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Communicating with parents on the neonatal unit
Should we be doing more than just talking?

Good communication underpins “good medical practice,”1 whereas poor communication results in patient dissatisfaction, increased complaints, and increased litigation.2 Surprisingly, therefore, other than in the field of cancer care3 there is a lack of literature to guide clinicians on how to improve communication.

In this week’s BMJ, a randomised controlled trial by Koh and colleagues investigates whether providing mothers of babies in neonatal intensive care units with audiotapes of their conversations with a neonatologist improves recall of information and psychological wellbeing.4

The concept of family centred care within the neonatal unit is based on the philosophy that “[c]are … should be based on open and honest communication between parents and professionals.”5 Although few would disagree with this, many of the ethical and medical issues that are encountered routinely in the neonatal unit are highly complex and have to be communicated to parents who are under extreme pressure in a hostile environment.6 Effective communication is therefore a particular challenge in the neonatal unit.

The trial by Koh and colleagues found that mothers who received audiotapes of their consultation recalled significantly more information about diagnosis, treatment, and outcome than women in the control group at 10 days and at four months.

However, despite the encouraging results the trial has limitations. The primary outcome was recall of information up to four months, which is a relatively short follow-up period. Also, no significant differences were found for other outcomes such as patient satisfaction, parental anxiety and depression, or parental stress up to a year later. The interpretation and clinical importance attached to these findings may vary according to who is looking at the data—parent, neonatologist, neonatal nurse, family doctor, or healthcare provider.

Using audiotapes in clinical practice would raise important practical issues. Which conversations or discussions would be recorded and who would decide? Parents need to exchange information with medical and nursing staff,7 and it could be argued that using audiotapes might make the exchanges more formal.

Koh and colleagues used cassette tapes, which are becoming increasingly obsolete in today’s technologically advanced society. More recent formats like compact discs and MP3 files may be more appropriate but are not yet universally used and need to be tested in this situation. Taped conversations may be regarded as part of the medical record, therefore a confidential archive would be required to store and retrieve the information. Data may need to be stored indefinitely for medicolegal reasons, which could be costly, although the use of electronic patient records might facilitate this. In developing countries where neonatal services have limited resources, introducing this sort of practice may not be seen as a priority.

Any communication strategy in whatever setting must be effective, practical, and affordable. While Koh and colleagues’ study adds to our knowledge and understanding of communication between doctors, patients, and relatives, the intervention needs to be made practical before it can be implemented widely. Other methods of improving communication such as providing written information, as already advocated by some professional bodies,8 may be more practical and are worthy of assessment.

Lower urinary tract symptoms in men
Self management is at least as effective as watchful waiting, and may delay further intervention

Lower urinary tract symptoms—including voiding, storage, and postvoiding symptoms—occur in half of men over 65 and adversely affect quality of life and activities of daily living. Treatment varies from watchful waiting (active surveillance and monitoring) to medical and surgical management. While absolute indications for surgery exist—including persistent retention, severe symptoms, and secondary renal impairment—recent experience in clinical practice suggests that most patients do not need surgery in the long term and can be managed by conservative measures. In this week’s BMJ, Brown and colleagues report the first randomised controlled trial on the effect of self management training as a first line treatment in men with lower urinary tract symptoms.

Symptoms associated with bladder outlet obstruction due to histological benign prostatic hyperplasia vary in nature and severity. Currently, about a third of patients in the United Kingdom are managed with watchful waiting. Figures are probably similar internationally as this management strategy is recommended by several international urological associations and the UK National Institute for Health and Clinical Evidence. However, this form of management is not standardised. The type and timing of this monitoring varies, and it often consists of only an occasional review of symptoms. Professionals often provide variable amounts of advice, with specialist continence nurses providing the most.

In recent years the patient-doctor relationship has altered. Patients increasingly wish to have a more proactive role and see themselves as consumers and not passive recipients of health care. Men often postpone seeing their doctor and try to manage their symptoms themselves initially. Understandably, they often prefer to use conservative measures to control symptoms than take drugs long term or undergo surgical interventions that can have long term adverse effects, in particular on sexual function. Allowing patients to practise self management encourages them to take greater responsibility for their condition, its treatment, and its effect on their lives.

The trial by Brown and colleagues shows that over a one year period 80% of men can be successfully managed with watchful waiting. These authors previously defined the components of self management using a research and development appropriateness method consensus process. The programme includes education tailored to the individual patient on the causes and natural course of lower urinary tract symptoms; reassurance regarding prostate cancer concerns; and advice regarding fluid management, toileting, and bladder retraining. Crucially, the programme helps promote behavioural change by using techniques such as goal setting and problem solving, and by providing coping strategies for the patient in a structured manner through small group sessions.

Implementation of such a programme would be aided by training clinicians to acquire new skills, such as cognitive behavioural techniques. In other chronic conditions self management has been administered by lay people, who often have the same condition as the patient. Patients’ needs will probably change over the course of their chronic condition, so their self management skills will need to be reassessed regularly.

The results of the trial suggest that self management is effective for men with uncomplicated lower urinary tract symptoms. The size of the effect is twice as large as that of pharmacotherapy on symptoms compared with placebo in randomised trials.

The trial does have limitations, however. The trial was a pragmatic one as bladder outlet obstruction was not assessed by measuring flow rate (although interestingly men with residual bladder volumes greater than 200 ml were excluded). A higher proportion of men had a university education in the self management group than in the control group (45% vs 24%). Furthermore, selection of participants may have been biased as only men with sufficient time, interest, and motivation may choose to enter such a trial. Finally, men could not be blinded to their treatment.

The results should therefore be extrapolated to clinical practice with caution, at least until larger scale trials are completed. Nevertheless, in the meantime, alleviating symptoms and improving quality of life through self management will help patients and may reduce the financial burden on healthcare systems. The promotion of multidisciplinary team working between general practitioners, urologists, and continence nurses is an important step towards implementing self management strategies at a local level.


Extra references are on bmj.com
Case management for elderly people in the community

The Evercare model improves quality of care but does not reduce emergency admissions or mortality

Reducing unplanned admissions to hospital is now a cornerstone of the commissioning plans of all primary care trusts as the national health service struggles with a rising tide of emergency admissions and a large financial deficit. The management and care of patients with long term conditions has become a priority; in particular, intervention to reduce the number of admissions of frail elderly patients with multiple chronic diseases. In this week’s BMJ, Roland and colleagues report the impact of the Evercare approach to case management for elderly people living in the UK.1

In 2002 the Department of Health started to fund innovative projects aimed at transforming chronic care and improving care for people with long term conditions, to reduce emergency admissions and, presumably, costs. The decision to pilot the Evercare model in 10 primary care trusts (PCTs) was based in part on a study from the United States which used nurse practitioners in a managed care programme that was directed specifically at long stay nursing home residents.2 It found the incidence of admission to hospital was twice as high in control residents compared with Evercare residents over 15 months, with a similar pattern for preventable admissions. The study estimated that using a nurse practitioner saved $103 000 (£54 000; €81 000) a year in hospital costs per nurse practitioner. Supporting this information were data from an Evercare project in Castlefields in the UK that had not been subjected to peer review. The Department of Health was so certain that the project would be successful that it decided to create 3000 posts for community matrons across the NHS by 2008 to fill a role similar to the advanced nurse practitioner on the Evercare scheme.

