

# Variation in service-providers' prescribing behaviour and policy implications for women with genitourinary tract infections in Ramallah, occupied Palestinian territory

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**Background** Worldwide, infections of the reproductive and urinary tracts are reasons why women most often seek health care. These infections are associated with adverse pregnancy outcomes and negatively affect the quality of life of women. Resistance to antibiotics that are active against uropathogens has been noted worldwide, but few data for microbial resistance patterns in Ramallah, West Bank, occupied Palestinian territory, are available. Although some treatment guidelines for infections of the reproductive and urinary tracts might have been available in clinics in 2010 when the study was undertaken, practitioners were generally not aware of the existence of such guidelines. The aim in this study was to assess variations in service-providers' prescribing behaviours for infections of the genitourinary tract in selected women's health clinics in Ramallah, and to provide evidence needed to inform improvements in policy and practice.

**Methods** Women and service providers in 11 clinics that provide women's health services in Ramallah were interviewed in a survey. Ministry of Health, UN Relief and Works Agency, and non-governmental clinics in urban, rural, and refugee camps also took part in the survey. Data for 100–120 cases per clinic were gathered during 4 months. Women were interviewed by use of a pretested structured questionnaire, and physicians completed a pretested form. Appropriateness of treatment was determined by the drugs selected, dose regimens, and duration of treatment, assuming that the diagnosis was correct.

**Findings** 162 (15%) of 1052 women were diagnosed with any urinary or reproductive tract infection. Their mean age was 31 years (SD 9). 156 (96%) women were married and in the low and middle socioeconomic groups (67 [43%] and 75 [48%], respectively). The drugs prescribed to 132 (81%) of 162 women at the time of diagnosis were not in accord with treatment guidelines. Inappropriate drugs were prescribed to 62 (70%) of 89 women with reproductive tract infections, 56 (95%) of 59 with urinary tract infections, and all 14 with both infections (women with both infections were not included in the other two categories). 65 (40%) of 162 women were prescribed drugs that were inappropriate for their indications, 22 (14%) for dose regimen, and 81 (50%) for duration of treatment.

**Interpretation** Written treatment protocols informed by results of studies of local microbial resistance patterns, with mechanisms to ensure implementation, are needed to guide practitioners in providing the correct treatment and avoiding the emergence of resistant bacterial strains. Provision of continued education for physicians, with feedback and supervision, especially about rational antibiotic use, is essential.

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#### Contributors

RG contributed to the study design, did the data analysis, and wrote the first and final drafts of the Abstract. RK was the main designer of the study, helped in the analysis of the data, and read and commented on the first and final drafts of the Abstract.

#### Conflicts of interest

We declare that we have no conflicts of interest.

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