis, Herbs, Complementary therapies.
The Role of probiotics in Treatment of Vulvovaginal Candidiasis: A Systematic Review and Meta-Analysis

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Abstract

Introduction and Objectives: Vulvovaginal candidiasis (VVC) is one of the major urogenital infections for which women seek medical treatment or use self-prescribed antifungals. We performed this systematic review and meta-analysis study to determine the role of probiotics in treatment of VVC.

Materials and Methods: The databases of PubMed, Scopus, Cochrane and Google Scholar were searched until Dec 2017 to identify published English RCTs. A total of five trials were ultimately included. All statistical analyses were done by Comprehensive Meta-analysis (CMA) Version 2.

Results: meta-analysis on two trials revealed probiotic in combination azole therapy were found to be effective compared to alone azole in reducing positive culture (OR: 0.106; [95%CI]: 0.057 to 0.197; p<0.001) and clinical symptoms (OR: 1.27, 95% CI: 0.80 to 2.03, p<0.001). Two trials compared the effect of probiotic with placebo on vaginal culture. Meta-analysis showed that treatment with probiotic was not different from placebo in regarding rate of positive culture (OR: 1.12, 95% CI: 0.390 to 3.26, p=0.825). Only one trial by Anukam et al, showed that resolution of symptom was higher in patients treated with probiotic than placebo group (47% compared 14%, p=0.279).

Conclusion:

In sum up, it seems that probiotic in combination azole therapy were found to be effective compared to azole and placebo alone. But it can be concluded that treatment with probiotic was not effective on both positive vaginal culture and clinical symptoms for VVC. So, our results provide evidence for an alternative modality to treatment of VVC using probiotics.

Key words: Probiotic, Lactobacillus, Vulvovaginal Candidiasis, VVC.
The effectiveness and safety of honey for treatment of vulvovaginal candidiasis: A systematic review study

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Site of research: Mashhad

Abstract

Introduction and Objectives:

Vulvovaginal candidiasis is known as most common fungal infection among women of reproductive age and caused by Candida albicans in 90% of cases. Recently, due to C. albicans resistance to common antifungal drugs as well as their probable side effects, use of natural component like honey is increased. This study aimed to systematically evaluate the effectiveness and safety of honey in treatment of VVC.

Materials and Methods:

The databases of PubMed, Scopus, Google Scholar, SID and Magiran were searched with keywords of "Honey", "vulvovaginal candidiasis", "Candida albicans" to identify relevant articles. Included were all Persian and English articles, published between 2000 and December 2017. Out of 50 relevant articles, a total of 5 studies were ultimately reviewed systematically.

Results

Darvishi et al. (2012) revealed significant symptom improvement in honey group (P < 0.05). Abdelmonem et al. (2012) showed the clinical cure rate was significantly higher in the honey group (87.8 %). Therapy was favorably tolerated by most of the patients. Side effects was reported only in 24.3 % of patients in honey group (p<0.05). Banaean et al. (2012) reported different concentrations of honey inhibited the growth of Candida albicans and the lowest rate growth of Candida was seen in the culture containing 80% honey. Fazel et al. (2012) revealed that after treatment with honey, symptoms of the patients decreased significantly (p<0.001) honey was well tolerated by patients. Nadergoli et al. (2012) showed after completing the treatment, Lactobacillus increased in the honey group and clinical symptoms improved.
Conclusion

We found that honey is effective in relieving symptoms of VVC and markedly inhibited the growth of Candida albicans. It can be used as alternative and herbal remedy to antifungal agents in VVC.

Keywords: Honey, Vulvovaginal Candidiasis, Candida Albicans, Systematic Review.
Studying the Effective Environmental and Instrumental Factors of Failing to Comply Hand Hygiene in Hashtroud Imam Hossein Hospital

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Abstract:

Introduction and Objective: hands are the most notable players of transmitting hospital pathogens and hand hygiene is the most effective way of preventing, controlling and reducing hospital infections. Review of related literature shows some environmental and instrumental factors can play vital role in hand hygiene. Therefore, we decided to carry out the present study to investigate about the effect of environmental and instrumental factors regarding hand hygiene in Hashtroud Imam Hossein Hospital, North west Iran.

Materials and Methods: The present cross-sectional study was conducted among medical staff of Hashtroud Imam Hossein hospital, Iran in 2016. Data gathering tool was a questionnaire formerly approved in Arshadi et al study in terms of validity and reliability. The reliability was calculated to be 88% using Cronbach’s Alpha Coefficients. Data were analyzed utilizing methods to determine Mean and SD±.

Result: the age average of participants was 32.41± 6.30 while mostly were women. The most frequent barriers to failure to comply hand hygiene in the field of instruments were respectively dermatologic complications caused by using disinfectants with Mean (SD±) of 3.24 (87%) and using low quality disinfectants 3.22(94%). In the field of environmental factors the most highlighted barriers were high workload 3.08(87%) and highly sick patients and high number of hospitalized patients in units 3.07(79%).

Conclusion: as results suggest an integration of tasks including providing high-quality disinfectants and proper arrangements in workload times of units (such as the proportion of nurses to patients) can have considerable effects in this regard.

Keywords: hands hygiene, environmental and instrumental factors, hospital infections, medical staff
Study of Managing Factors in Failure to Comply Hand Hygiene According to Hospital Medical Staff Ideas

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Abstract:

Introduction and Objective: most hospital infections are transmitted by working medical staff’s hands. The outbreak of infections followed by inappropriate hand hygiene leads into increased mortalities and costs. Managing factors are vitally important in hand hygiene. The present study, actually, tries to investigate management factors in failure to comply hand hygiene from the perspectives of hospital working medical staff.

Materials and Method: the present descriptive study was done as a census on 71 working medical staff of Hashtroud Imam Hossein Hospital, East Azerbaijan: Iran. Data gathering tool was a questionnaire with formerly approved in terms of validity and reliability. Managing factors were classified in 20 items and in the form of 4-point Likert type. Data were analyzed in terms of mean± SD after they were collected.

Result: we found that the individuals’ average job experience was 77 months and 50.7 % of participants had passed 3 to 5 courses on hand hygiene. The most highlighted barriers to failure to comply hand hygiene in terms of managing issues was not providing necessary facilities for hand hygiene by managers with mean ± SD of (82%) 3.15 and the less highlighted one was the absence of alerting or warning systems about hand hygiene with (99%) 2.39

Conclusion: as results suggest providing and implementing needed facilities in terms of hands hygiene and establishing social models and norms for and among managers can have positive impacts on the issue.

Keywords: hands hygiene, managing factors, medical staff, hospital
A review of effective interventions on hand hygiene in Iran

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**Introduction and Objectives:** The most important factor in controlling hospital infections is hand hygiene. The importance of hand hygiene has led many researchers to study about this topic and is one of the major concerns of developing countries. Since hand hygiene is the first recommended step for controlling infections, this review article aimed to determine the interventions that have positive impact on hand hygiene in Iran.

**Materials and Methods:** published articles between 1991 to 2017 were searched and reviewed. These articles had been obtained in web-based and library search.

**Result:** the results of reviewing 13 related articles showed that effective interventions for improving the health behavior of the hand include: Clinical Audit, Hospital Infection Management Pattern, Educational classes, face-to-face training, use of educational pamphlets and posters, workshops and e-learning. It should be noted that theoretically-based interventions are reported ineffective in one of the studies.

**Conclusion:** In general, the number of interventional studies on improving the hand hygiene in Iran is low. Considering the importance of hand hygiene in controlling infections in the hospitals, It is recommended that more interventional studies be conducted.

**Keyword:** intervention, hand hygiene, Iran, review of literature

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تعیینگر شوکودکامبیرستاندار (پرستاران)

dراما فناکمپیحیچیهپایه‌ای‌که‌کرون‌فونته‌ی‌پی‌راده‌ماری‌سان‌دی‌مان‌زبین‌ه‌دانت‌م‌زی‌سکچ‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌ب‌b
بررسی‌محوری عوامل واقع‌شدن دستگاه‌های نگهداری انسانی در بیمارستان و بستری‌سازی مشهد سال ۱۳۹۶

حسین زاده مجدی - دانشگاه علوم پزشکی تربت حیدریه

فاطمه ابراهیمی - کارشناس پرستاری - دانشگاه علوم پزشکی مشهد - بیمارستان امام رضا (ع)

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زمانی هدف: انتقال‌عالی‌کیفیت‌دار آموزش‌های امدادی ابزار، مراقبت‌های اولیه در بستری‌سازی بیمارستان‌های مشهدی، ۴ فاکتور یافتگرد

1. ارتباط بین میزان دستگاه‌های نگهداری انسانی و سطح درمان

2. ارتباط بین میزان دستگاه‌های نگهداری انسانی و سطح درمان

3. ارتباط بین میزان دستگاه‌های نگهداری انسانی و سطح درمان

4. ارتباط بین میزان دستگاه‌های نگهداری انسانی و سطح درمان

5. ارتباط بین میزان دستگاه‌های نگهداری انسانی و سطح درمان

روش بررسی: این پژوهش نوع مقطعی است و سوال‌وریزی زبانی در بیمارستان و بستری‌سازی بیمارستان شهید بهشتی انجام گرفت.

یافته‌ها: نتایج زبانی شامل دستگاه‌ها و دیگر ابزارها چنین بودند که بیش از ۶۰ درصد مراجع به دستگاه‌ها و دیگر ابزارها اعتماد داشتند و بیش از ۶۰ درصد مراجع به دستگاه‌ها و دیگر ابزارها اعتماد داشتند.

بحث نتایج: یافته‌های پژوهش نشان داد که بیش از ۶۰ درصد مراجع به دستگاه‌ها و دیگر ابزارها اعتماد داشتند.

واژگان کلیدی: دستگاه‌های نگهداری انسانی، سطح درمان، بیمارستان و بستری‌سازی، نگهداری انسانی، دستگاه‌های نگهداری انسانی.
مقدمه:
عفوتنیبیماتیستی بایستی به‌کارگیری یک سیستم کارآمد در بستری‌های ساختاری به‌منظور بهبود دردبانگشته‌ها و شاخص‌های پیشگیری از عفونت‌ها و کاهش هزینه‌های درمان در بیمارستان‌ها توجه شود.

روش تحقیق:
مطالعه قبلاً و بعد از اعمال یک سیستم کارآمد، میزان عفونت‌ها و شاخص‌های پیشگیری در بیمارستان‌ها به روش پیش‌گیری از عفونت‌ها تعیین شد.

نتایج:
در نتیجه این تحقیق، میزان عفونت‌ها و شاخص‌های پیشگیری در بیمارستان‌ها بعد از اعمال سیستم کارآمد گزارش شد.

پیشنهادهای جدید:
بر اساس نتایج این تحقیق، پیشنهادهای جدیدی ارائه شد که بهبود دردبانگشته‌ها و کاهش هزینه‌های درمان در بیمارستان‌ها را تسهیل خواهد کرد.

کلیه پزشکان بایستی از این مطالعه و نتایج آن استفاده شوند تا درک بیشتری از عوامل موثر در کاهش هزینه‌ها و بهبود دردبانگشته‌ها در بیمارستان‌ها داشته باشند.
نتیجه‌گیری:

فارایندرمیز بی‌آلی‌پنشورهایانی‌ها بهبودی‌بیمارستان‌های ایجادکنندهٔ کلیه‌های سنترگیر در فراوانی‌بیماران تسهیل‌می‌کند.
پرسی‌سوزی‌های علت‌دندانی‌افسردگی‌ها، امراض کم‌درمانپذیر و هشته‌ها نیم‌در ترتیب حیات‌زندگی‌های مهم‌ترین قشر خوش‌مردم تربت‌دی‌نهم است.

نتایج:
پرسی‌سوزی‌های علت‌دندانی‌افسردگی‌ها، امراض کم‌درمانپذیر و هشته‌ها نیم‌در ترتیب حیات‌زندگی‌های مهم‌ترین قشر خوش‌مردم تربت‌دی‌نهم است.

کلیدواژه‌ها: مواجهات‌های نیت‌لاستیک، بیمارستان
5- بررسی جویز آنتیبیوتیک در عمل جراحی زنان با استفاده از استواردشیپ (مدیریت عالی‌مصرف‌کننده‌های آنتیبیوتیک) در بیمارستان‌های وزارت بهزیستی

حسن‌زاده‌مجید - دانشگاه علوم پزشکی تربت حیدریه

مقدمه: مصرف غیر منطقی آنتیبیوتیک که به‌طور گسترده‌ای در بیمارستان‌های مراقبت پزشکی باحاله‌ای، مصرف غیر منطقی آنتیبیوتیک را به‌وجود آورده است.

مهدف: بررسی رفتارهای مصرف خشک پزشکان، اجرای برنامه‌های مشترک و تغییرات مصرف آنتیبیوتیک در بیمارستان‌های تربت حیدریه.

مواد و روش‌ها: مطالعه بازیابی واقعیت‌گیری انجام شد.

نتایج: در مورد تعداد مصرف، زمان شروع، فواصل و مصرف آنتیبیوتیک 96% صحت‌دار بود. شایع‌ترین آنتیبیوتیک‌های مصرفی فانکسولین بود.

کلیدواژه‌ها: استواردشیپ، آنتیبیوتیک، جراحی زنان
مقدمه:

عفونت‌داری‌های رایجی چون عفونت‌های منجر به مرگ و میر افراد مبتلا به عفونت‌داری‌های بیمارستانی و شناسایی گروه مقاومت‌آنتیبیوتیکی آنها در بیمارستان مشهد سال ۹۵ می‌باشد.

روشکار:

در این مطالعه به صورت کمیتی تمایل‌های شناسایی عفونت‌های پاتوجنیک با وسیله‌های آزمایشگاهی مورد بررسی قرار گرفت. در این تست از مایع‌های نمک‌دار (NGAT) و رطوبه‌های طبیعی استفاده گردیده است.

نتایج:

۲۶ بیمار مبتلا به عفونت‌های بیمارستانی طبق کنش‌شان دارای مقاومت‌های اریکازنونیتیک و آنتی‌بیوتیکی مثبت بودند. شیوع این عفونت‌ها به صورت میانگین ۳۵٪ (۳۵/۵۳) در جنس مذکر و ۶۵٪ (۶۵/۲۲) در جنس خانم رخ داد.

کوتراکسولول الیوتروفو اکتون (۱۰۰٪) و بیشترین حساسیت بر بطور کمکی (۵۰٪) گزارش گردید.

نتایج‌گیری:

باید به‌عنوان تجربه‌های گذشته در این مورد، به‌عنوان نماد آزمایشگاهی برای این عفونت‌ها و بیماران وابسته‌اند. نتایج این مطالعه ممکن است به ج او به وسیله‌های منجر به جایگذاری و نگهداری بهتر از أنتی‌بیوتیک‌های مقاومت‌آنتیبیوتیکی در بیمارستان مشهد کمک کند.
بررسی‌های میزان اثر تحقیق‌های متغیر بر ایجاد و افزایش سطح جرایم و افزایش سطح جرایم- بهاروکمک‌کاری

خدمات دیگر عامل‌های افزایش پیشگیری بر تحقیق‌های میزان اثر تحقیق‌های بر ایجاد و افزایش سطح جرایم و افزایش سطح جرایم

حسین‌الدین - دانشگاه معیارهای شکنایی به‌جایگذار

فاطمه‌البندی - دانشگاه علوم پزشکی یزد - کارشناسی راهبردی، مسیر انجام مطالعات

حسین‌الدین - دانشگاه علوم پزشکی یزد - کارشناسی راهبردی، مسیر انجام مطالعات

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نادره حجتی - دانشگاه علوم پزشکی یزد - کارشناسی راهبردی، مسیر انجام مطالعات

حسین‌الدین - دانشگاه علوم پزشکی یزد - کارشناسی راهبردی، مسیر انجام مطالعات

سید جعفر - دانشگاه علوم پزشکی یزد - کارشناسی راهبردی، مسیر انجام مطالعات

عفویت‌های استاندارد روش‌های ارائه خدمات به‌بیمار و کادر درمانی در بیمارستان امیر مهر (۶۹۳۱) ارائه‌گردید.

مقدمه:

وزارت بهزیستی، ممنوع‌الاستفاده از نظام سلامت بقای کشور تا آزاد شدن جدی‌‌ تا جدی‌‌توده به‌بیمار و کادر درمانی در بیمارستان امیر مهر (۶۹۳۱) ارائه‌گردید.

مطالعات در زمینه افزایش سطح جرایم و افزایش سطح جرایم به‌روش‌ها و روش‌های شکنایی به‌جایگذار

هدف:

مطالعات در زمینه افزایش سطح جرایم و افزایش سطح جرایم به‌روش‌ها و روش‌های شکنایی به‌جایگذار

روش:

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مشارکت‌کنندگان در مطالعات تیم‌کارکردگان پزشک‌کنترل‌بیمار، کارشناس کنترل‌بیمار، پرستار و کارکنان بیمارستان امیر مهر (۶۹۳۱) ارائه‌گردید.

عملکرد و تکمیل چک‌لیست‌های ابزار به‌روش‌ها و روش‌های شکنایی به‌جایگذار

۲ مشارکت‌کنندگان مطالعات‌های مبتلا به‌دردسر بیمارستان امیر مهر (۶۹۳۱)

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موقع‌یت‌های پرستاری - بیمارستان بهبود ابزار ۲۵۱ موقع‌یت درگرو‌های کمک‌بیمار - خدمات فردی شناخته شده. تعداد اعتیاده‌ها به‌طور عمومی در دو سالهای سال ۱۳۹۵ و ۱۳۹۶ (به‌طور میانگین) به‌طور جهتی به‌طور افزایشی بوده و در هر دو سال به‌طور متوسط (۴۹ مورد) و در هر دو سال به‌طور متوسط (۲۸۵ مورد) به‌طور میانگین (۷۸ مورد) به‌طور جمعیتی به‌طور میانگین (۷۸ مورد) به‌طور میانگین (۲۸۵ مورد) به‌طور میانگین (۷۸ مورد) به‌طور میانگین (۲۸۵ مورد) به‌طور میانگین (۷۸ مورد) به‌طور میانگی
طراح اصلی: عفونت‌های بیمارستانی

چکیده:

عفونت‌های بیمارستانی به‌طور کلی شامل پنج ناحیه اصلی می‌باشد که شامل عفونت تنفسی، عفونت مایع‌خونی، عفونت اثرات، عفونت بافت‌های مصرفی و عفونت بافت‌های میکروبی می‌باشد. در این مقاله، تمرکز بر عفونت‌های تنفسی و عفونت‌های بافت‌های مصرفی و میکروبی خواهد بود.

این عفونت‌ها عمدتاً مربوط به بیماران با بیماری‌های تنفسی یا آنتی‌بیوتیک‌های غیر قابل مصرف هستند. عفونت‌های تنفسی بیمارستانی باعث می‌شود که بیماران بیشتر در بیمارستان درمان می‌شوند.

عوامل خطر:

عوامل خطر شامل عوامل اجتماعی و بیولوژیکال می‌باشند که می‌توانند عفونت‌های بیمارستانی را افزایش دهند. در این مقاله، تمرکز بر عوامل‌های خطر اجتماعی و بیولوژیکال خواهد بود.

نتایج:

نتایج نشان داد که در بیمارستان‌های مختلف، عفونت‌های بیمارستانی نیازمند به رفع و رفع نیازمندی‌های بهداشتی هستند. بهبود در بهداشت و بهبود در مدیریت بیمارستان‌ها می‌تواند به کاهش عفونت‌ها و بهبود درمان‌های بیمارستانی کمک کند.

گزارش نهایی:

گزارش نهایی شامل توصیه‌های برای ارتقای بهداشتی و بهبود درمان‌های بیمارستانی خواهد بود. این توصیه‌ها شامل تغییرات در سیستم‌های بهداشت و بهبود درمدیریت بیمارستان‌ها خواهد بود.

کلیدواژه‌ها: عفونت‌های بیمارستانی، اپیدمیولوژی، بهداشت بیمارستانی
Role of academic detailing for general physicians in the rational prescription of antibiotics

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The site of research: rational use of antibiotics

Introduction and objectives: penicillin and cephalosporin are two important groups of antibiotics that maybe bacteria become resistant to them. The aim of this study was to evaluate the role of academic detailing program for general physicians in the rational prescription of these antibiotics.

Materials and methods: This cross-sectional study was performed on fifty general physicians that had the most errors based on four indicators evaluated drug use quality in their prescriptions compared with the others physicians working at Isfahan city from June 2012 to November 2013. Our intervention was face-to-face academic detailing which was a university-based educational outreach by the rational use of drugs committee in food and drug deputy of Isfahan University of medical sciences. Data were collected before and after intervention and analyzed by SPSS (16. ver) paired samples to test(t-test).

Result: The outcome of study respectively before and after intervention included: mean number of drugs per prescription from 3.55 ± 0.59 to 3.51 ± 0.68 (p=.39), antimicrobial drugs (%) from 52.36 to 50.30 (p=.04), mean number of penicillin per prescription (%) from 14.76 ± 17.47 to 11.16 ± 17.56 (p<.001), mean number of cephalosporin per prescription (%)from 7.96 ± 11.18 to 5.34 ± 1.81(p<.032).

Conclusion: By emphasizing the successful role of academic detailing intervention resulted in a reduction irrational prescription of these group of antibiotics we can diminish probable antibiotic resistance happened and errors based on four indicators evaluated drug use quality.

Keyword: Medical Education, Anti-Bacterial Agents, General Practitioners.
Role of academic detailing for general physicians in promoting rational prescribing

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Site of research: rational use of antibiotics

Introduction and Objectives: Medication errors are a global problem frequently happened and in the face of this problem, educational programs like academic detailing are one of the methods used for reducing probable irrational mistakes. The aim of this study was to review the role of academic detailing program for general physicians in solving this problem.

Materials and Methods: This cross-sectional study was performed on fifty general physicians that had the most errors based on four indicators evaluated drug use quality in their prescriptions compared with the others physicians working at Isfahan city from June 2012 to November 2013. Our intervention was face-to-face academic detailing which was a university-based educational outreach by the Rational Use of Drugs Committee in Food and Drug Deputy of Isfahan University of Medical Sciences. data were collected before and after intervention and analyzed by SPSS (16.ver) paired samples to test(T-Test).

Result: the outcome of study respectively before and after intervention included: Mean number of drugs per prescription from 3.06 ± 0.71 to 2.98 ± 0.89 (P=.39), antimicrobial drugs (%) from 52.36 to 50.30 (P=.04), corticosteroids drugs (%) from 31.40 to 23.10 (P<.001), injectable medicines (%) from 57.20 to 50.02 (P<.001).

Conclusion: by emphasizing the successful role of academic detailing intervention resulted in a reduction irrational prescription of antibiotics, corticosteroids, and injectable drugs that consequently, decrease the probability of antibiotic resistance, level of unsafe injection and also, prevent various side effects are associated with them.

keyword: Prescriptions, Medication Errors, Medical Education, General Practitioners.
Hand washing education of Primary school students: social cognitive theory

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Abstract:

Introduction: Hand washing is one of the most appropriate and affordable infection controls measures to prevent the spread of a variety of infectious diseases.

Schools are important social environments for interventions that aim to improve health behaviors. Implementing affordable and effective hand washing education programs can lead to a reduction in infectious diseases, absenteeism, antibiotic resistance and health care costs. The purpose of this educational project was to assess the effect of intervention (based on the social cognitive theory) on the frequency of hand washing among elementary public school children.

Methods:

This descriptive-analytic study consisted of 68 elementary school students, aged 9-10 years, selected by multistage sampling. In this study, variables of demographic and variables based on social cognitive theory structures such as modeling, goal setting, social support and self-efficacy were assessed. The collected data were analyzed by SPSS16 software and descriptive and inferential tests.

Findings:

A significant increase occurred in the hand washing frequency from preintervention to post intervention (p = 0.041) & in the control group.(p=0/046)

Knowledge and social support were significantly higher in the intervention group compared to the control group (p=0/048) (p =0/008). Overall, a significant increase was observed in the knowledge of students in experimental group (p=0.034).

Conclusion: Education & social support based on social cognitive theory may result in a sustainable increase in the frequency of hand washing among elementary school children.

Key words: Hand washing, Students’ Primary school, social cognitive theory
Antibiotic resistance patterns of Bacteria Causing Urinary Tract Infections from allame bohlool hospital.

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Site of research: antibiotic resistance

Introduction and Objectives:

Awareness of the antibiotic resistance of common bacteria causing UTI in each area has a large impact on infection improvement. Antibiotic use pattern and emergence of resistant bacteria are major concerns in clinical settings. This study aimed to detect common bacteria and their antibiotic sensitivity patterns in Bacteria Causing Urinary Tract Infections from allame bohlool hospital.

Materials and Methods:

This 3 moons, observational study was performed in the allame bohlool Hospital Complex, Gonabad, Iran. 136 patients suspected infections were included. Their demographic and laboratory data were collected. The antibiotic susceptibility test was carried out using the Minimum Inhibitory Concentration (MIC) method based on the Clinical and Laboratory Standards Institute (CLSI) protocol. The data collected were then analyzed in SPSS-20.

Result:

The most common infecting bacteria were Escherichia coli followed by Klebsiella and Staphylococcus aureus. E. coli showed high rate of sensitivity the nitrofurantoin, cefixime and cefotaxime high rate of resistance to co-trimoxazole and ciprofloxacin.

Conclusion:

These results show higher resistance of Escherichia coli to co-trimoxazole and Ciprofloxacin as compared to the results in previous studies. Further investigation will shed light on how to more effectively battle antibiotic resistance of virulent microorganisms.

Keywords:

antibiotic resistance, Urinary Tract Infection (UTI), Antibiotic susceptibility, Disk diffusion

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Are there any effective Herbal Drugs to Treat HIV infection?

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Introduction:

The human immunodeficiency virus (HIV) is a lentivirus that causes HIV infection and can lead to acquired immunodeficiency syndrome (AIDS) during the time. The prevalence of HIV is about 36.7 million worldwide. Nowadays, many researchers attempt to prevent, treat, or cure HIV/AIDS. Several chemical drugs are used to treat this disease, but they only increase survival of the disease and have several metabolic complications. Considering that people tend to use complementary and herbal therapies, this article aimed to introduce some anti HIV herbal drugs to help the researchers.

Methods:

This is a review article from the valid databases such as Pubmed and Scopus in the recent years with the keywords such as HIV, AIDS and herb.

Results:

The researchers of this study collected 10 anti HIV herbs affecting the HIV infection such as saffron, licorice and sesame. All of these plants have effective anti HIV ingredients according to the new findings.

Conclusion:

The herbs mentioned above can be raised as an anti HIV drugs. It is required to be performed in vitro tests to conform this property of these herbs.
Keywords:
HIV, AIDS, Herb, effective ingredient.

References:

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The frequency of vulvovaginal candidiasis in Ahvaz

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Introduction and Objectives: Candida vaginitis or vulvovaginal candidiasis (VVC) is a more common female genital tract mucosa infection that caused by different species of Candida. Despite antifungal therapy, VVC has been considered an important public health problem that affecting millions of women worldwide every year. The objectives of this study were to determine the prevalence of VVC and frequency of Candida species in women of different aged groups referred to midwifery clinic at Ahvaz in 2017.

Materials and Methods: In this study 411 women aged 16-62 years with signs and symptoms of VVC were sampled with endocervical swab. All samples were cultured on CHROMagar Candida plates and incubated at 35°C for 24-72h. Various Candida species were identified using by colony color development on medium, morphologic and physiologic features and confirmed with RFLP-PCR.

Results: Twenty three (13.77%) and sixty one (36.52%) out of 167 (40.63%) positive patients were identified as recurrent and acute vulvovaginal candidiasis respectively. 177 strains of Candida species were identified including, Candida albicans (72.31%) followed by C. glabrata (20.9%), C. krusei (6.21%) and C. kefir (1.12%). The majority of symptoms among the positive patients were vulvovaginal itching (68.86%) followed by discharge. Furthermore, 38.9% of VVC patients used contraceptives drugs.

Conclusion: The outcome of this study indicated VVCs are relatively common gynecologic problem in Ahvaz city. Although the incidence of non-Candida albicans in VVC is increased, C. albicans is still predominant species isolated from VVC.

Keywords: Vulvovaginal candidiasis, Candida species, Ahvaz
Determining the Hygienic Observance Rate by the Personnel at the Shahid Madani Khoy Hospital in 1396

Authors: Zohreh Ali Mokhtari, Malihe Faraji, Fatemeh Seyyed Alavi, Seyed Mohammad Mousavi, Solmaz Afshari, Zahra Alizadeh, Masoumeh Mirzaei

Introduction: Hand hygiene by care personnel is one of the most important ways of controlling hospital infection. In the intensive care unit, invasive procedures are more likely to expose the patients to infection. Therefore, the care of hand sanitation in preventing hospital infection is important in this area.

Methods: This descriptive cross-sectional study was performed on all nurses, physicians, and ICU and CCU departments in year 96. Data was collected from the Ministry of Health’s checklist and inflexible information on hand sanitation in five The position is done.

Results: The mean of hand washing was 39%. Nurses had the highest percentages. Also, using alcoholic solution for hand washing was more than water and soap and the highest level of hand hygiene was in the post-exposure situation and the lowest level of compliance was observed. Before contacting the patient. The lowest hand hygiene level was 30% for the service group.

Conclusion: According to this study, further training on improving the health of the hand should be carried out, and it is necessary to take measures to fully comply with this important action and to overcome its barriers.

