

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Diagnosis and treatment of chlamydia and gonorrhoea in General Practice in England 2000-2011: a population based study using data from the UK Clinical Practice Research Datalink
<b>AUTHORS</b>	Sally Wetten, Hamish Mohammed, Mandy Yung, Catherine H. Mercer, Jackie A. Cassell, Gwenda Hughes

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Prof Jonathan Ross University Hospital Birmingham NHS Foundation Trust
<b>REVIEW RETURNED</b>	30-Jan-2015

<b>GENERAL COMMENTS</b>	I thought this was a well conducted and clearly presented study. The results provide a more accurate picture of gonorrhoea and chlamydia rates in the general population and highlight the need to engage with general practice when national treatment guidelines change.
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<b>REVIEWER</b>	Penny Cook University of Salford, UK
<b>REVIEW RETURNED</b>	12-Feb-2015

<b>GENERAL COMMENTS</b>	<p>An interesting and timely paper filling a gap in knowledge about the impact of diagnosis and treatment of STIs in GP settings.</p> <p>The paper is well-written and clear. I have some minor comments, which I have also added as pop up notes to the attached PDF file.</p> <p>The abstract 'participants' section should include the GUMCAD/NCSP patients also, otherwise the main outcome measures do not make sense (how can you calculate the proportion treated in GP relative to other services?)</p> <p>Strengths and limitations bullet list -- currently contains no limitations, at least a couple of these bullets could come from the limitations mentioned in the discussion.</p> <p>Page 10, line 104, Ciprofloxacin is named as a recommended treatment, should be 'at some point during the study period' otherwise it seems contradictory, having elsewhere said it is not recommended.</p>
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	<p>Page 12, line 155, I cant see 'actual numbers' from the GP in the table. I realise that probably refers to the NCSP / GUMCAD data, but the sentence is ambiguous. Also, I thought the actual numbers might be of interest, prior to extrapolation to the whole population (perhaps as a web file?)</p> <p>page 17 line 290, sentence not very clear. Suggest something like 'there is no evidence that this was a particularly significant contributor to the high rate of prescriptions of penicillin.</p> <p>Page 17, line 293, 'strengths and limitations' title should read 'limitations', since the strengths are not included here.</p> <p>I can't find any mention of ethics. As a secondary analysis presumably this is covered by the GUMCAD and CPRD systems. A statement about ethical/governance would be helpful.</p> <p>reference format, reference 3, authors' names should not be in Caps.</p>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer Name Prof Jonathan Ross  
Institution and Country University Hospital Birmingham NHS Foundation Trust  
Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below I thought this was a well conducted and clearly presented study. The results provide a more accurate picture of gonorrhoea and chlamydia rates in the general population and highlight the need to engage with general practice when national treatment guidelines change.

- The authors thank Prof. Ross for his feedback.

Reviewer Name Penny Cook  
Institution and Country University of Salford, UK  
Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below An interesting and timely paper filling a gap in knowledge about the impact of diagnosis and treatment of STIs in GP settings.

- The authors thank Prof. Cook for her feedback, and for the suggestion below.

The paper is well-written and clear. I have some minor comments, which I have also added as pop up notes to the attached PDF file.

The abstract 'participants' section should include the GUMCAD/NCSP patients also, otherwise the main outcome measures do not make sense (how can you calculate the proportion treated in GP relative to other services?)

- This section of the abstract has been updated to: 'Patients diagnosed with chlamydia (n=1,386,169) and gonorrhoea (n=232,720) at CPRD GPs and community and specialist STI Services.'

Strengths and limitations bullet list -- currently contains no limitations, at least a couple of these bullets could come from the limitations mentioned in the discussion.

- This section has been updated, having deleted the first statement, reordered the content and added the limitation around double-counting of diagnoses referred to GUM. The third point, which references the lack of data made outside of GP and specialist services, is another limitation.

Page 10, line 104, Ciprofloxacin is named as a recommended treatment, should be 'at some point during the study period' otherwise it seems contradictory, having elsewhere said it is not recommended.

- This sentence has been amended to highlight that ciprofloxacin was recommended until 2004.

Page 12, line 155, I cant see 'actual numbers' from the GP in the table. I realise that probably refers to the NCSP / GUMCAD data, but the sentence is ambiguous. Also, I thought the actual numbers might be of interest, prior to extrapolation to the whole population (perhaps as a web file?)

- The actual numbers are now provided in Web Table 3 and referenced on page 13, line 171.

page 17 line 290, sentence not very clear. Suggest something like 'there is no evidence that this was a particularly significant contributor to the high rate of prescriptions of penicillin.

- This sentence has been updated to: 'While amoxicillin/ampicillin can be used during pregnancy there was no evidence of this contributing to the high proportion of penicillin prescriptions.'

Page 17, line 293, 'strengths and limitations' title should read 'limitations', since the strengths are not included here.

- This has been amended.

I can't find any mention of ethics. As a secondary analysis presumably this is covered by the GUMCAD and CPRD systems. A statement about ethical/governance would be helpful.

- An ethics statement is now included (page 12, line 153):

'All GP practices included in the CPRD require consent from their patients for their anonymised data to be included in the dataset. This protocol to examine STI trends in CPRD patients was approved by the Independent Scientific Advisory Committee of the CPRD. As GUMCAD and the NCSP are routine public health surveillance activities, no specific consent was required from the patients whose pseudo-anonymised (age and limited demographic data without any patient identifiable information) data were considered in this study. PHE has permission to handle data obtained from GUMCAD and the NCSP under section 251 of the UK National Health Service Act of 2006 (previously section 60 of the Health and Social Care Act of 2001), which was renewed annually by the ethics and confidentiality committee of the National Information Governance Board until 2013. Since then the power of approval of public health surveillance activity has been granted directly to PHE. '

reference format, reference 3, authors' names should not be in Caps.

- This has been corrected.