

# General practice in an age of measurement

GENERAL practice cannot escape the current drive by governments across the world to measure the quality of public services. Throughout the public sector in the United Kingdom, the government has introduced performance indicators and targets. The public may not be clamouring for league tables, but they do expect public services to be accountable and to demonstrate that they are achieving acceptable standards.

This poses great problems for a discipline such as general practice. Much of what general practitioners (GPs) do is diverse and difficult to define. The Department of Health's first attempt to use routine data to produce performance indicators for general practice shows the difficulty in assessing quality from currently available data<sup>1</sup> — few GPs would regard hospital admission rates and prescribing data as valid markers of the quality of their care.<sup>2</sup> Good communication, attention to interpersonal care, integration of care, and co-ordination of care are all more important aspects of what GPs do. Yet they are much more difficult to measure than more mechanical tasks, such as compliance with chronic disease management protocols. Furthermore, reducing general practice to identifiable component parts risks misunderstanding the patient focus of general practice care<sup>3</sup> and hence missing the benefits of a comprehensive generalist service.

The measurement culture therefore creates a dilemma for general practice. Will the things that are measured simply be those that can be measured easily? If so, any accountability based on quality indicators will be a very partial activity. Will the unmeasured parts then be forgotten and devalued? There are some real concerns that this is precisely what has happened in recent years. Alternatively, should general practice develop measures of some of its fundamental and defining features? In doing so, there is a risk that this will simply perpetuate the reductionist environment in which health services throughout the world increasingly operate. Nevertheless, there is a growing number of people who think it worth trying to bring measurement into some of the less tangible aspects of general practice.

A group led by John Campbell, based in London, report on their approach to this problem on page 644 of this month's *BJGP*. As well as more traditional quality indicators, they have used the General Practice Assessment Survey (GPAS) to evaluate the communication skills of GPs, nurses, and receptionists, as well as other interpersonal aspects of care, and continuity of care. GPAS has acceptable validity and reliability in British general practice.<sup>4</sup> A more recent version<sup>5</sup> includes a scale to assess enablement in an attempt to make the instrument more sensitive to some core elements of general practice.<sup>6,7</sup> Sharing the general drawbacks of patient surveys, GPAS offers only one perspective on these issues and an indirect one at that. Nevertheless, in terms of achieving a balance between validity and practicability, it at least attempts to assess what some regard as the 'art' or 'craft' of general practice.

By adopting a more comprehensive approach to quality

measurement, Campbell and colleagues have drawn some important conclusions. Most important is that no practice type has a monopoly on quality of care. If only immunisation or prescribing rates had been used to evaluate care then larger practices would look more attractive than smaller ones. When access and continuity are brought into the equation, then small practices perform well. Quality of care has a range of dimensions, the importance of which will vary for different stakeholders at different times. For example, patients have long rated interpersonal aspects of care as important, the professionally-led evidence-based medicine movement promotes clinical effectiveness and the government is currently advocating improved access as one of its main priorities. A more comprehensive assessment recognises these differences and allows patients and practitioners to judge what is important to them.

One of the key issues concerning measurement is how the information should be used. GPs have come to accept that part of their income is related to performance against certain specific indicators. Cervical cytology and immunisation rates are examples, but few would regard them as anything other than very limited measures of quality of care. Do GPs wish to base a higher proportion of their income on the quality of care they provide? Would they welcome financial incentives to provide continuity of care or to communicate better with patients, as proposed by a group from Edinburgh University?<sup>8</sup> The Government has announced its intention to experiment with new contractual arrangements for GPs and there is therefore an opportunity to shift financial incentives away from their current domination by capitation payments — related to the number of patients on a GP's list — towards a system that would reward quality rather than volume of work.

Campbell *et al*, along with other researchers in this field, show that it is at least technically possible to start moving in this direction. In our view, GPs must not allow their discipline to be reduced to one or two summary figures that only cover a small part of what they do. To do so will drive activity towards one part of their work, e.g. chronic disease management, and will devalue other aspects of care. We believe that crucial aspects of what GPs do, such as providing high quality interpersonal care, must be included in future performance indicators for general practice. If they can be satisfactorily measured then financial incentives can be attached to them. This would do much to preserve their importance at a time when many fear that traditional values are being lost from general practice. In rapidly changing times, GPs need to keep sight of their core values that will ensure that the contribution of general practice to patient care is appropriately valued and rewarded.

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## Dyspepsia in primary care – to prescribe or to investigate?

MANAGING dyspepsia in primary care is often confusing, as there is a bewildering permutation and combination of strategies to manage a spectrum of symptom complex. There is controversy about whether to adopt an initial investigational strategy, such as early endoscopy or *Helicobacter pylori* testing, or a drug prescribing strategy, such as treatment with antacids, H<sub>2</sub>-receptor antagonists (H<sub>2</sub>RAs), proton pump inhibitors (PPIs) and prokinetic agents. There is also uncertainty about the value of symptom subgroups of dyspepsia, such as reflux-type, ulcer-type, and dysmotility-type in deciding on an investigative or prescriptive strategy. Sometimes, it may be difficult to identify the predominant symptom.

