Supplemental materials for

Keogh C, Wallace E, O'Brien KK, et al. Developing an international register of clinical prediction rules for use in primary care: a descriptive analysis. *Ann Fam Med*. 2014;12(4):360-366.

Appendix 1:
Criteria utilised to select thirty journals relevant to primary care and search strategy

Appendix 2:
Methodological quality assessment criteria used for assessing (A) derivation; (B) validation studies; (C) impact analysis studies using randomised controlled trial design or cluster randomised controlled trial design; (D) impact analysis studies using controlled before-after design; (E) impact analysis studies using on-off design; (F) Results from all methodological quality assessments.

Appendix 1: Journal selection criteria

Thirty journals relevant to primary care listed below were purposively chosen through various methods, including:

(1) The ISI Web of Knowledge Journal Citation Reports, listed under the category ‘‘medicine, general, and internal’’ and mentioned primary care, family medicine, or family practice in their title

(2) The 15 highest-ranked journals according to impact factor ratings in this same category

(3) Specialist journals that are known to publish CPRs (based on type of journal/expert opinion)

(4) A list of recommendations generated by an information specialist

(5) An expert consensus meeting attended by primary care clinicians, academics, and information specialists. (T.F., B.D.D., S.M.S., K.K.O.B., P.J.M., and B.Mc.G.)

Journal titles
Academic Emergency Medicine
Family Medicine
American Family Physician
Family Practice
American Journal of Medicine
Journal of American Medical Association
Annals of Emergency Medicine
Journal of the American Board of Family Medicine
Annals of Family Medicine
Journal of Clinical Epidemiology
Annals of Internal Medicine
Journal of Family Practice
Annals of Medicine
Journal of Internal Medicine
Annual Review of Medicine
Lancet
Archives of Internal Medicine
Medical Care
BMC Family Practice
Medical Decision Making
British Medical Journal
Medicine
British Journal of General Practice
New England Journal of Medicine
Canadian Family Physician
Public Library of Science Medicine
Canadian Medical Association Journal
Primary Care
Cochrane Database Systematic Reviews
Scandinavian Journal of Primary Health Care

Search on MEDLINE (PubMed)

Search 1: 30 journals, no limits

("American family physician"[Jour] OR "Annals of family medicine"[Jour] OR "The British journal of general practice : the journal of the Royal College of General Practitioners"[Jour] OR "Canadian family physician Medecin de famille canadien"[Jour] OR "Family medicine"[Jour] OR "Family practice"[Jour] OR "Journal of the American Board of Family Medicine : JABFM"[Jour] OR "The Journal of family practice"[Jour] OR "Primary care"[Jour] OR "Scandinavian journal of primary health care"[Jour] OR "BMC family practice"[Jour] OR "The New England journal of medicine"[Jour] OR "Lancet"[Jour] OR "JAMA : the journal of the American Medical Association"[Jour] OR "Annals of internal medicine"[Jour] OR "Annual review of medicine"[Jour] OR "PLoS medicine"[Jour] OR "British medical journal"[Jour] OR "Archives of internal medicine"[Jour] OR "Canadian Medical Association journal"[Jour] OR "Annals of medicine"[Jour] OR "The American journal of medicine"[Jour] OR "Medicine (Baltimore)"[Journal] OR "Cochrane database of systematic reviews (Online)"[Jour] OR "Journal of clinical epidemiology"[Jour] OR "Medical decision making : an international journal of the Society for Medical Decision Making"[Jour] OR "Medical care"[Jour] OR "Academic emergency medicine : official journal of the Society for Academic Emergency Medicine"[Jour] OR "Annals of emergency medicine"[Jour] OR "Journal of Internal Medicine"[Jour]) OR ("Br Med J"[Journal] OR "Br Med J (Clin Res Ed)"[Journal] OR "BMJ"[Journal] OR ("british"[All Fields] AND "medical"[All Fields] AND "journal"[All Fields]) OR "british medical journal"[All Fields]) OR ("Can Med Assoc J"[Journal] OR "CMAJ"[Journal] OR ("canadian"[All Fields] AND "medical"[All Fields] AND "association"[All Fields] AND "journal"[All Fields]) OR "canadian medical association journal"[All Fields])