Keyword: Hand Hygiene, Personnel, Specialist Care
بررسی شیوع و عوامل موثر بر نیل استیک شدن((ورود احساس نگین تیز) در کارکنان فوریت های پزشکی

استان خراسان شمالی

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اسفاییان خیابان امام رضا دانشکده علوم پزشکی اصفهان: 0- ادرس ارائه دهنده مقاله

مقدمه: پرسنل فوریت های پزشکی به دلیل انجام ماموریت های اورژانس و تحلیل فشار های روانی بسیار ممکن است بیش از دیگر پرسنل درمانی در معرض نیل استیک شدن باشند. و از طرفی اگاهی از شروع نیل استیک شدن و عوامل خطرناکی آن می تواند به گامش استراتژی‌های بهداشتی جهت پیشگیری از جنین حواشی پیشگیری از این ایمن مطالعه با بررسی شیوع نیل استیک شدن و عوامل موثر بر آن در کارکنان فوریت های پزشکی استان خراسان شمالی می پردازد.

روش کار: مطالعه آماری، مقطعی، توصیفی تحتلیل، و جمعیت مورد مطالعه تعداد 111 نفر از کارکنان شاغل در مرکز فریت های پزشکی و امداد جاده ای استان خراسان شمالی بودند که به صورت تصادفی از علم پزشکی، هر یک از آن‌ها باید مورد بررسی قرار گرفته و علم پزشکی، هر یک از آن‌ها باید مورد بررسی قرار گرفته و جهت جمع آوری داده‌ها از پرسشنامه‌های ساختار ساخته شده برای ارزیابی شدکه رویه معیارهای و محتوا از متوسط متخصصین بیماری‌های عفونی و اپیدمیولوژی، مورد تایید قرار گرفته و به بررسی پایای ابزار مطالعه نیز از روش گروه‌آزمون پس آزمون استفاده شد. نهایتاً داده‌های مطالعه توسط نرم‌افزار آماری 18 و روش‌های آمار توصیفی از قبل شاخص های مکری و پراکندگی و روشهای تحلیلی SPSS تحلیلی

احتمال ها در مجموع میانگین سنی پرسنل 30 سال و میانگین سابقه کاری 7 سال بود 77 درصد پرسنل دارای مرکز تخصصی

فوریت پزشکی بوده و متوسط ساعات کاری افراد در هفته 85 هسته بوده. شیوع نیل استیک شدن در کل پرسنل 42 درصد

1/با این وجود، دو هفته بعد از ماه اول و دو هفته بعد از ماه دوم از نیل استیک شدن 24 درصد

1/با این وجود، دو هفته بعد از ماه اول و دو هفته بعد از ماه دوم از نیل استیک شدن 24 درصد

1/با این وجود، دو هفته بعد از ماه اول و دو هفته بعد از ماه دوم از نیل استیک شدن 24 درصد

پیشترین

علت نیل استیک شدن بی احتمالی 70 (درصد) بی قراری بیمار 22 (درصد) گزارش شد و در 50 درصد موارد هیچ گونه اقدام درمانی و تحقیصی از طرف دیده شد. نتیجه گیری: بی‌ربطی به پیشنهاد های این مطالعه به نظر می‌رسد در خصوص ساعات و شیفت کاری پرسنل فوریت های پزشکی و همچنین

بحث پیش توجه به بافت های این مطالعه به نظر می‌رسد در خصوص ساعات و شیفت کاری پرسنل فوریت های پزشکی و همچنین
مديريت اسکریپت در این افراد با توجه به اورژانس بودن کار انها باید اقدامی صورت گیرد و اموش‌هایی لازم درخصوص پیگیری، موارد نیدل استیک شده انجام و احتیاط بیشتر در برخورد با بیماران صورت گرفته تا از شیوع بالای موارد نیدل استیک بکاهد.

واژه‌های کلیدی: نیدل استیک شده، پرسنل فوریت، پزشکی، خراسان شمالی.
Advantages of using the IoT technology to monitor and pollution control in order to reduce the rate of hospital infection

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Abstract

‘Nosocomial’ or ‘healthcare associated infections’ (HCAI) appear in a patient under medical care in the hospital or other health care facility which was absent at the time of admission. It imposes a financial burden on the health care system as well as increasing mortality rate. New information technologies can be effective in the reduction of transmission of nosocomial infection. Among these technologies, Internet of Things (IoT) is able to simultaneously cover the activities of data management, infection source identification and tracking, warning, and preventing infection transmission. This study was narrative review, which search was conducted with the help of databases of Science Direct, PubMed and Scopus. We employed the following keywords and their combinations; Wireless Sensor Networks, Internet of Things, Nosocomial, and Advantages of the IoT. The preliminary search resulted in 93 articles, which were published between 2005 and 2017. After a careful analysis of the content of each paper, a total of 18 sources was selected based on their relevancy. Finally we received that collect more information through continuous monitoring, improved Outcomes of Treatment and cost reduction are the most important advantage of using the IoT.

Keywords

Nosocomial infection, Internet of Things, Advantages of the IoT
Evaluation of Prophylactic Antibiotics in Surgery Compared to the National Antibiotic Guideline in Police Hospital of Mashhad

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Introduction & Objective: Surgery infections is one of the most causes to use prophylactic Antibiotics by specialist but inappropriate use of antibiotics is a major concern and can increase the prevalence of antibiotic resistant strains. Objectives of the study were to investigate the utilization and evaluation pattern of antibiotics for surgical prophylaxis in surgery department.

Materials & Methods: In this descriptive cross-sectional study performed in surgical wards of police hospital for 9 months continued in 1396. Different departments of surgery (general, urological, orthopedic, neurosurgery, obstetrics and Gynecology) was selected. Information included demographic data of patients, type of surgery, indication, type, dose, time, interval, duration and route of antibiotic. Data collected through a checklist, the sources of data were patient’s records and charts. Then the results of prescribed prophylactic antibiotics were compared with the standard guideline. All data were coded, entered, and analyzed using SPSS 22.

Results: The overall in 1670 prophylactic antibiotic injected, according to standard guidelines, adequacy of indication (73.56%), duration (4/72%) and Gynecology (97.71%) and neurosurgery (31.25%) speciality were maximal and minimal respectively. The most commonly used antibiotics were ceftriaxone and cefazolin.

Conclusions: Considering results, pre-operation antibiotic prophylaxis had little concordance with standard guidelines, especially regarding prolonged duration of antibiotic use. For appropriate use of antibiotic before operations, developing local hospital guidelines, implementing educational programs, and monitoring antibiotic prophylaxis should be considered.

Key Words: prophylactic antibiotic, concordance antibiotic, surgery
تأثیر مدیریت مصرف وانکو مایسین و کارپنمت دار بخش مراقبت های ویژه کودکان بیمارستان دکتر شیخ

مصرف وانکو مایسین و کارپنمت در بخش مراقبت های ویژه کودکان بیمارستان دکتر شیخ مشهد است. هدف از انجام این طرح، بهبود کنترل عفونت خون و مقاومت بیماران مصرف آنتی بیوتیکی بوده است. مطالعه تکراری بعد از درک بخش مدیریت مصرف آنتی بیوتیکی در بیمارستان بوده است.

روش

روش در دومرحله انجام - این مطالعه دارای میانگین 1382 است. در فاز پیش عملیاتی از دو گروه حاوی عوامل عفونت خون و مقاومت بیماران بهبودی در این دو گروه مشاهده گردید.

خلاصه

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اساس دستور العمل کاربرد و انکوماپسین و کارباپنم ها در PICU تدوین شد در فاز اجرایی، در طول 3 ماه 
پروتکل بیماران (روز در میان) بررسی می شد و براساس دستور العمل، توصیه لازم در رابطه با آنتی بیوتیک به 
پزشک مسئول بیمار ارائه می گردید. در انتهای تاثیر سه ماه مدیریت، با (پیش مام) هدیه کنترل مقابسه شد.
اطلاعات با نرم افزار SPSS و آزمون های فیشر، تی، من ویتني بررسی و تجزیه و تحلیل شد.

نتایج

در طول سه ماه اعمال مدیریت مصرف آنتی بیوتیک، 1161 روز بیمار و در طول یک ماه کنترل، 163 روز بیمار،
موردن بررسی و ثبت اطلاعات قرار گرفت. با اعمال مدیریت مصرف و انکوماپسین از 1078 به 284 روز کاهش یافت.
(5/163 = 33 روز کاهش یافت.) تعداد روزهای مصرف کارباپنم از 433 به 183 روز به 
(5/515 = 1555 روز بیمار کاهش یافت 3 p = 551 ( روز کاهش 11 / روز به . ) / 4 متوسط طول اقامت بیماران از4
(5/515 = 1555 روز بیمار کاهش یافت 3 p = 551 ( روز کاهش 11 / روز به . ) / 4 متوسط طول اقامت بیماران از4

نتیجه گیری

در شرایط بیمارستان دکتر شیخ، مدیریت مصرف و انکوماپسین و کارباپنم ها به روش بررسی دستور های 
آنتی بیوتیک و ارائه بازخوراند به پزشک مسئول، تاثیر بسیار مطلوبی در کاهش مصرف آنتی بیوتیک دارد.

کلمات کلیدی: کارباپنم، کودکان، مدیریت آنتی بیوتیک، و انکوماپسین

پی نوشته: این مطالعه با اعتبارات معاونت پزشکی دانشگاه علوم پزشکی مشهد انجام گردید در این پژوهش

مجله دانشگاهی پزشکی دانشگاه علوم پزشکی مشهد

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مدیریت مصرف آنتی بیوتیک فرمانه محمدی و همکاران011
مقدمه

استفاده نادرست و بیش از اندازه از آنتیبیوتیکها باعث گسترش روزافزون مقاومت دارویی شده است به طوری که امروزه، هم‌اندازی دوران قبل از کشف نیپ سیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد. مصرف غیر منطقی آنتی‌بیوتیک باعث گسترش روزافزون مقاومت دارویی شده است به‌طوری که امروزه، همانند دوران قبل از کشف پنی سبیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد. همانند دوران قبل از کشف پنی سبیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد. مصرف غیر منطقی آنتی‌بیوتیک باعث گسترش روزافزون مقاومت دارویی شده است به‌طوری که امروزه، همانند دوران قبل از کشف پنی سبیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد. همانند دوران قبل از کشف پنی سبیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد. همانند دوران قبل از کشف پنی سبیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد. همانند دوران قبل از کشف پنی سبیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد. همانند دوران قبل از کشف پنی سبیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد. همانند دوران قبل از کشف پنی سبیلین، پاره ای از بیماری‌های باکتریال غیر قابل درمان شده اد.
به روش بررسی دستور پزشک و ارائه فید بر میزان مصرف

انتی بیوتیک و طول مدت اقامت و مرگ و میر در

بیمارستان دکتر شیخ مورد بررسی قرار گرفته است.

بیمارستان دکتر شیخ دارای 21 تخت می باشد که به طور معمول نیمی از این تختها به مرافقت های پس از جراحی (به ویژه نوزادان مبتلا به ناهنجاری های مادرزادی) اختصاص دارد.

از آنجا که آگاهی از باکتری های عامل عفونت بیمارستانی و

الگوی مقاومت انتی بیوتیکی آنها در هر مرکز درمانی ضروری برای تجویز منطقی انتی بیوتیک ها است، این پروژه در دو فاز بهبود عملیاتی و عملیاتی انجام گردید. در فاز پیش عملیاتی ارگانیسم های عامل عفونت خون و مقاومت انتی بیوتیکی آنها از فورنده 81 تا شهرویور 82 با مراجعه به پرونده بیماران تعیین شد و بر اساس دستورالعمل درمان درجی عفونت‌های بیمارستانی تدوین گردید.

دستورالعمل مصرف و اندازه‌گیری از راهنما مرکز کنترل بیماری های آمریکا (CDC) و دستورالعمل مصرف کاریاپنیم ها از دستورالعمل اروپایی درمان تب و نتورپنی برگرفته و 83/83/0/3/35 در پژوهش که در 1،2،3 بوده است پرونده کلیه بیماران 83/11/1/11/1/83 تا 35 P ICU بطور روز در میان بررسی می شد و مطلب آنتی بیوتیک‌های تجویز شده با دستورالعمل ارزیابی می‌گردید، سپس توصیه‌های لازم در رابطه با رژیم انتی بیوتیکی به صورت مکتوب به پزشک مستند بیمار انجام می‌شد. تصمیم نهایی بر عهده پزشک مستند بوده است جهت مقاومت تاثیر مدیریت انتی بیوتیک بر میزان

مصروف انتی بیوتیک و طول مدت اقامت و مرگ و میر، از ماه دی در میانه طرح (به عنوان گروه کنترل استفاده شد در این ماه پرونده های بیماران به طور روز در میان بررسی و اطلاعات مربوط به آنتی بیوتیک ها ثبت می‌شد و لی توصیه ای به پزشک
مریونه ارائه نمی‌گردد از نرم‌افزار spss و آزمون های آماری.

نتایج

۳۲۱ مورد کشت (در فاز پیش عملیاتی ۰ (۰ ماه اول سال) خون در بیماران PICU انجام شده بود که این تعداد ۴۳ کشت در بیماران کودکان دکتر شیخ بود. ۱۸% موارد / مثبت به دست آمد (۱۳% (باستیل های گرم منفی) با ۶ اکتیو سپسیس های فرد در بیمارستان کودکان دکتر.) عامل اصلی سپسیس های فرد در بیمارستان کودکان دکتر ۱۳% شایع ترین / شیخ بودن. استافیلوکوک اپیدمیتیس با ۱ ارگانیسم گرم مثبت به دست آمد از کشت های خون بود که با توجه به اینکه در بیماری زمانی متغیر کاترکاری ورد مرکزی باشد در بیمارستان دکتر شیخ استفاده می شدند. این موارد به احتمال زیاد آلودگی است.

جلد ۱-۱ خلاصه ای از استراتژی های مدیریت آنتی بیوتیکی استراتژی روند پرسنل سودمندی اشکالات

جدول ۱-۱ اموزش/ دستور العمل

۱-آموزش/ دستور العمل

ایجاد گام‌های لازم برای استفاده از آنتی بیوتیک‌ها و آموزش پزشکان

۱-کمیته آنتی بیوتیکی جهت ایجاد دستور العمل ها

۲-آموزش دهنده ها (پزشکان، فارماکولوژیست‌ها)
۱- می‌تواند باعث اصلاح الگوهای رفتاری شود.

۲- خودمختاری پزشک حفظ می‌شود.

آموزش غیرفعال احتمالاً غیرموثر است.

۲- فرمولاسیون/ محدودیت‌ها

محدودیت استفاده از آنتی بیوتیک‌های هدف کمیته آنتی بیوتیکی برای ایجاد دستورالعمل‌ها

۱- کنترل مستقیم بیشتر در زمان استفاده از آنتی بیوتیک-۲ فرضت‌های آموزشی منحصر به فرد یک خودمختاری پزشک است.

دستورالعمل بی‌پزشک از دست می رود - ۲ نیاز به دسترسی به مشاوره در تمامی ساعات.

۳- بررسی و فیدبک

بررسی روزانه مناسب بودن تجویز آنتی بیوتیک‌ها و ارائه توصیه به پزشک مسئول.

۱- کمیته آنتی بیوتیکی برای تولید دستورالعمل‌ها ۲- پرسنل بررسی کننده (متخصص عفونی، داروسنجی کلینیکی)
1- خودمختاری پزشک حفظ می‌شود.

فرضیات امنیتی و فردی

داستانهای امنیتی و توصیه‌های اختجایی

4- مدیریت نرم

افزاری

استفاده از تکنولوژی اطلاعات

برای اجرای استراتژی‌ها

1 - کمیته‌های بیوتیکی برای تولید قوانین برای سیستم‌های کامپیوتر

1 - تسهیل استراتژی‌های دیگر-2 فراهم کردن اطلاعات اختصاصی بیماران در نقطه مراقبت

زمان و سرمایه‌گذاری برای ایجاد سیستم‌های نیاز است

0- جرخش انتقالی

بیوتیکی

برنامه‌ها و زمان بندی جرخش انتقالی بیوتیکی‌ها استفاده شده در بیمارستان

1- کمیته‌های بیوتیکی برای ایجاد پروتکل‌های جرخش-2 پرسنل جهت سیستم‌های ایمن روند (داروشناس، پزشک)

ممکن است باعث کاهش مقاومت میکروبی‌شود.
اطمینان از تبعیت پروتکل چرخه مشکلات

امتنان 2 تایید آن در حد تنوری می‌باشد.

جدول 4 باکتری‌های عامل کشت خون مثبت، قبل از شروع
طرح و در 0 ماه انجام طرح مدیریت مصرف انتی بیوتیک در
بیمارستان دکتر شیخ PICU

<table>
<thead>
<tr>
<th>باکتری‌های عامل</th>
<th>میزان موجودی</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>سودومونا</td>
<td>13/4</td>
<td>31%</td>
</tr>
<tr>
<td>اسپیروچتر</td>
<td>1/4</td>
<td>10%</td>
</tr>
<tr>
<td>کلبسیلاپنومونیه</td>
<td>1/1</td>
<td>15%</td>
</tr>
<tr>
<td>پنوموکوک</td>
<td>5</td>
<td>15%</td>
</tr>
<tr>
<td>استاف اپیدرمیدس</td>
<td>1/13</td>
<td>13%</td>
</tr>
<tr>
<td>استافیلوکوک طلا</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>کلبسیلا</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>انتروبکتر</td>
<td>2/1</td>
<td>11%</td>
</tr>
<tr>
<td>انتروكوک</td>
<td>2/3</td>
<td>8%</td>
</tr>
<tr>
<td>کاندیدا</td>
<td>2/5</td>
<td>8%</td>
</tr>
</tbody>
</table>

تعداد کل (155) (36) (%11)

بنابراین بدون احتمال استفاده از استافیلوکوک اپیدرمیت، گرم مثبت و
11% سبیسیس های فقط عامل 4 دکتر شیخ می‌باشد. بر
این اساس منطقی است که درمان امپیریکال سبیسیس های
بیمارستانی در بیمارستان دکتر شیخ شامل انتی بیوتیک‌های
برسیع الطفیلی باشد. که اساسا گرم منفی های متفاوت را پوشش
می‌دهد و افزودن وانکومیسین برابر درمان امپیریکال سبیسیس
های بیمارستانی در این 3. (PICU، ضرورت ندارد) جدول 2.
در طول سه ماه اعمال مدیریت مصرف آنتی‌بیوتیک، 188 بیمار (1611 روز بیمار) و در طول یک ماه کنترل، 80 بیمار (163 روز) بیمار در بستری شدند (جدول شماره 4 مقایسه ویژگی های پایه دو گروه را نشان می‌دهد.) در این مدت وانکومایسین برای 05% در گروه کنترل و 28% در گروه مداخله و کنترل (روز 188) وارژیه بیمار در 1161 روز بیمار (روز 163) بیمار در طول یک ماه کنترل صدها بیمار بود. برای توصیه به قطع آنتی‌بیوتیک شد که این پیشنهاد به ترتیب در 11 و 08 موارد توسط پزشکان مسئول بیماران مورد پذیرش قرار گرفت. میانگین روز‌های مصرف 10 و وانکومایسین برای هر بیمار در گروه مداخله و کنترل به ترتیب 03/5 و 05/3 روز بود. بسیاری از این میزان برای کارباپنام ها 01/0 (بیمار 1) در گروه 1115 روز بود که به ترتیب 4/5 و 04/5 میزان این دستورالعمل مصرف وانکومایسین و کارباپنام در 1051 و 0561 p تعداد کل بیماران در طول مدت پیوسته 1611 روز بیمار و 163 روز بیمار بود.
% 42/3
% 41/1-5
% 2
% 1-5/8
% 45/1
% 1-44/1
% 2
% 1146
% بالاتر از 1 سال
% 1440
% 5/464
% 46/02
02/02 نسبت پسر به دختر
46
علت بستری
% 02/213 10/5
% 15/5 جراحی
% 03
% 13/0
% 11/0 سپسیس
0
% 13/0
% 15/0 پنومونی
0

اندیکاسیون‌های شروع امپریکال و انکوماپسین
1- شک بینی (قابل ملاحظه) به عفونت‌های باکتریال CNS یا پنومونی استافیلوکوکی (سرعآ پیشروندی با آمیم)
2- عفونت‌های نسج نرم کسب شده در بیمارستان
3- عفونت نوترودنی (در صورت موتوریت شدید یا شوک)
0- عفونت شنت هاي و نتريکولو پريتونال- 0 پريتونيت ناشتي از کاتتر دیاليز صفايي

1- عفونت باليني کاتتر ورد مرکزي (سالوئید در مسير کاتتر، تب و لرز تنها استفاده از کاتتر، شوك در بيمار)

24 ساعت فطق شود- مواردي كه شروع وانكومايسين توصيه ني شود يا چاپ پس از

1- سپسيس بدون کانون بيمارستانی (درمان اميریک با وانكومايسین در سپسیس بدون کانون بيمارستانی در بيمارستان دکتر شيخ توصيه ني شود

2- دربر و نتريکولو موکوزیت شديد و نيز در منطقه باکتریال آگر کشت هاي از کشي از شروع وانكومايسین انجام شده انت مفي

بند، وانكومايسین

3- پايد قطع شود.

در مواردي كه شروع وانكومايسین به جا بوده است، اگر کشت خون نشان دهد چه كارآگنیسم مسلول به انتي پيوتيكي غير از

وانكومايسین اندیکاسیون

کاربامپنها، تازوسین و سفتازیدم Empiric شروع

1- بناموئیني های بيمارستانی- 2 تب و نتريکولو

3- بيد حال شدن بيمار پس از حداقل 43 ساعت تا 62 ساعت در بيماري که در PICU صرف تب در بيماري که در بستری است،

انديکاسیون شروع نمي باشد.

انديکاسیون هي ادامه با کارآگنها و تازوسین پس از 28 تا 24 ساعت از شروع

1- کشت مثبت (اگر گرم منفي های مقاوم) از مناطق استريل (خون، ادرار، مائع پريتونون، مفصل، CSF،)

2- تب و نتريکولو با کشت خون منفي

انديکاسیون هي بازييني مصرف کارآگنها و تازوسین پس از 28 تا 24 ساعت از شروع

1- بناموئیني ناشتي از ونتیلاتور: اگر بيمار به درمان پاسخ دهد و کشت لوله تراشه منفی باشد، بيا ارگانیسم گرم منفی باشد که به

انتي پيوتيک هاي رده پايين گرم منفی

حساس است: کار با پن قطع شود انتي پيوتيک رده پايين شروع شود.

1- 1کشت ترشحات لوله تراشه (قبل از شروع يا تغيير انتي پيوتيک) در بيمار مشكوب به VAP، حتما انجام شود

2- 1کشت منفی ترشحات لوله تراشه (در بيماري که در 62 ساعت قبل از نمونه گيري تغيير در آنتي پيوتيک نداشته اسرت )

3- 1کشت ترشحات لوله تراشه با ارگانیسم صفر صفر وانكومايسین توصيه مي شود.

سرير (پس از 62 ساعت)

3- 1بیمارانی که کشت ترشحات تراشه با ارگانیسم های حساس مثبت است،

توصيه مي شود.

4- بيد حال شدن در

کشت ترشحات در بيماري که در بستری است،

انديکاسیون گرم منفي 15 روز درمان Descalating

3- 1بیمارانی که کشت ترشحات تراشه با ارگانیسم های حساس مثبت است،

توصيه مي شود.

PICU و بيمارستان:
1-بیماری که کشت منفی دارد و در انتهای ۴۳تا ۶۲ ساعت بهبودی بالینی خوبی نشان می‌دهد: میتوان کار پانمین را ادامه داد و اما اگر را به سفالوسپورین

ضد پسمومونا با تازوسین تبدیل کرد.

2-بیماری که کشت منفی دارد و به درمان پاسخ نمی‌دهد: کشت خون تکرار شود، عفونت‌های کانونی مجدد بررسی شود و برای شروع کولی‌سنین و

یا درمان ضد قارچ تصمیم گیری شود.

جدول 5 مقایسه نتایج ۳ ماه مدیریت مصرف وانکومیسین و کارباپنیم ها با ۱ ماه کنترل در PICU دکتر شیخ

<table>
<thead>
<tr>
<th>مدیریت شده</th>
<th>مدیریت نشده</th>
</tr>
</thead>
<tbody>
<tr>
<td>۱۰/۵/۰۵/۰۳</td>
<td>۱۰/۵/۰۵/۰۳</td>
</tr>
<tr>
<td>۱۰/۵/۰۵/۰۵</td>
<td>۱۰/۵/۰۵/۰۵</td>
</tr>
<tr>
<td>۱۰/۵/۰۵/۱۰</td>
<td>۱۰/۵/۰۵/۱۰</td>
</tr>
<tr>
<td>۱۰/۵/۰۵/۱۵</td>
<td>۱۰/۵/۰۵/۱۵</td>
</tr>
<tr>
<td>۱۰/۵/۰۵/۲۰</td>
<td>۱۰/۵/۰۵/۲۰</td>
</tr>
</tbody>
</table>

میزان مرگ و میر: ۱۵/۲٪
آزمون آماری به کار گرفته شده در این موارد می‌باشد.

15% بوده، میزان مارک در گروه مداخله و کنترل به ترتیب 6% و 2%
اما این مقدار کاهش در میزان مارک از نظر آماری دقیق فیشر

/5=معنی دار نیست(4) / p(4) (جدول 0)

بحث
مطالعه حاضر نشان داد که همانند سایر کشورهای در حال توسعه، پیشنهالی گرم منفی عامل اصلی سپسیس بیمارستانی
در دکترشیخ می باشند، در حالیکه در کشورهای پیشرفته،
صنعتی، استافیلوکوک جرم غلاف در کشت های خون
بیمارستانی است (6) در آمریکای شمالی، گرم مثبت ها عامل
بیش از 65% عفونت های خون در PICU در سال 2513 بودند
.3 در تایوان گرم مثبت ها عامل 35% عفونت های بیماران
می باشند (8) در آمریکای لاتین سهم بایستی های گرم
می نماید در سیسیس های NPICU و PPICU از 31% در کلمبیا تا
10%در مکزیک متفاوت است. (6) در بیمارستان بهرامی
بیمارستانی در ارگانیسم های جدای شده 35% (در سال 1385
نمونه های بالینی، گرم منفی ی بودند (1)

هرش 1 و همکارانش در سال 2553 در مطالعه ای که در مورد
میزان به کارگیری و کارایی برنامه مدیریت آنتی بیوتیک در
بیمارستانهای کودکان در سرتاسر ایالات متحده آمریکا انجام
دانند به این نتیجه رسیدند که برنامه های مدیریت آنتی بیوتیکی
در بیمارستانهای کودکان به میزان کمی اجرا می شود و همچنین
به این نتیجه رسیدند که مداخلات مدیریت آنتی بیوتیکی باعث
صرف منطقی آنتی بیوتیکها براساس نتایج کشت خون به میزان
61%موارد و کوتناه شدن طول مدت درمان در بیش از 45% موارد

1 Hersh
مشوند. انها همچنین به این نتیجه رسیدند که تاثیر مدیریت آنتی بیوتیک‌ها بر آنتی بیوتیک‌های پیشین از سایر آنتی بیوتیک‌ها می‌باشد.

نتیجه‌رسیدن در تهران انجام شد که در این پژوهش تجویز کاربپنام، ها طی دوره مدیریت تأثیر 11\% مدارک شده است. مطالعه ای که در سال 1338 (در بخش مراقبت ویژه یک بیمارستان آموزشی) در بیمارستان کودکان بوستون انجام شد، نشان داد که تاثیر مدیریت آنتی بیوتیکی در ایران که در پژوهش منتشر شده است، مطالعه‌ای است که توسط دکتر سیستاتی زاد (در سال 1338 در بخش مراقبت ویژه یک بیمارستان آموزشی) در تهران انجام شده است. در این پژوهش تجویز کاربپنام در طی دوره مدیریت تأثیر 11\% مدارک شده است. مطالعه‌ای که در سال 2511 در بیمارستان کودکان بوستون انجام شد، نشان داد که تاثیر مدیریت آنتی بیوتیکی در پرستاری در برخی از بیمارستان‌ها کاهش 14\% مارک دارد.

در بیمارستان دکتر شیخ شروع وانکومایسین توسط پزشک PICU در مسول در 63\% و شروع کاربپنام در 43\% موارد غیر منطقی بود.

در پژوهش که در سال 1338 در بخش مراقبت ویژه یک بیمارستان آموزشی انجام شد، نشان داد که تاثیر مدیریت آنتی بیوتیکی در بیمارستان‌ها کاهش 14\% مدارک شده است. در همین مطالعه، میزان تاثیر درون‌پزشک به میزان 216 روز به ازای 1555 روز بیمار بوده، این مقدار در گروه کنترل این مطالعه 284 برای 1555 روز بیمار است.

13. در مطالعه حاضر تاثیر مدیریت مصرف آنتی بیوتیک، منجر به 0\%. (در روز بیمار مصرف وانکو مایسین و 38\% و در کاربپنام ها گردید. چیز 2 و همکارانش در سال 2511 در بیمارستان کودکان بوستون تاثیر دستورالعمل مصرف منطقی وانکو مایسین را در دو بررسی ارزیابی قرار دادند و نشان دادند که میانگین آنتی بیوتیک به این روش باعث کاهش
مصرف وانکومایسین به میزان %30 و %10 می‌گردد، بدون اینکه مرگ و میر را افزایش دهد (14) در بیمارستان کودکان دوبونت در آمریکا، برنامه مدیریت آنتی بیوتیک‌های آماده بیماران مصرف آنتی بیوتیک‌های وسیع‌الطبیع رابه میزان 21% کاهش داده است (15) مدیریت مصرف آنتی بیوتیک فرزانه محمدي و همکاران نتیجه‌گیری در مجموع با انجام این پروژه نشان داد که در شرایط مسابقه بیمارستان دکتر شیخ، پرستاران متخصص کودکان پذیرش شد قابل قبولی نسبت به اعمال مدیریت آنتی بیوتیکی داندن و نتایج حاصله از این مدیریت بسیار مطلوب و مشابه بیمارستان‌های پیشرفته است تشكر و قدردانی انجام این پروژه بدون همکاری خاتمان فلوشیپ‌های PICU، آقایان دکتر اخوان و دکتر کرمی و پرستاران دلسوز، بیمارستان دکتر شیخ به ویژه سرکار خانم رضایی امکان پذیر نمی‌بود.

