

Patient Attendance Alert to Specialty System: An automatic alert to identify patients admitted with known chronic obstructive pulmonary disease

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Aims

An automatic generated alert identifying patients with known chronic obstructive pulmonary disease (COPD) on admission can help reduce length of stay and readmissions.

Methods

Short message service (SMS) and email alerts were designed to be generated from a patient's known coding diagnosis of COPD on admission. Ten plan, do, study, act cycles were carried out to filter the alerts to reduce the number of alerts generated to be only from the emergency department (ED) and acute medical unit (AMU). Additional filter of set phrases of respiratory symptoms on presentation to ED and the postcodes of South Sefton CCG were added to fine-tune the number of alerts and to improve the specificity of the alerts. A 6-week trial was then carried out in 2016 for patients presenting to ED. Their diagnosis on presentation, length of stay and readmission details for 30 days, 3 months and 6 months were collected. A further 4-week trial was carried out in 2017 for paper referrals to community COPD nurses. This was then compared to Patient Attendance Alert to Specialty System (PAASS) alert referrals for diagnosis on admission, length of stay and the overlap of alerts and the referrals.

Results

The ED trial identified 108 triggered alerts with 56% (n=58) admissions due to exacerbations of COPD. The average length of stay for these 58 patients was 4.4 days. The 30 day, 3 months and 6 months readmission rate with COPD was 17%, 27.5% and 20.6%, respectively. There were 29 paper referrals to the nurses. Out of these 14 referrals were from the wards. There were 64 PAASS alert generated referrals from ED and AMU. Six patients were alerted by both the systems. Seventeen out of 29 (58%) paper referrals had COPD diagnosis. Their average length of stay was 5.6 days. Seven of these patients were readmitted

(41%) within 30 days. Twenty-five out of 64 (39%) PAASS alerted patients from AMU and ED were diagnosed as COPD exacerbation. Their average length of stay was 5.6 days.

Conclusion

The use of SMS alerts provides a novel way to initiate timely specialist intervention to patients with conditions commonly seen in acute medicine. This technique provides instant information of COPD presentations and it appears to notify greater numbers of patients to COPD specialist nurses than existing paper referrals. PAASS alert automatically captures patients admitted with exacerbation of COPD from ED which is comparable with the paper referrals (56% vs 58%). Reviewing patients in ED by specialist COPD nurses can reduce admission, length of stay and readmission rate. ■

Conflict of interest statement

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