

to research studies is too often down to individual doctors or managers, leading to widespread inequity in patients' access to research and a marked failure to make the most of the NHS infrastructure. If GP commissioners grasp this opportunity to induce a step change in the quantity and generalisability of NHS research, the National Institute for Health Research has the resources to support it.

Peter Brindle,

*Research and Evaluation Programme
Director, NHS Bristol, South Plaza,
Marlborough Street, Bristol, BS1 3NX.
Email: peter.brindle@nhs.net*

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DOI: 10.3399/bjgp11X572652

Development and validation of a clinical prediction rule for breast cancer

I commend the attempt of McCowan and colleagues¹ at developing a prediction rule for an important condition. If validated it will be a welcome addition to the armoury of GPs trying to rule out breast cancer confidently in women presenting with breast symptoms.

Perhaps inadvertently, the article provides an interesting case study on some of the difficulties in developing diagnostic instruments for low prevalence target disorders. Generating an adequate sample size for the target disorder (breast cancer) is difficult when, per thousand women, there are so few cases seen in general practice.

To circumvent this problem, the authors used data from a specialist-clinic setting to extract the relevant variables for their logistic regression model. In such a setting, it is not just the prevalence of breast cancer that is likely to be much higher than in general practice. Patients attending specialist clinics have already undergone some diagnostic filtering by GPs. The effect of filtering is that only those patients that are considered to have potentially serious conditions get referred on to the clinics. Thus not only is the prevalence of disease

increased in the clinic setting, but also the severity of disease is increased. This may affect the significance of some of the explanatory variables in the model.

Nonetheless, using data from specialist clinics is understandable given the difficulty of deriving data from an unselected general practice population. Furthermore, it is not necessarily a concern if the resulting prediction rule proves valid in the intended population, that is, general practice. Unfortunately, in this instance, validating the tool proved difficult owing to the sample size in the validation cohort being underpowered.

Currently, the prediction tool represents a step in the right direction but needs much larger validation studies in unselected general practice populations before its uptake in general practice may be recommended.

Brian H Willis,

*MRC Fellow in Primary Care and
Biostatistics, University of Manchester,
Health Methodology, Oxford Road,
Manchester, M13 9PL.
E-mail: Brian.Willis@manchester.ac.uk.*

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1. McCowan C, Donnan PT, Dewar J, *et al*. Identifying suspected breast cancer: development and validation of a clinical prediction rule. *Br J Gen Pract* 2011; **61(586)**: e205–e214 DOI: 10.3399/bjgp11X572391.

DOI: 10.3399/bjgp11X572661

Authors' response

We thank Dr Willis for his comments on our paper. We agree that our findings should be seen as a first step in developing a decision tool for women with breast symptoms in terms of prioritising and enhancing the appropriateness of referral to breast care clinics. We have submitted a large collaborative proposal, led by colleagues at the University of Southampton via the NIHR School of Primary Care Research, so that the issues that Dr Willis raises of prior prevalence, possible spectrum bias, and precision of clinical predictors can be assessed. This proposal, the CANcer Diagnosis Decision rules (CANDID) project, will also encompass patients presenting with symptoms suggestive of colorectal cancer and will provide a working template for similar large-scale studies in cancer in the primary care setting.

Colin McCowan,

*Lecturer in Health Informatics, University
of Dundee, Division of Clinical and
Population Sciences and Education,
Dundee, DD2 4BF.
E-mail: c.mccowan@cpse.dundee.ac.uk*

Tom Fahey,

*Professor of General Practice, Royal
College of Surgeons in Ireland.*

Paul Little,

*Professor of Primary Care Research,
University of Southampton.*

DOI: 10.3399/bjgp11X572670

Correction

In the article 'Patients' views of antidepressants: from first experiences to becoming expert' *Br J Gen Pract* 2011; DOI: 10.3399/bjgp11X567045 [abridged text, in print: *Br J Gen Pract* 2011; 61: 252–253], the author Ayesha Waquas, BA Research Assistant at the University of Manchester, was omitted. The author order should have been: Peter Schofield, Ann Crosland, Waquas Waheed, Ayesha Waquas, Saadia Aseem, Linda Gask, Annie Wallace, April Dickens, and André Tylee. The correct version of this article is available online. DOI: 10.3399/bjgp11X578386

Correction

In the article 'How frequently do young people with potential cancer symptoms present in primary care' *Br J Gen Pract* 2011; DOI: 10.3399/bjgp11X572418 [abridged text, in print *Br J Gen Pract* 2011, **61**: 331–332] the order of the authors was incorrect. This should have been: Lorna A Fern, Christine Campbell, Tim OB Eden, Robert Grant, Ian Lewis, Una Macleod, David Weller, and Jeremy Whelan. The correct version of this article is available online.

DOI: 10.3399/bjgp11X578395