References:


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New vision to effective factors in Ventilator Associated Pneumonia (VAP) in Children

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New vision to effective factors in Ventilator Associated Pneumonia (VAP) in Children

Abstract

Background: Ventilator-associated pneumonia (VAP) is nosocomial pneumonia. Minor diagnostic criteria in children are poorly understood.

Purpose: Present study aimed to determine the new diagnostic factors for VAP-children admitted in the pediatrics intensive care unit (PICU) according to clinical, laboratory, and radiological assessments.

Methods: 130 patients admitted in PICU were selected and classified as VAP and none-VAP groups. VAP was defined based on the criteria of Center for Disease Control (CDC). Clinical parameters as well as laboratory and radiological findings were followed for patients with and without VAP and were classified as non-effective, effective, and strongly effective.

Results: 60% (78 cases) were male. The median age was 1 month with the range of 1 day –156 month. All of the VAP-patients were neonates. Some clinical symptoms including respiratory secretions, Crackles, need to setting changes and bronchoalveolar lavage (BAL) culture were effective factors. Heart rate, o2 desaturation, white blood cell (WBC) count, blood culture and also chest x ray (CXR) were strongly effective factors for VAP diagnosis. WBC count, blood culture, crackles and need to setting changes recognized as new diagnostic factors for VAP which weren’t involved in CDC criteria.
Conclusion: Current research challenged the VAP diagnostic criteria considered by CDC. According to present study, some clinical factors should be considered with high diagnostic value for VAP-patients.

Key words: Diagnostic factors, Ventilator associated pneumonia, ICU, Pediatrics
مقدمه:

سایز ذرات تعبین کننده، تنفس زیادی و محل تشعیش آنها در دستگاه تنفسی و رفتار آنها در هوای است، ذرات قطر انرژیفیک

میکرومتریسته با اندازه قرار داده شود به یک بخش مخصوص ری می باشد تغییر زمان‌بندی‌ها و ایستگاه‌های آنتنی یا است

۲۴/۱ در یک بخش یا بیشتر (بلوک زایمان، اتاق ISO/DIS 144۶۱) در نتیجه این تحقیق تعیین تعداد نوازندگی با استاندارد شماره

عملکرد میکروبیون مخصوص صورت ندارد اما آن‌ها یک بخش تغییر نوازندگی و عوامل جراحی، مهدف ویرژن‌های هوایی بیمارستان (شیوعگرافی) بیمارستان رضوی با

چکیده:

مواد و روش‌ها: دراین پژوهش تصویبی-تحلیلی با تعداد ۴۴۶ نمونه تعداد نوازندگی داشته باشد. در نقاط مختلف بخش انجام و میانگین تعیین تعداد نوازندگی دارند. این دستگاه کوچک و سبک، با قابلیت بالا توانایی شمارش ذرات در اندازه‌های ۰،۱۰، ۰۵، ۱۰ میکرون در مدت زمان بیش از یک دقیقه بیانگر و در همین‌اله بار

میکروبیون بخش‌ها همزمان بصورت غیر فعال اندازه‌گیری شد. سپس ناحیه در اندازه‌گیری تغییر تجهیزات و تجهیزات در

انجام spss

گردید.

یافته‌ها:

تأثیر میانگین تعداد نوازندگی بر میزان بار میکروبیون ارتباط منعی دارد. اما ساعات سالن تعداد ۴۴۶ (۲۰۱۰، ۵، ۰، ۵، ۰، ۲۰۱۰) با

توجه به اندازه سطح خاکی مقدار این تعداد از ۰/۰۵ است، بر میزان بار میکروبیون تاثیر داشته‌اند. در این تحقیق ارتباط

معنی دارد بین شکیف و نوازندگی تعداد بخش‌های مورد بررسی وجود داشته است. بر اساس استاندارد EUGMP

کلاس‌های طبقه‌بندی G1 و G4 در مزید این نوافل می‌باشد.

نتیجه‌گیری: این پژوهش از سیستم تهیه مناسب و تعریف موقعیت‌ها بروز کاسته نوازندگی در بیمارستان و در نتیجه کاهش

جمعیت عوامل بیماری‌زا می‌گردد

کلمات کلیدی:

نوازندگی، بیمارستان، بیمارستان رضوی، مشهد

مقدمه:

انسان مدت زمان زیادی را در محیط یا داخل ساختمان برری می‌کند که کمیفیت هوای ساختمان از اهمیت ویژه برخوردار است

در گسترش افراد مدت زمان بیشتری را در محیط یا بیرون سیری می‌گذراند ولی امروزه به‌صورت در کشورهای صنعتی

متر مربع از ۹۰ درصد از اوقات شبان را در فضاهای شهری می‌گذرند (۱)

بیمارستان‌ها نیز از جمله محیط‌های است که دران پرستش درمان، کادر خدمات، بیماران و مراحل کنگره در معرض تام با

پیگیری‌سازی و چگالی می‌گیرند از این رو سلامتی آنها مورد توجه قرار می‌گیرد (۱)
مطالعات نشان داده اند که ارتباط معنی‌داری بین عواملی مانند بستنیِ بیمارستانی و آنروسل‌های موجود در هوا از جوییده به میکرو‌گانیسم‌ها  

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شن در بیمارستان به دلایل مشکلات تنفسی، عفونتهای محاربی و فوکالی تنفسی و پنومونی گزارش کردن و همچنین به سایر بیماری‌ها و گزارش نیز افزایش یافته است. (۱۲)

در ایران نیز مطالعاتی در زمینه ارتباط بین دماغ و بیماری‌های تنفسی به‌طور مستقیم گزارش نشده است. (۱۳)

بررسی PM2.5، PM10، PM1 در بخش‌های پرکاری نشان داد که بررسی این داده‌ها به‌طور قابل توجهی در بیمارستان‌های شهر سائوپائولو موجب می‌شود. (۱۴)

مواد و روش‌ها:

همت بخش و بیمارستان رضوی مشهد (یک بخش نیکو، یک بخش CCU، یک بخش ICU، یک بخش NICU، یک بخش SICU، یک بخش NICU) انتخاب گردیده و در دو فصل تابستان و پاییز در دو شیفت همزمان تعداد ذرات با قطرهای ۲/۵-۱، ۹-۲ برابر، توزیع داشته شد. نتایج بخش‌هایی که در دو شیفت تعداد ذرات با قطرهای ۲/۵-۱، ۹-۲ برابر داشته‌اند، در نتایج آماری نیز آمده‌اند.

یافته‌ها:

در این مطالعه در دو فصل تابستان و پاییز در دو شیفت صبح و بعد ظهر انجام شده است.

نتایج توصیفی بخش‌ها براساس قطر ذرات ۲/۵ برابر.

در دو شیفت در کلاس ۸، ۹، ۱۰، ۱۱، ۱۲، ۱۳ و ۱۴ بخش‌ها با قطر ذرات ۲/۵، ۳، ۴ و ۵ برابر تعداد ذرات با قطر ذرات ۲/۵، ۳، ۴ و ۵ برابر داشته‌اند.

نمودار شماره (۱) کلاس‌های مثبت براساس قطر ذرات ۲/۵، ۳، ۴ و ۵ برابر

ISO 14644 Cleanroom Standards
نمودار شماره ۲ مقایسه رتبه بندی با شیفت و فصل براساس میانگین تعداد ذرات ۳/۰ میکرون به تفکیک شیفت و فصل (براساس استاندارد EU GMP رتبه بندی اتاقهای تمیز)
نتایج توصیفی بخش‌ها براساس قطر ذرات ۵/۰ میکرون

میانگین ذرات بدست آمده در دو بخش عمل ۲ و ۴ براساس قطر ذرات ۵/۰ حدود ۷۵٪ در کلاس ۷ و در بخش ICUH ۲۵٪ ذرات در کلاس ۹ فرار گرفته است.

ISO 1-14644 Cleanroom Standards
نمودار شماره (۳) رتبه بندی بخش‌های مناسب برای ذرات قطر ۵/۰ میکرون

نمودار شماره (۴) مقایسه رتبه بندی بخش‌های مناسب برای ذرات قطر ۵/۰ میکرون به تفکیک شیفت و فصل.
نتایج توصیفی بخش‌ها براساس قطرات ۱ میکرون میانگین ذرات بدست آمده براساس قطر ذرات ۵/۰ حدود ۱۹% در کلاس ۷ و ۶۳% در کلاس ۸ و ۱۶% در کلاس ۹ فرار گرفته است.

نمودار شماره (۵) کلاس‌های بخش‌های پنجم بخش‌های ۱ میکرون براساس ISO 14644 Cleanroom Standards

نمودار شماره (۶) مقایسه رتبه بندی بخش‌ها براساس تعداد با قطر ۱ میکرون به فکرکی شیفت و فصل
نتایج توصیفی بخش‌ها براساس قطر‌های ۵ میکرون در بخش‌های مختلف بیمارستان

کل رازهای بخش‌ها براساس قطر ذرات ۵ میکرون در بخش‌های مختلف بیمارستان رضوی میانگین ذرات بدست آمده براساس قطر ذرات ۱/۵ حداکثر ۹% در کلاس ۸ و ۸% در کلاس ۹ قرار گرفته است.

نمودار شماره ۷: کلاس بخش‌ها براساس ذرات ۵ میکرون (ISO 14644 Cleanroom Standards)

نمودار شماره ۸: مقایسه رتبه بندی بخش‌ها براساس تعداد ذرات ۵ میکرون به تفکیک شیفت و فصل (براساس استاندارد EU GMP رتبه بندی اتاق‌های تمیز)
- نتائج تفصيلي بخشها براساس قطر ذرات (μm) 

جدول شماره (1) رتبه بندی بخشها براساس قطر ذرات (μm) به تفکیک شبیه و فصل

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<th>عصر</th>
<th>پاییز</th>
<th>صبح</th>
<th>عصر</th>
<th>نام بخش</th>
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نمرات: 
A = 100%  
B = 80%  
C = 60%  
D = 40%
نمودار شماره (۹) رتبه بندی بخش‌ها براساس قطر ذرات ۲ میکرون در بیمارستان به تفکیک شیفت و فصل (استاندارد GMP) رتبه بندی اتفاق‌های تمیز.

نتایج توصیفی بخش‌ها براساس قطر ذرات ۱۰ میکرون جدول شماره (۲) رتبه بندی بخش‌ها براساس قطر ذرات ۱۰ میکرون به تفکیک شیفت و فصل
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<thead>
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<td>اتاق ایزوله</td>
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نمودار شماره (10) مقایسه رتبه بنی به بخش‌های پرسام قطر ذرات ۱۰ میکرون به تفکیک شیفت و فصل (استاندارد EU GMP)
با توجه به جدول ضرایب نتایج مشخص شد ذره 10 ممکن دارد است.

تاثیر میانگین تعداد ذره 10 بر میزان بار میکروبی معنی دار است. اما سایر متغیرهای با توجه به اینکه سطح خطای مقدار 0/05 به بالاتر از 0/05/00 است، برای ذره 10 ممکن دارد است. و مقدار ضریب رگرسیونی 0/862/00 معنی که به افزایش ذره 10 معنی 0/862/00 افزایش افتاده باشد.

## جدول شماره (۳) ضرایب مثل رگرسیون برای پیش بینی بار میکروبی از روی متغیرهای پیشگو

<table>
<thead>
<tr>
<th>متغیر</th>
<th>VIF</th>
<th>ضریب احتمال</th>
<th>ضریب استاندارد</th>
<th>ضریب</th>
<th>تعداد</th>
<th>مقدار</th>
<th>معنای پیشگو</th>
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<tr>
<td>VB</td>
<td>8163</td>
<td>0/149</td>
<td>0/114</td>
<td>-0/060</td>
<td>0/458</td>
<td>0/324</td>
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<td>2</td>
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</tr>
<tr>
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<td>56/64</td>
<td>-0/111</td>
<td>-0/084</td>
<td>-0/073</td>
<td>0/581</td>
<td>-0/631</td>
<td>2/20E-006</td>
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<tr>
<td>VB</td>
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<td>-0/022</td>
<td>-0/016</td>
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<td>8/18E-006</td>
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<td>VB</td>
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<tr>
<td>VB</td>
<td>18/875</td>
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<td>0/289</td>
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<tr>
<td>VB</td>
<td>5/333</td>
<td>0/444</td>
<td>0/373</td>
<td>0/531</td>
<td>0/020</td>
<td>0/862</td>
<td>0/003</td>
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پیشگوینهای متغیر بار میکروبی بینی و پیشگوینهای متغیر عصرتابستان، بادمان، تابستان صحیح و پاییز صحیح با توجه به مقدار و ضریب استاندارد، به عنوان متغیرهای پیشگوی تاثیر بار میکروبی می‌باشند.
References:


Comparison of the Effect of Three Types of Umbilicus Intermedius Boiss Umbilicus Umbilicus Extract on Alternaria Fungi Isolated from Air of Ahvaz Hospital with Two Different methods.

Introduction: Today, the use of herbal medicines has increased due to resistance of microorganisms to chemical drugs and side effects of the drugs. *Umbilicus intermedius boiss* is a native plant in Iran, especially Ilam province, which is used in traditional medicine to heal and repair wound and absorb of the infection in the superficial wounds.

Materials and Methods: This study examined antifungal effect of the different dilutions of three methanol-chlorophorum, alcohols and watery extracts of Umbilicus intermedius boiss against *Alternaria alternata* in vitro. In this study, two methods of Disc diffusion method and Mixing with culture medium method were used.

RESULTS: *A. alternata* was resistant to three extracts in the Disc diffusion method but, in the method of mixing the extract with the medium, the extracts had a good inhibitory effect. The highest and lowest inhibition were due to dilution of 400μg/plate and 100μg/plate respectively. The study showed that all three extracts exhibited a similar inhibitory effect and no significant difference was observed between their inhibitory strength. Inhibition rate did not increase from 400 to 2000μg/plate.

Conclusion: The appropriate dilution against *A. alternata* was 400μg/plate. The amount of inhibitory strength of extracts did not depend on the type of extraction, whereas was dependent on concentration of the extract and the test method. This finding may depend on the nature and type of chemical compounds of the plant extract and on how it is distributed in the culture medium, which should be considered in determining the inhibitory effect of plant extracts.

Keywords: *Alternaria alternata*, Antifungal, Extract, Umbilicus intermedius boiss
Logical antibiotics prescription by means of hospital antimicrobial resistance map

Authors: Dr. Hamid Ghorbani: infectious disease specialist, Zohreh Rokni: I.C. Supervisor

Site of research: Infection control committee of Pastorno hospital

Introduction and objectives: In nosocomial infections, first antibiotic orders are empirical. According to patients and procedures and nursing surveillances, nosocomial infections are different in any department. Thus determination of pathogenic microorganisms prevalence, and their antimicrobial resistance in every department; improves empirical antibiotic therapy.

Materials and methods: In the target hospital, annual positive cultures of body fluids; was 5 per year that had no concordance with clinical infections. For antimicrobial resistance mapping, first we upgraded sampling quality and standardized culture Medias, like BACTEC cultures. After one year we have more than 60 positive cultures that had positive concordance with clinical infections. Then we determined seasonal incidence and prevalence of culture positive Healthcare associated infections in each department with a descriptive study. For evaluation of antimicrobial resistance of VRE, ESBL. coli, Acinetobacter, MRSA and etc; we applied E test.

Results: The most prevalent pathogens were Acinetobacter and klebsiella. ICU had the highest incidence of resistant pathogens. VRE and Acinetobacter were the most resistant pathogens.

Conclusion: According to prevalence and incidence of microorganisms and their antimicrobial resistance in each department, we drew hospital antimicrobial resistance map and accommodate authentic guidelines of empirical antibiotic therapy with this map.

Keyword: Antimicrobial resistance map
The study of clean hands protocol effect on hand hygiene quality in pastorno hospital

Authors: Dr.Hamid Ghorbani: infectious disease specialist; Zohreh Rokni: I.C. supervisor

Site of research: Infection control committee of Pastorno hospital

Introduction and Objectives: The first and most important factor for reduction of nosocomial infections is hospital stuff hand hygiene. Thus pastorno hospital infection control committee (P.H.I.C.C), designed clean hands protocol in four steps: 1-Hand hygiene instructions 2-optimization of environment and antiseptic sources 3-Hand hygiene monitoring 4-A cohort study: effect of clean hands protocol on hand hygiene quality.

Materials and methods: Protocol was started in 1395 and lasting for 1.5 year. First step included: seminars and workshops and face to face instructions. In second step we supplied standard alcohol base hand rub solutions and protecting creams, embedding several solution places. In third step we have monitored and reported hand hygiene of stuff in each department separately. Finally in a cohort study we evaluated quality of hand rub, hand wash and compliance before any procedure and after contact with patients and environment and secretions.

Results: The best compliance was in nurses then physicians. Difference between HW, HR and compliance before and after protocol was meaningful and increased positively.

Conclusion: Clean hands protocol and any other protocols like this, can improve hand hygiene in hospital stuff. We suggest continuous training and monitoring of hand hygiene to decline nosocomial infections.

Keyword: Clean hands protocol
Prevention of mother-to-child transmission of HIV: A review study

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Background and Objectives:

The prevention of mother-to-child transmission of HIV (MTCT) is as one of the first and most successful applications of scientific enquiry in the AIDS epidemic.The primary mode of acquisition ofthe human immunodeficiency virus (HIV) in children worldwide isthrough MTCT, which can occur during pregnancy,labor and delivery, or breastfeeding. Without interventions to reduce MTCT, the estimated risk of transmissionranges from 15%-25% in no breastfeeding populations and 25%-40% in breastfeeding populations. In Iran 8% of HIV- infected cases are women. Since most of them are young and in childbearing ages,in case of becoming pregnant and not receiving preventive measures, they can infect their child. This study was designed that how can we decrease Mother to Child Transmission (PMTCT) HIV/AIDS

Methods: A literature review on this topic was performed. For data collection search done by keywords Preventing Mother-to-Child Transmission, HIV/AIDS, Reviewed articles were between 2001 – 2017 at sites pub med, Google scholar.

Result

The strategy recommended to prevent mother-to-child transmission of HIV includes: (1) the primary prevention of HIV infection among parents to be, (2) the prevention of unwanted pregnancies in HIV-infected women, and (3) the prevention of HIV transmission from HIV-infected women to their infants. Current approaches to intervention to reduce the risk of MTCT focus mainly on antiretroviral prophylaxis during pregnancy, labour and in the early neonatal period, but in some settings also on delivery procedures and avoidance of breastfeeding. To reduce the risk of breastfeeding transmission, shortening the breastfeeding period and/or encouraging exclusive breastfeeding has been suggested. MTCT rates of less than 2% are now reported from countries where antiretroviral
prophylaxis, elective Caesarean section and refraining from breastfeeding can be applied, whilst in settings where refraining from breastfeeding is not feasible or safe and where elective Caesarean section is also not a safe option, peripartum antiretroviral therapy can halve the risk to levels of approximately 10% at 6 weeks, although further acquisition of infection through breastfeeding substantially increases the overall rate to 20% or more. In light of the high mortality in all children of HIV-infected women, programmers for prevention of MTCT should be monitored not only in terms of HIV transmission avoided but also in terms of child survival.

**Conclusion:** prevention of Mother to Child Transmission (PMTCT) has a great role in HIV/AIDS prevention

**Keywords:** Preventing Mother-to-Child Transmission, HIV/AIDS
Prevention and control of Legionnaires infections in hospital water system

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Background and Objectives:
There are over 45 species of Legionella bacteria in the world' waters, about half of them pathogenic and approximately 90% of Legionella infections in humans are caused by Legionella pneumophila. Hospital-acquired Legionnaires' disease is important especial for hospitalized and Immune deficiency patients. Today, the prevalence of hospital legions is increasing and hospital water is the only known risk factor for this disease. Disinfecting the drinking water system is an effective preventive measure.

Methods: A literature review on this topic was performed. For data collection search done by keywords Legionnaires' disease, Legionella, Water, Disinfection/methods, Prevention. Reviewed articles were between 2001 – 2017 at MEDLINE, Google scholar.

Result: Disinfecting the drinking water system is an effective preventive measure. The efficacy of any disinfection measures should be validated in a stepwise fashion from laboratory assessment to a controlled multiple-hospital evaluation over a prolonged period of time. In this review, we evaluate systemic disinfection methods (copper-silver ionization, chlorine dioxide, monochloramine, ultraviolet light, and hyperchlorination), a focal disinfection method (point-of-use filtration), and short-term disinfection methods in outbreak situations (superheat-and-flush with or without hyperchlorination). Infection control physicians must manage the selection and purchase of disinfection systems.

Conclusion:
Routine performance of surveillance cultures of drinking water to detect Legionella and monitoring of disinfectant concentrations are necessary to prevent legionnaire's disease.

Keywords: Legionnaires infections, prevention, Water, Disinfection
The Necessity of Observing Hygiene in Associated With Fingerprint System in Medical Centers.

Authors names: Fereshteh Mahootti, Moohamad Mahootti

Surfaces in Hospitals are a potential Source for pathogenic bacteria. One of these source is roll call Machine with Fingerprint mechanism ignoring this fact is considerable especially in medical centers.

Method: In This review Study The associated Data gathered, using library search and also searching .The texts (articles of data base in Iran from PubMed databases. 12 Associated articles were found and Their exact contents Were assessed and findings Associated With the title Were extracted.

Results: Review Of the previous studies, manifested that staff’s activities in Offices makes Strong chain (cascades) of contamination and Infection Which can Easily Spread with Dirty fingers through fingerprint roll call systems it spreads simply but dangerously

Conclusion: considering the high prevalence of infections from contact like those caused by contamination of finger and considering the fact The prevention is Cheaper Than Treatment, essential solutions Should of be considered to improve Healthcare health especially for medical staff and to prevent con termination; sanitary alternative methods can be used instead of fingerprint. This goal can be achieved with cooperation of health care policymakers.

Keywords: Necessity of hygiene, Roll call systems with touch, Medical centers
Nurses' Rate of Handwashing in the Wards of Selected Hospitals of Babol University of Medical Sciences in 1396

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Introduction and Objectives: Hygiene is a key factor in the health of patients. The close contact of medical staff with different patients has caused the staff to carry microorganisms. Study was to determine Nurses' rate of handwashing in the wards.

Materials and Methods: A descriptive cross-sectional study was performed on 240 nurses in one of hospitals of Babol University of Medical Sciences during the 6 months. Checklist provided by the Ministry of Health and Medical Education. Reliability of the tool was determined by observation of three observers, for the absence of any difference in observers or the reliability of the tool, the Cochran test was used. Evaluation done in five modes: Before contacting a patient, before the aseptic procedure, after exposure to discharge, after contact with the patient, after contact with the environment. Data analysis was done using SPSS 22 and descriptive and inferential statistics.

Result: The total mean of handwashing in the hospital was 42.2%. The highest rate of handwashing related to "After exposure to discharge" was 62.78% and the lowest to "before aseptic action" of 31.7%. ICU and maternity ward had the highest average of 58% and the internals with 11% and women's surgery with 21.4% had the lowest average.

Conclusion: The results weren't acceptable and the results were disastrous. It is advisable to change the attitude of nurses from the student period and to educate the importance of this issue. Otherwise, we will see an increase in the number of hospital infections.

Keyword: Infection, nurse, hand washing
The Comparative Study of Infant Infection by Investigating the Efficacious Factors in Two Periods of Years 93 and 96 at Imam Reza Hospital of Mashhad

Author: Negin Mousavi Nezhad

Introduction

NICU premature infants are very susceptible to infectious diseases due to immune deficiency and invasive measures, therefore one of the main goals of such departments is minimizing the transmission of infection.

Method

Consideration of cases namely: 5 Hand Hygiene positions, disinfection, equipment disinfection, standard precautions, and the use of ventilator syringes at NICU departments, are of great importance which has been taken into account by carefully monitoring the quality of implementation and conducting intranet infection control classes with the purpose of hospital infection reduction for elevating personnel awareness level and increasing their acceptability of the rules.

Result

The hospital infection incidence in comparison check of first 6 months of years 93 and that of year 96 has dramatically dropped as, in the former duration hospital infection rate of 11 out of 65 newborn blood cultures were positive whereas this rate was 9 cases out of 59 blood cultures in year 96.

Conclusion

In examining the causes of neonatal infections, increasing the quality of Anti-aging and disinfecting agents, increasing awareness and acceptability of the need of implementing 5 Hand Hygiene positions, together with treatment staff care and standard precautions has the most importance, and hopes to grow in the coming years.

Keywords: Hand Hygiene, Hospital Infection, Neonates
Necessity of Vaccination in sexually transmitted infections

Fatemeh Ghaffari sardasht

PhD Student of Reproductive Health, School of Nursing and Midwifery, Shahroud University of Medical Sciences

Site of research: WHO. CDC.IARC

Introduction and objectives: Gonorrhoea has developed resistance to many of the common antibiotics used as treatment. Antimicrobial resistance for other STIs, though less common, also exists, making prevention and prompt treatment critical. Hence, this study was carried out in order to introduction of vaccines.

Materials and Methods: Research through internet researches and review of valid papers.

Result: Over 500 million sexually transmitted infections are estimated to occur worldwide every year triggering a range of sexual, reproductive, and maternal-child health problems. Sexually transmitted infections are a massive health challenge. First, they are extremely common—more than a million new infections occur every day. Second, most infections don’t show any symptoms so people don’t know they are infected. Third, gonorrhoea, one of the major diseases, is becoming increasingly resistant to the medicines currently available to treat it.” Gonorrhoea has developed resistance to many of the common antibiotics used as treatment. Control of chlamydia infections has been difficult, and costly, even in countries with longstanding chlamydia screening programmes, and repeat infections after treatment are common.

Some countries have made efforts to control STIs by promoting healthier sexual behaviours. However, in low- and middle-income countries, diagnostic tests are largely unavailable. Where testing is available, it is often expensive and geographically inaccessible; and patients often need to wait a long time (or need to return) to receive results. As a consequence, follow up can be impeded and care or treatment can be incomplete.

Conclusion: Widespread immunization with safe and effective vaccines could revolutionize the way we tackle STIs

Keyword: Vaccine, sexually transmitted infections
Why is antimicrobial resistance a global concern?

Fatemeh Ghaffari sardasht

PhD Student of Reproductive Health, School of Nursing and Midwifery, Shahroud University of Medical Sciences

Site of research: WHO. CDC.IARC

Introduction and objectives: Antibiotic resistance is one of the biggest threats to global health, food security, and development today. Hence, this study was carried out in order to introduction of antibiotic resistance.

Materials and Methods: Research through internet researches and review of valid papers.

Result: Where antibiotics can be bought for human or animal use without a prescription, the emergence and spread of resistance is made worse. Similarly, in countries without standard treatment guidelines, antibiotics are often over-prescribed by health workers and veterinarians and over-used by the public.

Antibiotic resistance is rising to dangerously high levels in all parts of the world and can affect anyone, of any age, in any country. Antibiotic resistance leads to longer hospital stays, higher medical costs and increased mortality. New resistance mechanisms are emerging and spreading globally, threatening our ability to treat common infectious diseases, resulting in prolonged illness, disability, a longer duration of illness and treatment, often in hospitals, organ transplantations, chemotherapy and surgeries such as caesarean sections, increases health care costs as well as the economic burden on families and societies and death.

Conclusion: The world urgently needs to change the way it prescribes and uses antibiotics. Single, isolated interventions have limited impact. Coordinated action is required to minimize the emergence and spread of antimicrobial resistance. Even if new medicines are developed, without behaviour change, antibiotic resistance will remain a major threat. Behaviour changes must also include actions to reduce the spread of infections through vaccination, hand washing, practising safer sex, and good food hygiene.

Keyword: antimicrobial resistance, global concern
Strategies for end the sexually transmitted infection epidemy

Fatemeh Ghaffari sardasht

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Site of research: WHO. CDC.IARC

Introduction and objectives: Ending STI epidemics as major public health concerns impose a substantial strain on health systems in middle and low-income countries. This study aimed to determine the Strategies for Ending STI epidemy.

Materials and Methods: Research through internet researches and review of valid papers.

Result: STI have long been an underestimate opponent in the public health battle. The burden of morbidity and mortality worldwide resulting from sexually transmitted pathogens compromises quality of life, as well as sexual and reproductive health and newborn and child health, facilitate indirectly the sexual transmission of HIV and cause cellular changes that precede some cancers. WHO outlines actions for countries and if implemented, these actions will accelerate and intensify the STI response so that progress towards ending the epidemics becomes a reality. The following five major sections underpin this strategy:

reviews the current status of STI epidemics and burden, identifies opportunities and challenges for the future, and argues the case for adequate investment in the health sector response to STI.

describes the three organizing frameworks for the strategy (universal health coverage, continuum of STI services and the public health approach) and presents the structure of the strategy.

presents a set of impact and service coverage targets for 2020 and 2030 to drive the response.

recommends actions to be taken for both countries and WHO under each of five strategic directions.

