HRB Centre for Primary Care Research Research Briefs

Clinical Prediction Rules

The value of clinical prediction rules in cerebrovascular disease



















Clinical prediction rules (CPRs) are increasingly used in general practice. These are clinical tools that take account of a patient's history and clinical examination to stratify patients according their probability of having a specific target disorder. Outcomes of CPRs can be presented as diagnosis, prognosis, referral or treatment. Although not designed to replace clinical knowledge and experience, the prediction rules can be used to assist the overall diagnostic and prognostic process. The researchers at the Health Research Board (HRB) Centre for Primary Care Research (www.hrbcentreprimarycare.ie) have conducted a number of systematic reviews to examine the value of CPRs across different clinical domains. Two recent publications have explored the use of CPRs in different populations at risk of stroke.

We can be found at:

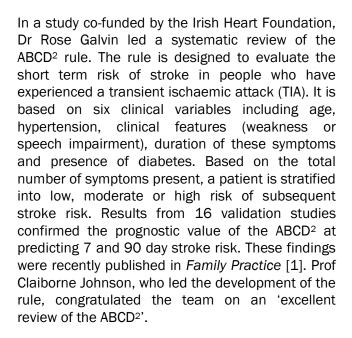
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In an article published in Thrombosis and Haemostasis [2], Dr Claire Keogh led a systematic review on the evidence for the CHADS2 rule, used to predict annual risk of stroke in patients with atrial fibrillation. The rule consists of six clinical features and assigns one point for each of congestive heart failure, hypertension, age≥75 years and diabetes mellitus, and two points for prior history of stroke or TIA. Patients are classified according to low, moderate or high risk of stroke, which can be used to inform appropriate treatment. The results highlight the methodological differences between many of the validation studies. Dr Keogh suggests that, 'Further validation of the CHADS2 rule is necessary before widespread application in general practice'.

These reviews highlight the importance of examining the totality of evidence prior to the use of CPRs in clinical practice.



These reviews will contribute to the ongoing work at the HRB Centre for Primary Care Research in the development of an international register of clinical prediction rules relevant to primary care. This webbased register will be made publicly available in 2012 through the Cochrane Primary Health Care Field (www.cochraneprimarycare.org).

Professor Tom Fahey, Principal Investigator of the HRB Centre said, 'This register will assist with the knowledge transfer of evidence based medicine in clinical practice, at the point of patient care'.

The articles can be viewed at:

[1] Galvin R, Geraghty C, Motterlini N, Dimitrov BD, Fahey T. Prognostic value of the ABCD² clinical prediction rule: a systematic review and meta-analysis. *Family Practice* 2011; 28(4): 366-376. (www.ncbi.nlm.nih.gov/pubmed/21486940)

[2] Keogh C, Wallace E, Dillon C, Dimitrov BD, Fahey T. Validation of the CHADS₂ clinical prediction rule to predict ischaemic stroke. A systematic review and meta-analysis. *Thrombosis and Haemostasis* 2011; 106(3): 528-538. (www.ncbi.nlm.nih.gov/pubmed/21800003)

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