A trust has lowered its mortality ratio by improving compliance in EWS monitoring

Early warning scores: effective use

In this article...
› Monitoring staff use of early warning scores and action taken
› Developing innovative solutions to benefit patient care

In February 2009, we carried out a baseline audit to aid our understanding of areas of best practice and those requiring improvement. We then took steps to increase staff knowledge, skills and communication related to EWS. EWS and subsequent action taken by nursing and medical staff are monitored through a monthly quality review panel consisting of the director of nursing and the senior nursing team. Weekly reviews of EWS were undertaken in specific areas, supported by training from critical care educators. The trust has also introduced clear escalation processes that have further supported improvement, and we conduct a quarterly trustwide audit to show the impact of this work.

Nurses’ role
Nurses have developed innovative solutions to improve the management of deteriorating patients. For instance, nurses on medical and orthopaedic wards “stop the clock” every four hours to conduct observations. EWS results then go on a ward board and medical colleagues join the nurses to do a board round. Decisions are made every four hours, which helps clinical teams act promptly and appropriately.

To monitor patient perceptions of care, we ask them to rate the support they have received. This means they are assessing us based on their confidence in our nurses.

Outcomes
The audit, undertaken in May 2009, showed marked improvements in all criteria that were assessed (Table 1). This reflects the commitment of our medical and nursing staff to work together to improve every possible aspect of patient care and safety.

The work has continued to develop. Our mortality ratio is now the lowest in the North East and a positive outlier nationally, whereas it was the highest two years ago and a negative outlier nationally; management of deteriorating patients has significantly contributed to this improvement. We now do a full root-cause analysis of every cardiac arrest, which includes looking at what happened in the 48 hours before the arrest. Over the last six months, only one patient who had a cardiac arrest experienced a deterioration of their observations in the time leading up to it.

References

Table 1. Summary of main findings (based on 120 patients)

<table>
<thead>
<tr>
<th>Standard audited</th>
<th>February 2009 (%)</th>
<th>May 2009 (%)</th>
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</thead>
<tbody>
<tr>
<td>Most recent early warning score (EWS) recorded</td>
<td>86</td>
<td>93</td>
</tr>
<tr>
<td>Most recent and all previous EWS recorded</td>
<td>63</td>
<td>78</td>
</tr>
<tr>
<td>Correct action taken on raised EWS</td>
<td>71</td>
<td>88</td>
</tr>
<tr>
<td>Action documented following raised EWS</td>
<td>63</td>
<td>86</td>
</tr>
<tr>
<td>Observations recorded at appropriate frequency</td>
<td>62</td>
<td>91</td>
</tr>
<tr>
<td>Observations prescribed for alternative frequency</td>
<td>58</td>
<td>92</td>
</tr>
</tbody>
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●This article has been double-blind peer reviewed

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In June 2008, North Tees and Hartlepool Trust signed up to Patient Safety First. Our objectives were to put patients first and to develop a culture of patient safety. We implemented the intervention discussed here with the aim of preventing harm and reducing in-hospital cardiac arrest and mortality through earlier recognition and treatment of deteriorating patients. Acute illness is exacerbated by “failure to act” on recognised changes (Hillman et al, 2001). Analysis of serious patient safety incidents revealed that 11% of deaths were related to “deterioration not recognised or not acted upon” (National Patient Safety Agency, 2007a). The process can fail by not taking observations, not recognising early signs of deterioration, not communicating observations causing concern and not responding to concerns appropriately (NPSA, 2007b).

In November 2008, we started to use the Global Trigger Tool (Griffin and Resar, 2009) to review the clinical records of recently discharged patients on a weekly basis. This showed that nursing and medical staff could improve management of EWS.

Early warning scores (EWS) rate patients’ risks of serious deterioration; they are derived from four physiological readings and observing patients’ levels of consciousness. The trust introduced EWS in 2007 but there had been no formal audit or associated training.

In February 2009, we carried out a baseline audit to aid our understanding of areas of best practice and those requiring improvement. We then took steps to increase staff knowledge, skills and communication related to EWS.