The UK’s Evercare programme combines elements of nurse led assessment and intensive case management, but in the community and not in a nursing home setting. It includes data analysis to identify high risk patients and changes in jobs, in particular to the new role of advanced practice nurse with extended generalised skills, and changing processes to organise care around the patient’s needs rather than the current organisational boundaries.3 In the UK Evercare study the largest group of high risk patients was those with two or more emergency admissions in the previous year.3

Despite these advances, the current evidence base for intervention to improve chronic care is still weak. A review of 360 studies found a complex picture with some evidence that initiatives could enhance satisfaction with care, quality of life, and in some cases the use of health services. Evidence to support case management is sparse, and there is even less information on new models of commissioning services or on whether international programmes can be replicated in the UK.4 The Evercare model was particularly predicated on case management, which has been defined as “the process of planning, co-ordinating, managing and reviewing the care of an individual.”5 6 A recent review of case management by the King’s Fund found weak evidence for case management in preventing admissions to acute care and no consistent effect on the use of emergency departments.6

In early 2005 an interim assessment of the Evercare programme in 2003-4 reported that its benefits were mostly in terms of quality of care.7 Half the patients and carers felt that quality of care had improved, with a quarter believing that care was “a lot” better. Among carers, 95% had seen an improvement in the patient’s ability to cope. Patients felt that they were highly involved in decisions about their care and treatment. Among general practitioners, 80% said the role of advanced nurse practitioner helped in delivering more holistic patient centred care.

The interim report came to no conclusions on hospital admissions. The major criterion for entry to the programme had been a history of two or more emergency admissions in the previous year. Yet an analysis of hospital episode statistics for people aged 65 or over with a history of emergency admissions in England showed that, although those with two or more such admissions constituted 38% of admissions in the index year, they accounted for fewer than 10% of admissions in the following year and just over 3% five years later. The reasons for this are complex, but probably include deaths, planned admissions to long term care, further planned admissions (for example, for respite care), and “regression towards the mean” in surviving patients.7 8

This publication led to criticism about the failure to fund a properly controlled study beforehand; the cost and use of public funds (over £4 m), with much of that going on travel, consultancy fees and training; and further national investment in a systematic case management approach across England without convincing evidence.9 10 Different outcomes might have been achieved if the project had hired its own nurses, and the maximum benefits might become apparent only in the second or third year.11 12

The study that was subsequently commissioned used a complex design to overcome the lack of a straightforward control group and compared various outcomes in the 62 Evercare practices with between 6960 and 7695 control practices across England.1 It found no effects on emergency admissions, emergency bed days, or mortality. Frustratingly, this adds little to help primary care trusts decide where to focus their commissioning efforts. The interim evidence of improved quality of care is welcomed by everyone
Why submit your research to the BMJ?

Because we offer a free high quality service, open access, no word limits, and global reach

If you’re more used to rejection than acceptance letters, you may not believe it when editors say that medical research is becoming a sellers’ market. But it’s true, at least for investigators “selling” robust and interesting research studies. Medical journals—whether online or print, or both—are falling over themselves and each other to attract research articles, and are becoming bolder about approaching authors who have research articles to publish. Step by step, medical publishing is becoming as much a service industry for authors as an educational and academic service for readers.

What journals offer authors, however, isn’t always obvious to researchers choosing a journal. Authors do not want to waste time by sending their research articles to the wrong journal, so the first thing they want to know is whether the editors will be interested in their work. Pure academic interest isn’t enough for BMJ editors or most importantly for readers, who mainly comprise doctors—whether they’re practising clinical medicine, working in public health, developing and implementing health policy, or working mostly as researchers. We aim to provide our readers with articles that will help them to make better decisions.

The BMJ is definitely the right journal for studies on the day to day decisions doctors make with their patients. These studies may be randomised controlled trials of treatments and other clinical interventions for patients with common diseases, studies on diagnostic tests, basic clinical observational studies, qualitative studies that help to explain why and how doctors and patients do things, and systematic reviews of all of these study types. The doctors we aim to reach with these articles work in many different settings and countries; most are specialists in hospitals, community units, and clinics or family doctors in primary care. Importantly, the BMJ has a dedicated primary care editor and is still the only high profile general medical journal that publishes original research from and about primary care every week. The team also includes editors working in clinical practice and research, two of whom are based in the United States.

Decisions about public health and epidemiology can be just as important as clinical decisions; sometimes even more so. So the BMJ is also the place for research—much of it observational—that will clearly help to set priorities for public health and to change policy. We give high priority also to studies that provide focused and robust evidence on how and why to offer services and specific types of care to patients, through health services research and qualitative research.

If you’re a researcher with an original article that may fit well in the BMJ, what can we offer you in return? The BMJ offers high international visibility for your work, with immediate free and open access to the full text of all research articles once published, with no charges to authors or readers; immediate transfer of the full text to PubMed Central and the abstract to PubMed, CrossRef, and ISI; unlimited space for online publication with no fixed word limits (we prepare a shorter version for readers of the print edition); rapid decision times with full online publication of accepted research articles as soon as the authors have approved the proofs; copyright retention by author; high impact and visibility; accompanying editorials and commentaries to attract general readers and put research into context for them; and much more (see box on bmj.com).

This autumn we streamlined our editorial process for research articles to give a more personal service to authors, by ensuring that one editor takes each article through from start to finish. And at any time you can track your article’s progress through the editorial process at our manuscript website (http://submit.bmj.com). The BMJ’s team of research editors aims to read 98% of newly submitted research articles within two working days. If your article is potentially suitable for the BMJ that editor will ask a senior colleague to...
Recent dramatic headlines have claimed that general practitioners will be encouraged to carry out operations such as hernia repairs, carpal tunnel decompression, and varicose vein removal. The implication is that general practitioners with little surgical experience will suddenly be picking up a scalpel to carry out operations they are not trained to do. Not surprisingly such a prospect has generated much controversy.

The headlines have been prompted by the government’s white paper on community services in the English NHS, Our Health, Our Care, Our Say, which proposes a shift in the locus of healthcare. The chapter on “Care closer to home” sets out various alternatives to current practice, arguing that patterns of care should adapt to a changing healthcare environment and to the wishes of patients. This means shifting the emphasis towards local services wherever possible. Are the white paper’s proposals really as radical as they have been portrayed in the press (and by some surgeons)? And what are the advantages and disadvantages of changing the balance between primary and secondary care?

In many ways the changes proposed in the white paper are not that radical but build on innovative approaches which have been taking place for years. To anyone practising from the early 1990s onwards, the arguments will have a familiar ring. Many general practitioners carry out minor operations already. And, of course, the debate is not just about general practitioners. The establishment of nurse practitioners and the widening of roles for other healthcare professionals have consistently generated controversy. My experience is that despite initial opposition, such new roles can offer great benefits.

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GPs, operations, and the community
Providing good, safe health care is more important than who does it or where it is done
service offered in hospitals. And there is a danger that offering community-based operations will simply increase demand by meeting previously unmet need yet fail to relieve the pressure on secondary care.

So what evidence is there, or will there be, that more specialist services can be safely moved into the community? In the white paper 30 demonstration sites (drawn from dermatology, urology, gynaecology, ear nose and throat surgery, general surgery, and orthopaedics) have been selected for independent evaluation by the National Primary Care Research and Development Centre at Manchester University. Each provides an established example of innovative practice, often challenging boundaries between primary and secondary care and between traditional disciplines. It remains to be seen whether the evaluation will be sufficiently resourced and sustained to provide the necessary level of evidence.

In the end, this is not so much a debate about general practitioners wielding scalpels as about who can best deliver a patient-centred service tailored to individual needs. Patients stand to gain from high quality care offered locally, provided this is delivered within a rigorous framework and effectively monitored by those who commission it. Whether such care is delivered by general practitioners, hospital specialists, nurses, or other practitioners is much less important than the underlying principles of quality and safety. A framework for effective training is crucial, and engagement with royal colleges and specialty associations is key to ensuring quality and safety, especially for the small number of instances where practitioners offer more complex procedures.

Provided the changes are carefully evaluated and the outcomes weighed up before taking action, the white paper’s developments have a lot to offer. But history shows the dangers of premature change based on inadequate evidence and driven by political expediency. Avoiding these dangers will be crucial if innovation is to flourish without compromising patient care.

benefits, provided their development takes place within a clear framework of training, governance, and audit. So the question is whether the proposed changes will allow such frameworks to be established and maintained?

