

**P1301**

**Paper Poster Session**

**Education and competencies in antimicrobial stewardship**

**Knowledge, attitude and behaviour towards antibiotic use among medical students and residents in Tawam Hospital, UAE**

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**Background:** Tawam Hospital has a well-staffed Infectious Diseases Service overseeing an active Antimicrobial Stewardship Program (ASP), which includes guidelines for commonly encountered infections, as well as a restricted list of antibiotics. We sought to assess the house staff's knowledge, attitude and behavior towards antibiotic use and resistance in general, as well as their familiarity with ASP program at Tawam, in order to effect better policies towards antibiotic use.

**Material/methods:** A cross sectional, descriptive and analytical survey of 111 physicians and 48 senior clerkship medical students (R1-R4) or out of training (OOT). The questionnaire had 20 questions using a 5-point Likert response. Eight questions were based on knowledge, 8 on perceptions and 4 on behavior. Prescription behavior questions were based on consistency with current hospital practice guidelines. Juniors were defined as respondents with <1 year of PGME while seniors were R2 and above.

**Results:** Response rate was 87%(159/173).

**Knowledge**

1. Majority 97/149(65%) of respondents were aware that antimicrobial resistance is a major problem in the UAE. Only 33% were aware that antimicrobial resistance data was systematically being collected in Abu Dhabi, and 72/149(48.3%) said that they had received any information regarding resistance patterns in their hospital/clinic.
2. Senior residents were significantly more aware specific resistance issues than juniors ( $p < 0.05$ ).

**Attitude and Behavior**

1. Junior physicians were significantly more likely to think that education on antibiotics not sufficient ( $p < 0.01$ )
2. 145/159(91.2%) said that antibiotics were overused in the UAE; compared to 104/159(65.4%) in Tawam Hospital ( $p < 0.01$ ). Also, Respondents were more likely to think that their antimicrobial prescription habits were better than their colleagues ( $p < 0.05$ ).

3. The overwhelming majority of respondents were in favor of guideline implementation (93%), though only 49/148(33%) respondents actually knew about the existence of current hospital antibiotic use guidelines. This lack of awareness of antibiotic guidelines was well reflected in the poor consistency of empiric antibiotic use with current hospital guidelines for group A streptococcal pharyngitis (70/150, 44.03%), acute exacerbation of chronic bronchitis (42/141, 29.79%) and simple cystitis in women (38/148, 25.68%).
4. Only 86/159(54.09%) favored antibiotic restriction as a tool of stewardship.

**Conclusions:**

1. Our survey revealed that housestaff are aware of the importance of antimicrobial resistance and believe that this is an area of unmet education need. Respondents had a more favorable view of their own, and the hospital's prescription practice when compared with other physicians and hospitals, respectively.
2. Despite an active ASP prescription behavior of housestaff shows poor consistency with hospital guidelines, although this knowledge did appear to increase with level of training.
3. In order to stem the problem of antimicrobial resistance, we need to produce responsible physicians by incorporating education on judicious use of antimicrobials at all levels of training.