

and a resulting real change to clinicians' use of electronic health records.

Pablo Millares Martin,  
GP, Whitehall Surgery, Wortley Beck Health  
Centre, Leeds.  
Email: Pablo.martin@nhs.net

## REFERENCES

1. Liaw ST, Powell-Davies G, Pearce C, *et al*. Optimising the use of observational electronic health record data: current issues, evolving opportunities, strategies and scope for collaboration. *Aust Fam Physician* 2016; **45(3)**: 153–156.
2. de Lusignan S. The barriers to clinical coding in general practice: a literature review. *Med Inform Internet Med* 2005; **30(2)**: 89–97.
3. Liaw ST, Chen HY, Maneze D, *et al*. Health reform: is routinely collected electronic information fit for purpose? *Emerg Med Australas* 2012; **24(1)**: 57–63.
4. van der Bij S, Khan N, Ten Veen P, *et al*. Improving the quality of EHR recording in primary care: a data quality feedback tool. *J Am Med Inform Assoc* 2017; **24(1)**: 81–87.
5. Sollie A, Sijmons RH, Helsper C, Numans M. Reusability of coded data in the primary care electronic medical record: a dynamic cohort study concerning cancer diagnoses. *Int J Med Inform* 2017; **99**: 45–52.
6. Millares Martin P, Sbaffi L. Electronic Health Record and Problem Lists in Leeds, United Kingdom: variability of general practitioners' views. *Health Informatics J* 2019; DOI: <https://doi.org/10.1177/1460458219895184>.
7. Spencer SA. Future of clinical coding. *BMJ* 2016; **353**: i2875.

DOI: <https://doi.org/10.3399/bjgp20X709973>

## Clinical scores in primary care

A clinical prediction rule represents a distillation of measurable features, usually by regression modelling. It helps standardise the approach to diagnosis and, in theory, should reduce variation in diagnosis and inappropriate prescribing.

Our review compared Centor's score with McIsaac's score.<sup>1</sup> These are the two most recommended prediction rules used for diagnosing GABHS-related pharyngitis in different national guidance.<sup>2,3</sup> Although other scores such as Walsh's score exist, they tend not to feature in international guidance.<sup>2,3</sup>

FeverPAIN does appear in UK guidance and was developed in the UK by one of the co-authors of the editorial.<sup>4</sup> However, the derivation study is still the only study that has evaluated the rule and so meta-analysis was not possible.

Our review demonstrates for both scores that there is substantial variation in performance across different settings.<sup>1</sup> Furthermore, the two studies that reported the most favourable receiver operating characteristic (ROC) curves for McIsaac's score have McIsaac as first author. Both of these points reinforce the need for multiple independent validation studies of FeverPAIN before we conclude on its accuracy.

Clinical features, in whichever combination or weighting, are unlikely to be sufficient to rule in GABHS pharyngitis. Point-of-care (POC) tests vary in shape and form, with some more disruptive to the consultation than others. But this should be weighed against the likely benefit they can bring — we don't hesitate in sending a patient to the loo to produce a urine sample if a subsequent dipstick test helps diagnose a urinary tract infection. So it may be in the future that a POC test augments one of the scores sufficiently to reduce diagnostic errors and the inappropriate prescribing of antibiotics.

Otherwise we may use clinical gestalt, which allows for less measurable, intangible features to be included in the diagnostic process. This is not without merits, but it is also more likely to vary between practitioners and be open to cognitive biases.

Brian H Willis,  
*Medical Research Council Clinician  
Scientist, University of Birmingham,  
Birmingham.*

Dyuti Coomar,  
*Research Fellow, University of Birmingham,  
Birmingham.*  
Email: [d.coomar@bham.ac.uk](mailto:d.coomar@bham.ac.uk)

Mohammed Baragilly,  
*Research Fellow, University of Birmingham,  
Birmingham.*

## Competing interests

We are the authors of the meta-analysis that compared Centor's score with McIsaac's score.

## REFERENCES

1. Willis BH, Coomar D, Baragilly M. Comparison of Centor and McIsaac scores in primary care: a meta-analysis over multiple thresholds. *Br J Gen Pract* 2020; DOI: <https://doi.org/10.3399/bjgp20X708833>.
2. Hoare KJ, Ward E, Arroll B. International sore throat guidelines and international medical graduates: a mixed methods systematic review. *J Prim Health Care* 2016; **8(1)**: 20–29.
3. Chiappini E, Regoli M, Bonsignori F, *et al*. Analysis of different recommendations from international

guidelines for the management of acute pharyngitis in adults and children. *Clin Ther* 2011; **33(1)**: 48–58.

4. Dambha-Miller H, Everitt H, Little P. Clinical scores in primary care. *Br J Gen Pract* 2020; DOI: <https://doi.org/10.3399/bjgp20X708941>.

DOI: <https://doi.org/10.3399/bjgp20X709985>

## Sarcopenia: hand grip dynamometers, the latest addition to the doctor's bag

The debate article highlights the importance of identifying sarcopenia, and the impact it has on reducing 'physical performance'.<sup>1</sup> It is also worth identifying that skeletal muscle is a 'metabolic organ', and that many of the associated adverse health outcomes may be potentiated by an endocrine mechanism. In order to screen for this, we propose the use of hand grip strength as a clinically relevant screening tool in general practice.

There is growing evidence that low hand grip strength is associated with an increased risk of developing diabetes.<sup>2,3</sup> One study from the UK Biobank demonstrated that high-risk 'South Asian' populations have on average a 5–6 kg lower grip strength than 'white European' counterparts. When the relative prevalence of diabetes was taken into account, low grip strength in the 'South Asian' population was associated with an attributable risk of 3.9 (male) and 4.2 cases (female) per 100, as opposed to 2.0 (male) and 0.6 (female) in 'white Europeans'.<sup>4</sup>

These studies support an interesting theory that there may be ethnicity-specific grip strength cut-offs, and one reason why there is no clear consensus on screening recommendations. Despite these drawbacks, it is clear that low hand grip strength is inversely proportional to disease-specific and all-cause mortality.<sup>5</sup> Specific dietary and exercise interventions to improve muscle strength may reduce this risk significantly and help in the management of long-term conditions (LTCs).

We propose that enough evidence has accumulated over the last decade to support the use of hand grip strength as a clinically relevant screening tool in primary care. It allows for objective measurement of grip strength in a number of seconds; we hope that hand grip dynamometers find their common place in general practice in the near future.