Antimicrobial usage in Saudi Ministry of Health Hospitals: Data from 2016 and 2017

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Background: An initial objective of the current study was to identify antimicrobial prescribing behavior in Saudi Ministry of Health (MOH) hospitals. This study is the first of its kind that covers hospitals from all Saudi regions.

Materials/methods: Two Point Prevalence Surveys (PPS) were performed for 26 and 21 participating MOH hospitals during May in 2016 and 2017, respectively. Hospitals and patients' information were collected for all inpatients. Additional information about antibiotic treatment and infections were gathered. All data were collected by using the standard forms from Global-PPS.

Results: A total of 3240 antibiotic doses were administrated to 2182 patients during 2016 PPS and 2476 doses were administrated to 1540 patients during 2017 PPS. The rates of antibiotic usage were 46.9% and 41.6% in 2016 and 2017, respectively. Approximately, four out of ten patients were treated in surgical departments. Most antibiotics for surgical prophylaxis were administrated for more than 24 hours (78% and 79.1%; respectively), The most commonly prescribed antibiotic group was 3rd generation cephalosporine (17.2% and 15.7%; respectively). The rates of adherence to antibiotics guidelines recommendations were 48.1% and 59%. The indications reasons for the antibiotics were not documented in the patients' notes for almost half of the prescriptions during the two PPSs. Furthermore, requests for the timeframe to stop/review antibiotic usage were only recorded in 56.3% and 49.9% during 2016 and 2017; respectively.

Conclusions: Several areas for improvement were identified that include wide use of broad-spectrum antibiotics; particularly ceftriaxone, prolonged use of antibiotics for surgical prophylaxis and poor documentation for reasons and stop or review date. Addressing each of these indicators would be pivotal to the success of any governmental intervention designed to enhance the use of antibiotics.

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Patterns of Pulmonary manifestations of HIV/AIDS among patients admitted to Rashid Hospital, Dubai; 2015–2017

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Background and purpose: The Respiratory system is a major target for HIV and the virus has been isolated from upper and lower respiratory tract. Having knowledge of this strong link between the virus and the respiratory system and identifying common presentations will help managing physician in better patient management as well as earlier initiation of appropriate antimicrobial therapy when entertaining an infectious process.

Methods: Retrospective Data was collected from patients with HIV/AIDS admitted to Infectious Disease Unit; Rashid Hospital; between January 2015-December 2017. Variables included patient's demographics, nationality, CD4 upon first admission; baseline chest imaging; respiratory samples microscopy/culture /AFB stain and culture and TB PCR.

Results: Between January 2015 and December 2017; a total of 131 patients with HIV/AIDS were admitted to our unit. 77/131 (58.77%) had a respiratory complaint as the main indication for admission. only 4/77 (5.2% had a normal chest X ray). 38/77 (49.4%) had confirmed mycobacterium Tuberculosis with MDR-TB diagnosed in two patients only. 19/77 (24.7%) had Pneumocystis Jirrovicci Pneumonia. 13/77 (16.9%) had Bacterial Community-acquired pneumonia. Two patients had atypical mycobacterium infection and two other patients had a combined infectious process. No microbiological diagnosis was made in remaining 4 patients. In patients with Pulmonary TB; sputum stain positivity was 60.5% for first sample.

Conclusions: Almost two thirds of our patients were admitted secondary to a respiratory process and Pulmonary Tuberculosis was the confirmed etiology in almost half of the patients. in comparison to previous data from our hospital; there has been a rise in PJP cases reflecting late diagnosis of HIV/AIDS or lack of adherence to prescribed ART or chemoprophylaxis.

Identifying Pulmonary Tuberculosis as major pathogen in majority of cases in our area helps in early initiation of ATT and proper Infection Control measures and reduced the need for broad spectrum antibiotics.

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Isolation and Identification of Candida species Among Women at Wadi al Dawasir Region of Saudi Arabia

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Background: Candida is a yeast like fungus that belongs to the normal microbiota of gastrointestinal tract and reproductive mucosa. Hence, a majority of the healthy population may be prone to the most common fungal infection such as candidiasis. Candidiasis or thrush is a fungal infection caused by any of the species from the genera Candida. Worldwide, in women, vaginal candidiasis forms a significant part of urogenital infections with a high recurrence rate. These infections range from superficial oral thrush or vaginitis to more deep-seated systemic ones that is life threatening.

Methods: This was a cross sectional study conducted at the general hospital of Wadi Al Dawaser, Riyadh, Saudi Arabia. The high vaginal swabs (HVS) of women patients were received at the microbiology laboratory for fungal culture and identification. Gram staining and culture identification, wet mount with 10% KOH and germ tube test was done to confirm for Candida spp. The antifungal susceptibility profile was done for the identified isolates.

Results: Out of 208 high vaginal swabs received at the hospital, 71 (34%) were positive for culture. Nearly half of the specimens (53%) that were culture positive were identified as Candida spp. The antifungal agents tested on these isolates were sensitive. However, higher incidence of Candida culture positive isolates were seen among non-pregnant, non-users of antibiotics and non-diabetic patients.

Conclusion: The predominant species was Candida albicans among the HVS samples. Treatment based on laboratory diagnosis rather than an empirical approach will facilitate the rational use of antibiotics and to reduce the selection pressure for resistant