Meet Drew – winner in the Child Health category

Drew McDonald, senior staff nurse at the Royal Aberdeen Children’s Hospital emergency department, has won an award for developing a tool to identify sepsis in children

My goal as a nurse is to ensure that every child attending our department is given the best care possible. We should treat the families as if they were our own, and I knew we were not good enough at dealing with sepsis.

One in five patients with severe sepsis admitted to paediatric intensive care units (PICUs) die and Royal Aberdeen Children’s Hospital (RACH) emergency department (ED) senior staff nurse Drew McDonald was concerned that this could happen in his workplace. He therefore developed a clear and easy-to-use sepsis recognition tool for nursing staff to refer to during triage.

The tool, which integrates the Sepsis 6 protocol into ED practice, takes 20 seconds to complete. It was implemented successfully at RACH.

Drew’s leadership and commitment saw him announced winner of the child health category of the RCNi Nurse Awards, the profession’s top accolade. The Child Health Award is supported by Nursing Children and Young People and sponsored by Nursing Standard.

Drew says of his reasons for developing the tool: ‘By the time a child gets to the PICU 200 miles away, the damage is done. What we do beforehand is vital, but our care was not good enough and I knew it.

‘Good pre-PICU care – early recognition and early treatment with antibiotics, cardiovascular support including fluids and inotropes – can greatly improve outcomes. But there were inconsistencies at triage.

‘I wanted to ensure every child got the same thorough assessment, regardless of their nurse’s experience. Nurses were concerned when they approached doctors about a sick child.’

Drew realised the answer was an effective recognition tool. ‘At this stage it was just me, and I had no experience of improvement and my sepsis knowledge was poor. Staff were averse to change and I didn’t know where to start.

‘I put together a team, the sepsis working group, and met with an NHS Grampian improvement adviser to improve my sepsis knowledge. Then I started engaging staff.’

Drew designed the sepsis recognition tool and established an agreed pathway for requesting a senior doctor review. This was supported by face-to-face training for all staff. Since then the tool has been adjusted and is now on version 5.

The tool is used for all children with illness admissions and can be completed by nurses at any level. If a child meets the tool’s criteria, he or she receives a senior doctor review.

The tool includes symptoms not considered in a paediatric early warning score (PEWS), such as poor perfusion, mottling and poor peripheral perfusion, as well as altered mental and physical states, such as irritability and ‘floppiness’.

If sepsis is identified, it is managed appropriately with an easy-to-follow six-step treatment plan. Drew says: ‘Previously, different doctors gave different treatments and different antibiotics. Fluid bolus dosage was never consistent and nurses were scared to use inotropes.'
The tool is being used in RACH’s paediatric assessment unit and at hospitals in Elgin and Glasgow. There has been interest in it from hospitals and primary care services all over Scotland, as well as in Sheffield, Australia, South Africa and Switzerland.

NHS Grampian senior nurse Caroline Clark, who has overall responsibility for the children’s hospital and the neonatal unit, nominated Drew for the award. She says that his commitment and leadership has ensured its success and inspired the trust’s nursing community.

Change management

‘As with any change management programme this was not without its challenges, but Drew adapted the tool, trialled it and persevered to ensure staff were fully on board with it before it was fully implemented.

‘Drew’s commitment and belief in the tool inspired the team to implement the necessary changes. He attended meetings and answered challenging questions, came back with answers and audit results, and continued with the programme with determination. He has become an advocate for the nursing team.’

‘North East London NHS Foundation Trust nurse consultant for children and young people Joan Myers was one of this year’s RCNi Nurse Awards judges. She says: ‘Drew was courageous yet humble in his approach. He persevered despite the challenges and he remained focused knowing that it would improve clinical effectiveness, patient outcome and experience.

‘His tool has gone from local to international in a short time, even before sepsis management became high on the agenda. Drew has all the characteristics of child health nurse of the year.’

‘Now that use of the tool is embedded at RACH, Drew continues to monitor its use. He is working on implementing it in the paediatric assessment unit (PAU) as well as promoting the tool nationally.

‘My goal is to have our sepsis tools distributed nationally and used in every emergency department and PAU in Scotland and beyond,’ he says.

‘It wasn’t easy. Most of the work was done in my own time. People don’t like change and it was sometimes difficult getting them to listen. I’ve been laughed at. And it is difficult maintaining standards.

‘Although I seem to get all the credit for this, there is a great team of people helping and supporting me. A lot of people contributed to making it a success and my team and I will never stop trying to improve our service for the children and families that use it.’

Drew McDonald says: ‘When my son was two months old he was a bit grumpy and not himself for a day.

‘The next morning he was hot and irritable, but still feeding so I gave him pain relief. I then went to a wedding where I was the best man and preoccupied with my role.

‘At the wedding he continued to be grumpy, but had some bright spells. That night I checked him and he was extremely hot and irritable. I knew I needed to get him into hospital.

‘He was admitted to the paediatric assessment unit and given a full septic screen, and IV antibiotics and fluids. Nothing came back on the blood cultures, but he was treated as if he had viral meningitis.

‘He turned out to not have a bacterial sepsis, but had all the same symptoms and it could have been more sinister.

‘I was an experienced nurse at this point but I didn’t fully understand the threat of sepsis or the complexities of recognising it.

‘I have always felt guilty that I did not deal with it better, and that the pressure of being a best man and my speech clouded my judgement. It wasn’t the trigger for my project, but it made me sit up and recognise that sepsis is a problem and if I can miss it on my own son, it could happen to anyone. When the chance of helping staff to recognise and treat sepsis better came up, I jumped at it.

‘I have a passion for the recognition of sick children and my own children have a lot to do with that.

‘Losing a child is the worst thing I can think of and I don’t want it to happen to anyone because of sepsis. Not all child deaths are preventable, but sepsis can be if you get it right. I am on a mission now.’

Recognising the threat of sepsis

‘Confusion means delayed treatment, but the new tool ensures that treatment plans for every patient are consistent. It includes simple antibiotic and fluid dosages, and an easy-to-follow inotropic support procedure. Staff are less anxious to use these drugs now.’

‘Drew spent time engaging with nursing staff and clinicians to ensure the tool was embedded into practice. He presented it at nursing team, consultant and medical staff meetings.

‘More than 5,000 patients have been screened for sepsis in Drew’s ED and staff using the tool have not missed any patients with the condition. The department treats 2.3% of its total illness presentations with the Sepsis 6 protocol and 73% of these patients are treated within the first 60 minutes.

‘There is no over treatment,’ says Drew.

‘All of our PICU patients have returned to Aberdeen well, although unfortunately two children with sepsis have died in our ED since 2014.’

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