Strategy implementation: leadership, partnerships, accountability, monitoring and evaluation

Conclusion: It is imperative employ strategies that maximize long-term population impact by reducing STD incidence and promoting sexual, reproductive, maternal, and infant health.

Keyword: Strategy, end, sexually transmitted infection, epidemy
Molecular diversity of clinical and airborne Aspergillus species

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¹Department of Parasitology and Mycology, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
²Westerdijk Fungal Biodiversity Institute, Utrecht, the Netherlands

Introduction and objective:

Aspergillus species have emerged as important causes of life threatening infections in immunocompromised patients. Climatic factors and use of antifungal drugs may play a central role in the distribution of Aspergillus species causing these infections. In this study, we evaluate the Aspergillus diversity in clinical samples in Iran based on calmodulin gene sequencing.

Material and methods:

The studied strains were isolated from clinical and environmental sources at the university hospitals in Mashhad and Tehran (n=160; clinical = 104, environmental = 56). DNA was extracted from fresh cultures using the MoBio - UltraClean™ Microbial DNA Isolation Kit. The calmodulin (CaM) gene was amplified and sequenced using the primers listed in Samson et al. (2014).

Results:

Comparison of the generated CaM sequences with reference sequences revealed to following diversity: Aspergillus flavus (n=83), A. tubingensis (n=21), A. welwitchiae (n=19), A. fumigatus (n=14), A. sydowii (n=7), A. neoniger, A. citrinoterreus (both n=2), Aspergillus sp. (n=2), A. terreus, A. ochraceus, A. nidulans, A. montevidensis, A. minisclerotigenes, A. rugulosus, A. tabacinus, A. japonicus, A. candidus (all n=1).

Conclusion:

The results of this study demonstrate that Aspergillus flavus is the main agent of aspergillosis in Iran. Aspergillus fumigatus, the most common etiologic agent in other parts of the world ranked fourth, after A. welwitschiae and A. tubingensis, both members of Aspergillus section Nigri. Interestingly, Aspergillus niger was less commonly occurring and is phenotypically similar to A. welwitschiae and A. tubingensis, and a part the previous reports on A. niger probably include misidentifications.
Molecular identification of dermatophytes in patients suspected to dermatophytosis in Qaien (south Khorasan province) in 2015-16

Author’s names: Mohammad Javad Najafzadeh, Zohre Behzadi, Saeid Parham, Abdolmajid Fata

Site of research: Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

Introduction and objective:
Dermatophytes are one of the most prevalent agents of superficial fungal infections. Dermatophytes species identification can help us to find prevention and treatment ways. Therefore, this study was conducted to determine the species of dermatophytes by sequencing method in 2016-17 in Qaien.

Material and methods:
This descriptive cross-sectional study was performed on 156 dermatophytosis suspected patients, who referred to laboratories and health centers in Qaien. Patients were sampled after completing the questionnaire. Specimens were examined, directly, and all samples were inoculated on Sabouraud dextrose agar medium with chloramphenicol and cycloheximide medium. DNA of fungi obtained, were extracted by DNA extraction Kit. The ITS-rDNA gene was amplified and sequenced using Primers ITS1 and ITS4. For dermatophytes species identification, the sequences results were compared with reference ITS dermatophyte sequences that are available at the wester-dijkinstitute (Dermatophytes species database) and dermatophytes species were determined.

Results:
32 samples were positive in direct exam or culture. Because of the contamination and not growthed of a number of cultures, 16 colonies were sequenced. The types of Tinea in this study are respectively: Tinea corporis (72 %), tinea capitis (21.8 %), tinea manuum and tinea unguium each one (3.1 %). Dermatophytes species including: Arteroderma benhamiae (25%), Trichophyton interdigitale (9.3%), T. violaceum and T. verrucosum each one (6.2%) and T. erinacei (3.1%).
Comparison of the sequence of the derived species, with the sequence of reference dermatophytes in wester-dijkinstitute, showed similarity 98-100%.

Conclusion:
According to this study, the incidence of dermatophytosis in Qaien is 20.5%. The Trichophyton genus and zoophilic species are dominant in this area.

Keywords: Dermatophytosis, Molecular Identification, Qaien
Evaluation of Hand Hygiene of ICU-G Nurses in Mehr Hospital of Hazrat Abbas of Mashhad

ZohrehRezaieNesud-Shiva Mirshahe

Site of research: Pubmed, Elsevier, Magiran, Google scholar, Google, Sid, Proquest, Medlib

Introduction: At present, the best, most effective and least costly method of infection prevention is hand hygiene. Thus, observing hand hygiene in the therapy staff is the first step in controlling the infection.

Methods: This descriptive-descriptive study was performed on 11 nurses working in the ICU-G department of Mashhad, Iran. The data were collected using a checklist submitted by the Ministry of Health, and each of the community members was observed three times as three times. Data analysis was done with spss software version 19.

Result: The results showed that from the total of 110 hand sanitation, 50 hand health conditions (45 had the minimum hand sanitation related to the position before contact with the patient.

Conclusion: Considering that any cohesive planning is required as an effective tool for the prevention of hospital infections, the follow-up of the causes of the cases of non-admission should be studied.

Keyword: ICU-G, Hand Hygiene, Infection Control, Nurse
Evaluation of Hand Hygiene among ICU General Nurse at Mehr Hospital in Hazrat-e Abbas Mashhad in different work hours

Zohreh Rezaie Nesud-Shiva Mirshahe

Site of research: PubMed, Elsevier, Magiran, Google Scholar, Google, Sid, Proquest, Medlib

Introduction: Nurses have to work all day and night to meet the needs of patients and hand hygiene has a crucial role in infection control.

Methods: This descriptive cross-sectional study was performed on eight nurses with working shifts in Mehr Hospital in Mashhad in 1996. Data were collected from the Ministry of Health's checklist, and each of the subjects was subjected to observation twice (invisible). Data analysis was done with spss software version 19.

Result: The results showed that from the total of 80 had hygiene observation situations, 25 shifts in the morning (60%), 30 shifts in the evening (53%), and 25 night shifts (52%) observed washing hands. The highest level of hand hygiene was in morning shift.

Conclusion: As the ICT sections are the most dangerous places for hospital infections, the need for more supervision in all shifts is emphasizes.

Keyword: Nurse, work shift, Hand hygiene, ICU
Study the observation of sanitation of hand in operation field students of Islamic Azad University, Mashhad in training environment.

AbbasFotouhi- FatemehKeshavarz-ZohrehRezaieNesud

Site of research: Pubmed, Elsevier, Magiran, Google scholar, Google, Sid, Proquest, Medlib

Introduction: In surgical rooms, surgical procedures make patients more vulnerable to infection, and proper hygiene is especially important for students in preventing hospital infection in this section.

Methods: This descriptive cross-sectional study was carried out on 20 students attending anesthesiology clinic in Mashhad Azad University in 2017. To collect the data, the Ministry of Health submitted a checklist and each of the subjects of the research community was observed three times as unobserved. Data analysis was done with the software spss 19.

Result: The results of this study showed that from a total of 270 hand-hygiene positions, 50 hygiene conditions were observed (21.6%), and the highest proportion of hygiene related to contact with secretion and wearing gloves instead of hand washing had the highest share in situations.

Conclusion: Considering the importance of hand hygiene and the sensitivity of the operating room environment and the presence of students, it is possible to emphasize the importance of hygiene education in colleges as a necessity.

Keyword: Infection Control, Operating Room, Student, Hand Hygiene
Evaluation of the hand Hygiene of Students of Islamic Azad University of Mashhad in the operating room

Ali Rahimipordanjani-SodehShahmir-ZohrehRezaieNesud

Site of research:Pubmed, Elsevier, Magiran, Google scholar, Google, Sid, Proquest, Medlib

Introduction:Most hospital infections are transmitted through the hands of health care workers and the impact of hand hygiene of care staffs effects is known to prevent hospital infections.

Methods:This descriptive cross-sectional study was carried out on 20 students attending anesthesiology clinic in Mashhad Azad University in 2017. To collect the data, the Ministry of Health submitted a checklist and each of the subjects of the research community was observed three times as unobserved. Data analysis was done with the software spss 19.

Result:The results showed that of the total of 300 hand sanitation, 70 conditions were observed (23.3%) and the highest level of hand hygiene related to contact with secretions and wearing gloves instead of hand washing had the highest share in situations.

Conclusion:Considering the results of this study and the presence of students at bed and the importance of hand hygiene, the emphasis should be on the need for hands sanitation education in colleges.

Keyword:Hand Hygiene, Infection Control, Operating Room, Student
Evaluation of Hand Hygiene among ICU General Nurse at Mehr Hospital in Hazrat-e Abbas Mashhad in different work hours

Zohreh Rezaie Nesud-Shiva Mirshahe

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Conclusion: As the ICT sections are the most dangerous places for hospital infections, the need for more supervision in all shifts is emphasizes.

Keyword: Nurse, work shift, Hand hygiene, ICU
Evaluation of Hand Hygiene of ICU-G Nurses in Mehr Hospital of Hazrat Abbas of Mashhad

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Conclusion: Considering that any cohesive planning is required as an effective tool for the prevention of hospital infections, the follow-up of the causes of the cases of non-admission should be studied.

Keyword: ICU-G, Hand Hygiene, Infection Control, Nurse
Evaluation of Hand Hygiene among ICU general Nurse at Mehr Hospital in Hazrat-e Abbas Mashhad in different work hours

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Keyword: Nurse, work shift, Hand hygiene, ICU
Evaluation of the hand Hygiene of Students of Islamic Azad University of Mashhad in the operating room

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Site of research: Pubmed, Elsevier, Magiran, Google scholar, Google, Sid, Proquest, Medlib

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Conclusion: Considering the results of this study and the presence of students at bed and the importance of hand hygiene, the emphasis should be on the need for hands sanitation education in colleges.

Keyword: Hand Hygiene, Infection Control, Operating Room, Student
The effect of continuous restriction strategy in antimicrobial stewardship programs

Authors names:

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Abstract

Introduction and Objectives: Antibiotic resistance is a major and increasing problem of infectious diseases. The growing problem of antimicrobial resistance (AMR) has led to call for antimicrobial stewardship programs (ASP) to control antibiotic use in healthcare condition. This study aimed at assessing effect of continuous restriction strategy about antibiotic stewardship in a teaching hospital, Iran.

Materials and Methods: In this study, the Carbapenem restriction strategy was compared over the three months of 2015 and 2016. Carbapenem could be started by internist but during 72h an infectious-diseases specialist commented on the antibiotics (Stop/Change/Continue).

Results: The findings showed that the antibiotic administration by the internists was reduced in 2016 compared to the first days of the study. A 25% decrease in the request for consultation with an infectious disease specialist, 40% reduction in Carbapenem administration and 17% change in the type of antibiotic was observed in the internal wards in 2016.

Conclusion: Continuous Restriction Strategy in the field of Antimicrobial Stewardship Programs is a safe and cost-effective strategy for improving antibiotic therapy and to reduce multi-drug resistance.

Key words: Restriction strategy, Antibiotic stewardship, Carbapenem
Nurses' role on antibiotic resistance: a review of highlight efforts

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Introduction

Over the past decade, antibiotic resistance is a growing serious worldwide public health problem in both hospital and community and because of it patients’ morbidity and mortality have increased. In hospitals, patients and their relatives spend the most time in contact with nurses who are the first and largest group of healthcare system. So nurses play important role in prevention of transmissions of resistant bacteria and promote awareness on antibiotic resistance for patients and communities. They are well positioned to conduct antibiotic stewardship program at the point of care.

Objectives

Investigate the state of knowledge about nurses' role in antibiotic resistance.

Methods

An integrative review methodology was performed to search papers were published from 2010-2018 in databases included CINAHL, Medline, Science Direct, PubMed and Google scholar. Among highlighted citations, papers which met the inclusion criteria were selected. Quantitative and qualitative publications including key words of nurses, antibiotic resistance and antimicrobial stewardship were incorporated into the analysis.

Result

It was emerged from review that nurses have important role as a front line of healthcare professionals. They should increase their knowledge about proper use of antibiotics beside educate patients.

Conclusion

There are significant efforts to implement antimicrobial stewardship across clinical setting and nurses are in an ideal position to combat with antimicrobial resistance and collaborate with physicians and pharmacists due to the information they behold. Also there is a lack of research exploring nursing integration in antimicrobial stewardship.

Key words

Antibiotic, Nurses, Antibiotic Resistance
Comparison between morphological and molecular methods for identification of Candida species isolated from patients with vulvovaginal candidiasis

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Abstract

Introduction and Objectives: Vulvovaginal candidiasis is a common condition in women. Accurate identification of Candida species in patients with vulvovaginal candidiasis for use of appropriate treatment, it is very necessary and important. The aim of this study is the identification of Candida species by phenotypic and genotypic methods.

Materials and methods: 160 samples of vaginal discharge, taken by swabs from Vulvovaginal candidiasis patients suspected to be examined. All samples were cultured in sabouraud dextrose agar medium and then incubated at 32°C. Candida species with Germ tube test, culture on corn meal agar medium and CHROMagar Candida were detected. ITS gene using primers ITS1 and ITS4, were PCR and sequencing.

Result: 81 isolates were positive for candida of vaginal discharge. 77.8% were positive germ tube and chlamydoconidia were observed in 79% of isolates. Molecular diagnosis is as follows: 65 isolate (80.2%) Candida albicans, 11 isolate (13.6%) Candida tropicalis, 3 (3.7%) Candida parapsilosis and 2 isolate (2.5%) Candida glabrata. Molecular results were completely consistent with the results of CHROMagarCandida.

Conclusion: The results showed that both phenotypic and molecular methods for the detection and identification of Candida species are reliable but the molecular detection of speed and accuracy is higher, therefore for identification of Candida species with morphology based methods have been proposed.

Keywords: Vulvovaginitis, Candida, PCR, Sequencing
Evaluation of the infection prevention and control measures in adult intensive care units: a report from southeast Iran

Authors Names:

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2 Infectious Diseases and Tropical Medicine Research Center, Resistant Tuberculosis Institute, Zahedan University of Medical Sciences, Booali Hospital, Zahedan, I.R. of Iran

Site of Research:

A total of 5 public hospitals affiliated with Zahedan University of Medical Sciences and one Social Security Hospital in Zahedan, southeast Iran.

Introduction and Objectives

The incidence of healthcare associated infections (HAIs) in intensive care units (ICUs) is 5–10 times higher than that observed in general hospital wards. This study investigated infection control practices in adult ICUs in public hospitals in Zahedan, Iran.

Materials and Methods

This cross-sectional study included infection control (IC) practices data related to 36 adult ICUs in 6 public hospitals. A 138-item semi-structured checklist was developed for data collection. The observations took place during day, afternoon, and night shifts both on weekdays and weekends. For data analysis, a score of one was given for each question related the items available in the ICUs. The score for each section of the questionnaire was calculated by summing up the scores for questions of that section. Descriptive statistics and Mann-Whitney U test tests were used for data analysis.

Results

The average percentage of total score for infection control in the investigated ICUs was 87.7% (ranging from 79.7% to 94.9%). The highest and the lowest average percentage of the score of
96.5% and 78.9% were observed for infection control in patient care, and patient and healthcare safety, respectively. There was a significant difference in the total score between teaching and non-teaching hospitals (median 122 versus 128, p value <0.017), with non-teaching hospitals showing a better performance.

**Conclusions**

Results of our study showed that current infection control practices in the ICUs are at an acceptable level, but still there is a need for improvement of the quality of care.

**Keywords:** infection control, intensive care units, Iran
Study on ascaroid nematodes in 10 edible fish in Persian Gulf, Iran

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Site of research: Department of Parasitology and Mycology, School of Medicine, Shiraz, Iran

Introduction and Objective: Ascarididae family and mainly Anisakis members larval stage are able to infect both fishes and human (Anisakidosis). The aim of study was to identify the ascaroid nematodes obtained from edible fishes in Bushehr region, Iran.

Materials and Methods: A total of 519 fish belonging to 10 different species were studied from April to Sept 2016. Various techniques including microscopicy, morphometric measurements, drawing by camera lucida, RFLP, sequencing, pepsin assay and histopathology were applied for identification and characterization of different L3 larval samples of ascaroid parasites in the studied fishes.

Results: A total of 99 out of 519 (19.11%) of fishes were infected with different ascaroids. In total 2119 Ascaroid larvae, including 1793 (%85) Hysterothyacium spp, 105 (%5) Anisakis type I, 11 (%0.5) Anisakis type II and 210 (%10) other ascaroids were detected. The highest prevalence and intensity of ascaroid infection were recorded for Surida tambil with %42.85 and the intensity up to 55 for Scomberomorus commerson respectively. Sequencing of the (ITS) regions and Restriction Fragment Length Polymorphism (RFLP) using Hinf1 and Hhal enzymes revealed that Hysterothyacium spp as the most dominant isolated nematode. Pepsin assay digestion and histopathological examinations also confirmed presence of Aanisakis typica and Hysterothyacium amoyense in Surida tambil [HASOUN] and Psettodes erumei [KAFSHAK] filets.

Conclusion:

The present study confirmed presence of Ansakids in many edible fishes which makes it a need for new strategies and standards to prevent infection in food staff and consumers.

Key word: Parasites, Anisakis, Fish, Polymerase Chain Reaction, Pepsin, Iran
Evidence of the presence anisakid *Hysterothyacium amoyense* in *Saurida tumbil* in Persian Gulf, Iran

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**Site of research:** Department of Parasitology and Mycology, School of Medicine, Shiraz, Iran

**Introduction and Objective:** Anisakids are nematodes from Ascarididea family which their larval stage able to affect both fishes and human leading to Anisakidosis. These parasites have been reported from various fish species around the world. The aims of study was to genetic and morphological identification of anisakid nematodes obtained from *Saurida tumbil* [HASSON] as a popular consumer fish in Bousher region.

**Materials and Methods:** Study was made in 2014 on 42 *Saurida tumbil*, captured in the Bousher littoral region. Obtained anisakids nematodes larvae (n=25) were fixed, clarified and preserved in Formaldehyde Alcohol Azocarmine Lactophenol (FAAL) for morphological study. To confirm the infection in fish flesh 200 gr of meat digested using enzyme assay (Pepsin). Two of fresh larvae obtain from body cavity and one from embedded meat fish were used for genetic analysis using COX2 and ITS regions by appropriate primers and sequenced.

**Results:** Observation of the fishes demonstrated that 42.85% (n=18) were infected while 229 larvae find in body cavity and 11 larvae obtained from Pepsin assay. Using standard key the larvae morphologically confirmed as *Hysterothyacium* *sp*. To confirm the species of the larva, the sequences were blasted which confirmed them as *Hysterothyacium amoyense*. Using gene data Phylogenic tree was drawn.

**Conclusion:** presence of *Hysterothyacium amoyense* is confirmed in *Saurida tumbil* of Persian Gulf region. The parasite is zoonotic and could be regarded as a potential of infection in both *Saurida tumbil* (paratenic host) and in coastal populations could lead to anisakidosis.

**Keywords:** *Hysterothyacium amoyense*, *Saurida tumbil*, Persian Gulf, Iran
How to wash your hands properly

Written by: Hanieh Fazel Vazifeh shenas - Hasehm Sadeqi Bajestani

Mashhad University of Medical science,

Washing hands alone is one of the most important ways to preventing different kinds of illnesses since your hands are almost in contact with all your body and even the liquid inside your body, and this shows the necessity of washing your hands every now and then. We use our hands more than we can imagine and are in touch with millions of microscopic germs every day.

Ok, do you think you wash your hands enough? Do you do it correctly? Here we are going to give you a simple step by step instruction through “how to wash your hands properly?” so we can prevent different illnesses and stop their spread.

When to wash your hands?

Before, at the time and after you are cooking

Before eating

Before and after you are taking care of a patient

Before and after being in touch with an open wound

After toilet

After changing a baby

After coughing or sneezing

After touching trash and/or bag of rubbish

After you have come back home

This list include most of our daily activities and this shows the importance of washing hands time to time.

Here is how to wash your hands;

In the following we will visually show you the correct way to wash your hands

1. Wet your hands with mild water, pour hand washing liquid on the palm of your hand and create foam by rubbing your hands against one another.
2. Wash the back of your hands as shown below.

3. Next, wash between your fingers.

4. Lock your fingers and clean the back of your fingers and nails by rubbing. If your hands are so dirty, wash every nail one by one.
5. Wash your thumb in a rotational form and separately.

6. Wash the tip of your fingers by rubbing them against the palms of your other hand.

7. Finally wash your wrists in a rotational form.

Do all the above in the mentioned sequence. The needed time is about 20-30 seconds, i.e. the length of singing “happy birthday” song twice.

Washing the hands with warm water and soap is the best way to lessen the microbes. Is there is no soap available; you can use 60% alcohol or disinfectants with alcohol. Alcohol rapidly lessens the microscopic germs but cannot eliminate them all.

**We hope that with time to time and correct washing of hands we can take a step towards a healthier life.**

**Conclusion:** As it is mentioned, hands hygiene is improved with proper educations and awareness of its importance is the first step towards controlling infections in hospitals. Also knowing the related factors is the next step towards achieving this goal.

**Keywords:** Washing hands, hands hygiene.
Investigation on effect of trainings on how to wash your hands properly on level of infection in ICU section

Imam Reza and Kamyab Hospital

Written by: Hanieh Fazel Vazifeh shenas - Hasehm Sadeqi Bajestani

Mashhad University of Medical science,

Considering the importance of infections in hospitals and the role of hands of staff in transferring infection, as well as its amplitude in ICU, this study is done with the aim of Investigation on effect of trainings on how to wash your hands properly on level of infection in ICU sections

The research was done on 60 cases. Before the training, staff was observed when washing their hand without being aware and samples were taken for counting the colony. Then they were given an 8 page instruction on importance and proper way of washing hands accompanied by a poster. At the end, both groups were again observed and samples were taken. Data was gathered using Feldman check list indexed with demographic information.

Among the 60 cases, 35 were in observant group and 25 in empirical. Results shows that under studied units in observant and empirical unit were not different before the training regarding to washing and level of hygiene, but after the training the difference was very considerable. And the number of colonies was lowered. So it is suggested that the staff pass this training.

Keywords: hospital infections, washing hands, staff training
Surveying Prevention of Nosocomial Infections among Nurses in Educational Hospitals of Shaheed Sadoughi in 20017

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Master of Nursing, Yazd University of Medical Sciences

Abstract

Introduction and Objectives: Hospital infection is undoubtedly the most important world's problem which is considered by health care centers. Lack of proper understanding of staff of infection controling ways and procedures play a decisive role in the increased transmission of infectious agents in hospital infections. If Nurses know the proper effective ways they would help to reduce hospital infections. The purpose of this study was to determine the nurses’ practices in control of nosocomial infections.

Materials and Methods: The sample of this cross sectional analytic study was 200 nurses working in intensive care units in educational hospitals of Shaheed Sadoughi. Data were obtained by a checklist and observation. A descriptive and analytic statistics were used to analyze the data.

Results: showed that the mean age of nurses was 32.40±5.58. Majority of nurses (87.6%) was female. In the field of infection control related to nurses 70.6%, related to patients 65.1% and related to environment 73.5% had average performance. There is a significant difference between quality of performance and work experience (p=0.006) and between quality of performance and workshop (p=0.001).

Conclusion: According to research findings based on limited performance and training needs, more attention is necessary to provide conditions to promote nurses, knowledge about infection control.

Key words: Nurses, Prevention, Nosocomial infection.
 نحوه برخورد پزشکان با تب بدون کانون در کودکان با دامنه سنی 3-6 ماهه بستری در بیمارستان شهید مدنی آباد

نویسندهان: فریبا طرهاei، ایک احمد خوشن، آرمین شمیعی، روشن علی‌عجایت‌تباری، پریکه سیاهچالی، ایمان سیده‌شقایلی

1- استادیار، گروه کودکان، دانشکده پزشکی، دانشگاه علوم پزشکی لرستان

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تب بدون کانون برای مبتنی 24 9 3 مود متوافق نیست با توصیفی بوده که در برخورد با کودکان دارای تب بدون کانون بوده است. در این مطالعه بصورت توصیفی و مبتنی بر اطلاعات بیمارستانی 95 کودک 3 تا 36 ماهه با تشخیص اولیه تب که در بیمارستان شهید مدنی آباد بستری شده بودند و در معاونت و شرح حال کانون 88 برای اطمینان نداشتند از طریق مطالعه بر روی شده با توصیف شده در پایگاهی در طی یک دوره پنج ساله و تکمیل سوالات طریقی شده در پرسشنامه بیمارفرموده ب رهاسالی قرار گرفتند و اطلاعات از طریق آزمون آماری مجزا که مورد تجزیه و تحلیل قرار گرفتند 24 ماه متفاوت‌که دریافت گردیده 38 درصد گروه سنی 0-5/95 36 درصد گروه سنی بین 12 ماه و 5 بودند. تب 60 درصد کودکان مراجعه کننده معاونت مراجعه روزانه بود. برای 100 درصد کودکانی که حال 87 درصد کودکانی که حال عمومی مساعدان داشتند / عمومی خویی داشتند هنگام ترخیص دارو تجویز شده بود. برای 3 23 درصد کودکانی که دمای زیرو 39 درجه سانتی گراد و کشت خون منفی داشتند تجویز / نیاز دارو تجویز شده بود. در 9 42 درصد کودکان تب داره بحث با دمای بیشتر از 39 درجه سانتی گراد / آنتی بیوتیک همچنان ادامه یافته بود. در 9 پنیکسیمی و گوتی کرمری یا ناجام نشده بود. نحوه برخورد با کودکان تب دار در احتمال افزایش هزینه ها، ایجاد مقاومت آنتی بیوتیک و عدم تشخیص واکنش‌های متأخر تاکنون مطالعه و بیماران به عنوان ناشناخته، ایجاد اعمال درمانی در این مورد ضروری به نظر می‌رسد.

تب بدون کانون، باتکر آبی، خرم آباد، کودکان
The best prevention strategies of Ventilator-Associated Pneumonia in critical care unit patients

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Background:

Ventilator-associated pneumonia (VAP) is the most common acquired infection in intensive care units (ICUs). It accounts for one-fourth of the infections occurring in critically ill patients and is the reason for half of antibiotic prescriptions in mechanically ventilated patients. The prevalence of pneumonia in intubated patients is 21 times more than other patients and it is associated with increased mortality, cost and length of stay. The focus of this article is on identification the best prevention strategies of VAP in critical care unit patients

Method:

In this review article, the information is gathered based on search in published related papers in database of PubMed, CINAHL, SID using keywords prevention, Ventilator-Associated Pneumonia, intensive care unit and critical care unit patients between 2015 -2017.

Result:

Reducing the exposure to risk factors for VAP is the most effective way to prevent VAP onset. According to the newest articles, several strategies for prevention have been proposed, such as using an endotracheal tube with a lumen for continuous suction of subglottic secretions, Keep the head of the bed elevated between 30 to 45 degrees, keep cuff pressure between 20-30cmH2o, commit to an oral care protocol using chlorhexidine, Use effective weaning strategies to reduce mechanical ventilation days, Use silver/antibiotic coated endotracheal tubes and suitable hand hygiene before suction.

Conclusion:

Pay attention to best strategies to prevent pneumonia can play an important role in reducing mortality, cost and length of stay and more research in this issue is needed.

Keywords: prevention, Ventilator-Associated Pneumonia, intensive care unit, critical care unit patients
Practical strategies to prevent Ventilator-Associated Pneumonia in critical care unit patients

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Background:
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Conclusion:
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Keywords: prevention, Ventilator-Associated Pneumonia, intensive care unit, critical care unit patients
Serum levels of vancomycin to cover and prevent its complications in ICU

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BACKGROUND

Vancomycin is an antibiotic that excreted through the kidneys

The index of treatment with vancomycin is the trough) Serum levels of drug half an hour before The fourth dose ( . The use of inadequate doses of vancomycin causes resistance and complications.

Methods:

This article is systematic review through library research and Internet data bases (Google scholar, pubmed). Inclusion criteria for articles that comply with key words as well as access to them is possible

RESULTS:

A study was conducted on the burn patients Concluded that with the age, weight, serum creatine in the blood are not different but clearance of drugs the burn was higher than other.

Another study on admitted to the ICU concluded that the determination of vancomycin dosage is based on your age and renal function.

Another study concluded that doses of vancomycin in severe disease should be based on body weight.

There have been studies that doses of 15-20 mg/kg every 12-8 hours for most patients with healthy kidneys to reach serum concentrations is enough.

In severe infections serum levels of 15-20 mg/mL recommende This is the most common dose vancomycin(1 g every 12 hours)is not created And 25-30 mg/kg, Loading dose is needed

CONCLUSIONS:

According to studies dose of 15-20mg/mL receives, there is a risk of nephrotoxicity and that would Monitoring of renal function should be done. But in all the daily Monitoring of creatinine, is not required. Monitoring is necessary in patients with renal disfunction.
Keywords:

Serum level of Vancomycin, Vancomycin side effects, Therapeutic monitoring of vancomycin
Evaluation of the existence of microbial contamination in the environment of clinical wards of Imam Reza and Ghaem university hospitals in Mashhad

Youssefi M, Ghazvini K, Naderi R, Tabatabaeizade SA, Roohbakhsh I

Mashhad University of medical sciences

Introduction and objective: According to World Health Organization, annually hundreds of millions of patients are affected by health care-associated infections (HCI). Hospital Environment and health care workers (HCWs) hands are considered as main reservoirs of pathogenic infections. The aim of this study was to determine the rate of environmental contamination of different wards of two university hospitals by the main bacteria associated with hospital acquired infections (HAIs).

