south street surgery

Improving care for children presenting with feverish illness

South Street Surgery, a large teaching GP practice in East Hertfordshire, set out to improve the quality of care for children presenting with febrile illness. The overall goal was to ensure that 95% of children under the age of 5 presenting with a febrile illness were assessed in accordance with the NICE guidelines. The project used the principles of improvement science to make it easier for clinicians to do the right thing and harder to do the wrong thing.

"A simple effective project made successful by paying attention to engaging other clinicians and using a systematic improvement methodology."

Dr Paresh Dawda

Four key components not being measured

Children frequently present to general practice with an acute febrile illness, but despite this studies have shown that half of children with a serious febrile illness are not identified at first presentation.

GPs have a challenging task to identify those children with a serious illness from a large number of children who will have minor illnesses that are often self-limiting.

In order to improve the situation, NICE published guidance in 2007 on the assessment and initial management of children under 5 with febrile illness.

A baseline assessment carried out at the practice revealed that the four components of the NICE recommended clinical assessment were not happening. Temperature was recorded just over 80% of the time, capillary refill time recorded for just 30% of children, respiratory rate for fewer than 20% of children, and none of the children had their heart rate measured.

Provide prompts to change current practice following education

Staff questionnaires, direct observation and "leadership walk arounds" identified a range of potential solutions in addition to the need for greater education and training. This was provided by an online learning tool, hosted on the practice's intranet and then further signposting to an online tool offered by BMJ learning in association with NICE.

Information on normal temperature values was placed on mouse mats specifically designed with a picture of a little girl having her temperature checked to further provide a memory prompt to check the temperature. A further reminder prompt was a sticker of the same little girl below the LCD screen of tympanic thermometers.

A data entry template was created on the clinical system to capture coded data. An electronic algorithm was also created on the clinical system (EMIS LV), so that if a code was entered for a child that would suggest a condition with a fever, the computer system would check to see if the four items had been recorded and if not it would create a 'forcing' function reminding the clinician to conduct these components of the assessment.

No increase in consultation length

Uptake of the NICE guideline was monitored using another tool from improvement science (known as statistical process control chart). Each patient was given a score of 1,2,3 or 4 depending on how many components of the assessment they had conducted. Each patient was then plotted on the SPC chart and the chart was annotated with the interventions.

This is an on-going project but the actions carried out so far have clearly demonstrated that the interventions are leading to an improvement in care.

One of the anxieties was that conducting the assessments might lead to an increase in consultation length, but the data clearly demonstrated this was not the case.

The use of improvement science principles is really helpful. It provides a systematic approach to improvement. The importance of establishing reasons or root causes is invaluable as well as the approach to testing out ideas. Regular and frequent measurement, and presenting it graphically in the form of an annotated run chart, is a power engagement tool.

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