

An Interactive Voice Response System (IVRS) Improves Earlier Reporting of Exacerbations in Chronic Obstructive Pulmonary Disease (COPD) Patients

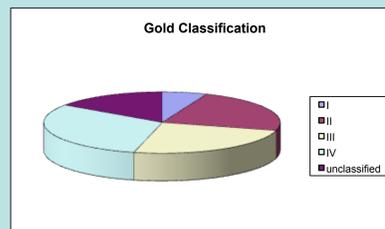
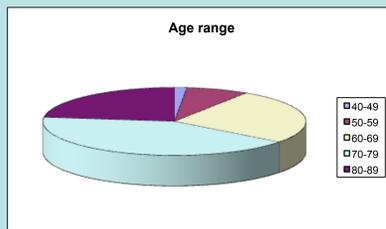
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Aim

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. This followed a pilot conducted over a three month period, June 2011 – September 2011. Demographic data collected: gender, age, smoking status, GOLD staging of the disease based on spirometry. 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.



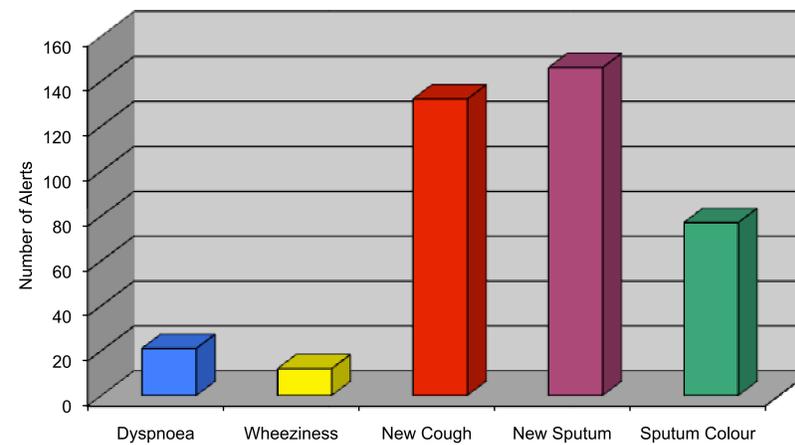
Questions Asked On The Call

- 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?

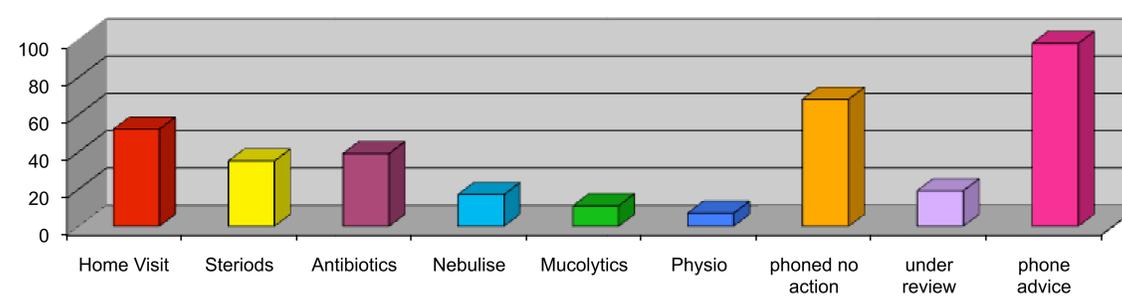


Acknowledgements: With thanks to Message Dynamics for the technology and their support.

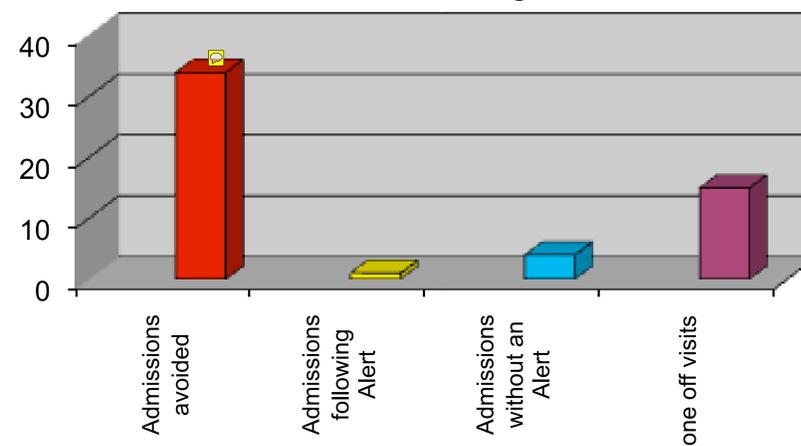
IVR Alert Type June 2011 to March 2012



Intervention following an Alert



Intervention following Alert



RESULTS

	Pilot Data June 2011- Sept 2011	Study Data Sept 2011- March 2012
Average no. of alerts per patient	2.7	3.6
Average no. of visits per episode	3.8	2.6
% of alerts requiring a home visit	24%	27.5%
% of alerts requiring a one off visit	0	6.5%

Discussion

- There is no standardised agreement across centres as to what determines an exacerbation or an admission avoided.
- Although small, it is well evaluated by patients and is continuing to grow in numbers.
- IVR compliments the admission avoidance service and helps reduce the number of contacts made by the team.
- An IVRS assists in promoting self care and developing patients' confidence in controlling and managing their symptoms.
- After feedback from the pilot the questions and alert pathway were changed slightly and patients are now deactivated when under review or in hospital.

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.