Moving care closer to the patient and exploring alternatives to current patterns of practice offers obvious advantages to patients, including convenience and support from family and community networks. Although sometimes framed around the primary-secondary care divide, the central issue is really about ensuring standards of care, regardless of where and by whom such care is carried out. Any procedure should be necessary, appropriate, performed by a suitably trained clinician and carried out in facilities of a required standard. Effective training and maintenance of skills and practice within an established professional group are essential and must ensure risk assessment, patient selection, recognition of personal limitations, and the provision of suitable backup in case of complications. These requirements should be no different in the community from anywhere else.

Outside a secondary care environment and without its inbuilt checks and balances, the burden for ensuring these standards must rest with the commissioners of care. The commissioners must therefore have effective mechanisms for ensuring standards of governance and for auditing outcomes. But there are worrying indications that this may not always be the case, especially with the treatment of malignant skin lesions.

Cost is clearly another important issue, but it is not easy to establish the true cost of community-based treatment. General practitioners with special interests offer high quality care but the service they provide can be more expensive than the equivalent specialist.
We were disappointed that Gornall’s article was published without a response from us. It added nothing new. Our paper reviewed the first 57 deaths on the CONI (Care Of Next Infant) programme. We reaffirm that nine deaths were inevitable (recognised cause), and of the 48 unexpected deaths, seven were probable homicide.

Professor Emery led the CONI steering group until his death (2000). We did not materially change the cause of death for any case he knew about.

There are differences between an earlier report and subsequent full paper. In the Lancet, we reported reduced from analysis deaths over one year and clarified “non-natural” deaths. Four infants who died in bed with their parents were initially classified as “non-natural” as they were possibly accidental and avoidable. They were subsequently categorised as SIDS in line with the CESDI SUDI study. The “non-natural” group initially also included cases recorded as open verdict; their reclassification is detailed. These revisions account for the difference between 14/44 “non-natural” in our earlier report and 7/57 probable infant homicide in the Lancet. No case previously attributed to either NAI or suspected or proven filicide was reclassified.

The assertion that “no explanation for the decision to categorise as natural all 13 deaths for which there was insufficient evidence to reach a conclusion” is a misrepresentation of our text. This states “Eight of these CONI deaths were certified as SIDS. None were attributed to homicide or non-accidental injury.” The assertion that, “In five of these cases a police investigation was under way” is not correct. All investigations were complete before the paper was submitted for publication.

For risk factors even to suggest homicide, their prevalence must be known in all relevant groups.

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1 Gornall J. Was message of sudden infant death study misleading? BMJ 2006;333:1165-6. (2 December.)

Ellipsis marks an important omission

Gornall, in his article about the paper by Carpenter et al on recurrent infant deaths, was right to argue that uncertain data should not be translated into statistics that seem clear cut. But his suggestion that a report by John Emery, the pathologist who initiated the Lancet study, upheld the ultra-suspicousness of “Meadow’s law” is curious.

Emery produced the report for Sally Clark’s defence in 1999, six months before his death. He wrote that in families where there were two cot deaths, a third were due to rare natural causes that had been missed at autopsy, and a third were unnatural deaths associated with abuse. The final third were “true” sudden infant death syndrome (SIDS) in that “no suspicion of unnatural death was found and no natural cause was found.”

Although Emery’s words make it clear that no basis for suspicion was found in two thirds of recurrent deaths, Gornall writes that Emery reached a “stark” conclusion which he purports to quote: “The occurrence of two unexpected deaths in a family thus raises a definite suspicion of unnatural death which in my experience is confirmed ... in a third of such cases.”

The ellipsis is odd. What has Gornall left out? If we check Emery’s report we find it was a single word. This is what the sentence said before Gornall edited it: “The occurrence of two unexpected deaths in a family thus raises a definite suspicion of unnatural death which in my experience is confirmed only in a third of such cases.”

By omitting the word “only” Gornall changes the emphasis of the entire quotation. Whereas the original implies reservations about Meadow’s law, Gornall has adjusted the sense so that he can recruit Emery’s conclusion in support of this law.

It is important that medical papers should categorise and report their results scrupulously. But those who seek to criticise them should show an equal degree of scrupulousness.

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1 Gornall J. Was message of sudden infant death study misleading? BMJ 2006;333:1165-6. (2 December.)

Author’s reply

Carpenter et al fail to address the concern of David Hall, former president of the Royal College of Paediatrics and Child Health, that the conclusions of their paper were “seriously misleading.” Such defence as they do mount is equally misleading: “We did not materially change the cause of death for any case [Emery] knew about” and “No case previously attributed to either NAI or suspected or proven filicide was reclassified”. All true—but beside the point. The question that remains unanswered is why, after Emery’s death, all but those seven cases of “NAI or suspected or proven filicide” came to be classified as “natural” deaths.
The authors did, after all, admit that: “We cannot exclude the possibility in our study that some of the 13 cases in which enquiries were not possible were cases of covert homicide.” If so, then how can they justify classifying as “natural” all 13 of these unresolved cases— including seven in which parents or their representatives flatly declined to engage with the study? This benign exercise of the benefit of the doubt may be compassionate, but it is unscientific and alone invalidates the paper’s findings.

Webster’s suggestion that a report by Professor Emery was doctored to support his so-called “law” than his many critics are right to be suspicious. What parents or their representatives flatly declined to engage with the study? This benign exercise of the benefit of the doubt may be compassionate, but it is unscientific and alone invalidates the paper’s findings.

PRACTICE NURSES

New contract reduces quality of patient-nurse relationship

Derrett and Burke raise important questions about the future for primary care nurses and health visitors and the potential for negative effects on patient care. We carried out a small study on how practice nurses perceive the changes in their role since the introduction of the new General Medical Services contract. Nine practice nurses were interviewed individually, from practices in areas of high or low deprivation in Glasgow achieving high or low points on the quality outcomes framework in 2004-5. Transcripts were transcribed verbatim and analysed by using a thematic approach. The results indicate that practice nurses generally feel that their professional roles and status are developing under the new contract. However, views on incentives (financial reward) were mixed, with many (even from practices scoring high in the quality outcomes framework) feeling underrewarded. All reported substantial increases in workload, with a much greater use of information technology and less time to spend with patients. All but one nurse (who had negotiated 30 minute appointments) felt that the new arrangements damaged the nurse-patient relationship, and most nurses reported a decrease in job satisfaction. Stewart W Mercer senior clinical research fellow, University of Glasgow, Glasgow stewart.mercer@blueyonder.co.uk Wendy McGregor nurse partner, Calderwood Practice, Alison Lea Medical Centre, East Kilbride G74 3HW Competing interests: None declared.

OSTEOPOROSIS

What of Asian, African, and South American patients?

Poole and Compston highlight important points on osteoporosis that practising clinicians need to consider. However, doctors managing patients from ethnic minorities in developed Western countries or developing countries in Asia, Africa, and South America would wish to know if and how recommendations on diagnosis, management, and prognosis apply to their individual patients. For example, in relation to waist circumference—which forms a crucial diagnostic criterion of the metabolic syndrome—the optimal screening cut-off points may be population specific and even in a given population differ according to ethnic grouping. The reliance of findings on osteoporosis in Europid subjects need to be tested in other groups of patients. Such findings and recommendations are often applied directly to other ethnic groups, with little consideration given to whether they have the same benefit and, more importantly, if certain interventions may actually cause harm. A quick Pubmed search using the term “osteoporosis” and the names of different non-specialist sections of the review would be helpful in making context specific recommendations. Suranjith L Seneviratne consultant clinical immunologist Manchester Royal Infirmary, Manchester M13 9WL suranjith@yahoo.co.uk Padmalal Gurugama registrar in internal medicine, Peradeniya Teaching Hospital, Sri Lanka Devaka J Fernando consultant endocrinologist, Kings Mill Hospital, Sutton in Ashfield, Nottinghamshire NG17 4JT Competing interests: None declared.

