

## Cancer and primary care:

the clinical and research agenda



This issue of the *BJGP* has no less than five cancer papers. There are four cancer-related areas relevant to primary care: prevention, diagnosis, aftercare (or survivorship), and palliative care. Much research has focused on diagnosis and aftercare, and these five papers are no exception, covering topics of early diagnosis of lung or gastro-oesophageal cancer (and if this can be improved by clinical algorithms),<sup>1,2</sup> the relationship between benign prostatic hyperplasia and prostate cancer (there isn't one),<sup>3</sup> how well GPs use guidelines and rapid investigation clinics (extremely variably, and using our intuition),<sup>4</sup> and how much GP care patients get after a diagnosis of cancer (not as much as patients would like).<sup>5</sup> This is a good time to take stock of why cancer in primary care is so relevant, and what the clinical and research agendas are for the next few years.

### OUTCOMES AND INVESTIGATION

In the UK and Denmark we have a poor record in cancer outcomes.<sup>6,7</sup> Some of this is due to late diagnosis — the exact proportion being hard to quantify, but probably around half. Not all late diagnoses can be assigned to primary care: patients may present late, the selection of patients for investigation is not straightforward, and access to investigations is variable. Indeed, the gatekeeper effect — of primary care being expected to rationalise access to specialist investigation — may be partly responsible, as areas of strong primary care seem to tally with poor cancer outcomes.<sup>8</sup>

In the UK, there are considerable variations in the use of rapid investigation services, with the high users referring over 10 times the number of patients of their low-referring colleagues. It is hard to explain this by practice characteristics (or by random variation). Many initiatives have

been implemented in the UK, principally the 2-week wait clinics, and guidance such as that from National Institute for Health and Clinical Excellence.<sup>9</sup> This guidance is being updated soon, as much research has been published from primary care, some of which has demonstrated large anomalies.<sup>10</sup>

Also imminent in the UK is enhanced access to investigation for four cancers: lung, ovary, colorectal, and brain. GPs have had open access chest X-rays for many years — in this case the threshold for requesting one is being deliberately lowered; much the same can be said for colonoscopy. Newer is open-access transvaginal ultrasonography (whether this is to be preceded by cancer antigen 125 testing is still contentious<sup>11</sup>) and open access brain magnetic resonance imaging. Recommendations for when these tests should be taken are still being drafted. In Denmark, open access to investigations such as computed tomography has recently been offered locally. Uptake has been slow: this may be tradition or lack of knowledge how and when to use more specialised diagnostic procedures.

### TOOLS AND TECHNOLOGY

A logical direction is to help with selection of patients for investigation by harnessing the power of clinical computers. These can be used in several ways, with increasing sophistication. The most simple will be familiar to most GPs: calculating a risk score for cancer just as we do for cardiovascular disease (although with one crucial difference: cancer risk scores identify a risk of current cancer; cardiovascular risk scores identify the risk of a future event). Risk scoring systems are available for colorectal, ovarian, lung, prostate, and gastro-oesophageal cancers; bladder, pancreas, and uterus scores should be published in the next few months.<sup>12,13</sup> These can simply be hosted on the computer screen, with any calculations hidden from view.

More sophisticated is an internal search

on a practice computer for additional features of possible cancer when the doctor enters a symptom. Thus when a GP logs a diagnosis of diarrhoea (or prescribes an antidiarrhoeal agent), the computer could search for abdominal pain codes, haemoglobin levels, etcetera, and alert the doctor if these are found. Setting the alert level to warn the clinician appropriately (yet not too frequently) will be tricky; plus there will need to be a mechanism allowing the alert to be turned off if an alternative explanation for the symptoms is known, or if investigation has been decided against.

Yet more sophisticated is the direction taken in the Hippisley-Cox and Coupland papers<sup>12</sup>: regular computer searches to identify those at higher risk. This could be by running the full mathematical formula on all patients at intervals, generating a list of 'high-risk' patients (again with some facility for the GP to eliminate inappropriate patients from subsequent searches). A more simple schema has the computer identifying, for example, a single risk marker, such as moderate anaemia.

Much of this is akin to what we already do for patients with chronic disease. Systematic follow-up may benefit those who have ended treatment and now suddenly stand 'alone', yet with a complex and worthwhile need for comprehensive primary care. How does general practice organise this? Should this type of care follow principles of the Chronic Care Model? As Browne *et al* show us in this issue,<sup>5</sup> this is an area where we need much more clinical and organisational knowledge.

### BEYOND INFRASTRUCTURE

It is very important that we are guided by strong primary care research in these areas; the five papers in this issue are very much welcomed. There has been a near-exponential increase in cancer research originating in primary care, and in coming years we will see many more studies, particularly in cancer diagnosis. This is also very important as so much previous outputs

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has been based on studies from other settings.

However, improving cancer diagnosis and follow-up using algorithms, reminders, and data mining, for example, cannot stand alone. We need also to ask why patients, GPs, and the system sometimes behave in irrational ways. Why do patients postpone seeking medical advice from their GP, why do GPs sometimes assume responsibility for high risks on behalf of their patients by not referring despite symptom profiles suggesting that cancer is a real possibility? And why does our healthcare system sometimes have opposite and competing agendas meaning that patients wait for their diagnosis and/or treatment, potentially aggravating their prognosis.<sup>14</sup>

In the next 10 years, we will make at least 20% more cancer diagnosis in our healthcare systems, simply because of demographic change. In most societies, cancer is now the single most common cause of mortality and morbidity.

As most cancers are diagnosed through primary care and based on symptoms and signs, governments supporting primary care cancer research should achieve superior cancer outcomes. Research needs to focus on patients, healthcare professionals, and healthcare systems within all four main areas of cancer care in primary care.

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