Dartford and Gravesham NHS Trust

Reducing mortality among acutely ill hospital patients

Dartford and Gravesham NHS Trust improved the care of its patients by applying recommendations from NICE clinical guidelines on acutely ill patients in hospital.

"We have seen significant reductions in rates for mortality and cardiac arrest since the project started."

Annette Schreiner, Medical Director, Dartford & Gravesham NHS Trust

Promptly escalating care for deteriorating patients

Dartford and Gravesham NHS Trust's mortality rates had been higher than average for a number of years, and official figures showed that mortality rates had been worse at Dartford than in any London borough.

To address this, the Trust set up a project called 'Deteriorating Patients'. The project's aims were to reduce the Trust's rates of mortality, cardiac arrest, and the number of admissions to intensive therapy units.

Since 2007, the project has been continuously evaluated, refined and amended, and has incorporated recommendations from NICE guidance on acutely ill patients in hospital.

Among the key priorities for implementation in this guideline, is that hospitals should deliver a graded response strategy for patients identified as being at risk of clinical deterioration. NICE says this strategy should consist of three levels, and a medical team with critical care competencies and diagnostic skills should respond immediately if patients are at high risk of clinical deterioration.

The Trust followed these recommendations to set up a Medical Emergency Team (MET) which helped improve the care of acutely ill patients.

How did the Trust carry out the project?

In 2007, the Trust introduced a patient-at-risk (PAR) scoring system to assess hospital inpatients, and provide clinical staff with a measure of level of patients' risk.

This was followed by running ALERT (Acute Life-Threatening Events Recognition & Treatment) training courses for staff, to help them recognise patient deterioration and to act appropriately in treating the acutely unwell.

Following this, the Trust started developing the MET, which was subsequently launched in 2008. The MET consists of a medical registrar and an anaesthetic registrar, both of whom are on-call, and an intensive therapy unit (ITU) outreach team.

The Trust ensured the team can be contacted via the same system as cardiac arrest teams. The team sees patients, who score the highest risk of deterioration, within 15 minutes of being called out. Patients scoring at less risk will be reviewed by the ward team within the hour and if the risk score is even less, the patients are reported to the ward sister.

Improving rates for mortality and cardiac arrest

Data from the ITU shows that since the project began, patients are being admitted to the unit less unwell, suggesting a timelier response for acutely ill patients. Data for that time also shows that ITU mortality has dropped from 21 to 14%.

Further results include:

- a 39% reduction of crude mortality rate for all admissions, from 2.55 to 1.55%
- a 73% reduction of cardiac arrest rate per 1000 admissions, from 6.27 to 1.71%

Learning points include:

- tracking delays to calls to the MET. Since introducing audit forms to track delayed calls, these have reduced from 8.7 to 4.5% in 1 year, with only 1.9% of calls delayed by over 4 hours
- clear guidance is essential on when to refer a patient to the MET, and on ensuring the MET is available within 15 minutes of call-out
- staff require continuous training and reminders to complete patient-at-risk scores and to escalate care appropriately in line with NICE guidance
- performance can only be maintained through continuous audit and attention

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