HEALTH

FOOD

2nd Global Public Health Congress

March 25-26, 2019 | Amsterdam, Netherlands

SCIENTIFIC TRACKS
& ABSTRACTS

DAY 01

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Nigerian antimicrobial consumption surveillance

Introduction: Community consumption of antibiotics is a driver for resistance. This report provides update on the Antimicrobial Consumption Surveillance (AMCS) in Nigeria.

Methods: Community consumption of antibiotics were collected from 16 states using the WHO ATC/DDD methodology and reported as defined daily doses per 1000 inhabitants per day (DID). Validated data from week 29, 2017 to week 45, 2018 were analyzed.

Result: Total antibiotic consumption increased from 0.007 DDD/1000 inhabitants/days in 2017 to 0.086DDD/1000 inhabitants/days in 2018. In 2017, Penicillin (ATC group J01C) was the most frequently used antibacterial, accounting for 64% of total sales. Amoxicillin in particular was 37% of all J01 antibiotic sold over the counter, followed by imidazole derivative metronidazole (ATC group J01XD) at 12%. Oral antibiotic accounted for 96% mean route of administration in 2017 and 2018. In comparison, the ratio of sales of the broad spectrum to the narrow spectrum antibiotics dropped by 92% in 2018, however increased percentage use of cephalosporins, macrolides and quinolones was observed.

Discussion: There is prevalent use of penicillin increasing the likelihood for resistance. The European center for disease control and prevention, reported a similar picture with penicillin as the most frequently dispensed in countries such as Germany and Slovenia making 36% and 71% of total consumption respectively. Prudent use of antimicrobials especially penicillin should take precedence for stronger antimicrobial stewardship measures. Penicillin-resistant Enterococci and methicillin resistant Staphylococcus aureus (MRSA) are serious penicillin resistant infections that occur often due to selective pressure on penicillin.

Biography

Helen Adamu is an Epidemiologist and the focal person in Antimicrobial Consumption Surveillance representing her organization with the Nigerian Center for Disease Control. Her work created new interest in antimicrobial use surveillance for improved surveillance system. She is an avid Researcher with seven papers published in reputable journals.

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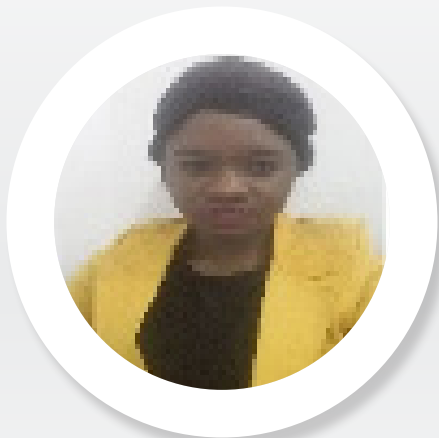
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Detection of airway inflammation among cement workers in a cement factory, Asyut Governorate, Egypt (2017-2018)

Introduction: There is rapid increase in the global production and consumption in cement industry. Egypt is one of the greatest cement producers worldwide. Cement dust particles is the major source of occupational hazard in cement factory. The main routes of entry of cement particles are inhalation and swallowing leading to different clinical affection involving respiratory and non-respiratory systems. Prolonged exposure especially to high concentration of cement dust may provoke inflammation, resulted in functional and structural abnormalities.

Objective: The current work aimed to explore the most important correlates associated with inflammation among cement workers.

Methodology: We conducted a cross-sectional study to elicit the effect of working in cement factory on the level of airway inflammations among workers. Inflammatory process was assessed by clinical manifestations, spirometer, fractional exhaled Nitric oxide (FeNO) (by exhaled breath condensate method), blood sample (for complete blood picture and inflammatory markers: total IgE, IL10 and TNF alpha), sputum analysis for eosinophilia.

Results: The total dust particles concentration ranged between 1.99 mg/m³ in raw mills area to 3.35 mg/m³ in quarry area. Total sample was 86 workers; from four main departments (quarry, production, packing and maintenance). There was significance difference in the level of markers between different departments; TNF alpha was higher in the packing area ($p=0.002$) and fractional exhaled nitric oxide was higher in the maintenance ($p=0.02$). Moreover there was negative mild correlation between dust particles concentrations (mg/m³) and FEV1 (predicted %) ($r=-0.2$, $p=0.05$) and FVC (predicted %) ($r=-0.2$, $p=0.02$). The difference in rates of respiratory symptoms among high vs. low exposed workers was statistically insignificant. TNF alpha was higher in high exposed workers than low exposed ($p=0.01$), there was positive strong correlation between TNF alpha and IL10 ($r=0.8$, $p<0.001$).

Conclusion: The study suggests that TNF alpha and exhaled NO are good predictors of early pulmonary inflammation even before symptoms and may be used in workers of cement factory especially those with higher exposure and in areas with higher dust concentrations, the most important inflammation correlates among cement workers were job stress and smoking.

