**Letter**

**Education: including medical students in quality improvement projects in primary care**

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The current edition of the Future Healthcare Journal focuses on education1. This includes the successful quality improvement project by Dormandy et al2 on increasing the use of the 4AT delirium screening tool.

We would like to share our experience of a medical student quality improvement project in primary care. In response to the National Institute for Health and Care Excellence (NICE) guideline for sepsis assessment in children published in 20184, we completed an audit cycle investigating the assessment of children aged <5 years presenting with fever (>37.5 °C) at an inner-city general practice.

Investigating febrile illness is important as early recognition of sepsis reduces mortality and morbidity3. The NICE guideline4 outlines four signs that should be recorded: temperature, pulse, respiratory rate and capillary refill time (CRT).

Our first audit in 2018 looked at general practitioners’ compliance by analysing the computerised records of 111 consultations with feverish children from May 2014 – May 2018. Table 1 shows that all four signs were recorded in only 11% (12/111) of consultations.

These results were presented to the general practitioners and practice nurses in a weekly clinical meeting in 2018. Not everyone was aware of the NICE guidelines. In addition CRT was not a commonly used sign when the older clinicians were trained. Everyone agreed to improve recording of signs.

A re-audit was undertaken assessing 48 consecutive consultations from June 2018 – June 2019. Only 25% (12/48) of consultations had all four signs recorded, an overall improvement of just 14%.

***Table 1: Percentage (%) of signs and symptoms recorded in Audit 1 and Audit 2***

|  |  |  |
| --- | --- | --- |
| Signs needed for the NICE Traffic Light System  | Audit 1: percentage of 111 consultations before June 2018 recording each sign  | Audit 2: percentage of 48 consultations after June 2018 recording each sign |
| Temperature  | 100% | 100% |
| Pulse  | 81% | 94% |
| Respiratory Rate | 49% | 42% |
| Capillary Refill Time  | 32% | 50% |
| All four signs  | 11% | 25% |

*Footnote*

In Audit 1 the mean age of children was 18 months (range 2-53 months), and the highest temperature recording 40°C. In Audit 2 the mean age was 21 months (range 12-48 months) with the highest temperature recording 40.6°C.

These findings were presented again at a practice meeting in November 2019. Clinicians said the main reason for such a small improvement was probably that many febrile children seen by GPs are not particularly ill. If a child seemed well, was drinking, alert and active, they would not necessarily record all the signs, especially within the constraints of a 10 minute consultation. It would be different if the child was unwell and they were considering referral to paediatric A+E5. EMIS computerised GP records now have a red “Sepsis” prompt which pops up if abnormal clinical signs such as high fever, tachycardia are recorded in a template.

As students, this was exciting as we were able to contribute to a change in clinical practice. Involving medical students in quality improvement projects can be mutually beneficial for clinicians who need audits for their annual appraisals and for students who benefit from the educational experience.

Reference List

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