Material and Methods: A total of 323 swab samples were obtained from different ward environments (water, sinks, beds and incubators) and HCWs from Imam Reza and Ghaem hospitals in Mashhad, Iran in 2017. Identification of the bacterial isolates were determined according to culture results of obtained samples.

Results: 179 out of the 323 screening samples (56%), were positive for bacteria. Generally the most frequent bacterial isolates in both hospitals were bacillus spp, staphylococcus spp (mainly Epidermidis, Saprophyticus, aureus) at the next step, gram negative bacilli (mainly E Coli, klebsiella, pseudomonas, acinetobacter). The frequency of each bacteria varied according to hospital and the special ward. 53 out of 167 samples (32%) obtained from health equipment surfaces, were contaminated. Also75 samples out of 137 samples taken from environmental surfaces had bacterial contamination (55%). Hand samples from HCWs were contaminated in all obtained samplings.

Conclusion: This study showed high microbial contaminations in studied hospitals posing high HAI risk. It is therefore, recommended that a practical and multidisciplinary hospital infection control program must be adopted and present infection control policies should be revised to prevent HCI.

Key Words: environmental contamination, wards, nosocomial infections
Epidemiologic study of nosocomial infections in hospitalized patients in Shohada Hospital, Tabriz, 2017.

Authors names: Khadije naziri, gholamreza khodaverdi ghahremani, Alireza khodaei, Raha Aliashrafi, Fariba kheravi, Hasan Khodaei

Site of research: Medical Research & Training Hospital, Tabriz

Introduction and Objectives: Nosocomial Infections are the most important health problem in the world. The high costs of treatment, the great number of patients with high mortality and morbidity rates and also increased incidence of these infections are suggestive of the importance of these infections. The aim of this study was to assess the epidemiologic study of nosocomial infections in hospitalized patients in Shohada Hospital, in Tabriz.

Materials and Methods: This cross-sectional study, was performed on 63 hospitalized patients in different parts of Shohada Hospital in 2017. Data was collected using a checklist designed and analyzed using SPSS 16, by utilizing descriptive statistics and chi-square test at 0.05 significance level

Result: The most frequent infections were surgical site infections (39.06%), Osteomyelitis (28.12%), UTI (12.5%), Complications Mechanical ventilation (4.7%) and Other infections (12.5%). There was an important relationship between the duration of hospitalization and the prevalence rate of the infections (p=0.00). But there was no significant relationship between age, with the prevalence rate of the infections.

Conclusion: According to the above results, Can be identifying patients at high risk and their reporting and as well as preventive measures, such as hand washing, greatly reduced the incidence of infections.

Keyword: Epidemiology, nosocomial infections, Hospitalized Patients;
Evaluation of antibiotic prophylaxis for gastrointestinal surgeries in a teaching hospital: an interventional pre–post study

Abstract

Objectives: Surgical site infections (SSIs) are related to a high morbidity, mortality and healthcare costs. Combination of preoperative preparation, surgical techniques, perioperative antibiotic prophylaxis (PAP) and postoperative woundcare are effective measures for prevention of SSIs. Despite ample evidence demonstrating the effectiveness of antimicrobials to prevent SSIs, in clinical setting it is associated with inappropriate timing and antibiotic selection and also excessive duration of administration. In this study we compare the appropriateness of antibiotic prophylaxis administered before gastrointestinal tract surgeries, before and after an evidence-based guideline implementation.

Methods: An interventional pre–post design study was performed on 2 groups of patients; in Group 1 as a pre-implementation phase group from April 2016 to June 2016 and Group 2 as an interventional group from August 2016 to October 2016. A guideline for proper indications of prophylactic antibiotics, designed and finalized based on the physicians’ comments, was implemented in Group 2. The pattern of antibiotic prophylaxis use was evaluated in two groups.

Results: One hundred patients were evaluated in each group. The implementation of the guideline resulted in significant reduction of improper antibiotic use from 55% to 18% (P=0.002). It also reduced inappropriate duration of prophylactic antibiotic (43% vs. 23%, P=0.025). Inappropriate dose was diminished but not significantly (8% vs. 5%, P=0.321).

Conclusions: Based on our results, in more than half of cases patients received improper antibiotic prophylaxis regimens for gastrointestinal tract surgeries in this hospital. A local guideline implementation can result in reduction of antibiotic selection, dose and duration errors.

Key words: Antibiotic prophylaxis, Gastrointestinal tract surgeries, Surgical site infection, Drug use evaluation (DUE), Guideline
Hepatitis A virus seropositivity among medical Students of Babol University of Medical Sciences Babol

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BACKGROUND: Hepatitis A is associated with more complications and even death in the susceptible adults. The present study was aimed to assess the prevalence of hepatitis A virus antibody among students of Babol University of Medical Sciences and to estimate the prevalence of susceptible population.

METHODS: This cross sectional study was performed on 345 students in Babol University of Medical Sciences, Babol, Iran. Two ml blood samples were obtained from each participant and serum was separated. Anti- hepatitis A antibodies were measured using ELISA method. Demographic data were collected through questionnaire.

FINDINGS: The mean of age was 19.48±1.38 years. Fifty individuals (14.5%) were male and 295 (85.5%) were female. In total, the prevalence of anti-hepatitis A antibodies was 65.8% of cases (227/345). The distribution of antibody in females and males was 66.1% and 64%, respectively which there was not a statistically significant difference (p>0.05). The distribution of anti-HAV antibody in cases lived in urban and rural was 63.9% and 80%, respectively which there was a statistically significant difference (p<0.044).

CONCLUSION: The results of this study showed more than thirty percent of this population had not been exposed to hepatitis A and were susceptible to acquire the disease. Considering that the disease has more severe course as age increases, improvement of standard hygiene and prevention strategies are recommended. Furthermore, vaccination may play a significant role in the occupational health policy to protect the susceptible health care workers population in the future.

Key Words

Hepatitis A, HAV-antibody, Medical students.
بررسی میزان آگاهی پرستاران شاغل در بخش مراقبت های ویژه در زمینه پیشگیری از پنومونی ناشی از ونتیلاتور

Evaluation of knowledge of nurses working in intensive care unit regarding the prevention of pneumonia caused by ventilator

مقدمه: پنومونی ناشی از ونتیلاتور (VAP) دومین عفونت رایج در بخش‌های مراقبت ویژه است که شیوع آن بین 8 تا 88 درصد می‌باشد. با توجه به عوارض ناشی از بروز VAP، اهمیت پیشگیری از بروز آن در کاهش مرگ و میر و با توجه به نقش کلیدی پرستاران در تیم مراقبتی مطالعه حاضر انجام شده است.

مواد و روش ها: این مطالعه توصیفی بر روی 90 نفر از پرستاران شاغل در بخش‌های مراقبت ویژه بیمارستان بود.

محور پژوهش یافته ها: در مورد پنومونی ناشی از ونتیلاتور در بخش‌های مراقبت ویژه پرستاران از پنومونی ناشی و اهمیت پیشگیری از بروز VAP استفاده گردید.

نرم افزار spss نسخه 88 آنالیز نمود.

نتیجه: با توجه به نقش مهم پرستاران در پیشگیری از بروز VAP و پیامدهای ناشی از آن میزان با اموزش رو به بهبود در 2 سال مورد بررسی قرار گرفت که در هر دو واحدهای هvioس و مرد بین 89±88/8 تا 88 درصد از این آگاهی پژوهش زن و 82 درصد مرد بود.

میانگین سنی 82 سال مورد بررسی قرار گرفت که در هر دو واحدهای هvioس و مرد بین 89±88/8 تا 88 درصد از این آگاهی پژوهش زن و 82 درصد مرد بود.

نتایج: با توجه به نقش مهم پرستاران در پیشگیری از بروز VAP و پیامدهای ناشی از آن میزان با اموزش رو به بهبود در 2 سال مورد بررسی قرار گرفت که در هر دو واحدهای هvioس و مرد بین 89±88/8 تا 88 درصد از این آگاهی پژوهش زن و 82 درصد مرد بود.

کلمات کلیدی: پرستار، مراقبت ویژه، پنومونی ناشی از ونتیلاتور
بررسی شیوع و علّت تب در بیماران بستری در بیمارستان شهید کامیاب مشهد سال 1391

الهام خوشنف رفیعی، دکتر

Prevalence and Causes of Fever in Patients Admitted to ICU at Shahid Kamyab Hospital in Mashhad, Iran 1395

زمینه و هدف: بروز تب به عنوان یک مشکل شایع در بیماران بستری در بخش ICU مطرح است. حدود 97% از بیماران بستری در بخش ICU بار دیگر تب 9.83 (میانگین) همچنین بروز تب در فاز حاد بیماری نسبی مغزی، باعث اقامت طولانی تر بیمار در ICU می‌شود. افزایش بار دیگر تب در بیماران بستری در بخش ICU، یکی از علل افزایش بار دیگر تب در بخش ICU و در کل بستریت اکثریت بیمارستان این بخش می‌باشد.

با توجه به این مسئله، به تحقیق درباره شیوع، علل، شناسایی نیروهای بستری در بخش ICU و بررسی عوامل موثر بر شیوع و کنترل تب در بیمارستان اشاره می‌شود.

در این مطالعه، بررسی شیوع و علّت تب در بیمارستان شهید کامیاب مشهد در سال 1391 صورت گرفت.

مقدمه:

روش کار یافته‌ای مطالعه‌ی پایان‌نامه - تحلیل می‌باشد. جامعه پژوهش شامل کلیه بیماران بستری در بخش ICU بیمارستان شهید کامیاب می‌باشد. ابزار جمع آوری اطلاعات پرسش تاغه اطلاعات دموگرافیک و پرسش نامه استاندارد شده توسط مارلیک بصورت چک لیست بود.

یافته‌ها: اکثر واحدهای فوقانی و زیر 91 سال داشتن دختنت اکثریت 58% مورد بودن از نظر تشخیص زمان پذیرش اکثریت دچار خون بودند. دریگی داخل جمجمه بودن بیشترین علّت مبتلا بودن تب ناشی از کاتاره و سپس پنومونی ناشی از ویروسیتاتور بوده است، در این بیشتر بروز عفونت در بیماران بستری در بخش ICU بوده است. در رابطه با تبعیض ارتباط بین مشخصات دموگرافیک و معنی شیوع تب در بیماران بستری در بخش ICU بوده است.

نتیجه‌گیری:

بیشترین شیوع تب در بیماران بستری در بخش ICU بوده است. در رابطه با تبعیض ارتباط بین مشخصات دموگرافیک و معنی شیوع تب در بیماران بستری در بخش ICU بوده است.

واژگان کلیدی: تب، بخش مراقبت ویژه، بیمار
نویسنده مسئول کارشناس آردو پرستاری، دانشگاه علوم پزشکی مشهد.

*
بررسی میزان رعایت شست و شوی دست کارکنان بخش مراقبت ویژه مرکز آموزشی-درمانی شهید کامیاب در سال 1395

The level of hand hygiene compliance by workers of shahid kamyab medical care center in the year of 1395

الهام خوش رفتار رودی * عزت دولتخواه فاطمه عصاران صدیقی رضوی

زمینه و هدف: عفونت‌های بیمارستانی همواره به عنوان یکی از مشکلات جدی در مراقبت‌های درمانی در بین بیماران بستری شده در بیمارستان محسوب می‌شوند. رعایت بهداشت دست موثرترین و کم‌زیانه‌ترین آدامه برای کاهش عفونت‌های ناشی از مراقبت می‌باشد.

مطالعه حاضر به منظور بررسی میزان رعایت بهداشت دست توسط کارکنان در بخش هایی مراقبت ویژه انجام شد.

روش بررسی: این مطالعه توصیفی بر روی 111 تعداد از کارکنان بخش های مراقبت ویژه در سال 69 انجام شد. جهت جمع آوری اطلاعات از چک لیست استاندارد استفاده شد. بدنه‌ها با استفاده از روش های آماری تجزیه و تحلیل شد.

یافته‌ها: در این مطالعه میانگین رعایت بهداشت دست در حدود 35 بود. بیشترین میزان رعایت بهداشت دست در موقعیت بعد از تماس با ترشحات بیمار گزارش شد. کمترین میزان نیز مربوط به قبل از تماس بیمار بود. بیشترین میزان رعایت بهداشت دست بین پرستاران و پرستاران و کمترین آن بین پیرایشکان گزارش شد.

نتیجه‌گیری: با توجه به نتایج حاصل از این مطالعه به منظور کنترل بهتر عفونت‌های بیمارستانی باید اقدامات آموزشی لازم صورت بگیرد.

هم چنین دسترسی به مواد مناسب برای بهداشت دست، و هم چنین وجود دست شویی های کافی در قسمت‌های مختلف مورد توجه قرار گیرد.

کلمات کلیدی: شست و شوی دست، عفونت، بخش ویژه

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Onychomycosis due to Non-dermatophyte Molds

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Introduction: Onychomycosis is a fungal infection of nails caused by dermatophytes, yeasts and nondermatophytes molds (NDMS). Onychomycosis represents about 30% of mycotic cutaneous infection and 50% of all nail disorders. Although dermatophyte infections are more commonly discussed in the literature, nondermatophyte fungi have become increasingly prevalent as etiologic agents of onychomycosis. The aim of this study was to identify NDMS as agents of onychomycosis in Mashhad by molecular method.

Material and Methods: A total of 280 patients clinically suspected to have onychomycosis who were referred to medical mycology laboratories of Imam Reza Hospital, Mashhad University of Medical Sciences were prospectively studied. After nail scrubbed with 70% ethyl alcohol, subungual keratinous debris were collected along with nail clippings. Direct microscopic examination was carried out using 20% KOH preparations. Clinical material was inoculated on sabouraud dextrose agar containing chloramphenicol with and without cycloheximide. The inoculated specimen were incubated in 25°C and 37°C aerobically for 4 weeks and checked twice weekly for any growth. The cultures were done in triplicate for isolation of molds and initial identification was done based on their macro and microscopic features. After DNA extraction, polymerase chain reaction sequencing technique was done for identification of fungal species.

Results: Of the 280 patients examined, 112 (40%) were mycologically proven cases of onychomycosis. Among them 50 cases (44.6%) were due to NMDS. Female with 39 (78%) affected more frequently than male 11 (22%) and in both sexes, those who were 30-49 years old, more infected. Toenails were affected more frequently than fingernails. The age range of the patients studied was 1 to 83 years with a mean age of 44.4 years. The most common etiologic agent of NDMS onychomycosis was Aspergillus flavus (38%) followed by A.terreus, A.tubingensis, A.sydwii, A.welwitschiae, A.minisclerotigenes, A.niger, A.amstelodami, A.jensenii, Penicillium citrinum, P.alli-sativi, P.cryosogenum, Fusarium sudanense, F.proliferatum, F.globosum, Crysosporiumsp, Cladosporiumsp, Acremoniumsp, Sporothrixsp, Talaromycessp, Preussiasp, Trichosporonsp and Debaryomycessp.

Conclusion: Nondermatophyte molds have an important role in onychomycosis. Because of the fungi are commonly found in nature as saprophytes, culture of clinical materials and definite identification of them are necessary.

Keywords: Nondermatophyte molds, onychomycosis. Mashhad. Aspergillus
The Study level of Hand Hygiene and its barriers at the Personnel of Ali Ebne Abitaleb Hospital in Zahedan City in 2017

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Site of research: Zahedan Ali Ebne Abitaleb Hospital

Abstract

Introduction and Objectives: Hygiene caregivers, including nurses, are one of the important factors in the transmission of microorganisms and nosocomial infections. The aim of this study was to evaluate the level of hand hygiene and its management in the personnel of Ali ebne Abitaleb Hospital, Zahedan, in 2017.

Materials and Methods: This study is a descriptive, cross-sectional study. This study has been conducted on 100 cure personnel. Data gathered using by questioner. The data collected using the methods of descriptive statistics in software SPPS 22 was analysis.

Result: The results showed that the mean age of the subjects was 34.2 ± 5.7 years. The majorities of them (51%) were female and nurses (83%). The average number of hand washing during a shift of work was 9.9 ± 1.3. The most common cases of hand washing were after exposure to the blood and the patient (95%) and the least was washed hands (33%) after contact with the surroundings area of the patient. Most of them (93%) believed that they were less than the recommended rates of their hands. The most important barriers to washing hands were lack of time and Too much work and lack of clean and suitable sink (38%), using gloves and lack of soap and towels paper (26%).

Conclusion: According to the results of this study, the level of hand washing was not optimal. Therefore, the necessity of research to increase awareness and improve the performance of cure personnel about hand hygiene is emphasized.

Keyword: Hand washing – cure personnel- Zahedan Ali Ebne Abitaleb Hospital
Study of ESR / WBC/ Neutrophil/Monocyte in patients with U.T.I referred to Golestan hospital, Ahvaz

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Introduction and Objectives: Urinary tract infection is the most common bacterial infections in all of ages. The aim of this study was to investigate, ESR/ WBC/ Neutrophil/ Monocyte in patients with urinary tract infections, referred to Golestan hospital, Ahvaz

Material and methods: In the present study, the blood samples were collected from patiens, and parameters such as: ESR/ WBC/ Neutrophil/ Monocyte were tested in all patients with the diagnosis of UTI. Statistical tests used.

Results: There were 31 Female (79.5%) and 8 male (20.5%) , the most common organism was E.coli which occurred in 64% of the patients, the ESR/ WBC/ Neutrophil / Monocyte range of population were 12-83mm/h, 4-12.8×109 /L, 36-80% , and Monocyte2-10% with mean ,34mm/h , 7.8×109 /L , 62% and7% respectively.

Conclusion: the most common organism was Ecoli which occurred in 64% of the patients.

Key words: UTI, E.Coli, ESR, Neutrophil
A Review of Methods for Surgical Site Infection Reduction

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Introduction

The infection that occurs in the surgical site in the first 30 days after the operation is called Surgical Site Infection (SSI). SSI is the second most prevalent hospital-acquired infection, comprising about 15% of clean surgery and 30% of contaminated surgery cases. It is estimated that 60000 patients die annually in Iran due to hospital-acquired infection; though an exact number is unavailable.

Method

Nine articles from Scopus, Pubmed and Google Scholars were reviewed and presented in this article.

Results

Methods presented in the articles for reducing SSI were: glucose control, use of supplement oxygen (80%) throughout the operation and 6 hours postoperative, use of an impervious plastic wound protector, use of chlorhexidinegluconate instead of iodine-based alcohol for preparation, use of tricosan-coated suture, injection of antibiotics 120 minutes or less prior to surgery, use of silver-nylon dressing, smoke cessation, use of diluted betadine irrigation or vancomycin powder in wound before closure.

Conclusion

Considering the increase in SSI and the ensuing health conditions, morbidity, and high costs, it is necessary to introduce methods to reduce SSI. Yet, extensive research has not yielded the desired outcome, shedding light on the need to further research and implement the research findings.

Keywords

Surgical Site Infection (SSI), Infection Reduction Methods
Identification of Zoophilic Dermatophytes as Agents of Dermatophytosis in Khuzestan by Molecular Methods

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Introduction and Objectives: Dermatophytes are a group of filamentous fungi belonging to the genera of *Trichophyton, Microsporum* and *Epidermophyton*, and cause the spectrum of cutaneous fungal infections known as dermatophytosis (tinea or ringworm). Ecologically these fungi are as human-adapted (anthropophilic), animal-related (zoophilic) and soil-related (geophilic) species. Animal dermatophytosis has taken special attention in view of its contagiousness among animals, its zoonotic transmission to human and create inflammatory infections especially by *Trichophyton verrucosum*. The aim of this study was to recognize the causes of dermatophytosis isolated from animal dermatophytosis in Khuzestan, South western Iran.

Materials and Methods: The clinical materials from 140 domesticated animals (56 cows, 10 dogs, 13 cat, 6 horses, 12 goats, and 43 sheep) with cutaneous lesions clinically suggestive of dermatophytosis were investigated for dermatophytes by direct microscopy with KOH and culture on mycobiotic agar. Identification of culture positive isolates was performed by PCR and RFLP of ITS-rDNA regions.

Result: Totally 120 and 105 cases were respectively positive for microscopic examination and culture. Identification of isolates based on macro- and microscopic features of colony were as *T. verrucosum* (83) as the most prevalent agent, followed by *M. canis* (9), *T. mentagrophytes* (7) and *M. gypseum* (1). In 5 cases the colonies cannot be identified. PCR-RFLP of culture positive isolates led to identification of *T. verrucosum* (54), followed by *T. mentagrophytes* (38), *M. canis* (12) and *M. gypseum* (1).

Conclusion: *T. verrucosum* and *T. mentagrophytes* remain the main zoophilic dermatophytes causing dermatophytosis in Iran. Given to the contagiousness nature of infections, accurate differentiation of this species from other agents for fast and effective therapy and prevention by molecular methods is necessary.

Keywords: Dermatophytosis, *T. verrucosum*, zoonosis, Khuzestan.
Growth of Safe Care Products at Web of Science

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Introduction and Objectives:

The amount of scientific production and citation in scientific databases such as Web of Science is one of the most important criteria for ranking universities and scientific disciplines. Awareness of the status of scientific production and advances in various subject areas, it is possible to determine the extent of scientific activities of researchers and authors in that field. The aim of this study was to investigate the amount of publications in the field of safe care at Web of science.

Materials and Methods:

Using of safe care or secure care keywords through the Web of science search Engine, all full-text articles were extracted from 2008 to 2017 and analyzed.

Result:

Most texts were published in English. The United States had the most scientific output with 38% of the total output, England with 11 percent and Australia with 7 percent ranked second and third. Iran was ranked 31th. Internal medicine specialists had the most articles. Surgeons and nurses were second and third.

Conclusion:

From 2008 to the end of 2017, scientific production has grown. Iranian researchers need to develop their activities in order to bridge the gap and provide evidence-based safe care.

Key words: safe care, secure care, Web of Science
Evaluation of the effect of hand sanitization on the incidence of hospital infection in the NICU of Umm Al-Banin Hospital (1395-1396)

Background and Purpose: Hospital infections are responsible for infant mortality in NICU sections. The NICU section is the focus of the study of hospital infections due to complications of death and illness. Hand sanitation is one of the most important, easiest, most effective and cost-effective methods for preventing and disseminating antimicrobial resistance. The purpose of this study was to investigate the role of hand sanitization on the incidence of hospital infection in NICU.

Materials and Methods: In this semi-experimental study, at first, the amount of hygiene and the incidence of hospital infection were collected by observational instruments. Then, codified educational classes were held and after six months of review, the rate of hygiene and the incidence of hospital infection it turned out.

Findings: After holding codified hygiene classes for all health personnel such as physician, nurse, assistant and service personnel, the rate of hygiene was increased from 71% to 86% and the incidence of hospital infection decreased from 4.5% to 3.6%.

Conclusion: According to the results of this study, it is recommended to identify other causes of the occurrence of a hospital infection.

Keywords: Hospital Infection, Hand Hygiene, Training
Evaluation of the effect of hand sanitization on the incidence of hospital infection in the NICU of Umm Al-Banin Hospital (1395-1396)

Peymaneh ghoreishi, batoul kheyrkhah, sakineh seddighi, mojtaba rezaei,Zahra asefi, maliheh khosh ahang, fateme shaer moghaddam

Background and Purpose: Hospital infections are responsible for infant mortality in NICU sections. The NICU section is the focus of the study of hospital infections due to complications of death and illness. Hand sanitization is one of the most important, easiest, most effective and cost-effective methods for preventing and disseminating antimicrobial resistance. The purpose of this study was to investigate the role of hand sanitization on the incidence of hospital infection in NICU.

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Conclusion: According to the results of this study, it is recommended to identify other causes of the occurrence of a hospital infection.

Keywords: Hospital Infection, Hand Hygiene, Training
Evaluation of the effect of hand sanitization on the incidence of hospital infection in Umm al-Babin Hospital(1395-1396)

Peymaneh ghoreshi, batoul kheyrkhah, sakineh seddighi, mojtaba rezaei, zohreh khooi, zohreh bagheri, Zahra joghataei

Background and Purpose: Hospital infections are infections that occur during the hospitalization period. Statistics on the incidence of hospital infection in different centers vary from 2.8 to 10%. Failure to observe hand hygiene in health care personnel plays an important role in the development of hospital infections and the transmission of microorganisms. Hand sanitation is one of the most important, easiest, most effective and cost-effective methods to prevent and release antimicrobial resistance. Regarding the importance of the issue, we have been conducting six-month hand wash training courses and examining this process and examining its impact on the incidence of hospital infections.

Materials and Methods: In this semi-experimental study, the amount of hand sanitation and the incidence of hospital infection were collected using observational instruments. Then, the educational classes were held and after a six-month period, the degree of hygiene and the incidence of hospital infection were investigated.

Findings: After conducting codified hand wash classes for all health care personnel such as physicians, nurses, assistants and service personnel, the rate of health compliance increased from 62.25% to 66% and the incidence of hospital infection decreased from 0.37% to 0.29%.

Conclusion: According to the results of this study, it is recommended to identify other causes of the onset of hospital infection by carrying out similar studies.

Keywords: Hospital Infection, Hand Hygiene
Evaluation of The Hepatitis B Virus Titer in Personnel of Musa Bin Jafar Hospital Qouchan Year 2015-2016

Narges derakhshan1, Metra Dindar2, Nahid Gahremanlo3

**Background:** Hepatitis B virus is the cause of acute and chronic hepatitis, cirrhosis and hepatocellular carcinoma. In the present, the only secure way to prevent hepatitis B is vaccination, but the vaccination is not 100% affective. Considering the importance of this, the efficacy of vaccination in high risk groups and health-care workers are at risk being involved with all types of hepatitis viruses.

For reduction of hepatitis B infection among hospital staff these groups should be vaccinated against HBV besides using other standards for HBV prevention. The purpose of this study is to evaluate the anti-hepatitis B antibody among Personnel of Musa Bin Jafar Hospital.

**Materials and Methods:** This descriptive cross-sectional study was performed on 157 hospital personnel. Blood samples were analyzed for the hepatitis B virus anti-viral antibody level by ELISA method.

**Results:** The vaccination history of study population was unclear. The results of this study showed that in 64% of the optimal safety personnel, 28% had moderate immunity and 8% had Poor immunity.

**Conclusion:** Prevention is an important issue in public health. Vaccination of high risk groups, especially health care personnel, is one of the prevention methods. Given the presence of 8% immunity following hepatitis B vaccination, it is recommended to determine the antibody titre after vaccination.

Key words: Antibody titre, Hepatitis B, vaccination
Performance and method in mothers with children less than 6 years about UTI in Qom health care centers

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English Abstract

Objectives: UTI is a common childhood infection. Hence this study was done to determine the performance and method in mothers with children less than 6 years about UTI in Qom health care centers.

Methods and materials: This observational cross-sectional study was performed among 384 mothers with children less than 6 years about UTI in Qom health care centers. The performance and method about UTI in them was assessed by questionnaires.

Results: In this study it was seen that susceptibility, threat, benefit, barriers, and action performing were good in 15.9%, 14.6%, 20.6%, 12.2%, and 14.8%, respectively.

Conclusions: Finally, it is concluded that performance and method in mothers with children less than 6 years about UTI is good in one-fifth of them.

Key Words: Performance, Method, Children, Mother, UTI
Investigating the Microorganisms Caused by Nosocomial Infections

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Introduction

Nosocomial infections will impose additional costs on health systems, increase hospital stay, increase mortality and morbidity in patients. Therefore, it is important to study the prevalence and factors associated with Nosocomial infections and the ways to prevent it.

Method and material

This descriptive cross-sectional study was carried out using active diagnostic method, the results of laboratory cultures and data recording in INIS system from 21 March-21 December 2017.

Findings:

Hospital infection index was 3.08% with 454 cases of nosocomial infections, consisting of Pseudomonas aeruginosa (16.96%), E- coli 15.63%, Staphylococcus aurous 15.19%, Candida 12.33, and Klebsiella 10.57%.

Conclusion

Based on the findings, the most common type of infection is urinary tract and the most common cause of P. aeruginosa infection. On the other hand, burn wound infection has an impact on the results because the hospital is the burn center of the northwest. The importance of adherence to aseptic methods, the development of hand hygiene cultures and the observation duration of catheter and patient connections in the burn and ICU wards are emphasized.

Key word:

Microorganism, Nosocomial Infections, Medical Education Center
Study the observation of sanitation of hand in operation field students of Islamic Azad University, Mashhad in training environment.

Abbas Fotouhi- Fatemeh Keshavarz-Zohreh Rezaie Nesud

Site of research: Pubmed, Elsevier, Magiran, Google scholar, Google, Sid, Proquest, Medlib

Introduction: In surgical rooms, surgical procedures make patients more vulnerable to infection, and proper hygiene is especially important for students in preventing hospital infection in this section.

Methods: This descriptive cross-sectional study was carried out on 20 students attending anesthesiology clinic in Mashhad Azad University in 2017. To collect the data, the Ministry of Health submitted a checklist and each of the subjects of the research community was observed three times as unobserved. Data analysis was done with the software spss 19.

Result: The results of this study showed that from a total of 270 hand-hygiene positions, 50 hygiene conditions were observed (21.6%), and the highest proportion of hygiene related to contact with secretion and wearing gloves instead of hand washing had the highest share in situations.

Conclusion: Considering the importance of hand hygiene and the sensitivity of the operating room environment and the presence of students, it is possible to emphasize the importance of hygiene education in colleges as a necessity.

Keyword: Infection Control, Operating Room, Student, Hand Hygiene
Study the observation of sanitation of hand in operation field students of Islamic Azad University, Mashhad in training environment.

