

Re: Antibiotic Prescribing Trends in an Omani Paediatric Population

رد: اتجاهات وصف المضادات الحيوية في عينة من الأطفال العمانيين

Sir,

I read with interest the study by Al-Balushi *et al.* published in the SQUMJ November 2014 issue.¹ Interestingly, although most of the children included in Al-Balushi *et al.*'s study were outpatients (64.3%) attending the paediatric outpatient clinic at Sultan Qaboos University Hospital (SQUH), the authors mentioned that there was a trend towards more antibiotic prescriptions (APs) among inpatients (58%; 80/138) than outpatients (42%; 58/138).¹

I presume that Al-Balushi *et al.*'s study would be more constructive if the authors had considered listing the percentages of APs in various paediatric units at SQUH, such as the respiratory, gastroenterology, haematology and nephrology units, and addressed the diagnoses of the health problems encountered in these units. Moreover, the authors could not ascertain whether the studied APs were scientifically or irrationally based.

It is important to stress that the misuse of antibiotics still represents a major concern for health authorities, particularly in developing countries. Irrational use is often noticed in the improper selection of an antibiotic and in over-prescribing. Though no studies on antibiotic misuse are yet present in Oman, I presume that its magnitude is substantial. This could be indirectly concluded from the observation that in Al-Balushi *et al.*'s study there was an increasing trend of APs among inpatients (58%) in comparison to outpatients (42%). This is despite the notion that antibiotics tend to be more judiciously prescribed among inpatients pending the results of sound laboratory and imaging investigations.¹ However, various factors like the postgraduate qualifications and experience of the paediatricians; sources and methods for updating knowledge; inpatient practice settings, and the presence of fever, together with a paediatrician's perception of parental expectations, are strong determinants of APs in the clinical setting.^{2,3}

I do stress that increasing the alertness of paediatricians in Oman on the judicious prescription of antibiotics is fundamental. Moreover, antimicrobial stewardship programmes (ASPs) have been adopted in various developed countries to optimise antimicrobial use for hospitalised patients through focusing on discontinuing antibiotics appropriately and promoting local antibiograms in the proper clinical setting.⁴ Current evidence has demonstrated that neonatal and paediatric ASPs appear to be safe, practical to implement, generally cost-effective and possibly associated with a reduction in the antimicrobial resistance rates.⁵ I, therefore, suggest that the implementation of neonatal and paediatric ASPs in Oman should be seriously considered as an effective means to contain unnecessary APs.

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References

1. Al-Balushi K, Al-Ghafri F, Al-Sawafi F, Al-Zakwani I. Antibiotic prescribing trends in an Omani paediatric population. *Sultan Qaboos Univ Med J* 2014; 14:466–70.
2. Bharathiraja R, Sridharan S, Chelliah LR, Suresh S, Senquuttuvan M. Factors affecting antibiotic prescribing pattern in pediatric practice. *Indian J Pediatr* 2005; 72:877–9. doi: 10.1007/BF02731121.
3. Ciofi degli Atti ML, Massari M, Bella A, Boccia D, Filia A, Salmaso S, et al. Clinical, social and relational determinants of pediatric ambulatory drug prescriptions due to respiratory tract infections in Italy. *Eur J Clin Pharmacol* 2006; 62:1055–64. doi: 10.1007/s00228-006-0198-8.
4. Bowes J, Yasseen AS 3rd, Barrowman N, Murchison B, Dennis J, Moreau KA, et al. Antimicrobial stewardship in pediatrics: Focusing on the challenges clinicians face. *BMC Pediatr* 2014; 14:212. doi: 10.1186/1471-2431-14-212.
5. Brett A, Bielicki J, Newland JG, Rodrigues F, Schaad UB, Sharland M. Neonatal and pediatric antimicrobial stewardship programs in Europe: Defining the research agenda. *Pediatr Infect Dis J* 2013; 32:e456–65. doi: 10.1097/INF.0b013e31829f0460.

Response from the Authors

Sir,

We thank you for your interest and comments on our recently published article on the subject of antibiotic prescribing trends in an Omani paediatric population.¹ With regards to the comment on listing percentages of antibiotic prescriptions (APs) by disease type, this information is already mentioned in the first paragraph of the results on page 496, namely, "Among the children who were prescribed antibiotics, the most common diseases were respiratory diseases (n = 62; 44.9%) followed by haematological conditions (n = 18; 13.0%) and gastrointestinal diseases (n = 8; 5.8%)".¹

The second comment was about the rational use of APs in our study. We would like to inform you that the aim of our study, which was mentioned in the last paragraph of the introduction on page 496, was only to describe the antibiotic prescribing patterns for paediatric patients at Sultan Qaboos University Hospital in Oman. The rational use of antibiotics could very well be the scope for future studies.

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Reference

1. Al-Balushi K, Al-Ghafri F, Al-Sawafi F, Al-Zakwani I. Antibiotic prescribing trends in an Omani paediatric population. *Sultan Qaboos Univ Med J* 2014; 14:466–70.