The use of early endoscopy in the management of dyspepsia requires a number of factors to be taken into account. Age and the duration of dyspeptic symptoms are important, as well as the presence of alarm features, such as weight loss, vomiting, early satiety, and anaemia. It is unlikely that uncomplicated dyspepsia, without alarm symptoms, can be a symptom of gastric carcinoma, and endoscopy in this scenario at any age to exclude malignancy is more akin to screening than diagnostic investigation. Strict application of a two-week rule when referring a dyspeptic patient aged 45 years or over (or any other arbitrary cut-off age) for endoscopy is therefore not evidence-based — such an approach may well delay endoscopy in other patient groups (such as a young person with peptic ulcer). The data supporting the value of early endoscopy in investigating uncomplicated dyspepsia is scant. In a Danish study,<sup>1</sup> 414 patients with dyspeptic symptoms of sufficient severity to merit acid suppression were randomised to either early endoscopy or four weeks' treatment with ranitidine 150 mg twice daily. There were no differences in global improvement or individual symptom scores after one year of follow-up. In a Swiss

cohort study,<sup>2</sup> 172 patients with dyspepsia (Working Party Criteria 1988) underwent early endoscopy and 656 patients were managed empirically with cisapride (of whom 203 also had endoscopy) and there was no difference in dyspepsia symptom scores between the two groups. However, these studies do not represent current practice where early endoscopy would be combined with *H. pylori* eradication for proven peptic ulcers. There is no good data to support choosing a strategy of *H. pylori* testing and endoscopy over unselected endoscopy. A prospective open study addressing this question is seriously weakened by exclusion of *H. pylori* patients from follow-up.<sup>3</sup> Currently, there is insufficient data to support early endoscopy in the investigation of uncomplicated dyspepsia, including any strategy for early endoscopy based on age alone. There is still lack of data confirming the cost-effectiveness of 'test and treat' policy for *H. pylori* compared with initial endoscopy in the primary care setting. Both randomised controlled studies addressing this question are subject to biases.<sup>4,5</sup> Patients aged over 45 or 50 years tend to be excluded from such trials, though the evidence for such an age cut-off can be seriously questioned. Further studies in primary care are still needed to compare not only the cost-effectiveness of prescriptive and diagnostic options but also comparisons of models of care that involve other professionals, such as nurse practitioners and pharmacists.

The value of individual symptoms in guiding choice of investigation or therapy is controversial. In this month's *BJGP*, Lewin-van den Broek *et al*<sup>6</sup> present the results of a randomised trial to compare four management strategies in dyspeptic primary care patients. The patients were allocated to either (a) empirical treatment based on presenting symptoms (reflux-like, ulcer-like, and non-specific subgroups); or (b) empirical treatment with omeprazole regardless of the

presenting symptom; or (c) empirical treatment with cisapride regardless of presenting symptoms; or (d) prompt endoscopy followed by appropriate treatment. Once again, it was shown that prompt endoscopy was not useful in any symptom subgroup. The use of symptom subgroup appeared to be a sensible approach when choosing empirical therapy. Ulcer-like dyspepsia seemed to benefit from omeprazole. The non-specific subgroup had the highest proportion of strategy failure, but seemed to benefit modestly from cisapride.

None of the four strategies led to a significantly better outcome at any of the follow-up time points at two, eight, 14, and 52 weeks. Neither the presence nor the absence of *H. pylori* influenced strategy failure rates. Analysis of outcome in the different symptom subgroups is hampered by inadequate power of the study population. Empirical therapy (strategy 1) based on recommendations of the Dutch General Practice guidelines on dyspepsia<sup>7</sup> relied on prescribing H<sub>2</sub>RAs for reflux-like or ulcer-like symptoms and prokinetics for non-specific symptoms. Definition of strategy failure was stringent and perhaps an unrealistic aim in primary care. Since H<sub>2</sub>RAs were prescribed for reflux disease with normal endoscopy or mild oesophagitis, such stringent strategy failure definition may have adversely affected this group of patients; reflux-like patients, however, had the fewest strategy failures overall.

The trials evaluating *H. pylori* eradication therapy for dyspepsia are large and of good quality. Four out of five trials<sup>8-11</sup> evaluating dyspepsia outcome at one year did not show any significant benefit of *H. pylori* eradication strategy over placebo therapy in non-ulcer dyspepsia patients. The exception was the Glasgow trial which gave a positive result.<sup>12</sup> None of the trials, though comparatively large, had sufficient power to give conclusive results. A meta-analysis suggested that *H. pylori* eradication improved symptoms in patients with non-ulcer dyspepsia,<sup>13</sup> though a more rigorous meta-analysis including only randomised controlled trials that employed effective eradication therapy and adequate follow-up came up with a different conclusion.<sup>14</sup> At best, 19 non-ulcer patients (95% CI = 11 to 131 patients) will require to be treated with *H. pylori* eradication therapy to cure one extra case of non-ulcer dyspepsia over and above the placebo response. Therefore widespread eradication of *H. pylori* in the community is unlikely to be an efficient strategy to treat dyspepsia in the community, though undoubtedly, an occasional patient will respond to it. Harmful effects of such a strategy are likely to be few, though the exact numbers needed to harm are unavailable. New gastro-oesophageal reflux resulting from eradication therapy is unlikely to be a significant problem, though occasional patients will develop pseudo-membranous colitis owing to *Clostridium difficile* and there is potential for changes in antibiotic resistance patterns.