FEEDING IN DEMENTIA

Taste in food also changes

I agree with Hoffer and would only add that often not only the quantity of food but also the taste in food changes in dementia. Significant weight loss marked the beginning of the end of their lives for each of my long-lived parents and parents in law (three of whom had dementia), but once we were able to accept this and stopped trying to “feed them up,” food ceased to be such a worry. They each developed idiosyncratic tastes, and my late father happily ate a doughnut a day but almost nothing else for several years. My mother, now in her 90th year, eats only toast, spicy rice dishes, and jelly babies. To her relief we have finally stopped trying to persuade her to vary her diet, and my brother and I now cook and freeze small quantities of what she likes to eat. With this bespoke meals service, my very frail mother continues to live alone in her own home and seems to be meeting her nutritional needs.

Competing interests: None declared.

1 Hoffer LJ. Tube feeding in advanced dementia: the metabolic perspective. BMJ 2006;333:1214-5. (9 December.)
Doctor helps Italian patient die

Fabio Turone

Piergiorgio Welby, the terminally ill Italian man with muscular dystrophy who in an open letter to the Italian president pleaded for his right to die, has died.

Just before Christmas, after a long battle against the illness, he was sedated by an anaesthetist, who unplugged the mechanical ventilator that had kept him alive against his will.

“My dream, my desire, my request—which I want to put to any authority, from political to judicial ones—is today in my mind more clear and precise than ever: being able to obtain euthanasia,” Mr Welby had written from the bed in which he spent his last months, unable to eat, speak, or breathe by himself.

His open letter to President Giorgio Napolitano put the personal battle at the centre of a heated political debate about advance directives, assisted suicide, and euthanasia (BMJ 2006;333:719). Mr Welby’s lawyers asked a court in Rome to allow his ventilator to be turned off, but in mid-December the answer revealed a legal loophole: although Italian patients have the constitutional right to refuse treatment, no doctor is obliged to respect such refusal, and assisted suicide and euthanasia are punishable by prison terms of up to 15 years.

After this legal attempt failed, Mario Riccio, an anaesthetist working in a hospital in Cremona, in northern Italy, volunteered to carry out Mr Welby’s wish.

“I got to know Piergiorgio Welby,” he said. “We had a long talk in which he confirmed fully his will that the therapy be interrupted.”

In Mr Welby’s apartment in Rome, in the presence of dozens of Mr Welby’s relatives and friends—among them law makers from the centre left majority parties—Dr Riccio sedated him intravenously for about 40 minutes as the respirator that had kept him alive since 1997 was disconnected.

Dr Riccio told reporters that he did not fear legal consequences. He said, “In Italian hospitals therapies are suspended all the time, and this does not lead to any intervention from magistrates or to problems of conscience.”

He was briefly questioned by the police, but his lawyers said that he was not accused of anything. The medical board is also evaluating the case.

Mr Welby’s wife and sister, both practising Roman Catholics like him, asked for a religious funeral in their parish in the Cinecittà quarter of Rome, but Vatican authorities, who have always opposed euthanasia and insist that any life must be safeguarded until its “natural” end, said that his funeral could not be celebrated in a Catholic church.

“The debate will continue,” said the prime minister, Romano Prodi, a Catholic who heads a centre left coalition, “and it is clear that a country, a government, cannot help taking into account the great value of human life and therefore must reflect deeply on this case.”

GPs to carry out routine follow-up of patients after surgery

Zosia Kmietowicz

Responsibility for carrying out routine check-ups of patients six weeks after surgery is to shift from consultants to GPs. The Department of Health estimates that the move will save the NHS in England £1.9bn (€2.8bn; $3.7bn) a year.

The proposal, which will cover elective surgery, has been recommended by David Colin-Thomé, the national clinical director for primary care, in a report that is due to be published later this month. The health department is almost certain to adopt the plan, because it will free up surgeons’ time, allowing them to spend more time in theatre. It should also enable more trusts to meet the government’s target of a maximum of 18 weeks by the end of 2008 for the time that patients wait for treatment after being referred by their GP.

Dr Colin-Thomé told the BMJ that patients who develop complications such as pain or infections normally do so within six weeks and would see their GP rather than waiting to see a consultant at their routine six week follow-up appointment.

He said, “Many places around the world offer patients advice about when they should see their GP, and when they are given this many require no follow-up at all. In many parts of the country GPs are already making arrangements with surgeons locally about which patients should be followed up. But we are saying that this should become a general principle.”

Mayur Lakhani, chairman of the Royal College of General Practitioners, said that if the changes can be set up properly they should benefit doctors as well as patients.

“We should not see this as a tussle between GPs and surgeons but [as] the best outcome for patients and the best use of GPs’ and consultants’ time,” he said. “We can’t get away from the statistics which show that many follow-up appointments are unnecessary. Practice based commissioning could drive this change. But I don’t think this should be done in an unmanaged and unsupported way. One way forward would be for surgeons and GPs to agree locally which procedures would be followed up in primary care and for which follow-up is clinically important.”

The NHS in England provides 31.5 million check-up appointments in hospitals every year at a cost of £90 each.
Hepatitis C morbidity to double in next decade

Andrew Cole LONDON

The number of people facing death or serious liver disease from the bloodborne hepatitis C virus will double over the next decade, the UK Health Protection Agency has warned.

In its latest report on what it calls a “silent killer,” the health watchdog estimates that 230,000 adults in England and Wales are currently infected. Most of them still do not know they have the condition, which can cause cirrhosis and cancer of the liver if left untreated.

Helen Harris, an expert on hepatitis C at the agency, said the disease remained underdiagnosed simply because people were unaware they were carrying it. “By increasing awareness of the infection, more people will be tested, will receive earlier and more effective treatment, and they can avoid passing it on to others.”

The latest figures show the number of new diagnoses of the disease rose from 2116 in 1996 to 7580 in 2005. Hospital admissions, transplants, and deaths related to hepatitis C all increased steeply, and deaths from end stage liver disease rose from 76 in 1997-8 to 216 in 2004-5.

The agency predicts the number of people who go on to develop cirrhosis or serious liver failure will double in the next 10 years, rising from 4855 in 2005 to more than 10,000 in 2015, of whom 2540 will die without a transplant. The 2005 figure is itself a threefold increase compared with a decade earlier.

New MRSA strain is not at epidemic level

Owen Dyer LONDON

Despite two recent hospital outbreaks of bacteria that produce the Panton-Valentine leucocidin (PVL) toxin, Britain is not facing an epidemic of dangerous strains of Staphylococcus aureus, says the Health Protection Agency’s expert on methicillin resistant S aureus (MRSA).

Angela Kearns said that although incidence “waxes and wanes” over time, recent cases in England implicate at least three different strains. “While we are seeing an overarching PVL related pattern of disease here, we’re definitely not seeing an epidemic of a single strain.”

The latest outbreak, reported three days before Christmas, involved a neonatal unit at Norfolk and Norwich University Hospital. Six premature babies were affected by methicillin sensitive, PVL positive S aureus. One developed an active infection and has died; the hospital’s chief executive, Paul Forden, said that the bacterium “may have played a part in the death.”

The other five babies did not develop active infection and are now in isolation, undergoing treatment with antibiotics. A consultant microbiologist, Judith Richards, said they were doing well.

Until now only one death is believed to have been caused by an infection transmitted in hospital. That case involved a patient who died in March at the University Hospital of North Staffordshire in Stoke-on-Trent, from PVL positive MRSA. A nurse who died in September at the same hospital, Maribel Espada, is now known to have contracted the infection elsewhere, said Dr Kearns. She said, “Fourteen cases have been identified by the hospital this year, including two retrospectively identified just before Christmas.”

