P2075 Assessment of local individual and contextual determinants of antibiotic prescribing to inform tailored antimicrobial stewardship intervention

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Background: Knowledge of determinants influencing antimicrobial prescribing behaviours is required to design efficacious antimicrobial stewardship (AS) intervention. As the first step of a multifaceted, educational AS program in a 1.500-bed tertiary-care hospital, we aimed at assessing physicians' awareness of antimicrobial resistance (AMR) and quantifying self-reported perceived impact of individual and contextual determinants on prescribing behaviours.

Materials/methods: Three psychologists and three infectious disease specialists reviewed literature (1967-Jan 2018), identifying 22 relevant items to be included into a questionnaire exploring different aspects of three main domains linked with antibiotic prescription: individual and contextual determinants of prescriptions and AMR awareness. Prescribers were asked to voluntarily undertake the paper-based, anonymous survey. Each item was evaluated on a 10-point Likert-type scale. Single results were entered into a pre-defined database and overall responses were summarised as median with interquartile range (IQR) and compared across specialty area and training level using non-parametric statistic.

Results: From May to November 2018, 115 medical doctors (65% trainees) in four medical and three surgical wards completed the survey. Respondents expressed considerable awareness regarding the high level of AMR prevalence in the country (median 9, IQR 8-10) although uncertainty emerged when they were asked to assess local data on prevalence of AMR (median 5, IQR 4-8) and antibiotic consumption (median 5, IQR 3-7). The most impactful determinant on antibiotic prescription was perceived uncertainty due to "unavailability of rapid diagnostic" (median 8, IQR 5-8). "Negative organizational and relational climate", although reported with low median scores, presented high variability, suggesting disagreement between single respondents. When compared to attending physicians, trainees were less prone to consider their antibiotic-knowledge as sufficient for clinical practice (p<0.01), tended to neglect the risk of resistance development when prescribing (p<0.01), and were more influenced by ward habitual prescribing patterns (p<0.01). No relevant differences emerged when comparing responses across specialty area.

Conclusions: The survey is a valuable instrument for identifying facilitators and barriers in changing inappropriate prescribing behaviours at local level. Results can be considered to design tailored educational events to improve antibiotic prescriptions in hospitalised patients. Dedicated modules for trainees can substantially contribute to the effectiveness of the intervention.