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Introduction

The increase of oral cancer therapeutics has placed considerable treatment responsibility with the patient to self-administer medication. Suboptimal medication adherence has been shown in ~ 50% of patients across many diseases, including cancer.¹ Development of a successful medication adherence intervention should be undertaken in consultation with key stakeholders, including patients and healthcare professionals, to ensure it is clinically appropriate, translatable and sustainable for delivery within existing healthcare services.²

Objectives

To detail the development process of a medication adherence intervention, SAMSON, that aims to improve medication adherence and reduce medication errors for cancer oral therapeutics.

Methods

The initial intervention, REMIND, was developed utilising co-design method with stakeholders including patients, haematologists, nurses and pharmacists. REMIND was pilot tested with 10 patients. Results from this pilot testing and stakeholder consultation informed development of the second iteration of REMIND, now called SAMSON.

Results (Cont'd)

To respond to this, the app has been expanded for input of multiple medications. Initial pharmacy consultation has been added to the intervention, that includes medication reconciliation and interaction assessment, administration education, potential side-effects, importance of adherence and the implication of missed doses. An additional final nurse consultation focused on relapse prevention has now been included.

Nurse and pharmacist training has been developed for online delivery, as have the intervention manuals, and patient/clinician reporting facilitates added, see figure 1. SAMSON is a 24-week, comprehensive, individualised and multi-faceted intervention that integrates an initial pharmacy consultation (week 1) and five nurse telephone consultations that utilise a motivational interviewing style (delivered at weeks 2, 3, 6, 10 and 12), supported by the ongoing SAMSON m-health APP use.

The APP provides daily medication reminder messages, positive reinforcement, and real-time evidence-based self-care advice to manage self-reported side-effects. It provides weekly adherence and symptom profile reports to provide patient feedback, guide nurse telephone consultations and clinician review.

Figure 1. Key components of the REMIND (first iteration; left) and SAMSON (second iteration; right) interventions, which highlights the development post piloting of REMIND, MI: motivational interviewing; m-health: mobile-health; W: week

Results

Pilot testing showed REMIND was strongly endorsed by both intervention nurses and patients.

These results, and consultation with pharmacists, identified further development should:

- 1) enable use with patients across chronic illnesses or with comorbid illnesses
- 2) Improve medication interaction safety, including with complementary and alternative medicines
- 3) Maximise translational value, distribution scope and consistency through use of online training and resources
- 4) Improve doctor-patient medication adherence and side-effect communication via greater reporting ability.

Conclusion

SAMSON targets cognitive, behavioural and affective aspects of medication adherence, creating long-term habits and providing ongoing patient support. SAMSON will now be trialled to assess feasibility and acceptability in people with blood cancers prescribed ongoing oral medication, ibrutinib, prior to efficacy testing. The intervention is expected to improve patient quality of life and reduce medication errors and related hospital admissions, ultimately optimising healthcare expenditure and minimising waste.

References

1. WHO. Adherence to long-term therapies: Evidence for action. Switzerland: WHO, 2003.
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