studies in primary care for LVSD do not describe the diagnostic value of symptoms, signs or their combinations in consistent or clear detail. Individual symptoms and signs appear unlikely to have sufficient diagnostic power to enable a clinician to rule in or rule out a diagnosis of LVSD with any confidence, so recourse to available near-patient diagnostic tests either in the form of ECG or BNP measurement is likely to be helpful.[3,9] More recently and in the context of LVSD diagnosis, further challenges relate to an appropriate 'gold standard' diagnostic test. Nearly all the individual diagnostic accuracy studies for LVSD have used echocardiography as the 'gold standard' in ascertaining whether a patient does or does not suffer from LVSD.[3,8] A recent systematic review suggests that measurement of BNPs, in particular NT proBNP, is a better prognostic marker in symptomatic and asymptomatic patients when compared to other traditional prognostic indicators including symptom scores (New York Heart Association class), other accessible blood tests (serum creatinine concentration) and even measurement of left ventricular dysfunction by echocardiography.[10]

Diagnostic research has a well developed methodological framework and clearly described research standards.[11,12] The challenge for the future is to produce high quality diagnostic research that addresses important clinical problems in primary care. Greater emphasis needs to be given to original research that will produce information, so that establishment of registers of likely pre-test probability estimates for presenting symptoms in primary care can be made. Knowledge of pre-test probability will inform the other types of diagnostic studies that assess and report on the diagnostic value of individual symptoms and symptom complexes.[13] Without this knowledge, uncritical application of diagnostic tests, such as BNP, NT proBNP and ECG in the diagnosis of LVSD, are not going to attain their potential diagnostic value in terms of effective and cost-effective decision making in primary care.

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Back pain — reducing long-term problems

In a 1998 survey in Great Britain, one in 12 adults aged 25–44 years reported having back pain lasting over 1 year.[1] Although 90% of patients with non-specific back pain stop consulting within 3 months, only 25% will have completely recovered after 1 year. Approximately 6% will go on to become chronically disabled.[2]

A key role of a GP should be to help reduce the number of patients presenting with acute lower back pain from going on to develop chronic pain, disability and loss of work. Unfortunately, back pain, being a symptom rather than a disease, suffers from a lack of understanding of its mechanism and a lack of evidence as to which intervention helps a particular patient. However, an escalation of back pain research and a shift in emphasis towards trying to identify early risk factors for chronic pain and disability have the potential to improve GP care and patients' outcomes, particularly outcomes for those who may be vulnerable to developing chronic back pain.

Patients presenting with acute back pain should initially be assessed into one of three groups:[3] non-specific low back pain (the vast majority), those with possible nerve root problems and lastly those with red flags for possible serious

spinal pathology. These red flags include: age of onset <20 or over 55 years, past history of carcinoma, systemically unwell or weight loss, structural deformity, constant progressive non-mechanical type pain and widespread neurological symptoms. For the rest of this editorial we shall be concentrating on non-specific low back pain.

A GP should assess which patients presenting for the first time may go on to have chronic back pain, become disabled or stop work. There are screening tools, prognostic markers and risk factors to help, but individually they lack sensitivity and specificity.[4,5] GPs can bring together various pieces of information to come up with a working hypothesis about the prognosis for a patient consulting for the first time.

Yellow flags,[6] used to indicate psychosocial risk factors, have reasonable validity in predicting poorer outcomes. Factors such as a person's belief that the back pain is serious (catastrophic thinking), fear avoidance behaviour, low mood and passive coping strategies may all be moderate predictors of chronicity. The above should be considered together with risk factors for time off work, such as job dissatisfaction, previous sick certification or compensation claims.

An interesting paper in this month's Journal increases our understanding of how to predict which patients are more likely to develop chronic back pain. Jones and colleagues[7] show that patients with passive coping strategies have a worse prognosis, regardless of the initial severity of pain and disability, that is, passive coping strategies precede the persistent symptoms. Jellema and colleagues' (submitted for publication in the *BJGP*, 2006) compares four instruments in the prediction of an unfavourable course of low back pain: two existing screening questionnaires, risk estimation by GPs and a new prediction tool they have developed (and therefore not yet validated in other settings). Reassuringly, risk estimation of poor prognosis by the GP performs as well as or more favourably than other instruments and for now seems to be the best available option.

Examination can be helpful in suggesting abnormal illness behaviour — such as an exaggerated response to superficial palpation or inconsistent findings.[8] These signs are not necessarily to 'catch a patient out' but rather to suggest to the GP that back pain may be a sign of some other psychological or social distress that needs to be explored and perhaps treated. This does not imply the patient's experience of back pain is not real — it is — only that thinking in terms of mind–body dualism is not helpful here.

Timing of consultations is important. The length of time a person is off work can be used as a prognostic marker for the risk of developing chronic pain and disability. After a patient has been off work for 4 weeks, there is a 10–20% chance that they will not return to work within 1 year. If they are off work for more than 3 months, there is only a small chance they will ever return to work.[9] It may help to review more frequently those patients who, on the basis of yellow flags, the GP suspects will have a worse prognosis.

The critical period seems to be in the first 4 weeks of presentation when the following treatment and advice may be appropriate:[10]

- giving information about back pain and reassurance;
- controlling symptoms including the use of regular analgesia, anti-inflammatories and the short-term use of muscle relaxants;
- advice to keep active and continue normal daily activities if possible;
- minimising time off work, depending on the nature of their job — specifically not always waiting until they are completely pain free.

REFERRAL FOR THERAPY?

Despite physiotherapy being a mainstay of back pain management in primary care, evidence for its efficacy is weak.[11] Other complementary therapies, such as chiropractics and osteopathy, also lack good evidence in trials, although anecdotally some patients seem to find them helpful. Specifically, spinal manipulation does show some short-term benefit in reducing pain levels but it lacks evidence of long-term effectiveness;[12] it is also not usually available from NHS physiotherapists. There may be a sub-group of patients, perhaps those more motivated and therefore likely to adhere to a treatment plan, which these therapies will help and patient preference for treatment, and availability, is a reasonable guide. Research needs to try to elucidate which sub-groups of patients will benefit from specific interventions.

Multidisciplinary, cognitive-behavioural interventions have been shown to be moderately successful in helping chronic back pain patients learn to manage living with pain.[13] As yet, evidence is lacking on their efficacy for patients with acute back pain. There is some evidence that behavioural therapy, as an adjunct to other therapy, is more effective in people with high fear-avoidance behaviour.[14] GPs do not usually have quick access to psychologists or multidisciplinary pain teams; as with other aspects of primary care, it may be possible to achieve a great deal by adapting techniques developed in secondary settings for use in primary care, within the demands of shorter consultations. The essential task is to challenge negative assumptions about back pain and encourage patients to remain active while reassuring them this will not cause further damage. GPs also need to be aware they should not collude in supporting sick certification for more than as short a period as possible, instead encouraging the patient to discuss problems at work with their employer and devise strategies for their return to work.

To end on an optimistic note, there is some evidence that after many years of a rising incidence of back pain, it is now beginning to plateau,[15] perhaps because of GPs' change of practice over the last decade to recommending staying active. By using the first consultation to explore known psychosocial risk factors, such as fear-avoidance, depression, catastrophising and workplace difficulties, GPs may have the potential to be more effective. It is speculative but such a simple, pragmatic approach in the initial stage of low back pain may benefit patients across the board — and could even, possibly, divert a number from developing chronic pain and disability.

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Competing interests

The authors have stated that there are none.

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