Meta-analysis of prokinetic therapies for dyspepsia show evidence for effectiveness; however, the magnitude of the effect in the recent trials is quite small, with a relative risk reduction of 10% (95% CI = -11% to 27%).<sup>15</sup> The majority of prokinetic trials evaluated cisapride, which has now fallen into disrepute, and good quality trials with domperidone or metoclopramide are lacking. It is unlikely therefore, that pro-

kinetic therapy will be widely used for dyspepsia in the community. Furthermore, the types of patients included in the non-ulcer dyspepsia trials might not be representative of dyspepsia in the community. Anti-secretory drugs have been the most evaluated therapy in dyspepsia and there is some evidence that acid inhibition is effective in non-ulcer dyspepsia, although proton pump inhibitors do not appear to be any more effective than H<sub>2</sub>RA. A Cochrane meta-analysis reiterates the beneficial effects of prokinetic agents and H<sub>2</sub>RA,<sup>16</sup> but quality of studies and publication bias are important confounding factors. This response to acid suppression may relate to reflux symptoms as a component of dyspepsia, and indeed heartburn is relieved more effectively than upper abdominal pain or nausea. It is not surprising, therefore, that in uninvestigated dyspepsia, PPIs appear to be significantly better than H<sub>2</sub>RAs (and antacids).

Semantic issues are important in interpreting trials, as trials broadly following the Working Party criteria<sup>17</sup> would lead to inclusion of endoscopy-negative gastro-oesophageal reflux where the effectiveness of anti-secretory strategy would be magnified. The updated Rome criteria<sup>18</sup> excludes gastro-oesophageal reflux symptoms and future systematic analysis will have to take this into account. The updated Rome criteria therefore only recognises ulcer-like pain and dysmotility-type discomfort without pain.

In spite of being somewhat underpowered, the randomised trial reported by Lewin-van den Broek *et al* is a valuable contribution towards clarifying several issues. In the absence of alarm symptoms, prompt endoscopy is unlikely to be helpful in managing dyspepsia in any age group. If predominant symptoms can be identified then patients with gastro-oesophageal reflux symptoms would benefit from anti-secretory therapy. In this setting, choosing H<sub>2</sub>RAs as initial therapy is likely to be the least expensive. A step-up regimen may then be titrated to symptoms with appropriate monitoring, review, and step-down. Those with ulcer-like dyspepsia would require to have their *H. pylori* status established, a strategy that would almost inevitably mean eradication therapy if the patient is colonised with *H. pylori*. *H. pylori*-negative patients with ulcer-like dyspepsia may then be treated with a short course of PPI. Patients with non-specific symptoms would benefit least from a prescribing strategy and perhaps might benefit most from the reassurance of negative investigations as appropriate to their symptoms, such as upper endoscopy and/or abdominal ultrasonography. At present, if investigations are negative, such patients do not require continued medical attention, though whether they might benefit from pharmacist or nurse practitioner-led clinics need further evaluation. In young patients with non-specific symptoms, a policy of 'wait and see' may well be equally appropriate. Given that only about one-half of patients with symptoms of dyspepsia consult a medical practitioner,<sup>19</sup> there are opportunities for community pharmacists to assess patients, provide appropriate advice, and make appropriate referrals.

The *H. pylori* era has de-emphasised the role of lifestyle factors in dyspepsia. However, there is no doubt that lifestyle factors, such as obesity and smoking, are important risk factors for dyspepsia and these are probably more important than *H. pylori*, as reported in a recent study from Glasgow.<sup>20</sup>

Socioeconomic deprivation in Glasgow may account for some of these lifestyle factors and indeed the prevalence of dyspepsia in Glasgow is about 25% higher than that in the Southern half of the UK.<sup>21</sup> We will fail our patients in the community if we ignore these lifestyle factors and instead focus exclusively on medications and endoscopy. Yet these remains largely ignored in research.

A resurgence of interest in predominant symptom-guided approach is noticeable in the literature and a number of guidelines already incorporate it, as reviewed recently.<sup>22</sup> We can learn from the Dutch experience that relentless increase in endoscopy requests is not the answer to the problem of dyspepsia in the community. A recent randomised trial<sup>23</sup> does not support near-patient *H. pylori* testing followed by endoscopy in positive patients under 50 years of age. Adherence to recommendations that endoscopy in all dyspeptic patients older than 50 years might be cost effective<sup>24</sup> would inevitably overuse endoscopy in dyspeptic patients, and we require further narrowing of referral criteria according to symptom subgroups.

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