successful medication use, made this behavior easier. However, participants tended to seek advice from medical practitioners when there were health concerns for their children. Fear for adverse effects, poor outcome and antimicrobial resistance were declared as the disadvantages of using nonprescribed antibiotics. Family members and friends, especially those with a health education background, were more likely to approve of this behavior. **CONCLUSIONS:** Qualitatively benefits, supports, concerns and social pressure related to the use of nonprescribed antibiotics were reported. These findings will inform further quantitative study aimed at understanding the extent of such use and predicting the strength of intentions to use nonprescribed antibiotics.

PIN24

PATTERNS OF ANTIMICROBIAL DRUG USE IN INDIAN INTENSIVE CARE UNIT SETTINGS

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OBJECTIVES: The study was undertaken with the objective to understand the pattern of antimicrobial drug usage in the ICU settings of an Indian private tertiary care hospital. **METHODS:** The study was designed in a prospective manner in two phases, observational and interventional, over a period of ten months in a private tertiary care hospital. The data of patients was collected from the different ICUs in the hospital and all the information related to the AMD use was noted along with the sensitivity patterns. **RESULTS:** A total of 665 patient data was captured. The average number of medications prescribed was 12.6 and 13 in interventional and observational phase whereas the average number of AMD prescribed was 2.4 and 2.7 respectively. Over 92% of the AMDs were prescribed by parenteral route and about 50% were prescribed from NLEM and approximately 20% by generic name. Most frequently utilized classes of drugs were third generation cephalosporins, aminoglycosides and flouroquinolones. Documentation of surgical prophylaxis was observed in 81% of the cases in the surgical specilities in both the phases. Sixty-four percent of the patients in the observational phase and 55% in interventional phase received surgical prophylaxis at appropriate timing. In less than one half of the patients, AMDs were prescribed on the basis of leucocytosis, fever, and positive chest x-ray or compelling medical condition. **CONCLUSIONS:** The present study has provided useful findings on the antimicrobial drug utilization patterns in the ICU and recommended that safer use of AMDs need to be promoted along with justified therapeutic regimen.

PIN25

THE EFFECT OF PUBLIC INFORMATION ABOUT HUMAN PAPILLOMAVIRUS (HPV) VACCINE ON KNOWLEDGE, ATTITUDE AND VACCINATION DECISION AMONG WOMEN IN THAILAND

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OBJECTIVES: To examine the differences in knowledge, attitude, and vaccination decision among Thai women who had exposed and not exposed to the public information concerning HPV vaccine. **METHODS:** Structured interviews were carried out in Bangkok from June to September 2008 among female students in four high schools and two universities, and female office workers, in public and private companies, including mothers, who had at least one daughter. The total number of respondent was 1568. The interviews included socioeconomic status, sexual activity, whether or not they had exposed to the public information about HPV vaccine, level of knowledge about cervical cancer and HPV vaccine, attitude toward the vaccine, and vaccination decision. Descriptive statistics and regression were used in the data analysis. **RESULTS:** The interviewees who had exposed to HPV vaccine-related information had significantly better knowledge about the causes of cervical cancer than those who not exposed to the information. However, there was no significant difference in the level of knowledge about the vaccine between the two groups. The study also found that those who had exposed to HPV vaccine-related information and misunderstood that the vaccine could prevent other sexual transmitted infections; the vaccine could treat early cancer; or the vaccine was equally effective in those with and without sexual activities, were more likely to accept the vaccine than the others. **CONCLUSIONS:** The public information about the HPV vaccine would lead to undesirable effects to public health such as irrational vaccination. It is important that respective authorities take serious actions to regulate public advertisement of health product as well as empower consumers to protect themselves from inaccurate information.

