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A qualitative study on factors influencing the implementation of a *Clostridium difficile* risk prediction tool in the Scottish secondary care setting

University of Strathclyde Science

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BACKGROUND

- From the early 2000s, *Clostridium difficile* infection (CDI) has become a health care burden which is mainly associated with 4C antibiotics consumption (Clindamycin, co-amoxiclav, cephalosporins, ciprofloxacin). CDI is potentially fatal especially in elderly and immunocompromised people with symptoms ranging from diarrhoea to severe colitis.
- In Scotland ~1300 CDI cases were reported in 2018 of which ~380 were reported as community acquired CDI cases.
- In order to support clinicians during antibiotic prescribing, a mathematical algorithm has been created, which aims to inform the patient's risk to contract CDI using patient data.

METHODS

- In order to understand the perception of clinicians in secondary care for the development of a CDI tool, four podiatrists from NHS Fife have been interviewed to identify their prescribing pattern, their perception on CDI and introduction of a CDI tool during their consultations.
- The interviews were transcribed and analysed in NVivo.
- This study was conducted between April-May 2019.

Podiatrists would use the CDI tool
P: I would think they absolutely would. (P3, female, 40 years)

Patient data is not always complete
P: So they think we've seen all the GP notes somewhere. Um, I think it's a bit of a surprise to them when we don't always have that or even it's actually, it's about the sort of pain. We only migrated over to, electronic notes about three years ago. But if somebody has been seen by our department and they were here 10 years ago, they still think we've got the notes. (P4, female, 46 years)

***Clostridium difficile* infection is not frequent**
P: not, now, I would say a few years ago we saw it much more, you know, just about every ward somebody hooked up to this bug, but no, not nearly as much as we used to. (P2, female, 52 years)

Longer appointments with patients
P: appointments are half an hour, with a new patient is 40 minutes, but a lot of that time is talking to get their medical history straight and draw things from them and find out what they're really hoping for. (P4, female, 46 years)

Podiatrists don't prescribe 4C antibiotics frequently
P: I would probably say it used to be, I'm not sure how is now, I know that for skin and soft tissue infections that we relate to, it's not anymore, although clindamycin has just come back on as one of the treatments of choice for osteomyelitis. So we, we are becoming motivated that as a potential again to sort of be had in our patients and, yeah. (p3, female, 40 years)

Use of mobile phones during consultations
P: most of us have got mobile phone and or we've got, we shared it but we've also got access to BNF on the computer as well. (P1, female, 43 years)

CONCLUSION

- Although podiatrists don't see many cases of CDI and don't prescribe 4C antibiotic frequently, would like to have a CDI tool for patient safety netting purposes.
- However due to incomplete patient data and allocation of the data into different systems, the CDI tool can't be integrated into their prescribing system.
- As podiatrists are comfortable in using mobile phones during consultations and have longer appointment time with patients, a mobile phone app or website that requires input of the patient data could be developed.

FUTURE WORK

- Currently a test version website of the CDI tool is under development.
- Feedback on the tool's layout, its ease of use and usability in practice is under investigation.
- Following the completion of the investigation, the CDI tool will be amended upon clinician's feedback.
- Subsequently the final format of the CDI tool, will be tested using patient case scenarios.