

Evaluation of the prescribing decision support system *Synonyms* in primary care: a mixed method study

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Background

- Prescribing decision support systems (DSS) have been developed to assist prescribers considering an increasing number and complexity of considerations at the point of prescribing.
- The Drug Synonyms function ("*Synonyms*") is a DSS integrated in the electronic medical record system EMIS (Egton Medical Information Systems, <https://www.emishealth.com>) which has been further developed by the NHS Greater Glasgow and Clyde (NHSGGC) Central Prescribing Team to promote safe and cost-effective prescribing.¹
- Prescribers enter a disease short code at the point of prescribing e.g. .TON for tonsillitis, and are presented with prescribing choices based on guideline and formulary recommendations.
- Synonyms* functionality does not enable any data to be collected, so there is no knowledge on the uptake of *Synonyms*, nor on prescribers' perceptions of its usefulness.
- Previous research on prescribing decision support tools used either quantitative or qualitative methods; however a 2003 study reported using a mixture of both methods would give a more extensive evaluation.²

Aim

To determine the extent of uptake of the prescribing DSS *Synonyms*; identify factors associated with uptake and continuation of use of *Synonyms* and explore users' perceptions of the effectiveness of using *Synonyms*.

Design and Setting

Mixed method study utilising quantitative questionnaires and semi-structured interviews with primary care prescribers in General Practices across NHSGGC.

Methodology

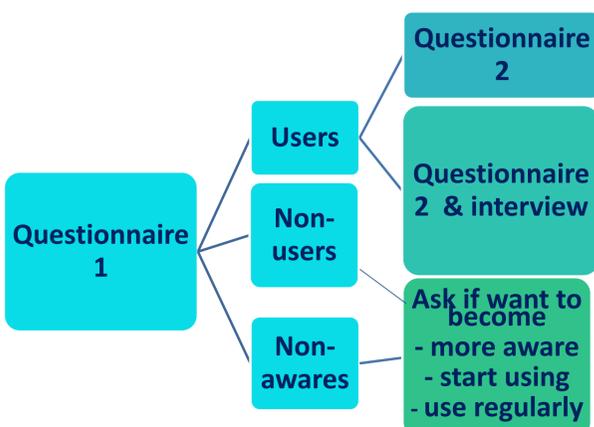


Figure 1: Method

Descriptive analysis was performed on questionnaire data using frequency distribution (number, percentage). Interviews with prescribers were audio-recorded, anonymised and transcribed verbatim. NVivo v11 software was used to facilitate coding of interview transcripts, data organisation and thematic analysis.

Results

Questionnaire 1 (n=201)

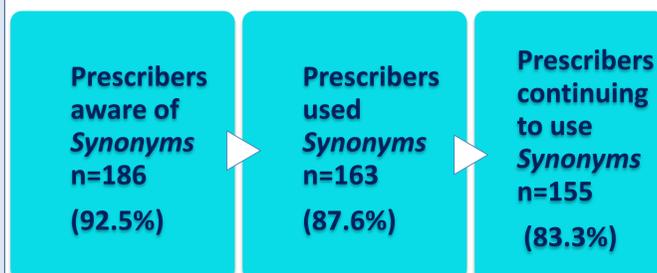


Figure 2: Extent of uptake of Synonyms

Questionnaire 2 (n=104)

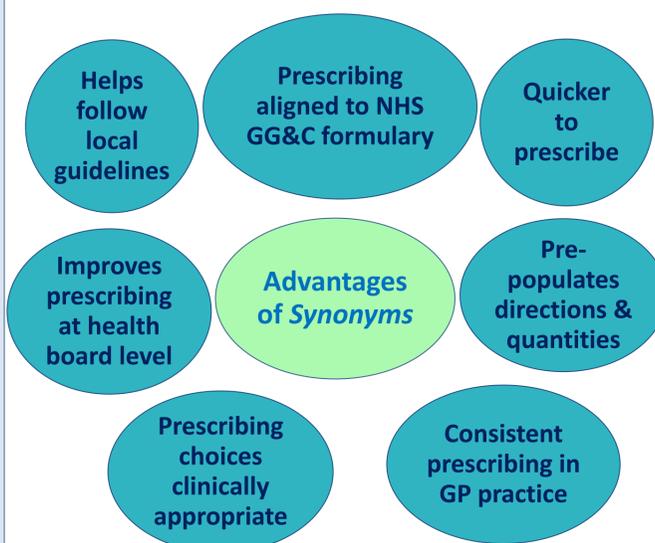


Figure 3: Advantages of using Synonyms

Interviews (n=6)

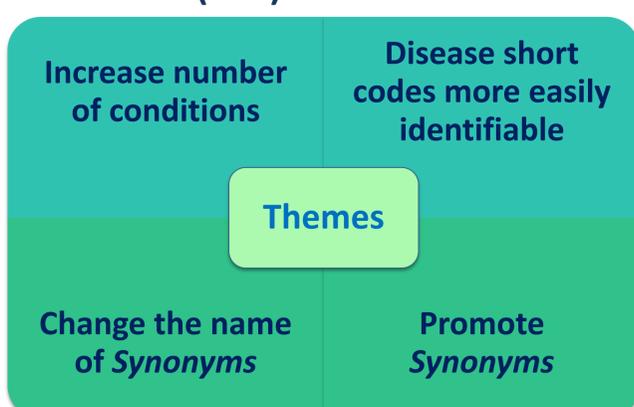


Figure 4: Themes from interviews with prescribers

"Gold star to the person who initially created *Synonyms*, it's incredibly useful" (GP)

"*Synonyms*, difficult name to say plus it doesn't reflect what it is supposed to do" (Nurse)

"I would extend it if anything, there's almost not enough of it" (GP)

"Good for GP trainees" (GP)

Figure 5: Feedback quotes from prescribers

Conclusion

- Majority of prescribers aware of *Synonyms* continue to use it.
- Common factor for uptake and continuation of use is **to promote safe and cost effective prescribing**.
- Effective at influencing prescribing choices towards NHSGGC formulary medicines and improving adherence to local prescribing guidelines.
- Synonyms* could be developed and utilised in other health boards to ensure clinical and cost-effective prescribing.

ACKNOWLEDGMENTS:

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