1. Introduction / Background

Missed appointments are an avoidable cost and resource inefficiency which impact upon the health of the patient and treatment outcomes. Healthcare services are increasingly utilising reminder systems to manage these negative effects. The aim of our study has been to explain the differential effect of reminder systems for different segments of the population in improving attendance, cancellation and rescheduling of appointments. We have found overwhelming evidence that all reminder systems are effective at improving attendance at appointments, regardless of health care setting or patient population sub-groups. There is weak evidence that 'reminders plus', which provides additional information over and above date, time and location of the appointment, may be more effective than simple reminders at reducing non-attendance. There is also strong evidence that 1) the timing of reminders, between one and seven days prior to the scheduled appointment, has no significant effect on attendance; 2) A significant proportion of reminders, differing by technology, may not be received by patients; 3) Reminders promote cancellation of appointments and 4) Patients may be deterred from cancelling appointments because of structural factors affecting reminder systems (e.g. busy phone line, nobody answers the phone). Our review has produced four information documents to help health service managers to consider specific issues that may inform the design of reminder systems for their health service. Due to the complexity of this evidence base our further aim is to produce a web-based practice guide to assist health service managers to navigate, tailor and apply the findings from this study.

2. Method and Design

The format and layout of the web-based practice guide will be developed over a period of approximately six months using the considerable content produced from this study and will incorporate the following stages:

Stage 1

We will work with computer software designers from Sheffield Hallam University to develop a web-based software package that contains the findings of 4 documents:

- A conceptual framework which helps managers to identify contextual elements which are hypothesized to contribute to attendance outcomes.

- A series of clinical scenarios relating to the use of reminder systems and wider possible solutions to help service providers to address their own context-specific scenarios.

- A document to help managers to consider major explanations for patients missing their appointments and to identify evidence based solutions to address each explanation.

- A document to help service managers to consider the advantages and disadvantages of the range of reminder systems including costs, and system-specific implications for cancellation and rebooking.

Stage 2:

We will work with a mixed group of health service managers and patient and public involvement (PPI) representatives to achieve a consensus about how best to present this information. Several models have already been visualised by the team including a pathway of care model, a scenario-based model and a needs assessment diagnostic package. The final model, which may or may not be one of these, will be determined following this consultation; feedback from the service user group will be used refine the web-based software package.

Stage 3:

The software package will be piloted on 10 health service managers with responsibility for managing different outpatient clinics.

3. Funding

A funding application is currently in preparation for submission to South Yorkshire Collaboration for Leadership in Applied Health Research and Care (CLAHRC SY) and similar funding bodies.

4. Significance and Conclusion

A web-based practice guide would provide an easily accessible, user-friendly process to allow health service managers to navigate a complex range of information and consider important factors when they are considering which reminder system to use within their own health services. This would enable managers to tailor reminder solutions and supporting administrative procedures optimally, according to the needs of their service user population, more efficient utilisation of health service appointments and professionals, and improved patient satisfaction and treatment outcomes.