PIN26

ENVIRONMENTAL SITUATION OF DROP IN CENTERS FOR HIGH RISK POPULATION ON HIV/AIDS PREVENTION IN DHAKA, BANGLADESH

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OBJECTIVES: In Bangladesh, drop in centers is one of the interventions for HIV/AIDS prevention where health services are provided for high risk group. This paper investigates the existing environmental situation of drop in centers for HIV/AIDS vulnerable people (sex workers and injection drug users) in Dhaka, Bangladesh. **METHODS:** This is a cross-sectional study where 15 drop-in-centers out of 22 was selected purposely in Dhaka. Environmental checklist and structured questionnaires used for collecting information. The category for the conditions followed by guidelines of health service center developed by the National Institute of Preventive and Social Medicine, Bangladesh. **RESULTS:** The condition of house setup of drop in centers 51% poor, 31% good and 18% partial where sites were assessed according to elevation from ground, independent access to street of adequate width, drainage system and open space and the floor, wall and roof conditions for house setup assessed based on the free from cracks and crevices, and dampness. All drop in centers had poor space availability according to crowding, minimum space for HIV infection center and setting or lying comfortability. Ventilation and lighting were unsatisfactory where 60% poor, 30% good, and 10% average considering the number of windows, height of windows not more than 3 ft above ground and sufficient ventilators and fans. Water supply and sanitation was poor found 50% unsatisfactory, 36% satisfactory and 14% partial based on the availability of water, supplied of safe drinking water, personal hygiene. The surrounding environment was unsatisfactory found 78% poor, 12% good, and 10% average considering pleasing surroundings, industrial setup and waste dumping around. Finally study revealed the poor condition 60%, good 26%, and 14% average after total analysis of both drop in centers of sex worker and injecting drug users. **CONCLUSIONS:** This study would have important public health implication and contribution for the environmental standard drop in centers.

PIN27

AZITHROMYCIN OBSERVATIONAL STUDY IN BACTERIAL UPPER RESPIRATORY TRACT INFECTIONS IN INDIAN PATIENTS

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OBJECTIVES: Assessing the effectiveness, safety and cost analysis of azithromycin (TruliMax®) in an observational study on acute bacterial upper respiratory tract infections (URTIs) in Indian patients. **METHODS:** In this open-label, prospective, multi-center, observational study conducted in 410 patients with bacterial URTIs, azithromycin administration was independent of enrolment into the study. Patients were followed up after 1 week and if possible, at week 2 of treatment. No investigations or visits were mandated. Investigator's assessment of clinical outcome (Success/Failure) at the end of study was the primary endpoint for efficacy analysis. A pharmacoeconomic analysis of management of URTIs was also attempted as a secondary endpoint. **RESULTS:** Of the 410 patients recruited, all were evaluated for safety and 278 for efficacy (EVAL population—patients having at least one definitive follow-up global assessment). Following treatment with azithromycin, overall success rate was 98.92% (95% CI: 96.88–99.78%; Clopper–Pearson method) for all patients. The success rate was similar across the subgroups defined by primary diagnosis (acute otitis media—100%; bacterial sinusitis—95.83%; and pharyngotonsillitis—99.38%). The most common signs and symptoms of URTI reported during baseline significantly improved at the end of the study (e.g., ear pain [99.1%], fever [97.7%], lymph node tenderness [97.7%], headache [96.4%], pain throat [96.0%], and arthralgia [94.6%]). Sixteen (3.90%) patients reported treatment emergent adverse events, the most common were diarrhea 5 (1.2%) and flatulence 2 (0.5%). When the antibiotic used was azithromycin (Trulimax®), the average cost of treating bacterial URTI was INR 177 per patient. The overall cost including investigations was INR 716 per patient. Very few (0.9% to 3.6%) patients underwent investigations in routine practice. The average number of sick leave days was 0.4 days (n = 242). **CONCLUSIONS:** Azithromycin is effective, economical and well tolerated in Indian patients with bacterial URTIs.

CONCEPTUAL PAPERS & RESEARCH ON METHODS – Clinical Outcomes Methods

PMC1

SURVIVAL ANALYSIS WITH COX REGRESSION MODELS: VALIDATING A WEB-BASED CALCULATOR

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OBJECTIVES: Survival analysis is often an important component when conducting outcomes research. The objective of this study was to create and validate an online software tool, which calculates, for two study arms with up to two covariates: 1) the regression coefficients and significance; 2) the Risk Ratios and confidence intervals of the regression variables; 3) plots the probability of survival over time for two arms; and 4) plots the cumulative hazard function over time for two groups. **METHODS:** We developed web-based software, which incorporates a proportional hazard model, using Cox regression algorithms to compare survival statistics of any two treatments or groups. The online software program was based on analyses described in the "Introductory Statistics with R" textbook, edited by Dalgaard, which details a Cox proportional hazard analysis of a dataset from a melanoma study published by Drzewiecki. The proportional hazard web application, described here, calculates and graphically displays the results, using JavaScript algorithms and is available as freeware at http://www.healthstrategy.com. New data can be pasted into the calculator for one or two treatment groups with up to two covariates, survival time, and outcome. **RESULTS:** Considering three variables from the published melanoma dataset, the web software versus the R-software coefficients compared as follows: sex (0.38 vs. 0.36), log-tumor-thickness (0.58 vs. 0.56) and tumor-ulcerated (–0.93 vs. –0.94). **CONCLUSIONS:** With this online survival analysis program, a user can input their own study parameters, and then generate Cox regression coefficients and significance, the variable Risk Ratios, as well as plot survival over time, and graph the cumulative hazard function comparing two study groups. This web-based calculator