A previous outbreak of PVL positive S aureus affected 10 mothers and babies in the maternity unit of Derfford Hospital, Plymouth, in 2003. Those cases involved methicillin sensitive bacteria, though not the same strain as in the Norwich outbreak. At least 14 strains of PVL positive S aureus are known.

Less than 2% of S aureus bacteria produce the PVL toxin, which was first identified in the United Kingdom in the 1930s. Subsequent “look-back” research indicated that such bacteria date back to at least the beginning of the 20th century and are not a result of antibiotics used in humans. In the 1990s methicillin resistant strains began to emerge.

“It’s only recently that we’ve had tests with good sensitivity and specificity,” said Dr Kearns.
Outrage over death sentences in Libyan AIDS trial

Peter Moszynski LONDON

Last month’s reimposition of death sentences on six foreign medical workers for supposedly infecting hundreds of Libyan children with HIV has caused international condemnation and demands for their conviction to be overturned on appeal.

A Palestinian doctor and five Bulgarian nurses have been in detention since 1999. They were first sentenced to death in May 2004 after being convicted of deliberately infecting 426 children with HIV in Al Fateh Children’s Hospital, Benghazi.

On 25 December 2005 Libya’s Supreme Court ordered a retrial after noting “irregularities” in their interrogations, but the healthcare workers were again found guilty on 19 December 2006 and condemned to death, although their lawyers have filed a further appeal. Capital convictions are automatically referred to the Supreme Court for review, which could take at least a year. Death sentences can also be commuted in exchange for “blood money” paid to the victim’s relatives. There are currently diplomatic negotiations as to the level of compensation required.

The World Medical Association and International Council of Nurses condemned the convictions, blaming the outbreak on poor hospital hygiene. Their statement said, “The decision turns a blind eye to the science and evidence which points clearly to the fact that these children were infected well before the medical workers arrived at the hospital. How many children will go on dying in Libyan hospitals while the government ignores the root of the problem?”

Amnesty International announced, “We deplore these sentences and urge the Libyan authorities to declare immediately that they will never be carried out. In this trial, as in their earlier one, confessions which they have repeatedly alleged were extracted from them under torture were used as evidence against them, while defence lawyers were not allowed to bring in international expertise and the evidence produced by Libyan medical experts was questioned by international medical experts.”

Tulio de Oliveira, lead author of a study published in Nature last month that used the genetic sequences of HIV and hepatitis C viruses to reconstruct the transmission history of the strains involved, told the BMJ that his team had been able to provide “direct molecular evidence that the outbreaks were under way before the accused medical staff began working in Libya,” but this and other relevant evidence had not been heard at the trial.

Dr de Oliveira cautioned, “The implications of this verdict extend far beyond the infected and accused in Libya. There are currently more than 24 million people infected with HIV/AIDS in Africa alone. Africa needs international medics to combat the HIV/AIDS epidemic. The scientific evidence needs to be heard in the case of these medics.”

WHAT’S ON THE WEB p17

Dramatic drop in HIV infections halts circumcision trials

Bob Roehr WASHINGTON, DC

Men who are circumcised have about half the risk of acquiring HIV infection through vaginal intercourse as do men who are uncircumcised. Two randomised controlled trials in Uganda and Kenya, conducted with the support of the US National Institutes of Health (NIH), reached that conclusion during interim analysis by a data safety monitoring committee. The trials were stopped early, and the announcement came on 13 December.

The committee determined that the reduction in risk of acquiring HIV was 48% in Uganda and 53% in Kenya. The trials validate what was seen in a similar trial conducted in South Africa that was likewise stopped early when interim analysis in 2005 found that circumcision reduced female to male transmission of HIV by at least 60%.

All three trials enrolled adult volunteers who wanted to be circumcised and randomised them to undergo the procedure immediately or after two years. All participants were educated in safer sex practices and the use of condoms.

“These results indicate that adult male circumcision could be an important addition to an HIV prevention strategy for men,” said Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases at NIH.

“However, it is not completely protective and must be seen as a powerful addition to, not a replacement for, other HIV prevention methods.”

Circumcision removes the foreskin, which is rich in Langerhans cells, a type of cell that is particularly vulnerable to HIV infection, Dr Fauci explained. The procedure also changes the head of the penis from a mucosal surface, which the virus can easily enter, to a keratinised surface that offers a tougher barrier to infection.

The World Health Organization began to develop activities concerning male circumcision after results of the South African trial became known last year, said Kevin De Cock, director of WHO’s department of HIV and AIDS. WHO will offer guidance and training to countries that choose to make circumcision more widely available.

Three of the Bulgarian nurses and the Palestinian doctor sit behind bars as their death sentence is read out in the Tripoli court, which ruled they had deliberately infected 400 children with the HIV virus.
Holland bans private stem cell therapy

Tony Sheldon UTRECHT

The Dutch government has banned the “clinical application” of controversial stem cell therapy being offered by private clinics in the Netherlands for conditions such as amyotrophic lateral sclerosis and multiple sclerosis.

The ban has been imposed as part of a new regulation on the transplantation of stem cells governing the way in which they are used to regenerate different tissue and organs—for example, in the heart, liver, or kidneys.

The ministry of health describes such therapy as “promising,” with “possible applications” in the future for Parkinson’s disease, epilepsy, and amyotrophic lateral sclerosis. But it is concerned that “centres in the Netherlands are offering this form of treatment as if it is common practice” while it is in the early stages of development.

The ban, which came into force on 1 January, was imposed because of the therapy’s associated health risks and the lack of proved effectiveness. It affects two private clinics in particular—the Preventive Medical Clinic in Rotterdam and Cells4Health, registered near Zutphen.

Many British patients have been treated at the Preventive Medical Clinic in the past two years.

The clinic was temporarily ordered to stop stem cell therapy in October by the Dutch Healthcare Inspectorate after a British patient became seriously ill after treatment (BMJ 2006;333:770).

The Dutch health minister, Hans Hoogervorst, wrote to MPs, saying that present commercial stem cell therapy can endanger patients’ health and that he shares the opinion of senior clinicians that it amounts to “dangerous quackery.”

The new regulation cites a report published in May by Rotterdam University’s Erasmus Medical Centre and the Institute for Medical Technology Assessment, which concluded that most stem cell therapy research was still in a preclinical stage.

An appendix to the regulation emphasises that the differentiation of stem cells demands special expertise to prevent spontaneous growth or unstable or incorrect differentiation.

In future, therefore, a licence will be required for stem cell transplantation.

Mind game calls for post-Christmas chill-out

London’s Science Museum held a two day contest after Christmas where, rather than being fired up to win, competitors had to be as relaxed as possible. In the Mindball game, two players are strapped up with headbands that pick up brain waves, using electroencephalography neurofeedback. They try to remain calm so that their brain waves can control a ball, aiming to score in the opponent’s goal. The championship was part of an exhibition on neurobotics that runs until the end of March.

Simplify patient incident reporting, says CMO

Zosia Kmietowicz LONDON

Liam Donaldson, the chief medical officer for England, has ordered a shake-up of the services responsible for patient safety, demanding that “more needs to be done to accelerate the pace of change in this area.”

A national forum will be at the heart of the new plans, which are detailed in a report commissioned by Professor Donaldson and published in December. The forum is designed to bring together key agencies responsible for patient safety to facilitate learning, share best practice, and coordinate delivery. It will be chaired by Professor Donaldson and David Nicholson, the NHS’s chief executive, and will convene for the first time early in January.

“Although the vast majority of NHS patients receive safe and effective care, we have to recognise that in our modern, increasingly complex health service that treat one million patients every 36 hours, mistakes can and will inevitably happen. Often it is systems that have failed, rather than any individual being at fault,” Professor Donaldson said.

The report, Safety First: a Report for Patients, Clinicians, and Healthcare Managers, looked at organisational arrangements that support patient safety in the NHS. It points out that, from 2008, all levels of the NHS need to consider patient safety as a priority and ensure that national priorities take explicit account of patient safety. Systems for reporting incidents also need to be made easier and quicker for staff to use, it adds.

