



The research commercialisation office of the University of Oxford, previously called **Isis Innovation**, has been renamed **Oxford University Innovation**

All documents and other materials will be updated accordingly.
In the meantime the remaining content of this Isis Innovation document is still valid.

URLs beginning www.isis-innovation.com/... are automatically redirected to our new domain, www.innovation.ox.ac.uk/...

Phone numbers and email addresses for individual members of staff are unchanged

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Message Dynamics –

Low cost telehealth services

Using automated Integrated Voice Response (IVR) calls and smartphones to improve patient care and medicines adherence.

IVR improves earlier reporting of exacerbations in COPD patients.

Aim

To explore whether twice weekly automated clinical assessment (telephone call) leads to earlier recognition of symptoms and a change in reported exacerbations, therefore, reducing unplanned admissions.

Method

Sixty five patients already known to the COPD team were enrolled and consented into the study. They received twice weekly telephone calls on Mondays and Thursdays from September 2011-March 2012. Data recorded included: what and how many alerts were triggered, the number of contacts following the alerts, what treatment was initiated and the consequences of the episode e.g. admission to hospital, admission avoided.

Questions Asked On The Call

- How short of breath are you today?
- How wheezy is your chest?
- Do you have a new cough today?
- Are you bringing up more sputum than usual?
- Has any sputum you are bringing up changed colour?

Conclusion

The use of IVRS in patients with COPD appears to offer benefits in early recognition and reporting of symptoms. Initial results are that it is well received and leads to increased reporting and a more effective use of specialist resources.

A subsequent NHS evaluation led by the Thames Valley Health Knowledge Team found improved patient health, reduced admissions and savings of over £1500 per patient per year.

Adherence service doubles the rate at which patients return to the pharmacy for a repeat prescription.

Aim

To explore whether patients receiving regular messages in the first three months after being prescribed a new

medicine leads to an increase in the number of patients taking the medication as prescribed.

Method

Patients who were diabetic received a message, either an automated voice call (in English or Punjabi according to each patient's preference) or a message on their smartphone, on the day after they received a new medicine, to identify whether they were at risk of being non adherent.

Questions Asked

- Do you understand why you have been prescribed the medicine?
- Do you intend to take the medicine as prescribed?
- Do you understand the side effects?
- Is there anything worrying you that might stop you taking your medication?

“The service improved patient health and led to savings of over £1500 per patient per year.”

Where a patient's answers indicated they were at risk of being non adherent, an alert was sent to the pharmacy where the medicine

was dispensed so that the pharmacist could intervene. Follow up calls were sent to patients at two weeks, four weeks, two months and three months after starting the new medicine to continue to check their risk of non adherence and depending on the answers received, alerts were sent to the pharmacy.

Conclusion

Response rates were high with 89% of patients responding to at least one message. Of those patients that responded, 55% indicated they were at risk of being non adherent.

Alerting pharmacists to which patients were at risk of non adherence so that they could intervene increased the rate at which patients continued with their medication from 38% to 81%.

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