Electronic keypad replaces early warning score paper charts

Michael McNamee describes how a bespoke monitoring system has improved patient outcomes in one hospital

A number of adapted paediatric early warning systems (PEWS) rely on specific observation criteria and measurable track and trigger tools.

However, nationally agreed systems in the UK are some way off. Moreover, until recently, there have been challenges in sourcing an electronic observation and alerting system that is compatible with the needs of patients, staff and organisations.

At the Royal Manchester Children’s Hospital, an adapted early warning score was developed to ensure all staff can identify critically ill or deteriorating children, and ensure any concerns raised result in the child being assessed by a senior practitioner or doctor quickly.

In 2007, the NHS trust began to look at the possibilities of implementing an electronic monitoring system to support the existing early warning score. In 2010, after conducting a pilot study involving different systems, the electronic early warning Patientrack system was chosen. The technology incorporates a keypad that makes real-time risk assessments and generates alerts to enable nurses and doctors to respond quickly and appropriately.

Benefits of the system

- Operational overview of all children and young people’s observations in multiple clinical/ward environments.
- Early warning score alerts highlighted.
- Alerts sent via a wireless system with reduced manual bleep time/calling by nurses.
- Overdue observations highlighted with alerts escalating if there is no timely response.
- Flag system identifies specific observation profiles used, for example tracheostomy flags and end of life flags.
- Designed for finger use intuitive calculator-type keypad.

Implementation is ongoing and it has been challenging because of the complexity of the range of physiological parameters across the age span of patients in the child health setting and the differences in their response to illness.

Evaluation

The transition from paper observation charts to electronic monitoring documentation has been a huge step forward organisationally.

Early data collection suggests an improvement in a number of areas including clinical effectiveness, patient safety and improved clinical outcomes for patients.

The improved outcomes for children and young people are related to the system enabling health professionals to access observation records from a central area, and that the records are legible and accurate.

Children’s nurses report that they spend more time with the child and young person at the bedside rather than telephoning colleagues to escalate concerns. From the organisation’s perspective, there is now a structured, auditable process that ensures quality assurance standards are met and monitored continually.

Michael McNamee is education development practitioner, Royal Manchester Children’s Hospital, Central Manchester University Hospitals NHS Foundation Trust

Find out more

No Way Out, No Way In: Irregular Migrant Children and Families in the UK is available at tinyurl.com/dyaflck

Discrimination

The UK has long been criticised by the UN Committee on the Rights of the Child for its treatment of certain groups of children who continue to experience discrimination and social stigma.

This year, health services minister Dan Poulter announced plans for a national database that will log every child who visits hospital EDs or out-of-hours GPs. The child protection information system, which is planned for 2015, is designed to help doctors spot signs of neglect or abuse, but will also be able to highlight migrant children not on the system.

RCN children and young people’s adviser Fiona Smith says there is an urgent need to identify the children not in the system, and ensure support is in place for them.

She says: ‘In different parts of the country, there is a growing population from different ethnic backgrounds. Some are asylum seekers, some have come to visit relatives and have stayed. ‘Some areas may not have had a transient population in the past but may have one now. There is an issue regarding access to healthcare provision, particularly with regards to vaccines and immunisation. We need to protect the population at large.’

Jackie Cosh is a freelance writer

‘I also liaise with the school to ensure the child has settled in well and to see if any needs have been identified. If it is a reception child, we will perform a health needs assessment, and I arrange to meet the parents. We wouldn’t just wait to see if they have a problem. We would be proactive.

‘What tends to happen with the school nursing service is that we are the ones who tend to do the mopping up,’ explains Ms Attwater. ‘Other services may say, “Oh they haven’t attended, we gave them two options”, but we keep trying because it is about meeting the needs of vulnerable children.’