PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (see an example) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

This paper was submitted to the ADC but declined for publication following peer review. The authors addressed the reviewers' comments and submitted the revised paper to BMJ Open. The paper was subsequently accepted for publication at BMJ Open.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Are children carrying the burden of broad spectrum antibiotics in
	general practice? - Prescription pattern for paediatric outpatients
	with respiratory tract infections in Norway
AUTHORS	Fossum, Guro; Lindbaek, Morten; Gjelstad, Svein; Dalen, Ingvild;
	Kvaerner, Kari

VERSION 1 - REVIEW

REVIEWER	Verheij, Theo UMC Utrecht
REVIEW RETURNED	05-Oct-2012

GENERAL COMMENTS	This study is performed well and the methodology is sound. My main concern is on relevance and what the results add to the existing body of knowledge. The authors should explain the readers that their results really add. Now they state that prescription rates are low in Norway but that macrolides are over-used. There were however
	already several other studies showing that. The authors should discuss that more explicitly and critically.

REVIEWER	Clavenna, Antonio
	Mario Negri Institute for Pharmacological Research
REVIEW RETURNED	16-Oct-2012

prevalence of drug prescription. In this regard, this study provides some useful insights. In Norway, only 1 out of 4 children with upper respiratory tract infections received an antibiotic. This is a really positive finding. But, on the contrary, the fact that macrolides covered 30% of antibiotic prescriptions underlines that some improvements are needed. The fact that prescription of second choice antibiotics is greater in high prescriber GPs suggests that the physician attitude may play a role in determining the appropriateness of antibiotic prescription. This finding is consistent with the results of a study performed in the Italian Lombardy region (see Clavenna A and Bonati M, Arch Dis Child 2011;96(6):590-5). I think that the main limit of this study is that data are quite old. Is your picture still informative? It is possible that the prescribing pattern of the GP is changed since 2005.	GENERAL COMMENTS	some useful insights. In Norway, only 1 out of 4 children with upper respiratory tract infections received an antibiotic. This is a really positive finding. But, on the contrary, the fact that macrolides covered 30% of antibiotic prescriptions underlines that some improvements are needed. The fact that prescription of second choice antibiotics is greater in high prescriber GPs suggests that the physician attitude may play a role in determining the appropriateness of antibiotic prescription. This finding is consistent with the results of a study performed in the Italian Lombardy region (see Clavenna A and Bonati M, Arch Dis Child 2011;96(6):590-5). I think that the main limit of this study is that data are quite old. Is your picture still informative? It is possible that the prescribing
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Some comments and suggestions:
- I would like to suggest to compare your data with studies
evaluating family paediatrician or general practitioner antibiotic
prescriptions to children (to the best of my knowledge there are
some studies performed in Italy and in UK; e.g. Moro ML et al. BMC
Pediatr. 2009;9:69). ADC is an international journal, so I think it is
important also to highlight which are the differences between
Norway and other countries.
- In table 2 you may report also the 95%Cl of the prescription rate
(4th column)
- page 17, row 15: 30% macrolide use is somewhat higher than
28% In my opinion this difference is quite subtle. It should be more
useful to evaluate, if possible, if the prescribing pattern of the same
GP for the same disease differed between children and adults.
- page 17, row 48: Blix et al reported in 2009 [1]. The reference #1
was published in 2007. It is unlikely that it reported 2009 data. I
guess 2009 should be replaced by 2005/2006.

VERSION 1 – AUTHOR RESPONSE

I have included the old version with comments according to what the reviewers pointed out as well as a new "clean" version with the specific BMJ Open requirements.

VERSION 2 – REVIEW

REVIEWER	Antonio Clavenna Head of the Pharmacoepidemiology Unit, Laboratory for Mother and Child Health, Mario Negri Institute for Pharmacological Research, Milan, Italy
	No competing interests to declare.
REVIEW RETURNED	30-Nov-2012

THE STUDY	In my opinion the manuscript should be revised by an native English
	speaker.