A quality improvement project to reduce the rate of cardiac arrests at Basildon Hospital

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Aims

To reduce the number of cardiac arrests by 50% by December 2016.

Methods

Implementation of a multidisciplinary team to perform case-note reviews of patients who triggered an emergency call.

Trends were identified that became our primary drivers:

- completeness of NEW scoring
- failure to escalate
- delays in clinical reviews
- avoidable cardiac arrests.

The Cardiac Arrest Team was changed to a Medical Emergency Team (MET).

The escalation policy was streamlined. Clearer guidance regarding escalation was provided, including instructing the nurse in charge to call the MET if the ward team had not responded to a NEW score >6 within 30 minutes.

These changes were communicated in a structured educational campaign.

The updated escalation policy was incorporated into the development of electronic observations. Installation and training of all staff has occurred (this was implemented as part of the wider deteriorating patient QI team).

Results

Our outcome measure was the rate of cardiac arrests per 1,000 admissions. We excluded pre-hospital cardiac arrests. Our quantitative process measures included rate of medical emergency calls, accuracy of NEWS calculation and number of NEW scores >6 that were recorded per week (this forms part of the larger deteriorating patient QI project). We have achieved an increase in medical emergency calls, but concurrently a 56% decrease in the number of cardiac arrests.

Our qualitative process measures included conducting a survey of clinicians that participated in the MET call over the past year. Regarding recognising patient deterioration, 89% of junior doctors felt that MET calls prevented cardiac arrests, with 100% of responses agreeing that attending a MET call had prevented the patient from deteriorating further. Significantly, 84% of doctors felt that they had changed their practice by attending medical emergency calls, and more junior doctors and nurses felt that they could recognise a deteriorating patient more confidently.

Conclusions

The innovations described have led to an increase in recognition of the deteriorating patient and an increase in MET attendances. A reduction in cardiac arrests has been achieved by a combination of earlier treatment of the deteriorating patient and/or prevention of unnecessary resuscitation attempts. Although we have reached our primary objective early, reducing cardiac arrests from 3.09 per 1,000 admissions in Sept 2014 to 1.37 per 1,000 admissions in Sept 2016, we are continually working to further reduce the rate of cardiac arrests and improve the management of the deteriorating patient at Basildon Hospital. ■

Conflict of interest statement

The preliminary data for this project have also been shared with UCLP.

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