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Keyword: Infection Control, Operating Room, Student, Hand Hygiene
A Review of Therapeutic Methods in Sepsis and their effectiveness

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Introduction and Objectives: sepsis is a life-threatening disease in which host response to infection happen following the weakness of immune system. although recent improvement occur in management of sepsis but still one of the main causes of mortality in hospitals is sepsis. In this review we summarize all methods of treatment with their effect in sepsis patients. Treatment is basically based on elimination of pathogen agent, supporting organ that associated with infection and strengthening immune system.

Materials and Methods: in this review article we study 35 review and original article from ncbi and google scholar and provide comprehensive view about all aspects of therapeutic methods and their effects on sepsis patients.

Result: sepsis diagnosis due to multiple presentation and similarity of symptoms to other disease can be difficult. The timely diagnose and initial treatment of sepsis is a major factor for survival in patients. At the moment there is no specific and certain cure for sepsis but There are various treatment now including antibiotic therapy, fluids, vasopressors, corticostroid therapy, blood derivations injection and etc which have different effectiveness. new researchs also offer new ways and compounds for treatment and create discuss about previous methods.

Conclusion: although there is several therapies for sepsis patients but still the rate of mortality caused by sepsis is very high. Some treatment such as corticosteroids and immunomodulators is still controversial and needed more investigation.existing therapeutic methods and mortality rates in sepsis patients show us a necessity for finding a specific treatment and also demonstrate the fact that prevention is better than cure.

Keyword: sepsis, treatment, effectiveness
Assessment of the use of handwashing and alcohol use among Dehdasht hospital staff in year 2017

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**Introduction & Objective:** Infections caused by health care delivery are one of the most common causes of mortality and disability in hospitalized patients. To prevent hospital infections, hand hygiene is of great importance and is still considered as one of the most important measures to reduce hospital infections. Therefore, the aim of this study was to determine the rate of use of hand wash and alcohol intake. Dehdasht hospital personnel were taken.

**Methods:** This descriptive cross-sectional study was conducted on the entire staff of Imam Khomeini Hospital in Dehdasht in 2017. It should be noted that the necessary information from their records and the information recorded in the system was obtained and the collected data were analyzed using SPSS version 23 software.

**Results:** According to information from all the personnel employed in the Dehdasht hospital, only a very small percentage of people paid attention to the principles of washing and followed the health instructions with alcohol and used this hand care instructions. And most of the staff did not use this instruction or were unaware of this recipe.

**Conclusion:** In general, the results of this study showed that the performance of the research hospital regarding compliance with infection control measures in relation to hand sanitation is in the downward direction. It is suggested that all staff working in the hospital should provide in-service training and in-session conferences with an emphasis on infection control.

**Keywords:** handwashing, alcohol, Iran
Determination of frequency of bacteria isolated from the cultures of patients with nosocomial infection in Imam Khomeini Hospital Dehdasht Hospital in the second half of 1396

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Introduction & Objective: Hospital infections are infections that arise during hospitalization and cause heavy costs to health systems, an increase in hospitalization time, and an increase in mortality in patients. The rate of infection of the hospital to many cases, including the use of invasive devices, such as catheters and sews, depends on the resistance of the infection bacteria to the types of antibiotics and various antimicrobial agents. In this study, the frequency of each bacteria isolated from the cultures of patients with nosocomial infection in Dehdasht Imam Khomeini Hospital was investigated.

Materials and Method: This descriptive-analytical study was performed on all patients admitted to the infectious ward of Imam Khomeini hospital in Dehdasht for six months. In this study, bacteria isolated from the cultures of 75 patients whose biologically tested cultivars were positive. The results were analyzed using SPSS 23 software.

Results: The results of cultures (urine, blood, ulcers, and wounds) in infected patients showed that the three groups of bacteria commonly used in culturing patients were gram negative cocci (Staphylococcus aureus, epidermidis and saprophyticus), chlorophylls (Escherichia coli) and Enterobacter and Klebsiella species) and Citrobacter had the lowest percentage.

Conclusion: Determining the frequency of each bacteria isolated from the cultures of the patients is important in epidemiologic and can help in the selection of antimicrobial antimicrobial therapy.

Keywords: Cultures, Bacteria, Hospital Infections, Iran
Comparison of the incidence of infection in Natural delivery and cesarean section in mothers in one of the marginal areas of Kermanshah Sabakarimi 1, Maryam Karimi 2, Aleme dehnabi 3

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Introduction & Objective: One of the goals of the Health Promotion Plan in Iran is the reduction of cesarean section. Achieving this goal requires research and the use of results to improve maternal outcomes. The purpose of the present study was to compare the incidence of infection in two Natural delivery and cesarean-based methods in mothers in one of the districts of Kermanshah.

Methods: In this prospective cohort study, 180 low-risk pregnant women with a gestational age of 40-37 weeks were enrolled in the study. Mothers were examined according to the type of delivery in two groups of Natural delivery and cesarean section. Information questionnaire such as wound infection, reproductive injuries to genitourinary system, fever to 10 days postpartum and wound infection in mothers were completed.

Data: Based on the results of this study, the mean age of the scan was 24 years, of which 79 were cesarean section due to repeated cesarean section, fetal distress, inappropriate position of the fetus and elective cesarean section, and 101 cases of Natural delivery, the amount of postpartum hemorrhage In mothers who had done cesarean section, only 8 cases of cesarean section mothers were referred for infection due to infection of the site of sutures, while 57 cases of natural labor had been infected with sutures, after examination And talking to mothers, we found that all mothers who had performed caesarean section in the whole Postpartum health education has participated, but only 7 mother-given births have regularly participated in these classes.

Conclusion: Since the focus of the treatment system of the country is on decreasing the rate of cesarean section, and encouraging pregnant mothers to carry out Natural delivery, to prevent mothers’ negligence to attend classes, appropriate measures and appropriate follow-up are done.

Keyword: Infection, postpartum, cesarean, natural, margin of Kermanshah
A Survey on Nursing Students' Awareness about Infection Control Techniques

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Background and Aim: Hospital infections are one of the problems of hospitals in all countries. Nursing student, as one of the most important members of the future health care team, plays a vital role in controlling and preventing these infections. In this study, the knowledge of nursing students in Kermanshah University of Medical Sciences about infection control has been investigated.

Materials and Methods: This descriptive-analytic study was carried out in Kermanshah in 1396. The research population consisted of all nursing students of Kermanshah University of Medical Sciences. Among them, 100 subjects were selected as sample size. Data were collected through a questionnaire and analyzed by SPSS-22 software.

Results: According to the distributed questionnaire, the knowledge level of nursing students about nosocomial infections in the educational center of Imam Khomeini Hospital in Kermanshah was at a high level, with 34.6% of the nurses in the "medium" and 8 / 58% had a high level of awareness. Also, there was no significant relationship between knowledge of nursing students and their demographic characteristics.

Conclusion: Despite the fact that nursing students’ knowledge about infection control is in a good position, the necessity of conducting continuing education courses in order to increase their knowledge in them and correct some wrong actions due to wrong beliefs for nursing students seems necessary.

Key words: knowledge level, nursing student, infection control
Diabetes is a Big Risk Factor for Surgical Site Infection

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Abstract

Introduction: Diabetes is a risk factor for surgical site infection, even after controlling hyperglycemia. Usually, the wounds created at the site of surgery are the main cause of infection. If the deep wounds are not treated rapidly, the result will be amputation. The consequences suggest an essential need for continued attempts to improve surgical outcomes for patients with diabetes.

Method: We did a search based on the keywords “Diabetes” AND “Infection” in PubMed, EMBASE, Google Scholar databases. We found 34 articles that only 11 of them are related to our subjects.

Result: By looking at the results of 11 studies, we found that diabetes increases the risk of infection across many kinds of surgery specifically for breast, arthroplasty, cardiac, and spinal operations. The risk of surgical site infection for diabetic patients is 50% more than patients without diabetes. According to a cohort study done by Nichols R et.al. the odds ratio (OR) for diabetic patients was 1.53 compared with none diabetic patients.

Conclusion: By these expressions, proper management of patients with diabetes is increasingly significant to prevent surgical site infections. In this way, the guidelines highlight the significance for a fast and proper treatment of infected wounds. Reducing pressure on the wound, administering proper antibiotics and reinstating blood flow to the wound are practical ways to prevent the infections and improve the wounds.

Keywords: Infection, Diabetes, Surgical site infection
Effect of Tobacco on patients with Human Papilloma Virus referred to Ghaem hospital in 1396: A Cross-Sectional Study

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Abstract

Introduction: Human Papilloma Virus (HPV) is one of the most common sexually transmitted infection (STI) that have many different types. Some types can lead to health problems containing genital warts and cancers (Vagina, anus, and oropharyngeal). About one million Iranians have been diagnosed with genital warts and unfortunately, it is on the brink of an epidemic. It has raised a great deal of concern, as many people do not have the correct information about this infection. Tobacco is one of the factors that exacerbating HPV, which has a direct relationship with the cancers mentioned above. The aim of this study was to determine the relationship between tobacco use and the prevalence of high risk types of HPV in patients with this infection.

Method: This cross-sectional study was performed on 80 women with HPV who referred to Ghaem hospital during 3 months. They were randomly selected from patients with HPV between the ages of 38 to 45 years. These patients filled the questionnaire including demographic information and the usage of tobacco (consumption by themselves or exposed to it). Then, data analysis was done by using SPSS software (version 20). A p-value of ≤0.05 was considered to indicate statistical significance.

Result: 42% of patients with high risk types of HPV said that they consumed tobacco or exposed to it.

Conclusion: According to the results, tobacco may play a negative role in the incidence of high risk types in patients with HPV. These people should avoid the use of tobacco as much as possible and don’t expose to it. We propose that regular physical activities may be the best way for improving this condition as eliminated the tobacco toxins from the body.

Keywords: Infection, HPV, Tobacco
Effect of excessive salt intake in patients with Human Papilloma Virus referred to Ghaem hospital in 1396

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Abstract

Introduction: Human Papilloma Virus (HPV) is a group of including more than 150 viruses. HPV is called for the warts (papillomas) that some types can cause. Some HPV types can cause cancers such as mouth/throat, and anus/rectum cancers. HPV infection can also cause cervical, vaginal, and vulvar cancers. Unfortunately, the prevalence of this infection is estimated about 12% of women in the world which is growing rapidly. High salt intake and salt-preserved foods probably enhance the risk for HPV. In this study, we investigated the effect of extra salt intake on patients with HPV.

Method: This cross-sectional study was performed on 80 women with HPV who referred to Ghaem hospital during 3 months. They were randomly selected from patients with HPV between the ages of 38 to 45 years. These patients filled the questionnaire including demographic information and the amount of salt intake. Then, data analysis was done by using SPSS software (version 20). A p-value of ≤0.05 was considered to indicate statistical significance.

Result: 56.89% of patients said that in addition to salt in the foods, they also used extra salt on the table (Used salt more than 3 gr/day).

Conclusion: According to the results, excessive salt intake may worse this infection and cause high risk types. We propose that regular physical activities may be the best way for improving HPV as eliminated the excess salt intake from the body by sweating and prevented cancers mentioned above.

Keywords: Human Papilloma Virus, Salt Intake, Infection
Association of obesity with Human Papilloma Virus:

Acrosssectional study

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Abstract

Introduction: Human papillomavirus (HPV) is a viral infection that is transmitted through skin contact. There are more than 100 varieties of HPV, 40 of which are transmitted through sexual contact and can influence on genitals, mouth, or throat. Some types of HPV can lead to genital warts and others can cause some types of cancer. Each year, around 19,400 women and 12,100 men in the U.S. are affected by cancers that stem from HPV. According to the studies, obesity/overweight is the cause of many diseases, including cancers. In this paper, we investigate the relation between HPV and obesity/overweight.

Method: In this cross sectional study, we evaluated 74 women with HPV referred to the clinic during 4 months. They filled the questionnaire including name, age, weight and height. Then, we analyzed the information with SPSS software (version 20). A p-value of ≤0.05 was considered to indicate statistical significance.

Result: 3.17% of patients with HPV were overweight/obese (BMI>30).

Conclusion: According to the results, obesity/overweight does not seem to have a clear relationship with the incidence of this infection.

Keywords: Obesity, Human Papilloma Virus, Infection
Omega-3 fatty acids intake in patients with Human Papilloma Virus referred to the clinic

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Abstract

Introduction: Human papillomavirus (HPV) is a group of viruses with more than 100 types, that are very common worldwide. At least 13 types are cancer-causing (also known as high risk type). HPV is generally transmitted through intercourse and most people are infected shortly after the onset of intercourse. 70% of cervical cancers and precancerous cervical lesions are caused by certain types of HPV (16 and 18). Long-chain omega-3 fatty acids are types of polyunsaturated fatty acids (PUFAs) presented in fish. According to numerous studies, consumption of omega-3 fatty acids can reduce the growth of cancers, increase the effectiveness of chemotherapy and decrease the side-effects of chemotherapy. Omega-3 fatty acids contribute to some molecular mechanisms such as: 1) inhibiting the expression of cyclooxygenase in tumors, therefore, reducing progression of cancer cells and decreasing angiogenesis in tumor; 2) repressing nuclear factor-kB function and bcl-2 expression, therefore, allowing apoptosis of cancer cells.

Method: This cross-sectional study was done on 70 women with cervical cancer. They were randomly selected from patients with cervical cancer that referred to clinic during 3 months. These patients filled the Food frequency questionnaire including the amounts of omega-3 (fish and supplements) consumption per year. Data analysis was done by SPSS software (version 20). A p-value of ≤0.05 was considered to indicate statistical significance.

Results: The results of this study show that 61.39% of patients with cervical cancer consumed omega-3 (fish and supplements) less than 2 times per year.

Conclusion: Our results suggest that intake of omega-3 (fish or supplements containing omega-3) at least once a week may have protective effects against the development of uterus cancer.

Keywords: Human Papilloma Virus, Infection, Cervical cancer
**Human T-Lymphotropic virus type 1 as an associated factor with Tropical Spastic Para paresis**

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**Abstract**

**Introduction:** Human T-Lymphotropic virus type 1 (HTLV1) is a human retrovirus related to persistent infection of human T cells. It is estimated that between 15 to 20 million of people in the world are infected with this virus. HTLV1 is more prevalent in Southern Japan, Southern America and North eastern of Iran. Unfortunately, the prevalence of this virus has increased in Mashhad in recent years. So that more than 2 percent of the Mashhad population are infected with HTLV1. This blood infection is a causative agent of multiorgan inflammatory disorders including HTLV1 associated myelopathy/tropical spastic Para paresis (HAM/TSP), Sjögren syndrome, uveitis and polymyositis. This review examines the recent research into the association between HTLV-1 and HAM/TSP.

**Method:** We did a search based on the keywords "HTLV1" AND Inflammatory diseases AND HAM/TSP in Google Scholar, PubMed and Web of Science. We found 15 articles that only 8 of them were related to our subject.

**Result:** HTLV-1 mainly infects CD4+ T helper (Th) cells that have an essential role in adaptive immune responses. According to their functions, invasion by HTLV-1-infected T cells, with virus-related gene expression and cellular-signaling mechanisms, cause a strong virus-specific immune response and improved proinflammatory cytokine production, leading to Central Nervous System (CNS) inflammation. The CD4+CD25+CCR4+ T cell population, which contains mainly of suppressive T cell subsections, like the T regulation (Treg) and Th2 in unhealthy individuals, is the major viral reservoir of HTLV-1 in HAM/TSP patients. Remarkably, CD4+CD25+CCR4+ T cells become Th1-like cells in HAM/TSP patients, as demonstrated by their overproduction of IFN-γ, suggesting that HTLV-1 may intracellularly persuade T cell from Treg to IFN-γ+ T cells. HTLV-1 Tax is a transactivator/oncoprotein that has strong effects on infected T cells, containing activation of nuclear factor (NF)-κB with subsequent improvement of cell proliferation and activation and expression of numerous cellular genes, such as IL-2, the α-chain of the IL-2 receptor (IL-2Rα), IL-15Rα, and IL-15.

**Conclusion:** Based on the investigations, these consequences support the hypothesis that HTLV-1 is one of the exogenous retrovirus genes responsible for immune disorders through its meddling in the equilibrium maintained amongst host immune responses. Because the mainstream of immune dysregulation is of unknown etiology, the detection of HTLV-1 and its relation with inflammatory
conditions has importantly enhanced our understanding of the pathogenic procedures underlying organ-specific immune dysregulation.

**Keywords:** Human T-Leukemia virus type 1, Inflammatory diseases, Tropical Spastic Para paresis, IFN-\(\gamma\), CD4.
Prevention Strategies in Oral Complications of Head and Neck Radiotherapy

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Introduction and Objectives:
Radiotherapy is one of treatment methods for malignant tumors of the head and neck. Short-term side effects include mucositis, xerostomia, candidiasis, bacterial infections, loss of taste and gingival bleeding. Chronic complications include tooth decay, osteoradionecrosis (ORN), soft tissue necrosis, trismus and abnormalities of dentition. This study aimed to raise the awareness of clinicians, dentists and patients in order to minimize and prevent these side effects.

Materials and Methods
Electronic search of the last updated publications was performed from 2004 to 2017.

Results:
Oral care strategies:

1- Prior to radiotherapy: dental consultation, complete dental examination and dietary advice should be arranged. All dental treatments should be completed two to three weeks prior to radiation. Any other irritating factors should be corrected.

2- During radiotherapy: oral hygiene using topical fluoride and chlorhexidine should be continued to reduce the risk of dental decay and plaque. Pain, oral candidiasis and xerostomia should be controlled by prescribing topical or systemic agents. Strategies to alleviate symptoms can be employed such as prescription of saliva substitutes.

3- After radiotherapy: follow-up visits to the dentist should be arranged. Equipment for home care should be provided when appropriate. Extractions or any dental treatment should be performed with little trauma and under a reasonable degree of antibiotic.

Conclusion:
Close collaboration among radiotherapists, dentists, and patients is essential. Maintaining a high level of oral hygiene can minimize complications. Patient and family education, hygiene protocol counseling and motivation would increase the chances of success.

Key Words: Radiotherapy, Head and neck cancer, Oral management
Antimicrobial effects of *Vaccinium arctostaphylos* essential oil against *Escherichia coli* isolated from urinary tract infections

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**Introduction and Objectives:** *Escherichia coli* (*E.coli*) are an important pathogen in the Urinary Tract Infection (UTI). Increasing of antibiotic usage for *E.coli* infections, created antibiotic resistance. Medical herbs with anti-microbial activity have always been important role in traditional medicine. The purpose of this study was to determine the antimicrobial effects of the essential oil of flowering aerial parts of *Vaccinium arctostaphylos* against *E.coli* isolated from UTI in vitro.

**Materials and Methods:** This research is a descriptive analytic study. First, samples of essential oil of *Vaccinium arctostaphylos* were prepare by hydro-distillation method. Then its antibacterial activity against 75 isolates of *E.coli* from 100 samples of UTI was evaluated by well diffusion and then agar serial dilution method. Also, the MIC (Minimum Inhibitory Concentration) and MBC (Minimum Bactericidal Concentration) of essential oil was determined.

**Results:** The diagrams, T- test were used to compare the results. The results demonstrated that the essential oil of flowering aerial parts of *Vaccinium arctostaphylos* with concentration of 20ml/disk show an average inhibitory zone diameter of 28mm against *E.coli*. The MIC and MBC of the essential oil against *E.coli* were 0.35 and 0.37 mg/ml respectively. There was no significant difference between the effects of the plant and antibiotics on *E.coli* (P>0.05).

**Conclusion:** This study demonstrates that essential oil of *Vaccinium arctostaphylos* have antimicrobial effects against *E.coli* isolated from UTI and its effect is similar selective antibiotic. Further investigations will be necessary.

**Key words:** UTI, *Escherichia coli*, *Vaccinium arctostaphylos*, Antimicrobial effects
The study (survey) of surface contamination and equipment of burn centers in Sina Educational Center

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Introduction:
Contamination present at surfaces and equipment plays a remarkable role in the development of infectious diseases. Regarding the role of wound and blood infections of burned patients in mortality rate, and delay in the recovery of the burn and an increase in the hospitalization of these patients, control and prevention of these infections is one of the essential programs of the burn centers. This study has been carried out to determine the degree of bacterial contamination of surfaces and equipment.

Methodology:
176 samples from different parts of the burn sections including the hands of the personnel, surfaces of the bath, the patient’s unit and so on were selected in three stages using swap sterile and then were placed in Notriet Broth environment. Then after a 24 hour period of incubation they were taken to MacConkey agar and B.A. environments. And after the growth, identity determination and results were analyzed by descriptive statistics.

Findings:
The results showed that %41 of the sample was free from contamination, %22 contamination to bacillus (sutilis), %15 to negative staph coagulas, %4 to staph aureus, %3 to pseudomonas, %4 to acinetobacter, %3 to kelbiella, %3 to E coli, %4 to enterococcus.

Conclusion:
According to the results it seems that contamination with Pathogens is less than that of other surveys. Regarding the %22 contamination with bacillus, it is recommended that the washing program and the degree of disinfection are promoted. And because of the contamination of the equipment with normal flora of the hand (staph coagulas) it is also recommended that the hygiene of the hands of the personnel is observed. The use of equipment such as Nocospray or UV ray plays a complementary role in disinfection and reduction of microbe load.
The study and comparison of the drug resistance model of microorganism (pseudomonas aeruginosa) separated from the blood and wound of the burn patients in Tabriz, Sina Hospital in the first six months of 1396 and its comparison with the resistance model of 1394

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4- Soheila Ahmadi: Nursing expert at Sina Medical Center
5- Azam Ghorbani: ICU Nurse Section at Sina Educational Center

Introduction:
Infectious burn is considered an important factor in the death of and in delay of the recovery of the patient’s burn. Pseudomonas aeruginosa is one of the most common factors of burn infections. Today antibiotique resistance to the developed microorganism on the burn has increased. Furthermore, in the preliminary studies on the blood and burn samples of the burn patients, the share of pseudomonas aeruginosa with %59 was more than other bacteria. Thus the purpose of this study is to investigate antibiotique resistance model of pseudomonas aeruginosa separated from the burn and blood of the patients in Tabriz, Sina Hospital and its comparison with the model of 1394.

Methodology:
In this study out of 87 blood and burn samples of the burn patients which had been grown, 51 cases of pseudomonas aeruginosa which was %59 (%42 in 1394) of the contaminated samples were identified after the identification tests and its drug resistance model to antibiotique groups of carbapenem, colistin, ciprofloxacin, amikacin, ceftazidime, colistin and piperacillin was investigated.

Findings:
The drug resistance model of pseudomonas aeruginosa separated from the burn patients in 1396 compared with that of 1394 shows the following changes: %92 to %86 ciprofloxacin, 72% to 85% imipenem, 76% to 79% meropen, 61% to 86% amikacin, 97% to 70% ceftazidime, 66% to 62% piperacillin, and shows no resistance to colistin.

Conclusion:
Generally speaking the results of this study shows the high level of the resistance of pseudomonas aeruginosa in comparison with other different antibiotiques. But due to the activity of Stuart Ship’s committee in this center and controlling the prescription of carbapenem it seems that the bacterial resistance has decreased in some cases. However it is recommended that sampling and antibiogram is exactly carried out and antibiotiques are exactly used for treating burn patients and antibiotique consultation is needed for its use. And Effective techniques are used for cleaning and disinfecting or sterilizing surfaces and equipment of the burn sections for prevention of the infection spread.
key words: Antibiotique, burn infection, pseudomonas aeruginosa, drug resistance
AntiParvovirus antibody and its relation to clinical and paraclinical parameters in PICU Mofid Children Hospital (2015-16)

ABSTRACT:

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Background: Acute Parvovirus infection may cause different complications and comorbidity in PICU patients. This study is conducted on PICU patients to identify the effect of parvovirus infection on death, Hb, WBC count, and liver function tests in children admitted to Mofid Children Hospital (Sep 2015-Sep 2016)

Material and Methods:

66 Admitted children in Mofid Children Hospital PICU were selected. Epidemiologic data of age and sex and basic disease and anti-Parvovirus IgG and IgM antibody and death, Hb, WBC count, AST AND ALT were gathered in questionnaire and data analysis was performed by SPSS 21 Software.

Results: Age range of children was (1-156 month), mean age was 36.5±41.3 months. Basic disease of children was GI in 13 cases, respiratory tract illnesses 14 cases, urinary tract diseases 6 cases, nervous system diseases 3 cases, hematology and oncology 7 cases and other diseases in 3 cases. Quantitative results of IgG and IgM were analyzed. There was no significant relationship between IgG and IgM with Hb and WBC count. ALT more than 12.5 IU was more significant in IgM positive cases and AST more than 67IU was more significant in IgG positive cases. IgM positivity had significant relationship with death prevalence.

Conclusion: Parvovirus serologic antibody can be an important measurement in PICU admitted children since it can be associated with anemia, neutropenia, Death and LFT tests.

Key words: Parvovirus infection, PICU, death, child
Infection prevention strategies in children with cancer, an updates and review of literatures

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Infectious complications represent a major challenge for children with cancer. After they are being hospitalized for the first time, these children will prone to an increased risk of various types of infections which could be continued for the duration of the chemotherapy and even months after the completion of treatment. In the absence of any effective prevention strategies these complications can repeated over time and cause serious morbidities and mortality. Traditionally, infection prevention strategies had been summarized to chemoprophylaxis with antifungal, antiviral and anti-pneumocystis Jiroveci in high risk population. In recent years, along with other changes which are happened in diagnosis and treatment, prevention strategies also become update. This review is summarized updates in infection prevention strategies, with chemoprophylaxis and also non-chemoprophylaxis modalities in pediatric patients with hematologic malignancies.

Key words:

Prevention and control, Hematologic Neoplasms, Chemoprevention, children
Introduction:

Mohammad Zakaria Razi (865-925 AD) is the first physician to describe two smallpox and measles diseases in a book called “Al Jodari and Al hasbe”. This book contains several sections that are susceptible to measles and smallpox to treat the complications of these diseases. will pay. The principles of treatment in Iran are based on nutrition and lifestyle modifications, and the importance of hygiene has been taken into consideration.

Method:

In this review study, using the keyword "hasbe", which is synonymous with "measles," we look at the clinical signs and treatments of this disease from the book “Al Jodari and Al hasbe” written by Mohammad Zakaria Razi and other books of this Iranian scientist as well as The books of other Iranian medical scientists who are currently teaching at West Asian universities.

Findings:

Some dietary treatments and lifestyle modifications from the perspective of Razi and other Iranian medical scientists:

Nutrition recommendations:

1) Use of Pomegranate, Rhubarb, Barberry, Barley Soup
2) Laxative drugs such as prunes

Topical instructions:

1) Gourmet with sour pomegranate juice
2) Chamomile Ingredients
3) Wash your hands and body with water

Discussion:

Iranian medicine is a collection of knowledge that dates back more than 2000 years ago. Considering the views of Iranian medicine can help control and treat infectious diseases.

Keyword:

Iranian medicine, Razi, Health, measles
A Fluconazole delivery system based on Chitosan (Cs) and Polyvinyl Alcohol (PVA) Blend Films against Candida albicans

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Abstract:

Introduction and Objectives: Polymeric delivery systems can improve the pharmacokinetics of a drug, which may lead to reduction of the side effects and increase efficacy. The aim of study was to prepare a new wound dressing to healing Cutaneous Mycosis using a blend of chitosan (Cs), polyvinyl alcohol (PVA) and Fluconazole (Flu) as a drug delivery system.

Materials and Methods: Films were prepared using solvent casting method. X-ray diffraction (XRD), water vapor transmission rate and swelling assay methods were used while the sustain release was examined intervaly. The antifungal activity examined using Pour plate methods. Finally the cytocompatibility of composite films was confirmed by MTT assay.

Results: According to the X-ray diffraction graph pure Cs showed an amorph structure while pure PVA revealed crystalline appearance with unique pick. The more increasing of Cs ratios, the less crystalline structures appeared. Gravimetric method for water vapor transmission rate showed all films have a similar performance (P>0.05). Swelling assay after 10 min demonstrated the films with high ratios of chitosan have a significant increase in the swelling degree (P<0.05). Sustain release profile showed that composite films exhibit a better controlled release than pure Cs and PVA films. The Cs/PVA composite films represented a safe performance in MTT assay (p<0.05). Pure Cs/Flu film has the most inhibition zone in antifungal activity test against Candida albicans.

Conclusions: the study showed composite films has better control release than unique films, also potentially able to use as a trans-dermal delivery to keep drug dose in therapeutic window.

Keywords: Drug delivery, Wound dressing, Chitosan, Polyvinyl alcohol, Candidiasis.
Prevention of antibiotic resistance in Dentistry

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Abstract

Introduction: Antibiotics are important in controlling and preventing infections in patients with microbial diseases. Using of antibiotics is associated with increased resistance to them in hospitals and societies and the environment. Antibiotic resistance is a progressive issue that also spread to the dental community so in this paper we tried to further elucidate the mechanisms of control the antibiotic resistance with a view preventing this phenomenon.

Method: We searched based on the keywords "antibiotic resistance" and "antibiotic in Dental infection" in PubMed, Embase and Google Scholar. We found 13 articles that 7 of them were related to our issue.

Result: One of the studies conducted in Canada, Colombia and the UK showed that the major antibiotics dentists prescripe are Penicillin and its derivatives. Antibiotics are prescribed to prevent Endocarditis in susceptible patients before doing dental procedures. Sometimes antibiotics can cause antibiotic resistance for example prescribing Tetracycline reduce Streptococcus from 19% to 3% and increase Lactobacillus from 7% to 30% in dental plaques. Some mechanisms of antibiotic resistance including transferring Plasmids and Transposons. Some solutions for reducing antibiotic resistance are sufficient use of diagnostic services and improvement in dentistry education.