AND

Search 2: CPR search terms

"clinical prediction"[All Fields] OR "clinical model*"[All Fields] OR "clinical score*"[All Fields] OR "decision rule*"[All Fields] OR "diagnostic accuracy"[All Fields] OR "diagnostic rule*"[All Fields] OR "diagnostic score*"[All Fields] OR "diagnostic value"[All Fields] OR "predictive outcome*"[All Fields] OR "predictive rule*"[All Fields] OR "predictive score*"[All Fields] OR "predictive value"[All Fields] OR "predictive risk*"[All Fields] OR "prediction outcome*"[All Fields] OR "prediction rule*"[All Fields] OR "prediction score*"[All Fields] OR "prediction value*"[All Fields] OR "prediction risk*"[All Fields] OR "risk assessment"[All Fields] OR "risk score*"[All Fields] OR (validation[All Fields] AND decision[All Fields]) OR (validation[All Fields] AND rule[All Fields]) OR "validation score*"[All Fields] OR (derivation[All Fields] AND validation[All Fields]) OR (("sensitivity and specificity"[MeSH Terms] OR ("sensitivity"[All Fields] AND "specificity"[All Fields]) OR "sensitivity and specificity"[All Fields] OR "sensitivity"[All Fields]) AND ("sensitivity and specificity"[MeSH Terms] OR ("sensitivity"[All Fields] AND "specificity"[All Fields]) OR "sensitivity and specificity"[All Fields] OR "specificity"[All Fields])) OR (("diagnosis"[Subheading] OR "diagnosis"[All Fields] OR "symptoms"[All Fields] OR "diagnosis"[MeSH Terms] OR "symptoms"[All Fields]) AND ("diagnosis"[Subheading] OR "diagnosis"[All Fields] OR "signs"[All Fields] OR "diagnosis"[MeSH Terms] OR "signs"[All Fields]))

AND

Search 3: limit to humans

NOT

Search 4: Publication type

(News[ptyp] OR Comment[ptyp] OR Editorial[ptyp] OR Case Reports[ptyp] OR Dictionary[ptyp])

AND

Search 5: Limit to year

Searches were run by year from 1980 to 2009

Appendix 2: Methodological quality assessment criteria and guidance notes used for assessing (A) derivation; (B) validation studies; (C) impact analysis studies using randomised controlled trial design or cluster randomised controlled trial design; (D) impact analysis studies using controlled before-after design; (E) impact analysis studies using on-off design; (F) Results from all methodological quality assessments.

Each article was independently assessed for methodological quality by an academic GP using appropriate quality assessment check lists for each study design. The McGinn criteria for derivation and validation CPR studies.(1) A total of eight criteria were used to assess the internal and external validity of derivation articles (see Appendix 1A). Detailed guidance notes were developed in-house to accompany the McGinn criteria. For validation studies, a total of five criteria were used for methodological quality assessment (see Appendix 1B). Following a pilot of the validation criteria, one modification was made to the McGinn criteria. Specifically, the criterion concerning '100% follow up' was changed to 'adequate follow up' and was defined as ≥80% follow up of study participants. Detailed guidance notes were also developed in-house to accompany the validation methodological criteria.

Impact analysis articles were assessed according to the type of study design. Randomised controlled trials (RCTs) were assessed according to the CONSORT statement, which consisted of 37 criteria and cluster RCTs were assessed according to the relevant CONSORT statement, containing 39 criteria (2) (see Appendix 1C). Controlled before-after studies were assessed using eight questions outlined in the Cochrane Effective Practice and Organisation of Care (EPOC) criteria(3) (see Appendix 1D). On-off studies were also assessed according to the relevant Cochrane EPOC criteria (3), using seven questions (see Appendix 1E).

2A) Methodological quality standards for derivation of a clinical prediction rule(1)

	Yes	**No**	**Not reported**
Internal Validity			
1. Were those assessing the outcome event blinded to presence of predictors?			
2. Were those assessing the presence of predictors blinded to the outcome event?			
3. Adequate sample size? (including outcome events)			
4. Clinically sensible?			
External validity			
1. Were all important predictors included in the derivation process?			
2. All important predictors present in a significant proportion of the study population?			
3. (a) All predictors clearly defined?			
(b) All outcome events clearly defined?			

2B) Methodological quality standards for validation of a clinical prediction rule (1)

	Yes	No	Unreported
Internal validity			
1. Were those assessing the outcome event blinded to presence of predictors?			
2. Were those assessing the presence of predictors blinded to the outcome event?			
3. Was there ≥80% follow up of those enrolled?*			
External validity			
1. Were patients selected in an unbiased fashion?			
2. Do patients represent a wide spectrum of severity of disease?			

*this criterion was modified from the original publication

Note: Guidance notes were developed for each criterion (available from authors on request)