



Euan Lawson

## SEEING RED WITH THE NICE TRAFFIC LIGHTS

In the UK the National Institute for Health and Care Excellence (NICE) recommends the use of a traffic light system when assessing febrile children aged under 5 to identify those at risk of serious illness. It has been a standard part of normal clinical care in UK general practice for many years. It is so routine we barely think about it, hardly pause to eye its merits.

The NICE traffic light approach had never been validated in UK general practice. The article by Amy Clark and colleagues published in this issue is a retrospective diagnostic accuracy study of the NICE traffic light system.<sup>1</sup> They conclude that the system 'cannot accurately detect or exclude serious illness in children presenting to UK general practice with an acute illness.'

They looked at a dataset including 6703 children who were given a traffic light category and linked this to hospital data to identify admissions and diagnoses. There were 139 (2.1%) children admitted within a week of their presentation and the traffic light tool

had a sensitivity of 58.8% and a specificity of 68.5% when 'red' categorised children were compared to 'amber'/'green'. NICE do suggest that the 'amber' category should be considered for admission, and when the 'red' and 'amber' are combined (and compared to 'green') then the sensitivity rises to 100% but the specificity drops to 5.7%.

There is an important point here about evidence and assumptions. It's easy to see how the NICE system has become embedded: it has reasonable face validity and there are off ramps for the concerned GP (for instance, the catch-all 'appears ill to a healthcare professional' in the 'red' category). However, it is at heart, an algorithmic handholding approach, and a rather crude one at that, which has spawned countless educational articles and audits. It has also fostered a generation of GPs who have taken care to monitor and document vital signs in potentially ill children — no bad thing necessarily.

There are significant challenges in identifying very sick children — not least the relatively small numbers of serious illness. In this cohort just 17 out of 6703 were considered seriously ill. That's part of the reason the NICE traffic light system has been accepted so willingly. We don't see it failing given this rarity and the system works when it comes to sending away 'green' lit children, reassuring parents and GPs.

This research suggests the current approach is failing. All research has limitations and we work around them, interpreting with care, but there is nothing more limiting than ploughing onwards without critical exploration of our quotidian habits. The best research jolts us out of jaded acceptance into wide-eyed

## Issue highlights

The editorial on long COVID this month is important, deftly incorporating the patient voice, and a further editorial on autistic-friendly practices illuminates and offers actions. We can't develop primary care without GPs and we won't get them if medical students don't experience primary care. An editorial on the long-neglected funding for GP placements in England flags that progress has finally been made but challenges remain. Two research articles explore childhood eczema and another pair consider anxiety and mental health problems in children and young people. And don't miss the thorough analysis on transforming primary care in Scotland that has wider lessons for all.

realisation of how ignorant we are without it. It's a cliché: but more research really is needed.

Euan Lawson,  
Editor, *BJGP*

## REFERENCE

1. Clark A, Cannings-John R, Blyth M, *et al*. Accuracy of the NICE traffic light system in children presenting to general practice: a retrospective cohort study. *Br J Gen Pract* 2022; DOI: <https://doi.org/10.3399/BJGP.2021.0633>.

Further notes from the Editor on the June 2022 issue (with references) can be found at [bjgplife.com/jun22](http://bjgplife.com/jun22)



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