

CRITICAL REVIEW FORM: CLINICAL PREDICTION OR DECISION RULE

Citation:

Stiell IG, Wells, GA, Vandemheen K, Clement C, Lesiuk H, Laupacis A, McKnight RD, Verbeek R, Brison R, Cass D, Eisenhauer MA, Greenberg GH, Worthington J The Canadian CT Head Rule for patients with minor head injury. *Lancet* 2001; 357: 1391-96

Stiell IG, Clement CM, et al. Comparison of the Canadian CT Head Rule and the New Orleans Criteria in patients with minor head injury, *JAMA* 2005; 294(12): 1511-1518.

Smits M, Dippel DWJ, et al. External validation of the Canadian CT Head Rule and the New Orleans Criteria for CT scanning in patients with minor head injury, *JAMA* 2005; 294(12): 1519-1525.

| Guide | | Comments |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| I | Is this a newly derived instrument? (LEVEL IV) | |
| II | Has the instrument been validated? (LEVEL II or III) If so, consider the following. | |
| 1a | Were all important predictors included in the derivation process? | |
| 1b | Were all important predictors present in significant proportion of the study population? | |
| 1c | Does the rule make clinical sense? | |
| 2 | Did validation include prospective studies on several different populations from that used to derive it (II), or was it restricted to a single population (III)? | |
| III | How well did the validation exercise meet the following criteria? | |
| 1a | Did the patients represent a wide spectrum of severity of disease? | |

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| 1b | Was there a blinded assessment of the criterion? | |
| 1c | Was there an explicit and accurate interpretation of the predictor variables and the actual rule without knowledge of the outcome? | |
| 1d | Did the results of the assessment of the variables or of the rule influence the decision to perform the criterion standard? | |
| 2 | How powerful is the rule (in terms of sensitivity and specificity; likelihood ratios; proportions with alternative outcomes; or relative risks or absolute outcome rates)? | |
| IV | Has an impact analysis demonstrated change in clinical behaviour or patient outcomes as a result of using the instrument? (LEVEL I) If so, consider the following. | |
| 1 | How well did the study guard against bias in terms of differences at the start (concealed randomization, adjustment in analysis) or as the study proceeded (blinding, co-intervention, loss to follow-up)? | |
| 2 | What was the impact on clinician behaviour and patient-important outcomes? | |