Recommendations: The findings of this research will help building new strategies to protect the most vulnerable workers

Biography

Mariam Roshdy Elkhayat has completed her Master's degree from Assiut University in Egypt. She is working as an Assistant Lecturer in Public Health Department and has international participation in "HIS Middle East Infection Prevention Summit" Dubai, June 3-4, 2015 conference and publication in Egyptian Journal of Occupational Medicine 2015, also has effective activities in PLAN, CDC and Population Council organizations. She is also working as Safety Trainer for different companies such as CEMEX & TAQA (national gas company) and acts as Consultant in youth friendly clinic and in Assiut National Insurance Organization for occupational compensations.

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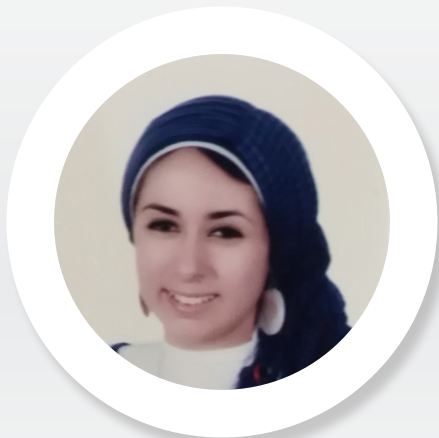
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Improving post-partum care in a large hospital in New Delhi, India

Despite recent progress, the maternal mortality ratio (MMR) in India remains high at 174 per 100 000 live births. Bhagwan Mahavir Hospital (BMH) is a secondary level hospital in New Delhi. In 2013, five women died in BMH's postpartum ward. In January 2014, a United States Agency for International Development-funded team met with BMH staff to help improve their system for providing postpartum care to prevent maternal deaths. The hospital staff formed a quality improvement (QI) team and, between January and December 2014, collected data, conducted root cause analyses to understand why postpartum women were dying and tested and adapted small-scale changes using plan-do-study-act cycles to delivery safer postpartum care. Changes included reorganizing the ward to reduce the time it took nurses to assess women and educating women and their relatives about common danger signs. The changes led to an increase in the number of women who were identified with complications from two out of 1667 deliveries (0.12%) between January and May 2014 to 74 out of 3336 deliveries (2.2%) between July and December 2014. There were no deaths on the postpartum ward in 2014 compared with five deaths in 2013 but the reduction was not sustained after the hospital started accepting sick patients from other hospitals in 2015. QI approaches can improve the efficiency of care and contribute to improved outcomes. Additional strategies are required to sustain improvements.

Biography

Mona Chopra has completed her MBBS from Gulbarga University Karnataka India and MPH from Texila American University Guyana South America. She is presently an independent Quality Consultant in WHO. Her case study has been published in "*British Medical Journal*" and other research works in "*Indian Journal of Community Medicine*".

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A new Lebanese medication adherence scale: validation in Lebanese hypertensive adults

Background: Hypertension control reduces cardiovascular risk. Yet, lack of adherence to medication reduces this control. Therefore, tools to measure medication adherence are needed. A new Lebanese scale measuring medication adherence considered socioeconomic and cultural factors not taken into account by the eight-item Morisky Medication Adherence Scale (MMAS-8).

Objectives: The objectives of this study were to validate the new adherence scale and its prediction of hypertension control, compared to MMAS-8, and to assess adherence rates and factors.

Methodology: A cross-sectional study, including 405 patients, was performed in outpatient cardiology clinics of three hospitals in Beirut. Blood pressure was measured, a questionnaire filled, and sodium intake estimated by a urine test. Logistic regression defined predictors of hypertension control and adherence.

Results: The result showed that 54.9% had controlled hypertension. 82.4% were adherent by the new scale which showed good internal consistency, adequate questions (KMO coefficient=0.743), and four factors. It predicted hypertension control (OR=1.217; p value=0.003), unlike MMAS-8, but the scores were correlated (ICC average measure=0.651; p value<0.001). Stress and smoking predicted nonadherence.

Conclusion: This study elaborated a validated, practical, and useful tool measuring adherence to medications in hypertensive patients.

Biography

Rola Bou Serhal has completed her Research Master's in Public Health, Epidemiology and Biostatistics branch from the Lebanese University, and BS degree in Nursing from the Lebanese University. Currently, she is a Clinical Research Assistant in the Clinical Research Center at Saint Joseph University (USJ).

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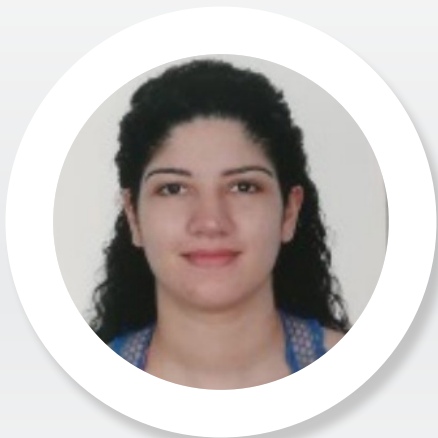
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