The report recommends that the National Patient Safety Agency refocuses its objectives and concentrates on collecting and analysing patient safety information through its national reporting and learning system. The system needs to be simplified, says the report, so that incidents involving serious harm to patients are reported within 36 hours, as well as “near misses.”

The agency was criticised in July by the public spending watchdog, the Public Accounts Committee, for not knowing how many patients die each year from medical errors (BMJ 2006;333:59). Shortly afterwards, the joint chief executives of the agency, Sue Osborne and Susan Williams, were sent on extended leave pending an inquiry into their managerial record (BMJ 2006;333:318). They remain on extended leave.

Among the report’s other recommendations were a national campaign to engage clinical staff in tackling patient safety; the establishment of patient safety action teams at local level to provide support to frontline staff; more involvement of patients and their families in promoting patient safety; and greater support to patients when things go wrong.

Andy Burnham, a health minister, said, “Making changes to how the current reporting system works will make it easier for staff to report serious incidents quickly.” The report is at www.dh.gov.uk.
Herbal supplements don’t relieve menopausal flushes

Black cohosh alone or combined with other botanical agents doesn’t seem to relieve the vasomotor symptoms of menopause better than placebo. A five arm trial was carried out on 351 women aged 45-55 who had at least two vasomotor symptoms each day at baseline. Women were randomised to receive black cohosh; a multibotanical containing black cohosh and nine other herbs; the multibotanical with dietary counselling on intake of soy; oestrogen with or without progesterone; or placebo.

None of the herbal interventions was better than placebo in relieving the symptoms of menopause at three, six, or 12 months of follow-up, while hormonal treatment, compared with placebo, reduced the symptoms by an average of four symptoms each day.

The results of women randomised to a diet high in soy should be interpreted with caution, says the linked editorial. These women were advised to eat at least two servings of soy a day but most did not achieve this target.

Cognitive training may improve daily functioning in elderly people

Ageing populations face the increasing need to slow down cognitive decline, which threatens the ability of elderly people to live better lives more independently. In a five year multicentre trial, 2832 elderly people with good physical and mental functioning at baseline were randomised to receive one of three preventive cognitive training interventions (aimed at reasoning, memory, or speed of processing) or no contact with the trial staff.

Although the interventions comprised only 10 sessions of training focused on the particular cognitive function, five years later the intervention groups scored better than controls on the targeted cognitive abilities. In the group where cognitive training was focused on reasoning, this was coupled with better self reported activities of daily living. However, none of the intervention groups performed better than the control group when performance of daily activities was measured objectively.

We don’t know the best way to treat renal artery stenosis

Renal artery stenosis can be treated with comprehensive drug regimens or transluminal angioplasty with stent placement, but how do these treatments compare? A systematic review could find no head to head comparisons of current best medical treatment and surgery. The evidence that is available doesn’t support one strategy over another.

The review drew on 55 studies of sub-standard quality and limited applicability. Studies included only people with impaired but stable blood pressure, kidney function, and cardiovascular status. Reliable evidence is therefore lacking for people with acute decompensation due to progressive renal artery stenosis.

Current best evidence shows that best medical treatment and surgery have comparable outcomes regarding survival, cardiovascular events, and renal function. Although modern antihypertensive drugs achieve good control of blood pressure in people with renal artery stenosis, angioplasty seems to be slightly better, particularly for those with bilateral disease. Treatments rarely cured renal hypertension however.

A large multicentre trial testing treatment strategies for renal artery atherosclerotic disease is under way in the United States. The results are not expected before 2010.

High serum vitamin D may protect against multiple sclerosis

The effect of geographical latitude on the incidence of multiple sclerosis led decades ago to the hypothesis that sun exposure and vitamin D protect against this debilitating disease, but this has not been confirmed by studies. A case-control study nested in a cohort of more than seven million US military personnel compared serum concentrations of 25-hydroxyvitamin D in 257 people who later developed multiple sclerosis and matched controls without the disease.

In white men and women, the risk of multiple sclerosis decreased by 40% with every 50 nmol/l increase of circulating vitamin D. No such association was found in black people and Hispanics, who had lower circulating concentrations than white people. The association was particularly strong for serum vitamin D in white people under 20 years.

The authors discuss recent physiological studies that shed light on the role of vitamin D in the immune response, which could support a direct role for vitamin D in preventing multiple sclerosis. Other potential explanations exist: confounding by a genetic predisposition to both multiple sclerosis and low concentrations of circulating vitamin D or effects of exposure to sunlight unrelated to vitamin D production.

The accompanying editorial emphasises the importance of researching non-pharmacological preventive and therapeutic interventions for cognitive decline. The present trial failed to include measures of physical activity and hormonal substitution in women, which have been shown to affect cognition. But it seems that cognitive training programmes, once developed for the mass market, may help elderly people feel more in control of their cognitive decline, and may even improve their daily functioning.

WHAT’S NEW IN THE OTHER GENERAL JOURNALS

Kristina Fister, associate editor, BMJ kfister@bmj.com
INTERNET PHARMACY

CLICKING FOR PILLS

With more and more people buying prescription-only drugs over the internet, how can doctors help to protect their patients from the risks of internet pharmacy? Graham Easton investigates

There’s something shady about buying medicines over the internet—pushy emails offering budget Viagra and a bigger penis, or hairless men doing faceless deals for baldness drugs. If you’re after cut price, stigmatised, or unauthorised medicines, cyberspace is the place. And just like a drug deal in a dark alley, it’s a risky business. Who are you dealing with? Exactly what are you buying? If anything goes wrong, have you got a leg to stand on? But such easy access also has obvious benefits, which is why more and more people are willing to take the risk and internet pharmacy is growing fast.

So what should doctors know about this new online market, and how can we protect our patients from the possible pitfalls?

The first point to make is that not all internet pharmacy sites are dodgy. Legitimate online pharmacies are regulated in the same way as high street pharmacies—pharmacists and pharmacy premises in Great Britain have to be registered with the Royal Pharmaceutical Society—and they can offer easy (often cheaper) access to safe medicines from the privacy of your home. It’s really no different to doing your supermarket shop over the internet. Most offer just a dispensing service, and you still need a doctor’s prescription for prescription-only medicines. This sort of online dispensing is bound to blossom as electronic prescribing becomes the norm.

Some sites also offer a prescribing service, where private online doctors prescribe and dispense medicines after some sort of virtual consultation or questionnaire.

Risky sites

The trouble is that there are plenty of other sites that aren’t playing by the rules. Lynsey Balmer, head of professional ethics at the Royal Pharmaceutical Society of Great Britain, says, “There are a number of illegal operators which are being run by people who don’t have any health expertise or qualifications and are selling medicines—usually prescription-only medicines—directly to the public. Many of these sites tend to be based abroad so they actually fall outside UK jurisdiction.” That leaves the UK Medicines and Healthcare Products Regulatory Agency effectively impotent, although it says it does continually monitor the net for illegal sites and has prosecuted several sites based in the UK.

What to advise patients

- Never buy prescription-only medicines from sites that don’t require a prescription from a doctor or suitably qualified health professional
- Beware of pharmacies that don’t give a physical address
- Avoid websites that advertise miracle cures
- Make sure that the pharmacist and pharmacy are properly licensed
- Talk with your doctor before starting a new medicine for the first time

The agency’s main worries are that patients who go internet shopping for prescription-only medicines are exposing themselves to three main risks: the drugs may not have been prescribed by a healthcare professional, they may not have been checked for quality or effectiveness, and the patient may have no legal recourse if a problem arises. The US Food and Drug Administration has similar concerns and estimates that there are at least 400 websites that both dispense and offer a prescribing service, half located outside the US. Some estimates suggest that the number of websites selling prescription drugs may now be closer to 1000. The FDA doesn’t have accurate figures on adverse events from internet medicines, but its postmarketing surveillance data indicate that the sale of unapproved drugs and the illegal sale of approved drugs over the internet pose a serious public health risk. The FDA website talks of a man who came to grief through using sildenafil (Viagra) bought from a website without an examination by a healthcare professional. He had a family history of heart disease and died after taking the drug.