Conclusion: Dentists should increase their knowledge about peripheral microbiome to have better antibiotic prescription and patients should avoid arbitrarily antibiotic use.

Keywords: Antibiotic- Antibiotic resistance- Dental infection- Antibiotic prescription
Mouthwashes and prevention of oral infections

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Abstract

Introduction: Recent studies have proven the advantage of using mouthwashes in reducing the risks of dental plaques and periodontitis. Mouthwashes have different types each with special features. Mouthwashes containing chlorohexidine or essential oil reduce the risk of dental plaques and gingivitis; although the adjuvant chlorohexidine mouthwash is more effective.

Method: We searched based on the keywords "Mouthwash "and "Oral infection " in PubMed and Google Scholar. We found 5 articles that were related to our issue.

Result: According to the recent researches, we can increase the effect of mouthwash containing oil with two methods, increase the duration of consumption or adding chlorohexidine to it. The effect of Terfalan mouthwash administration on chlorohexidine is greater on bacterial Cants, especially Lactobacilli, but in general there is a little difference between them. The effect of Trichlorosin mouthwash is less than Chlorohexidine and oil containing mouthwashes, Delo-phenol mouthwash is not effective for controlling dental plaques and periodontitis. Another mouthwash is Alcoholic mouthwash. Some studies have reported carcinogenicity of this mouthwash but most epidemiological studies do not prove this and the highest incidence of oral Cancer in people with OCAL is 1%. Also the amount of Acetaldehyde in alcoholic mouthwash is lower than the amount which is found in some foods such as Yogurt and Peas. Therefore, there is no unified statistical evidence of the carcinogenicity of Alcoholic mouthwashes.

Conclusion: According to the results, chlorohexidine mouthwash is an appropriate solution in reducing the risks of dental plaques and gingivitis than others.

Keywords: Mouthwash- Oral infection- Alcoholic mouthwash- Chlorohexidine mouth wash
In the name of god

Dr. Esmat Deireh - Neonatologist – Shiraz Hazrat Zeinab Hospital

A need to guideline for oral antibiotic therapy in serious neonatal infections in Iran

Case fatality rate due to neonatal infections especially sepsis in developing countries are high.

Many parents in my center which is a big third stage neonatal ICU, resist against hospitalization or completeness of treatment (IV Antibiotic Therapy in hospital) in their neonates. Thus often neonates with clinical sepsis received incomplete course of antibiotics.

On basis of organisms responsible in early & late-onset sepsis in neonates, we could give oral antibiotics (AB) to neonates with severe infections that their parents withhold hospitalization.

MR Gary L. Darmstadt, MD & colleagues reviewed oral AB in neonatal infections in limited resource countries & their results was published in pediatric infectious disease journal (vol. 8-2009).

He advised oral cotrimoxazol & IM gentamicin for home-based therapy in neonatal sepsis which has lower mortality (6.9%) than without treatment (22%)

W.H.O in 2016 published evidence update about: AB use for sepsis in neonates & children, adjust a guideline for managing possible serious bacterial infections in young infants (<60 days) when referral is not possible, the guideline recommends: IM gentamicin plus amoxicillin for 7 days.

Finally, Ann L. Andersone & their colleagues in article: neonatal sepsis treatment & management which published in medscape site in Dec. 31 2015 explained the practice Zeidi et al, that use IM procaine penicillin/gentamicin regimen in 0-59 day old infants with possible serious bacterial infections in Karachi/Pakistan.
ANTIBIOTIC SUSCEPTIBILITY PATTERN OF PATIENTS WITH URINARY TRACT INFECTION IN YASUJ CITY IN 2016

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INTRODUCTION:

URINARY TRACT INFECTION IS ONE OF THE MOST COMMON AND IMPORTANT INFECTION IN CHILDHOOD AGE GROUP THAT PROMPTLY DIAGNOSIS AND TREATMENT HAS VERY IMPORTANT ROLE IN PREVENTION OF URINARY TRACT COMPLICATIONS AND SO IMROVEMENT OF NEXT PROBABLE RENAL DAMAGE AND ALSO BECAUSE THERE IS PROGRESS OF ANTIBIOTIC RESISTANCE IN PATHOGENIC BACTERIA IN WORLDWIDE AND SPECIALITY IN OUR AREA. THIS STUDY WAS DONE FOR DETERMINATION OF ANTIBIOTIC USE PATTERN FOR URINARY TRACT INFECTION IN OUR COUNTRY.

MATERIAL&METHODS:

THIS STUDY WAS DONE ON 145 SAMPLES OF URINE CULTURE WITH SUPRAPUBIC ROUTE OF 145 CASES OF PATIENTS WHO WERE REFERRED TO EMAM SAJJAD HOSPITAL OF YASUJ CITY WITH URINARY TRACT INFECTION SYMPTOMS IN 2016.

RESULTS:

THIS RESULTS SHOWED E.COLI (77%), PROTEOUS (15%), KELLEBSIELA (5%), YERSSINIA (3%). ANTIBIOTIC SUSCEPTIBILITY WAS SENSITIVE TO CEFTRIAXONE (75%), IMIPENEM (69%), GENTAMAYCIN (57%) AND RESISTANCY TO AMIKACIN (73%), AMPICILLIN (70%) AND CEPHALOTIN (73%), CEFIXIME (45%)

CONCLUSION:

THIS STUDY SHOWS THAT WE NEED FOR ANNUAL RESEACRH FOR DIAGNOSIS OF ANTIBIOTIC SUSCEPTIBILITY PATTERN FOR RESISTANT MICROORGANISMS IN OUR COUNTRY.

KEYWORDS: URINE CULTURE – UTI – SUPRAPUBIC-ANTIBIOTIC
Febrile convulsion as the presentation of urinary tract infection in children: An epidemiological evaluation

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Introduction and Objective: Febrile convulsion affecting 2-5% of children. This study was conducted to define prevalence and incidence rates of FC among children presented by UTI.

Materials and methods: A cross-sectional retrospective study was performed from June 2002 to 2016. During this period 1242 cases with first episodes of UTIs referred, including 178, 784 and 243 cases aged <6 months, 6-60 months and >5 years respectively. Patients in age 6-60 months, the ages that FC can present, enrolled the study.

Results: Prevalence of FC was 25 in 1242 patients (3.18%). Totally 784 patients (63.1%) aged 6-60 (24.85±16.69) months, including 20 girls (80%) and 5 boys (20%) presented by FC and 684 girls (90.11%) and 75 boys (9.89%) in non-FC group (p=0.1). Ages of patients in FC and non-FC groups were 15.52±8.4 and 25.16±16 months respectively indicating a significantly younger age for FC cases (P=0.004). A significantly higher number of FC compared with non-FC cases aged 6-24 months rather than 3-5 years (P=0.028). Totally 503 cases had febrile UTIs which indicated an incidence rate of 0.05(5%) for FC.

Conclusion: FC is an uncommon presentation of UTI. The incidence rate of FC following febrile UTI is among the highest reported incidence rate (5%). Patients in FC ages present by febrile UTI and seizure are significantly younger compared with those not associate with seizure. Febrile convulsion in cases with UTI almost always occurred in age ≤3 years.

Key words: UTI, FC, Febrile UTI, age, gender
Evaluation of intestinal parasites in Patients referring to Laboratories of Health Centers Ardabil city, Ardabil province, Iran

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Introduction and Objectives: Intestinal parasitic infections are one of the most important problems in north of the country. This study is aimed to determine intestinal parasites for infected Patients referring to health centers of Ardabil, Ardabil Province.

Materials & methods: During Spring (first quarter) 2017, samples of feces in 5500 Patients referring to health centers around of Ardabil, collected and examined using Direct Smear And Formol-Ether Concentration Techniques for infectivity with intestinal parasites consist of eggs or larvae of the worms or cysts and oocysts protozoan.

Result: Overall, 98 samples (1.78%) were infected with at least one intestinal parasite. The species and percentage were as follows:

Protozoa: 75 cases Protozoan cysts (1.36%) consist of 42 cases Giardia lamblia (0.77%), 10 cases Blastocystis hominis (0.18%), 5 cases Entamoeba histolytica/dispar (0.90%) and 18 cases Entamoeba coli (0.32%).

Helminthes: 23 cases Helminth ova (0.42%) consist of 5 cases Fasciola sp. (0.09%), 13 cases Enterobius vermicularis (0.24%), 1 case Ascaris lumbricoides (0.02%) and 4 cases Dicrocoelium dendriticum (0.07%). Of course, in the case of Fasciola sp. and Dicrocoelium dendriticum should be considered transient cases.

In some cases, there were only vague gastrointestinal symptoms such as abdominal pains, diarrhea and intermittent constipation, and in most cases no symptoms have been reported.

Conclusion: Due to the short time intervals and the use of direct method (without using condensation methods), the percentage of intestinal parasitic infections in Ardabil indicates a high prevalence of parasitic infections among the residents.

Keyword: Intestinal, infection, parasite, Iran
Preventative phlebitis in patients with intravenous catheter

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Introduction: Although intracranial catheters are useful, they can lead to Ecchymosis, leakage and even phlebitis. Meanwhile, nurses are responsible for managing and supervising intravenous injections and drug interventions. The purpose of this study was to evaluate the predisposing factors in the development of phlebitis in the place of intravascular catheter in patients treated with a variety of intravenous injection methods and medications.

Materials and Methods: Data were gathered by direct observation and completed questionnaires on 200 IV sites for serum infusion and 150 injection sites in all parts of Sina Medical Center. The tool used in this research was the standard tool for checking and identifying the INS phlebitis. Patient injection sites were examined every 24 hours during treatment and 48 hours after IV discontinuation. The data were analyzed using spss17 software and analyzed using chi-square test.

Results: The results showed that infusion through injection pump and catheter insertion into the surrounding veins of the elbow increased phlebitis. Also, the number of injections and hypertonic solutions resulted in increased phlebitis levels. There was also a significant relationship between vein phlebitis and catheter size.

Discussion: Phlebitis causes sepsis, pain, additional diagnostic methods, and may also increase the duration of hospitalization, increase patient stress and financial burden, and require an increase in the number of employees. Therefore, nurses should be aware of the factors that increase the likelihood of phlebitis and take the necessary measures to prevent it.

Key word: phlebitis, intravenous catheter, Sina Medical Center
Hospital Disaster Safety Assessment in north eastern of Iran: The Results of mums Hospitals assessment

Shahram Taherzadeh*, saeed givechi, Reza Vafaenejad, toktam akbari

*: corresponding author

Introduction: Iran is exposed to a variety of natural and man-made disasters. Disasters impose considerable damages to the population and infrastructure including hospitals. In both developing and developed countries, hospital safety versus disasters is a challenge because the hospitals must be able to continue their functions during disasters. To assessment of hospital safety for disasters, the World Health Organization (WHO) has developed the Hospital Safety Index (HSI) that is a rapid, reliable and low-cost tool. This study presents the results of the disaster safety assessment in hospitals of razavi khorasan province in 2015.

Method: We applied adapted version of HSI (FHSI2) and self-assessment approach to assess the disaster safety in mums. This tool is consist of 152 items categorized in 3 components, including structural, non-structural and emergency and disaster management . Safety level was categorized into 3 levels in each item: not safe (0), average safe (1) and high safe (2). Hospitals were classified to three safety classes according to their total score: low (≤34.0), average (34.1-66.0) and high (>66.0) safety.

Result: In this study, we assessed 26 teaching hospitals and 16 private hospitals. Our study showed that the overall disaster safety score of the khorasan's hospitals was 62.82 out of 100. Average safety scores out of 100 were 59.42 for emergency and disaster management capacity, 61.45 for non-structural component and 65 for structural component in our hospitals. There has been statistically significant differences between teaching and private hospitals in structural, non-structural and functional dimensions. (p value <0.05)

Conclusions: To enhance the hospital safety for disaster, we require multi-disciplinary collaboration and a commitment from high levels of authorities. For attaining this purpose, we recommend: 1) establishment of a national committee for hospital safety in disasters, including all stakeholders; 2) supervision on proper implementation of the safety standards in structure of new hospitals; 3) enhancement of readiness and safety of non-structural and structural components of the existing hospitals and encourage the hospitals to invest and planning for disaster preparedness.

Key words: Hospital, safety, disaster, emergency, Iran
Germ tube and chlamydoconidiaproduction in different phenotypes of *Candida albicans* isolated from oral cavity

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Introduction and Objectives: *Candida albicans* is a commensal yeast of oral cavity and other parts of warm blood animal intestinal tract. Several factors, (host and microorganism) are attributed to its pathogenicity. It can switch between several phenotypes under specific conditions that can have an effect on the quality of other virulence factors. The aim of this study was to detect germ tube and chlamydoconidia production on different phenotype of *C.albicans* isolated from oral cavity.

Materials and Methods: In this study, 25 isolates of *C.albicans* from oral cavity were inoculated on Phloxin B agar plates and incubated at 37°C for 5 days. Different phenotypes of *C. albicans* were detected from Phloxin B agar medium. Then germ tube and chlamydoconidia production were applied from each phenotype.

Results: In the present study 50 different phenotypes of *C. albicans* were demonstrated. 41% and 40% of them were performed germ tubes and chlamydoconidia, respectively.

Conclusions: The results showed that different phenotypes of *C.albicans* have different potential for germ tube and chlamydoconidia production.

Keywords: Germ tube, Chlamydoconidia, Phenotype switching, *Candida albicans*
may oral infections lead to systemic disease

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Abstract

Introduction: Nowadays Oral diseases are common in the world especially gingivitis and chronic periodontitis. According to the increased studies between oral and systemic health in recent decades.

Method: In this article, we use Google Scholar to search the scientific resources of various databases. By reviewing the four articles we were able to extract the necessary information.

Result: Oral infection is one of the epidemic and growing factors resulting in systemic diseases. Including these systemic diseases cardiovascular diseases, Bacterial pneumonia, Diabetes mellitus, Boring low-grade and undesirable breathing children, osteoporosis, Alzheimer, Arteriosclerosis, Reducing cellular immunity level and Cancers. A number of mechanisms to show the relation between oral infection and systemic diseases includes oral infections cause blood metastases, the toxin cycle of germs can cause infection in other tissues and organs, oral microorganisms cause common immune suppression that spread in inflammation, susceptibility to infection, cross reactivity between the bacterial antigens and insensitive antigens that causes the wrong function of the T cells, Arteriosclerosis that caused by porphyromonas gingivitis, periodontitis causes changes in cellular immune function followed by saturation in fat metabolism through the mechanisms of pro-inflammation cell division, saturation in fat metabolism has negative effects on systemic disease. Considering the huge impact of oral infection on systemic disease, the prevention of oral infection is essential. Researchers and patients are the two main characters in prevention and treatment.

Conclusion: Dentists should increase their level of information about oral and general health. Patients should control the risk factors and limit progressive diseases and restore lost tooth support.

Keywords: Oral diseases- systemic- periodontal- Oral health- prevention
Candida Albicans infection

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Abstract

Introduction: Candidiasis is a common skin-mouth-mucous membrane-gastro-vaginal cavity and human vascular system. It is also a major contributor to hospital infections. The incidence of candidiasis has increased dramatically in recent decades. It is one of the main causes of microscopy in America.

Method: In this article, we use Google Scholar to search the scientific resources of various databases. By reviewing the five articles we were able to extract the necessary information.

Result: One of the most important candidate forms for Candida albicans. A healthy immune system should be able to inhibit the growth of Candida fungus in the body, but sometimes weakens the body's various factors against fungi. Including diseases such as immune diseases such as AIDS. On the other hand, genetic factors are also effective in candida infection.

If Candida fungus can enter the bloodstream, it can cause systemic diseases, such as endocarditis, carbuncle-thrombophlebitis, and various types of eye infections. Since delay in the appropriate antifungal treatment is appropriate for death; it is necessary for patients to stop the spread of infection by referring to the doctor and taking the drug. Among the drugs that are used, fluconazole-clotrimazole-ketoconazole can be mentioned. Fluconazole is effective in the treatment of candida albicans and c. tropicalis, but c. glabra and c. krusei are resistant to it. Candida albicans have been undergoing resistance to some fungal diseases, such as resistance to fungus. Some resistance mechanisms include changes to the ERG11 target enzyme encoding gene or excessive expression of the exhaust pump genes, including CDR1, CDR2 and MDR1. Prevention of Candida albicans disease: Hand Wash (Hand Hygiene) - Provide and care for central venous catheter-Wise use of antimicrobial therapy.

Conclusion: With regard to the above, patients should avoid medication arbitrarily, so that the extent of drug resistance does not increase.

Keywords: Candida Albicans- Treatment- Prevention- Systemic- resistance
Investigation of brucellosis as a zoonotic disease in recent ten years in Iran

Authors names: Gholamreza Hashemi Tabar, Ali Nemati

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Introduction and Objectives: Brucellosis is considered to be the most important bacterial zoonosis in the world. The disease causes huge economic losses in many developing countries such as Iran, where the control programs have not succeeded and the annual incidence rates of the human and animal brucellosis are still high. This study presents the annual prevalence rates of brucellosis in humans and animals and their relationship with the annual vaccination rates in recent ten years in Iran.

Materials and Methods: This study was conducted on 15 national and international publications and 200 subjects on brucellosis from 2008 to 2018 and the annual rates of brucellosis and vaccination were collected and analyzed with SPSS software v19.

Results: In overall, 166 468 cases of brucellosis in humans were reported with an annual average of 16 647 cases (3.32% of global cases) for the past ten years in Iran (P<0.05). The maximum and minimum incidence rates of the disease were reported in 2008 (21 109 cases) and in 2011 (12 248 cases), respectively. The incidence rate of the disease did not follow a linear trend (P<0.001) and there was no significant relationship between the annual rates of brucellosis and vaccination. More information has been mentioned in full version of this study.

Conclusion: Control of brucellosis in Iran through the comprehensive vaccination, without studying and knowing the effect of vaccines in target populations, may not be associated with good results and lead to failure of control programs.

Keywords: Brucellosis, Zoonotic disease, Iran, Vaccination
Risk factors associated with human brucellosis in Iran and recommended strategies for the prevention and control of disease

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Introduction and Objectives: Brucellosis is an infectious zoonotic disease and is still a major healthcare problem in Iran. The disease is transmitted from animals to humans and causes various clinical signs such as fever, asthenia, myalgia, arthralgia, sweats, lymphadenopathy, hepatomegaly and splenomegaly. The aim of this study was to investigate risk factors in human brucellosis and expressing strategies for the prevention and control of disease in Iran.

Materials and Methods: PubMed, MEDLINE, Web of Science and Cochrane databases were searched in order to investigate risk factors in human brucellosis and suggested strategies for prevention and control of disease using a predefined protocol based on Cochrane and PRISMA guidelines. The significance level was set at P<0.05.

Results: In Iran, brucellosis is increasing every year with the onset of the spring and the increase in the birth rate of livestock. Brucella can enter the human body through the scratches, mucous membranes, conjunctiva, respiratory tract and gastrointestinal tract; sexual transmission has not yet been conclusively proven. The most important risk factors for humans include ingestion through infected food products, especially eating contaminated meat products and unpasteurized milk, direct contact with an infected animal and inhalation of aerosols.

Conclusion: According to the results of this study, public education of the people, especially livestock breeders, timely payment of compensation to owners of the reactor's livestock, timely delivery of brucellosis vaccine and planning for raising the health level of livestock and slaughterhouses can reduce the risk factors for human infection.

Keywords: Risk factors, Human brucellosis, Iran
ways nurses can help in the fight against antibiotic resistance

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Introduction and objectives: Antibiotics have been life-saving since penicillin was discovered in the 1940s, but use of antibiotics results in the selection of resistant strains which have all the virulence factors of their antibiotic-sensitive relations and can cause infections that are difficult to treat. The objective is ways nurses can help in the fight against antibiotic resistance.

Materials and Methods: This article is provided in the informational banks between years 2013-2017 by the reviewing on English articles.

Result: Like all medications, antibiotics have side effects. Exposure to antibiotics also poses the additional risk of antibiotic resistance. Nurses’ role as a person who cares the patients all the times in hospital and home are important. They have vital position in optimizing antibiotic use. The roles of nurse include: Use hand hygiene and other infection control practices at all times, Use the right antibiotic by the right route for the shortest appropriate time in our personal and professional lives, Assess the source of infection and use appropriate percussions, Takes the allergy history and records, obtains the cultures before starting antibiotics and send to the laboratory, then reports results to the physician, monitoring the patients for side effects continuously, educates the patient,........

Conclusion: This is an emerging crisis and nurses need to be educated and aware of their roles, and how they can assist with reducing these risks.

Key words: Role of nurses, antibiotic resistance
Comparison of sepsis occurrence in two methods of endotracheal suctioning in ventilated premature infants.


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Introduction

Endotracheal suctioning is a method of maintaining open and removing secretions airways in order to improve gas exchange, reduce airway resistance and risk of infection. There are two method of suctioning (open and closed). Sepsis is a critical problem on neonatal care in NICU’s. Nosocomial infections are reported to exist in 27% of low birth weight admissions that is directory related to length of hospitalization. This study aims to compare occurrence of sepsis in ETS in both methods on preterm neonates under mechanical ventilation.

Method

In this clinical trail, 90 preterm neonates of 27-34 G.A hospitalized in NICU’s of Alzahra and Taleghani hospitals on 2013, were elected and randomly put in two groups. One group were suctioned by open system and the other by closed method. Occurrence of sepsis, VAP and other side effects in both groups were compared. Analysis of data was performed by using SPSS, descriptive and inferential statistical analysis.

Results

Results show there are no significant statistical differences on sepsis. But sepsis and other side effect were higher in open system. Our 25% of open group with VAP and sepsis. Rate of sepsis in both open and closed groups were 31.1% a 20% respectively. The highest strain in both suction groups was Klebsiella.

Conclusion

According to results, there is no significant statistical differences of sepsis occurrence between two methods. Considering the clinical significance and higher Side effects in open group, more comprehensive study on a larger population of preterm neonates’ is recommended.

Keywords
suction, premature infants, sepsis, neonatal intensive care unit
A descriptive study of neonatal characteristics with positive blood culture in infants admitted to NICU


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Introduction: Infant sepsis is one of the most important causes of infant mortality, especially in developing countries such as Iran. Although recent improvements in medical care improve infant care, many challenges remain in the diagnosis and management of infections in infants. The present study was designed to investigate the characteristics of neonates with positive blood culture in infants admitted to NICU.

Method: In this descriptive cross-sectional study, 1270 infants admitted to special infants in Tabriz Alzahra Hospital. The case of neonates whose blood culture was positive (42 infants) was evaluated for positive blood-culture-related factors. Data were analyzed by descriptive statistics using SPSS 13 software.

Results: In this study, the mean weight of neonates with positive culture was 589 ± 1189 grams, gestational age was 28.7 ± 3.79 weeks and the duration of hospitalization of these infants was 45.8 ± 10.2 days. 1/57% of these infants were male and 42.9% were female, 100% of the babies were under ventilation, 83.3% had umbilical catheter, and 78.6% of them were discharged from the hospital and 21.4% died.

Conclusion: According to the findings of the study in preterm infants, the risk of infection and its consequences are higher, neonates with risk factors or signs of infection should be tested and treated quickly. Standard infection control methods, such as hand sanitation and prevention of unnecessary invasions, are the best way to prevent infections in infants’ care units.

Keywords: Infants, Blood culture, Neonatal Intensive care unit
Clostridium Difficile Infection Prevention in Elderly

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Introduction & Objectives

Clostridium difficile infection (CDI) is a well-known anaerobic Gram-positive spore forming bacterium, will causes illness ranging from a mild antibiotic associated diarrhea to life-threatening pseudomembranous colitis. The goal of this article is infection prevention, patient care and safety, education in elderly with Clostridium difficile.

Material and Methods

This article is provided in the informational banks between the years 2005 to 2013 by the reviewing on English articles.

Results

Acquisition of Clostridium difficile occurs by ingestion of spores, occurring via fecal-oral transmission. This may result from contamination of the patient environment, of shared equipment, or via the hands of healthcare personnel. The major risk for CDI are exposure to antibiotics, hospitalization, and advanced age. Preventing CDI transmission and infection continues to represent a serious and difficult challenge in infection prevention and patient safety. A patient and family education program can promote cooperation with adherence to prevention strategies including the use of Contact Precautions, Standard Precautions and hand hygiene especially while in any healthcare settings. Hand hygiene is critical in minimizing the spread of infections. Nursing staff should assist the patient if the patient is unable to perform hand hygiene. Because CDI is nearly always a complication of antibiotic use the development of a health care facility program to ensure appropriate antibiotic use is considered an important prevention intervention.

Conclusion:
Since Clostridium difficile infection is increasing statistically, prevention (specially hand hygiene, isolation and accurate usage of antibiotics and etc.) as well as patient care and safety are of particular importance.

**Keywords:** Clostridium difficile, infection, elderly
Study of Blood and Urinary Tract Infections in the Elderly and Provide New Strategies to Prevention and Treatment them

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Abstract

Introduction and Objectives: As the age increases, the probability of some infections increases and the delay in their diagnosis and treatment causes severe complications and even death. Therefore, attention to prevention, diagnosis and proper treatment of infectious diseases in the elderly is necessary. The purpose of this study was to evaluate the blood and urinary tract infections in the elderly and provide new strategies for preventing and treating them.

Materials and Methods: This is a descriptive-analytic study. The data are collected in a library-based way and interviewed by experts and doctors. Therefore, in the first step, the general findings of the research were as follows: Definition of infection and its signs in the elderly. In the second step, we examined the blood and urinary tract infections, the symptoms and the factors affecting them and those at risk for these infections. In the third step, after analyzing the data obtained, new strategies were proposed for the prevention and treatment of blood and urinary tract infections.

Result: As a result of this research, one of the common causes of hospitalization of the elderly in the hospital is blood and urinary tract infection. Symptoms such as weakness and fatigue indicate the onset of these infections.

Conclusion: Finally, at the end of the study, prevention and treatment of blood and urinary tract infections have resulted in new strategies that prevent and prevent the development, progression, treatment, and mortality of patients.

Keyword: Blood infection, Urinary tract infection, Elderly, New strategies, Prevention, Treatment.
Hematologic indices in Human T-Lymphotropic virus type1 (HTLV-1) infected individuals

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Introduction:

Human T cell lymphotropic virus-1 (HTLV-1) is an oncogenic retrovirus and is the causative agent for a neurologic disease named HTLV-I- associated myelopathy/tropical spastic paraparesis (HAM/TSP) and adult T-cell leukemia lymphoma (ATL). This virus mainly infects T lymphocytes and will ultimately affect hematologic indices. We conducted this study to compare the hematologic indices in HTLV-1 infected patients and healthy controls.

Materials and Methods:

The complete blood count of 279 HTLV-1 infected patients and 837 healthy controls were compared and data were analyzed using Statistical Package for the Social Sciences (SPSS).

Results:

In HTLV-1 infected patients, the average number of White blood cells was 5.78±1.57 while this index was 6.04±1.55 in healthy individuals. The difference was statistically significant (p=0.007). Also the mean Neutrophil count was 51.87±9.22 and 53.43±9.41 in HTLV-1 infected subjects and controls respectively. The mean lymphocyte number was 37.76±7.78 and 36.44±7.61 in HTLV-1 infected subjects and controls respectively. The differences were statistically significant (p=0.02 and p=0.014). Other indices including RBC, Hg, HCT, MCV, MCH, MCHC and RDW didn't have significant differences in the two groups.

Conclusion:
In our study a reduction in the total number of white blood cells was seen in HTLV-1 patients. Also the number of lymphocytes were increased while the number of neutrophils were decreased. Due to slight differences with the results of similar studies, the changes in the balance between neutrophils and lymphocytes need to be studied more widely in retroviral infections.

Keywords:
HTLV-1, hematologic indices, neutrophil, lymphocyte
NURSING INFORMATICS: A NEW IDEA FOR ADDRESSING CHALLENGES IN Tele-Nursing

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INTRODUCTION: Nursing Informatics (NI) is defined as a technology that integrates computer Science, Nursing, Cognitive Science, and Information and Communication Technology to manage data, information, knowledge and wisdom in nursing practice. It also supports decision making in nursing practice, improves e-learning in nursing care, and accelerates e-health.

OBJECTIVES: Nowadays, Dynamic health systems based on IT technology play an important role in improving quality of education and nursing care. The key elements of nursing informatics implementation were considered as healthcare promotion, advanced systems, internet and network. Nursing informatics (NI) supports consumers, patients, nurses, and other providers in their decision-making in all roles and settings. This support is accomplished through the use of information structures, information processes, and information technology.

This paper presents an overview of nursing informatics describing their characteristics and effects on quality factors. It then discusses on challenges such as learning and Technical issues.

METHOD: In Nursing Informatics Systems, nurses evaluate their tasks and interested into their plans. They use the Internet, digital instruments and computers to improve their performance. The use of documentation is one way for the members of hospital information system to communicate with each other that help every nurse, doctors or other medical personnel aware of the operations on patients at different times. This model reduces complexity and management with self-managing. The Nursing Informatics model addresses nursing practice challenges; and mentions Electronic Health Records, Patient Monitoring Systems, bar code medication administration, computerized provider order entry, data capture tools, care planning tools and E-health, and the need to consider nursing shortage, reducing medical errors especially in critical cares, improve tracking of patient data, improve efficiency of data collection and improve access to cares. These are ways to address nursing education challenges: E-learning to deliver education, simulation to deliver education, inclusion of Health Care IT in curricula, and faculty development for health care. Analysis and design of technical infrastructure such as standard and appropriate communication links and preparing road map are good ideas to address mentioned technical challenge.

