Author's response to reviews

Title: Improving antimicrobial prescribing in Irish primary care through electronic data collection and surveillance: a feasibility study.

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Author's response to reviews: see over
Response to Reviewers MS: 1818953583152143

Dear Dr Eloisa Nolasco,

Many thanks for your e-mail and comments on the manuscript. Please find the revised manuscript attached with responses to your comments and revisions as requested outlined below. All changes to the manuscript have been highlighted throughout.

Kind Regards,
Sandra Galvin

Comment 1: Lines 24-28: Some restructure is need in the first paragraph as it is an Objective statement and not a Background sentence.
Response: In line with comment 1, this has been amended as follows “The increase in the spread of antimicrobial resistance (AMR) in bacterial pathogens and limited availability of new antimicrobials places immense pressure on general practitioners (GPs) to prescribe appropriately. Currently, electronic antimicrobial prescribing data is not routinely collected from GPs in Ireland for surveillance purposes to assess regional specific fluctuations or trends in antimicrobial prescribing. The current study aimed to address this issue by assessing the feasibility of remotely extracting antimicrobial prescribing data from primary care practices in Ireland, for the purpose of assessing prescribing quality using the European Surveillance of Antimicrobial Consumption (ESAC) drug specific quality indicators”.

Comment 2: Lines 61-62: a sentence along the lines “at least in countries like the UK” should be added, because primary care is different in different countries.
Response 2: In line with comment 2, this has been amended as follows; “The global increase of AMR can be attributed, in part, to over-use of antimicrobials in the primary care setting, where in Ireland and the UK approximately 80% of antimicrobials used in human health care are prescribed”.

Comment 3: Line 76: “are” should be revised to “have been”.
Response: Amended as follows “Even though national antimicrobial prescribing guidelines for common infections in primary care have been available since 2011...”

Comment 4: Lines 92-93: I would argue the exact opposite: routinely collected clinical data are much more precise than any prospective study. The authors may consider revising especially as they later cite the CPRD comparison.
Response 4: I agree with this comment. This sentence has been changed in the manuscript as follows; Line 94 – 96 “One of the challenges for surveillance of antimicrobial resistance and antimicrobial consumption is to establish methods for exploitation of consistently collected data for surveillance purposes which also address sustainability and inclusiveness”.

Comment 5: Line 116: simply “pseudonymised”.

Comment 6: Line 120: Table 2 is cited before Table 1; the order should be revised.
Response 6: All revised.

Comment 7: Line 124: “analysis was” should be revised to “analyses were”.
Response 7: Changed.

Comment 8: Line 162: “of” is not needed.
Response 8: Changed.

Comment 9: Line 172: The authors can consider adding “and more automatically”.
Response 9: Added.

Comment 10: Line 179: word “of” is missing.
Response 10: Added.

Comment 11: Lines 183-185: The authors do not provide any indication of costs and how cost-effective this study was.
Response 11: Very valid point. Cost effectiveness analyses of this study and of a behavioural change intervention are currently being carried out and will be published separately.

Comment 12: Lines 205-207: It is not clear to me how the authors reached to the association of foreign travel with prescribing.
Response 12: This connection is tentative, and is based on the standard recommendation for travellers at risk to receive a quinolone prescription prior to travel to certain countries. The wording of this sentence has been revised; Lines 208 – 210: “However, the greatest increase in summer
prescribing of quinolones was associated with patients in the 18-39 years age category, which may be associated with foreign travel”.

Comment 13: Lines 209-216: The authors do not raise the issue of representativeness of the wider country

Response: We feel that this is included given the comparison with overall national data e.g Lines 195 – 196: “The current study has identified specific deviations in antimicrobial prescribing in the study region compared with national and European data”. Lines 201 – 203 “The higher prescribing and consumption of quinolones in summer months compared with winter months was not evident from national data, therefore appears to be specific to the geographical region studied”. Please advise if you feel this is not discussed extensively enough.