Even I, a cyber dunce, found all sorts of prescription-only medicines for sale in just 10 minutes of googling. I could buy myself some sildenafil (discretely packaged) without prescription by filling out a basic health questionnaire. The slimming pill sibutramine was no problem either—a longer questionnaire this time. And it was shockingly easy to find the hypnotic zopiclone for sale without any sort of questionnaire at all. All the sites I visited had extensive disclaimers, generally advised people to get advice from their doctor, and provided some information on the drugs. But I have no idea where the medicines would have come from or what they would have contained had I ordered them.

The World Health Organization is particularly concerned about fake or substandard drugs available over the net. The US based Center for Medicine in the Public Interest predicts that counterfeit drug sales will reach $75bn (£38bn; €57bn) globally in 2010, an increase of more than 90% from 2005. WHO says that internet based sales

What were the main concerns the FDA was worried about? What was the outcome of the investigation? What was the source of the medicines they bought? How does the FDA monitor illegal sites?
enforcement, and legal systems, it will be launching initiatives to make internet users aware of the risks they run when buying medicines from unknown sources.3

**Doctors’ role**

So how can doctors help to protect their patients from the shadier sides of internet pharmacy? What, for instance, should doctors do if they discover that a patient is taking prescription medicines bought over the internet? Doctors are not responsible for drugs they have not prescribed themselves, but Nicholas Norwell, medicolegal adviser for the Medical Defence Union, says we should be very clear about explaining the risks. “The MDU’s advice is to talk to the patient about the risks of obtaining drugs through the internet. Doctors should act in the patient’s best interests by investigating whether the drugs the patient has obtained are contraindicated with their existing medication or medical condition. In some cases, it may be appropriate to tell a patient to stop taking drugs sourced from the internet. Doctors should make a note in the clinical record of the fact that the patient has been obtaining drugs over the internet and for how long, as well as any discussion with the patient and any action taken.”

One online pharmacy I visited suggested that some doctors are now starting to advise patients to get prescription-only drugs over the internet because they may be cheaper. The MDU’s advice is that this is not acceptable: “If doctors feel that there is a clinical need for a particular medication, then they should prescribe it in the normal way.”

And what about online prescribing—is it really OK for doctors to prescribe medicines on the strength of a questionnaire alone? Dr Norwell says that doctors should abide by the General Medical Council’s latest guidance, *Good Practice in Prescribing Medicines.*4 Paragraph 5b is particularly pertinent: “Be in possession of, or take, an adequate history from the patient, including: any previous adverse reactions to medicines; current medical conditions; and concurrent or recent use of medicines, including non-prescription medicines.” According to the American Medical Association, though, a doctor who offers a prescription for a patient the practitioner has never seen before and based solely on an online questionnaire, generally has not met the appropriate medical standard of care.2

One difficulty for patients is deciding which sites are legitimate. Lynsey Balmer explained how the Royal Pharmaceutical Society of Great Britain is trying to make the distinction clearer. “We are piloting a logo which will be displayed on internet sites which are operated by registered pharmacies. The purpose of the logo is to help patients more readily identify the bona fide pharmacy sites from some of the illegal sites. By clicking on the logo, patients would be directed to the society’s online register so that they would be able to confirm the registration status of the pharmacy and the pharmacist.” There are similar schemes in the US, Canada, and New Zealand, and if the UK pilot is successful the society is looking to roll out the logo widely to all registered pharmacies during 2007.

Meanwhile, doctors could tell patients about the society’s code of ethics on the information that registered online pharmacies should provide.3 The code requires that websites display the name of the owner of the business, the address of the pharmacy at which the business is conducted, the name of the superintendent pharmacist where applicable, and details of how to confirm the registration status of the pharmacy and pharmacist.

These days we choose cars, houses, and even spouses on the web. We can’t hide from internet pharmacy—nor should we try. But while regulators try to keep pace with the rapid growth, doctors need to know the risks and be ready to protect patients from them.

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Medical records: are patients’ secrets up for grabs?

What’s happened?
The NHS’s ill-fated computer project has made the news again, this time over the government’s climbdown from putting medical records on a national database.

With public confidence in the ongoing £20bn upgrade of NHS computer systems right down there with the government’s handling of Iraq, the news that electronic medical records would not, as originally planned, be automatically uploaded to a central computer “spine” was mothers’ milk to British newspapers. The security of the sinister sounding “spine” was the main focus of press concern. Do people want to risk others finding out they were a teenage bed wetter, or once had anal warts?

Under the initial proposals, summary patient records—including medicines taken, adverse reactions, and allergies—were to be made available for access nationally by GPs and hospitals. Under pressure, health minister Lord Warner produced a report the week before Christmas, promising patients an opt out. This softened approach would also allow patients to access and amend online records before they are sent to the national database.

What the papers say
The Guardian, which had been running a campaign against a compulsory national database of medical records, showed admirable self-restraint on hearing of the climbdown. Instead of going with “it was the Guardian, wot won it” headlines, it was almost downcast.

In a comment article, Ross Anderson, professor of security engineering at Cambridge University, warned that a lot more was at stake: “Don’t break out the champagne yet. The [Warner] report was cleverly spun; hidden in an appendix is confirmation that you can opt out of the summary care record, but not the detailed care record.”

Over the next few years, detailed care records (the whole medical record, which will replace GP and hospital records) will be uploaded to a regional hosting centre run by a government contractor. The chief medical officer will eventually be in control of the lot. The government is not offering such an easy opt-out here, Anderson warned, and there will be plenty of opportunity to breach patients’ privacy.

He said: “Once the records of millions of people are on one system, to which a court will give access without GPs’ knowledge, the police will be sorely tempted. They already collect all sorts of operationally useful data: they have had access to opiate prescriptions for years, and there’s been a steady rise in their requests for journey data from London’s Oyster card [electronic ticketing] system.”

Christina Odone, in the Telegraph, continued with the “thin end of the wedge” theme. She urged readers to write to their GP in order to opt out of “the latest and maddest drive to centralisation.”

“Otherwise, our medical records—the sexually transmitted disease we kept a secret, the addiction to sleeping pills we overcame 10 years ago, the mental breakdown at university—will be loaded on one mammoth, central database.”

In Odone’s opinion, centrally available electronic patient records would “spell an end to privacy.” What about all those millions of NHS employees who would have access to your data? And this is before we get started on the hackers. “As one NHS worker who emailed the Today programme confirmed, the NHS is as leaky as a sieve.” Something as big as the NHS centralised system is just the kind of headline-grabbing target hackers love to tackle,” she wrote.

The Times found ample graft for the columnist’s mill. Alice Miles, in an article ominously titled “Sending a shiver down my spine”, was almost nostalgic that patients’ experiences of “disappearing notes” could soon be a thing of the past.

“It has always been part of the NHS experience: turn up for long awaited outpatient appointment; consultant doesn’t know your name, no one has given him your notes. Somewhere in the bowels of the hospital a porter is wheeling them around, spilling from bulging envelopes, with dozens of other patient records packed on to a trolley. They might get there, they might not,” she wrote.

A little patience, please, said a Guardian leader. At least the government has shown some signs of having listened. When the
first information is uploaded in trials next year there will be clear, clinical advantages, but much more needed to be done to quell fears. The “sealed envelope” technology, for example, which allows patients to restrict access to parts of their record, is still at the planning and development stage, according to the Department of Health.

Seeking to look at both sides of the story, the Independent ran a Q and A: “The big question: should we fear plans to put medical records on a national database?”