RESULTS: Nursing Informatics Systems improve performance factors such as scalability, reliability, response time, functionality, and efficiency. It also facilitates management, controls of the entire system and addresses these goals by adopting a three pronged approach:
Access – better connectivity in work environment, more access to a variety of computer technologies, e.g. PDAs, hardware, software, station computers.

Competency- ongoing ICT skill development, integration into nursing curriculum

Participation - “as knowledge workers in this technological age, it is essential that nurses play an increased role in the development of ICT solutions.

CONCLUSION:

Nurses have the most communication with patients, and interact with technology more frequently. Using technology should create a positive attitude in nursing productivity. For successful implementation of the electronic health reporting system, nurses must be knowledgeable about information technology, computer skills and informatics knowledge and skills. In e-health especially tele-nursing, the importance of data quality criteria, transparency and integrity, authenticity, confidentiality, the updating of information, accountability, productivity, standards and accessibility of health web sites should be considered. Main challenges of Nursing Informatics Implementation are educational and technical communication Infrastructures. The benefits of extending nursing informatics strategies directly and indirectly influence patient and people health positively.

KEY WORDS: Nursing Informatics, Information Technology (IT), E-health, Tele-Nursing, Computer Sciences.
Role of the Microbiology laboratory in Infection Control and Hospital Epidemiology

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The clinical microbiology laboratory is essential to a comprehensive infection prevention program. The microbiology laboratory contributes to the work of the infection control program by fulfilling its technical responsibilities by performing quality microbiology investigations through (1) proper specimen collection; (2) accurate identification and susceptibility testing; (3) laboratory information systems for comprehensive information/ordering; (4) rapid diagnostic testing; (5) rapid reporting of laboratory data; (6) outbreak recognition and investigations – molecular typing; (7) maintaining organism storage; (8) maintaining cultures of specimens from hospital personnel and the environments. Nowadays, detection of infectious agents/molecules/genes replace widely conventional growth and identification procedures in modern microbiology laboratory. Application of molecular typing techniques can recognize and confirm an outbreak, clusters of patients within hospitals, track spread between hospitals over time, document hospital transmission, measure impact of intervention strategies, distinguishing relapse from re-infection in individual patients. Maintaining high-quality clinical microbiology laboratories in hospitals is the best approach for managing issues related to infection control by providing optimal patient care outcomes.

Keywords

Infection control, Clinical microbiology laboratory, Hospital epidemiology,
تأثیر مداخله آموزشی شستشوی دست بر رعایت بهداشت دست کارکنان بخش جراحی بیمارستان حضرت معصومه (س) در سال ۹۷

سازه جعفری، مريم وراني

زمینه و هدف: عفونت بیمارستانی یکی از مشکلات جدی در سلامت عمومی و تهدیدی برای ایمنی بیمار محسوب می شود. اعضای تیم پرستاری به خصوص بیمارستان، با فعالی در پیشگیری و کنترل عفونت های بیمارستانی دارد. رعایت بهداشت دست به عنوان عامل قابل مقابله ای که مهمترین، ساده ترین، موثر ترین و کم هزینه ترین اقدام جهت کاهش این عفونت ها به شمار می رود. این مطالعه با هدف تأثیر آموزش شستشوی دست بر رفتار بهداشت دست کارکنان انجام شد.

روش پژوهش: این مطالعه مداخله ای که کارکنان بخش جراحی بیمارستان، بهاران و سایر گروه ها که شامل ۲۰ نفر بودند به روش سرشماری وارد مطالعه شدند. از پرسشنامه مشخصات جمعیتی شناختی و عملکرد بهداشت دست بیمارستان جهت گردآوری داده ها استفاده شد. مداخلات شامل برگزاری کنفرانس داخلی اهمیت رعایت بهداشت دست و نحوه شستن صحیح دست ها، تهیه و نصب پوستر کامل شستشوی دست، توزیع محلول ضد عفونی کننده دست یک تازه به کلیه پرسنل و تهیه لوسیون مرطوب کننده دست جهت کارکنان بخش بود. داده ها با استفاده از نرم افزار SPSS و آزمون های آماری تجزیه و تحلیل شد.

نتایج و بحث: نتایج نشان داد میانگین نمره عملکرد رعایت بهداشت دست قبل از مداخله درصد بوده است. بین رعایت بهداشت دست قبل و بعد تفاوت معنی دار دیده شد (P<0.05). مداخلات آموزشی بر بهداشت دست کارکنان کثرت کی باند. نتایج حساس سازی پرسنل در رعایت بهداشت دست به وسیله مداخلات آموزشی و تشویق رعایت کننده بهداشت دست در بخش های بالینی به طور مداوم انجام پذیرد.

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The effect of training on the use of gaseous preparations and the preparation of ambulances aimed at controlling and reducing the risk of infection transmission

Kerman Medical Emergency Staff1396

Mahdi Ali Ismaili_ Hassan Ismail Pour _ Mohammad Amini _ FereshtehAbolhad

Review:

Today, humans pay heavily for generating antibiotics and controlling the types of infections and epidemics. We see new and more dangerous types of influenza every year. Pre-hospital Emergencies Considering that they are premature events. The contamination of ambulances and impurities and the contamination of clothing is unavoidable, which makes the importance of effective disinfection programs for the health of the community and reducing the risk of transmission and transmission of pathogens.

Research Methodology:

This research was conducted as a descriptive-analytical study with the purpose of training an infection control workshop with the aim of training the use of dusts and cleaning up ambulances to control and reduce the risk of infection transmission among emergency medical personnel in Kerman.

Discuss:

The implementation of an effective disinfection program depends on a number of factors, to what extent the pollutant and contaminating material are in the status quo. Purification The main objective is to remove microorganisms as much as possible. The wash should be from the cleanest area to the more polluted point. Disinfection Recognizes the proper disinfectant with regard to substances and objects suspected of environmental factors and temperatures. Evaluation of actions taken to confirm the correctness of the responsibility for effective disinfection

Conclusion:

Considering the importance of preventing any infection and the risk of transmission of infection in teacher training programs, an effective disinfection planning workshop is recommended.

key words:

Disinfection _ Clearing_ medical emergencies
The study of bacterial agents and antibiotic resistance in urinary tract infections in different geographical locations

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Introduction & Objective: Urinary tract infections are one of the most commonly known infections in the world with numerous bacterial agents. Antibiotic resistance is one of the main issues in this field which is very effective in the success of the treatment. The purpose of this collection is to determine the bacterial agent and their antibiotic resistance in different geographic locations in relation to urinary tract infections.

Materials and Methods: Collected papers were prepared according to the results of urine culture and antibiotic susceptibility tests using disc diffusion method (in accordance with CLSI guidelines).

Results: In all related articles, *Escherichia coli* had been identified as the most common cause of urinary tract infections with the highest percentage. The prevalence of other bacterial agents varies depending on the geographical location. The most prevalence isolated bacteria are gram negative, especially from *Enterobacteriaceae* family (*Klebsiella, Enterobacter, Citrobacter, Proteus*) and very little of the *Pseudomonas* family, and in most results rarely are gram-positive including Staphylococcus bacteria. Among the antibiotics tested in the articles, the most resistance was observed for amoxicillin and ampicillin antibiotics. Imipenem created the least antibiotic resistance.

Conclusion: Due to the difference in bacterial agent causing urinary tract infection in different geographical locations and different antibiotic resistance, knowledge and full Area Recognition in terms of infectious agents involved and antibiotic susceptibility tests are very important in the treatment process.

Key words: Urinary tract infections, Antibiotic resistance, *Escherichia coli*, Geographical locations
Advances in hepatitis B virus surface antigen inhibitors

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Abstract

Current anti-hepatitis B virus (HBV) regimen do not meet ideal result due to emerging resistance strains, cytotoxicity, and unfavorable adverse effects. In chronic HBV infection, high rates of sub-viral particles (SVPs) bearing HBV surface antigen (HBsAg) is a major obstacle regarding to raise effective immune responses and subsequently virus clearance. Development of potent anti-HBsAg secretion inhibitors would provide a better insight into HBV immunopathogenesis and therapy. Investigating new non-toxic HBsAg secretion inhibitors targeting either viral targets or cellular factors could restore the immune response to remove virally infected hepatocytes after inhibiting SVPs. In this review, we discuss recent findings related to potent HBsAg inhibitors and potential utility of these molecules as novel anti-HBV agents to treat chronic infections.

Keywords: Hepatitis B virus, chronic hepatitis B virus infection, HBsAg inhibitors, antiviral natural products, RNA interference
در دوران نوزادی این بیماری رخ می‌دهد و اثرات آن به‌طور خطرناکی بر این بیماری بیشتر هستند.

**فاطمه‌زهرا کریمی** 1,2, **ناحید مالکی‌ساغهوی** 3, **موروویر ایرانی** 3

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**مقدمه:** 1 یک بروز ویروس انسانی بوده که طرف و سبعی از اختلالاتی در آن انسان ایجاد می‌کند. پراکندگی این ویروس از طریق شیردن و با یک نوع از ال‌تی‌ال‌وی (HTLV) حوزه‌گذاری می‌کند. این ویروس در ایران در شمال شرقی ایران و شهرستان مشهد گزارش شده است. شده است، به‌نحوی که الگویی به این ویروس تا 3% در برخی مناطق خراسان و شرق شده است. در حاضر، امریکای جنوبی و کانادا می‌باشد. دریافت‌های کلی بر این ویروس به‌طور سیستمی و با پژوهش‌های جدید، افراد الگوی این ویروس سازنده وسایلی را به خود می‌دهند. در ادامه ویروس 1HTLV به‌طور آزاد صورت نمی‌گیرد بلکه عمدتاً از طریق مادر به نوزاد، انتقال ویروس هم‌اکنون در مطالعات انجام می‌شود.

نتایج: در ارتباط با انتقال 1HTLV از طریق شیردهی، مطالعات نشان داده که 1HTLV می‌تواند از طریق تغذیه با شیردهی منتقل شود. این به‌طور خطرانه شدن کودک در اثر شیردهی مطالعات ضد نفیس گزارش شده است. بعضی از مطالعات این کردته که این 1HTLV کودک در اثر شیردهی با طولانی‌مدت شیردهی افزایش می‌یابد و این خطر در سه ماهه گزارش شده است. 1HTLV اول شیردهی انلک است. مطالعه‌ها و اینکه شیردهی دادن شایع بروز این ویروس از طریق شیردهی مادر به فردند است. بطوریکه 1HTLV‌های از شیردهی نوزادان 1HTLV17% از چهار، حاضر و تعداد 1HTLV–13کودک مادر بیشتر می‌باشد. همکارانش در ناحیه گزارش کرده که کودکان 1HTLV از مادران الگوی 1HTLV می‌تواند با پژوهش و دریافت‌های کلی این ویروس در سایر مناطق از این بیماری نهاده‌اند.

1HTLV می‌تواند از طریق تغذیه با شیردهی منتقل شود. این به‌طور خطرانه شدن کودک در اثر شیردهی مطالعات ضد نفیس گزارش شده است. بعضی از مطالعات این کردته که این 1HTLV کودک در اثر شیردهی با طولانی‌مدت شیردهی افزایش می‌یابد و این خطر در سه ماهه گزارش شده است. 1HTLV اول شیردهی انلک است. مطالعه‌ها و اینکه شیردهی دادن شایع بروز این ویروس از طریق شیردهی مادر به فردند است. بطوریکه 1HTLV‌های از شیردهی نوزادان 1HTLV17% از چهار، حاضر و تعداد 1HTLV–13کودک مادر بیشتر می‌باشد. همکارانش در ناحیه گزارش کرده که کودکان 1HTLV از مادران الگوی 1HTLV می‌تواند با پژوهش و دریافت‌های کلی این ویروس در سایر مناطق از این بیماری نهاده‌اند.
Epidemiological Survey of Hospital Infections

Authors names

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Introduction and Objectives

According to the WHO statistics, 1.7 million hospitalizations Infection occur every year, and one out of every 20 patients will become hospitalizations Infection. This infection causes 99,000 deaths annually.

The article is aimed at influencing factors for hospital infections.

Materials and Methods

The article is being reviewed through various websites such as IRANMEDEX, SID, SCOPUS, MEDLINE.

Result

The results of Sheng and others research: The factors associated with increasing the risk of infection with the patient are the age of the patient, the presence of underlying diseases, the duration of hospitalization, the immune system weakness, invasive diagnostic treatments such as urinary catheter, central vein catheter and mechanical ventilation

Dasgupta review: The incidence of nosocomial infections, such as reduced patient safety, an increase in the number of invasive medical and surgical procedures, the transfer of drug-resistant bacteria among hospitalized patients, complicated and long-term surgical procedures, the use of immunosuppressive drugs, the lack of treatment cabinets Nurse, environmental factors and bacterial resistance.

The results Study of Soleimani: The lack of an active care system for controlling hospital infection, lack of academic centers for infection control nurses, significant inactivity of central committees of hospital infection control, lack of reflection activities of hospital committees, lack of epidemiologist in the hospital, lack of familiarity with medical and nursing students with hospital infections is the most common causes of hospital infections

Conclusion

Identify the causes of hospital infection and apply safety improvement measures and improve the quality of care services.

Team-facing the infection control activities with the cooperation of all scientific and administrative organizations including the Center for Disease Management, the Department of Health and Medical Education.

keyword
Infection, hospital, Epidemiology
EVALUATION OF HAND HYGIENE AMONG SURGEONS IN AKBAR PEDIATRIC CHILDREN’S HOSPITAL (IRAN)

Introduction:

Preventing infections in perioperative setting is critically important specially in neonates and pediatric age group who are more prone to infectious complications and sepsis. Since 1847 that the importance of hand rubbing and usage of sterile gloves where explained, several methods and disinfectant materials are introduced and tried.

We use alcohol base hand sanitizers in our operating room(OR) in Akbar Children’s hospital (Mashhad- Iran).

In this study we will assess the effectiveness and differences between hand rubbing methods that are currently used in our OR and also comparing the results during multiple operations of a single surgeon.

Method and Materials:

We collected the fingerprint of the tomb of the dominant hand of surgeons who were all blind to the study protocol after hand rubbing and just before using the surgical gloves in a sterile culture plate.

Also the specimens were taken during a long operation day for every surgeon during multiple operations. Type of operation were also considered as clean or infected procedures.

Plates were incubated aerobically at 37-degree C for 48 hours while colonies were counted at 24 and 48 hours.

Data were analyzed considering the hand rubbing time less than 1 min or more, during multiple operations and also after an infected procedure, looking for any significant difference in colony count reduction.

Results: Data didn’t show significant difference in colony count regarding the time of hand rubbing while the colony count were decreased significantly during a long day in OR and after multiple scrubblings.

Conclusion:

repeated hand rubbings will improve hand hygiene more effectively rather than using specific types of hand rubs or scrubbing style or duration.

Keywords: Hand rubbing; operation room; hand hygiene
Comparison of consumption of emulcerin before and after work on the tooth

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ABSTRACT:

Method: 56 patients with acute odontogenic infection were randomly divided into 2 groups. After obtaining informed consents, Patients in control and case groups were treated, respectively, by parenteral penicillin G and oral amoxicillin (2g three times a day). Patients were checked at different times

Our study showed that high dose oral amoxicillin was as effective as parenteral Penicillin G without its side effects such as pain and anaphylaxis and could be considered as an alternative treatment in acute odontogenic infection. While penicillin is injected

Removal of mandibular impacted teeth is one of the most commonly used procedures in oral surgery.

This study examines the effect of 5 day biochemical therapy on prognosis of inflammation of mandibular intralesiona. Two groups were formed. The first group received 2 gr of amoxicillin for one hour before surgery. The second group received oral amoxicillin 500mg every 8 hours once a day for 5 days after the operation.

RESULT: After 7 days in both cases, the result was the same. While the first group consumed 2 grams and the second group received 7.5 grams

Conclusion: The summary of the above articles asks if the conditions for acute dental infection can be similar to that of wisdom teeth. If this is the case, and patients do not have any resistance and sensitivity, we conclude that the best choice for taking oral amoxicillin before working on the patient

Keyword: Extracting the impacted wisdom tooth, Acute dental infection, Amoxicillin, Side effects of penicillin G
Comparison of the effects and side effects of amoxicillin and penicillin on teeth

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1. Dental student, Islamic Azad University Isfahan, Iran
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ABSTRACT

Method: 56 patients with acute odontogenic infection were randomly divided into 2 groups. After obtaining informed consents, Patients in control and case groups were treated, respectively, by parenteral penicillin G and oral amoxicillin (2g three times a day). Patients are checked at several different times.

Our study showed that high dose oral amoxicillin was as effective as parenteral Penicillin G without its side effects such as pain and anaphylaxis and could be considered as an alternative treatment in acute odontogenic infection.

Third molar third molar surgery has often been associated with pain and discomfort, including swelling, pain and dysfunction.

The aim of this study was to compare the effect of penicillin V and chlorhexidine oral prophylaxis on reducing the complications after third molar surgery in patients referred.

Chlorhexidine mouthwash just was effective in reducing inflammation 48 hours after third molar surgery. The penicillin V group did not show any signs of a reduction in postoperative complications.

RESULT: In the above, we found that penicillin was effective in decreasing the pain of acute dental infection, but did not affect the reduction of infection and swelling of third molars.

CONCLUSION: The questions that arise are whether the reason for this is the difference between food and taste, or because of the difference in penicillin type (G,V) Or because of differences in conditions of acute dental infection and third molar surgery.

And whether in other parts of the body the result of treatment with penicillin injected with high amounts of amoxicillin may be the same.

Keywords: Amoxicillin intake, penicillin V, penicillin G, Surgery of third molar, Acute dental infection
Investigation of the antibacterial activity of Chitosan

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Introduction and Objectives: Chitosan is a natural polymer which has high biodegradability, nontoxicity and antibacterial properties. In recent years, researchers have focused on the antibacterial activity of the chitosan, either alone or combined with other materials. This study was conducted to evaluate the antibacterial properties of chitosan.

Materials and Methods: To perform this review study, all articles of electronic databases in Medline (PubMed), EMBASE, Web of Science and SCOPUS focused on the antibacterial activity of Chitosan until 2017 were investigated.

Results: The results of the study showed that chitosan has an antibacterial effect against Staphylococcus Aureus, Pseudomonas Aeruginosa, Escherichia Coli, Streptococcus Mutans and Streptococcus Sanguinis. It was found that antibacterial activity of the nano chitosan was more than chitosan. In addition, combination of the chitosan with antibacterial nanomaterials (eg. Ag, Zno, TiO2) had synergistic antibacterial effect.

Conclusion: In conclusion, Chitosan has strong antibacterial activity against several important pathogenic bacteria and it can be used for disinfection in many biomedical applications such as wound dressing, disinfectants solutions and mouth washes.

Keywords: Chitosan, antibacterial, disinfection, Nano
Management of antibiotic therapy in urinary tract Infection in aged people

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Site of research: Urinary tract infections

Introduction and Objectives: Urinary tract infection (UTI) is a common infection worldwide, with a rate of 150 million per year. It is common in older people, and its prevalence increase with age in both sexes. The extensive use of antimicrobial agents for community-acquired UTIs has resulted in the emergence of antimicrobial resistance. Increasing concern about the association between the use of antimicrobial agents and acquired antimicrobial resistance has highlighted the need for rational pharmacotherapy when treating UTIs.

Materials and Methods: The information in this review article was obtained from the English articles during 2000 -2017. PubMed and Google Scholar were used as data base regarding " urinary tract Infection ", " antibiotic therapy " and " aged people "

Result: The main aim of treatment is relief of symptoms associated with UTI, such as frequency, urgency and dysuria, so treatment of asymptomatic bacteriuria is not required. For patients with indwelling catheters, antibiotics are generally considered ineffective at eliminating asymptomatic bacteriuria Treatment of uncomplicated UTI should be in line with local guidelines, which are similar to guidelines for younger women. However, healthcare professionals should understand that the risk of adverse drug reactions is higher in older people as a result of increased prescription use, age-related metabolism and excretion changes. For complicated UTI, treatment for 7-14 days is generally recommended, but can be prolonged for up to 21 days, according to clinical presentation.

Conclusion: Antibiotic therapy should not be routinely used for asymptomatic bacteriuria and, where antibiotics are required, healthcare professionals should follow local prescribing guidelines, and should ensure that patients and/or their carers are encouraged to complete the full course, even where symptoms have resolved.

Keywords: urinary tract infection, aged people, antibiotic therapy, treatment
Afzalipour Kerman Medical Education Center

Infection control unit
Health professional
Always safe, then work

Prevent workplace infections diseases by reporting occupational exposure

Job Call
Needle stick percutaneous injury (Cuts with sharp objects and wins) Exposure to mucous membranes of the eyes and mouth Unhealthy skin

Harmful

Irritable

Prevention and treatment
Health file registration
Vaccination against hepatitis
Rinse immediately with water and soap and mucous membranes with a lot of normal saline Starting a comb prophylaxis in the presence of an indication for the diagnosis of an infection control practitioner and consulting an infectious disease specialist Follow up weeks after the 24-12-6 after call encounter

Sickness
The presence of medical personnel and attendants or companions of the patient to infectious diseases or contamination with various pathogens that are contagious such as (HIV - HBS - HCV)

Report
Date and time of call Material type and contact intensity Way of calling Perform basic laboratory tests to diagnose an infection control doctor Submit a job occupation from the university by the occasional health unit

Collected by: Atiyeh Shokrian, Mostafa Saeed
Viruses and long non-coding RNAs: Implicating evolutionary conserved region

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Abstract

Long non-coding RNAs (lncRNAs) are a class of cellular transcripts, which are involved in various biological processes. There is conflicting data regarding the origin of these non-coding molecules and lncRNAs are believed to be the origin. Here we sought to know the homology between cellular lncRNAs and viruses of virus genome. For this purpose, the IncRNAdb database has searched for human lncRNAs and aligned with virus taxa using NCBI’s BLAST tool. The phylogenic study was performed with maximum-likelihood based algorithm. The database has contained 152 human lncRNAs and 63 (41.44%) of them have homologies with viruses. Of which, 50 (79.36%) lncRNAs have homology with Stealth virus. Other viruses with lncRNAs homology were nuclear integrating DNA/RNA viruses. Moreover, 35 of 64 (23.03%) cancer-associated lncRNAs have sequence homology with viruses. In phylogenetic analyses, lncRNAs with no homology to viruses were found to be the ancestor of virus-homolog ones and cancer-irrelevant lncRNAs were found to be the ancestor of cancer-related transcripts. In conclusion, lncRNAs could be the origin of nuclear integrating viruses, or the viruses are evolved or developed by catching part of cellular nucleotides. It also, the results imply the role of virus-homolog lncRNAs in human cancers.

Key words: lncRNAs, non-coding transcripts, viruses, homology, Stealth virus
Effective Interventionsto Increase ReportingofHealthcare-associated Infections at Namazee Hospital

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Abstract

Introduction and objectives: The high prevalence of healthcare-associated infections (HIs) along with incomplete reporting suggests the need for effective interventions to improve the reporting of HIs. This study aimed to provide effective interventions to increase the reporting of healthcare-associated infections at Namazee hospital in Shiraz, Iran.

Materials and Methods: Since 2013, training interventions were implemented for infection control focal points in Namazee hospital. Therefore, a healthcare worker was selected from each ward. They received face-to-face infectious disease control training courses focusing on diagnosis of HIs. Trained personnel actively began to find HIs and reporting it on registration forms. Then, the forms were reviewed by a trained doctor and the approved forms were registered.

Results: The findings indicated an increase in the average percentage of HIs after educational interventions in all the wards. In 2011, the annual percentage mean of HIs was 5.7 while this rate reached 9.69 and 10.4% in 2016 and 2017, respectively. Although HIs was dramatically higher in intensive-care units in both years, reporting of internal wards has been also increased more than 10 times (Fig. 1 and 2). The percentage of HIs was much higher in comparison with the national mean (1.10%).

Conclusion: Increasing the HIs shows the effectiveness of educational interventions and better reporting. The high prevalence of infections in the intensive-care units indicates the priority of interventions in this units.

Reporting failure is an inevitable consequence of the inadequate awareness of infection control focal points from HIs. Therefore, training healthcare providers at the national level is necessary to improve the reporting of HIs and more effective interventions.

Keywords: Healthcare-associated infections, Intervention, Namazee Hospital
Viruses and long non-coding RNAs: Implicating evolutionary conserved region

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Abstract
Long non-coding RNAs (lncRNAs) are a class of cellular transcripts, which are involved in various biological processes. There is conflicting data regarding the origin of these non-coding molecules and lncRNAs are believed to be the origin here we sought to know the homology between cellular lncRNAs and viruses of virus genome. For this purpose, the lncRNAdb database has searched for human lncRNAs and aligned with virus taxa using NCBI’s BLAST tool. The phylogenetic study was performed with maximum-likelihood based algorithm. The database has contained 152 human lncRNAs and 63 (41.44%) of them have homologies with viruses. Of which, 50 (79.36%) lncRNAs have homology with Stealth virus. Other viruses with lncRNAs homology were nuclear integrating DNA/RNA viruses. Moreover, 35 of 64 (23.03%) cancer-associated lncRNAs have sequence homology with viruses. In phylogenetic analyses, lncRNAs with no homology to viruses were found to be the ancestor of virus-homolog ones and cancer-irrelevant lncRNAs were found to be the ancestor of cancer-related transcripts. In conclusion, lncRNAs could be the origin of nuclear integrating viruses, or the viruses are evolved or developed by catching part of cellular nucleotides. It also, the results imply the role of virus-homolog lncRNAs in human cancers.

Key words: lncRNAs, non-coding transcripts, viruses, homology, Stealth virus
**Advances in hepatitis B virus surface antigen inhibitors**

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**Abstract**

Current anti-hepatitis B virus (HBV) regimen do not meet ideal result due to emerging resistance strains, cytotoxicity, and unfavorable adverse effects. In chronic HBV infection, high rates of sub-viral particles (SVPs) bearing HBV surface antigen (HBsAg) is a major obstacle regarding to raise effective immune responses and subsequently virus clearance. Development of potent anti-HBsAg secretion inhibitors would provide a better insight into HBV immunopathogenesis and therapy. Investigating new non-toxic HBsAg secretion inhibitors targeting either viral targets or cellular factors could restore the immune response to remove virally infected hepatocytes after inhibiting SVPs. In this review, we discuss recent findings related to potent HBsAg inhibitors and potential utility of these molecules as novel anti-HBV agents to treat chronic infections.

**Keywords:** Hepatitis B virus, chronic hepatitis B virus infection, HBsAg inhibitors, antiviral natural products, RNA interference
The importance of control of viral infections transmitted through health-care interventions and the role of Virocids

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Efforts to mitigate and promote the health of the community, especially employees and healthcare providers, against infectious and contagious diseases, especially during outbreaks of contagious diseases, add to the importance of controlling the infection.

Today, viruses in humankind create a range of mild to fatal illnesses, which is why it is one of the most important pathogens in humans. These risks are due to the intelligence of viruses in the ability to change genetic and adaptive habits to change their host, especially from animals and insects to humans, and Emerging and Reemerging viruses increase as health and medical conditions are exacerbated when carrying out health and medical treatment and exposing humans to a variety of pathogens. Particular attention to viral infection control standards by using disinfectants as a major way to reduce or stop transmission of viruses through environmental surfaces, tools, appliances and hands, respectively, with Chemical disinfectants and antiseptics are carried out.

Accurate familiarity with chemical agents with viricides properties, their mechanisms of action and their application in the control of viral infections related to health and medical practices, based on international standards and guidelines, are the most important tasks of all staff of these centers. Additionally, an overview of the types of viruses in the challenge with disinfectants, the factors affecting viral inactivation, the stability and survival time of viruses in the peripheral surfaces and hands are necessary. Handles play an important role in the spread of many viral diseases, and proper and well-functioning hygiene is a fundamental solution and can break the viral spreading chain. World Health Organization recommendations on hand-washing methods using antiviral antiseptics effectively reduce the risk of transmission of infection in health centers.

Keyword: Virocid, Inactivation, Disinfection, Chemical disinfection, Antiseptics, Nosocomial infection, Health care-associated infection.
Comparison of the Effect of Three Types of Umbilicus Intermedius Boiss Umbilicus Extract on Alternaria Fungi Isolated from Air of Ahvaz Hospital with Two Different methods.

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Introduction: Today, the use of herbal medicines has increased due to resistance of microorganisms to chemical drugs and side effects of the drugs. Umbilicus intermedius boiss is a native plant in Iran, especially Ilam province, which is used in traditional medicine to heal and repair wound and absorb the infection in the superficial wounds.

Materials and Methods: This study examined antifungal effect of the different dilutions of three methanol-chlorophorum, alcohols and watery extracts of Umbilicus intermedius boiss against Alternaria alternata in vitro. In this study, two methods of Disc diffusion method and Mixing with culture medium method were used.

RESULTS: A. alternata was resistant to three extracts in the Disc diffusion method but, in the method of mixing the extract with the medium, the extracts had a good inhibitory effect. The highest and lowest inhibition were due to dilution of 400 μg / plate and 100 μg / plate respectively. The study showed that all three extracts exhibited a similar inhibitory effect and no significant difference was observed between their inhibitory strength. Inhibition rate did not increase from 400 to 2000 μg / plate.

Conclusion: The appropriate dilution against A. alternata was 400 μg / plate. The amount of inhibitory strength of extracts did not depend on the type of extraction, whereas was dependent on concentration of the extract and the test method. This finding may depend on the nature and type of chemical compounds of the plant extract and on how it is distributed in the culture medium, which should be considered in determining the inhibitory effect of plant extracts.

Keywords: Alternaria alternata, Antifungal, Extract, Umbilicus intermedius boiss