“Ministers think these risks have been overplayed. They believe that the interests of the majority of elderly vulnerable patients who have most to gain from the new system are being drowned out by a vocal minority worried about the privacy aspects and the threat to confidentiality,” it said.

What happened next
Chancellor Gordon Brown will soon have to decide the fate of the NHS computer system. Don’t make it your Waterloo, warned the Guardian in a comment article. “The system is showing all the classic symptoms of turning into a software project disaster. The convoy is heading for the rocks. Gordon Brown will have to decide soon whether to scrap the central database and build safe systems that will work. If he calls it wrong—as with Blair and Iraq—it may well be the decision for which he is remembered,” it declared.

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WHAT’S ON THE WEB LIBYAN HIV DEATH SENTENCES

“Quick background—in 1998, children began testing positive for HIV in a major hospital in Libya’s second-largest city, sparking a health crisis. An investigation found the infections occurred in an area where many Bulgarian nurses were assigned, and Libyan dictator Qaddafi accused health care workers of acting on the orders of the CIA and Israel’s Mossad. So far, so ridiculous. A Libyan court eventually convicted the six health professionals of intentionally infecting the children, despite extensive testimony that the virus predated the nurses’ arrival and was likely spread through the use of contaminated needles."

americablog.blogspot.com

“We’ve heard yet again that the Libyan courts have upheld the death sentence of the Bulgarian nurses and Palestinian doctor who were convicted of deliberately infecting 426 Libyan children with the HIV virus. Through the miracle of magnification we can actually hone in on the real culprits of this debacle . . . At 500X we have the naked HIV virus; at 2500X we have the HIV virus in much greater detail and one can see how the virus envelope is especially evolved to allow it to elude the human immune system; [and] at 50 000X we have the world’s most wretched low life, in a golden muu muu. This pathogen will sanction the execution of trained health professionals.”
talesfromthewomb.blogspot.com

“Something as big as the NHS centralised system is just the kind of headline-grabbing target hackers love to tackle”

Christina Odone, Daily Telegraph

“A Libyan Court sentenced 6 Bulgarian medics [sic] to death. And that's because Gaddafi wanted these unfortunate guys to be bargaining chips in exchange for:

• the convicted Pan Am Flight 103 bomber Megrahi, serving a life sentence in a Scottish jail . . . to be released; and,
• US$2.7bn compensation . . . paid to Libya for the care of the HIV-infected patients (the exact sum offered by Libya in compensation for the 270 lives lost in the 1988 Lockerbie bombing). Well, isn’t that kidnap for ransom?”

www.alburbohol.net/blog

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Sucked into the Herceptin maelstrom

Breast cancer patient and doctor Jane Keidan narrowly escaped being turned into a media star when campaigning to get prescribed Herceptin. Is this what patients seeking best treatment are now driven to?

I was diagnosed with HER2 positive breast cancer in August 2005. Before my diagnosis, I had little knowledge of the modern management of breast cancer and, like many patients, used online resources for information. The Breast Cancer Care website was running a campaign to make Herceptin (trastuzumab) available to all HER2+ women and I signed up. I simply could not understand from the data presented on the website and in the media why such an effective agent should be denied to women who, if they relapsed, would receive it anyway. The logic seemed flawed. I wrote letters to everyone—both primary care trusts (PCTs) in the area, the chair of policy at the Cancer Network, my member of parliament, the prime minister, the chief executives of the strategic health authority and the hospital trust—asking when and if the drug would be made available to me and other HER2+ women.

In the meantime, I was contacted by the Sun newspaper, whose health editor was championing the Herceptin campaign. She was interested in my story—I was both a doctor and a “cancer victim”—and ran an article about my case. The next day the women’s section was devoted to breast cancer. It included an emotive piece showing photographs of a number of women with HER2+ breast cancer, one of whom “would die if the drug were not made available.” But overall the issues were covered fairly. After this publicity I was asked to appear on the morning television programme, GMTV, to talk about Herceptin. But as this was very early on in my chemotherapy, I did not feel emotionally up to discussing the issues in person.

The Herceptin campaign rose to fever pitch as several women took their PCTs or trusts to court. Articles appeared almost daily in the press and featured on radio and television. I began to feel that if I did not receive this drug then I would have very little chance of surviving my cancer. At this stage I received replies to my various letters. A representative from the Department of Health replied and was sympathetic, but stated that the drug could not be made generally available until it was both licensed for use in early breast cancer and approved for this by NICE (the National Institute for Health and Clinical Excellence). I was assured that the health secretary, Patricia Hewitt, had requested the drug to be fast tracked by NICE, subject to licensing. The representative explained that the drug might be available to me in exceptional circumstances but this was a decision for the local PCT, and the health secretary had stated that “PCTs should not refuse to fund Herceptin solely on grounds of cost.” They also emphasised that “in the interim period between a drug being licensed and NICE guidance being available . . . the NHS should not refuse to fund specific drugs or treatments simply because they have not yet been appraised by NICE.”

The Cancer Network suggested that I ask my oncologist to submit a request for exceptional funding as Herceptin would not be available generally until the normal process of approval had occurred and this could take some time. Their letter was copied to the PCT. The PCT produced a standard letter stating that the drug would be available to women with early breast cancer in 9-12 months—too late for me—but I could have my individual case considered by the PCT on an exceptional named patient basis.

Throughout my treatment the health editor of the Sun kept in contact by telephone and emphasised that if I experienced difficulty obtaining Herceptin they would be willing to “push” on my behalf by contacting the relevant PCT to “discuss the issue further.” However I was feeling demoralised by this stage and I decided to take no further action until I had completed my chemotherapy, when I hoped some of the questions about the drug would have been clarified.

After finishing chemotherapy, I discussed Herceptin treatment with my oncologist. He expressed concerns about the long term cardiac effects which had emerged in studies but had received very little attention either on the Breast Cancer Care website or from the media. More careful analysis of the “50% benefit” which had been widely quoted in the medical and non-medical press (www.dh.gov.uk/assetRoot/04/12/63/84/04126384.pdf and Pharm J 2005:274:605), and fixed in my mind, actually translated into a 4-5% benefit to me, which equally balanced the cardiac risk. So I elected not to receive the drug and will be happy with this decision even if my tumour returns.

This story illustrates how even a medically trained and usually rational woman becomes vulnerable when diagnosed as having a potentially life threatening illness. I believe much of the information about the use of Herceptin in early breast cancer was generated artificially by the media and industry, fuelled by individual cases such as mine.

Having been sucked into this maelstrom, I have concerns for the independent role of NICE and the PCTs, onto whom everyone seemed to load the final decision about availability of funding for such drugs in “exceptional cases.” What makes an “exceptional case”—publicity in the Sun, threats of court action? How are we to avoid this madness happening with future agents? I don’t know the answer, but as a vulnerable person caught up in the middle of these events, I hope that a better solution can be found for patients and for our health service.

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LIFE AND DEATH Iona Heath

In defence of a National Sickness Service

A reconstituted NHS that prioritises prevention of sickness would fail all those who are ill now

It has become commonplace to describe our current healthcare arrangements as a National Sickness Service and to call for a transformation to a genuine National Health Service that would prioritise prevention above cure. This is the sort of facile sloganeering, beloved of politicians and policymakers, that systematically ignores the implications of the rhetoric. The proposed transformation is already shifting the focus of health care away from the needs of the sick towards those of the well, from the old to the young and from the poor to the rich. Is this really what we want or need?

Societies fail whenever someone who succumbs to a treatable illness causing pain, suffering, or premature death is unable to avail themselves of effective treatment because of the lack of money to pay for it. In the context of heightened social solidarity immediately after the second world war, UK society set out to ensure that this situation would not arise again through the creation of the NHS. In 1948, Aneurin Bevan expressed this resolve: “We ought to take pride in the fact that, despite our financial and economic anxieties, we are still able to do the most civilised thing in the world—put the welfare of the sick in front of every other consideration.” The proposal to move away from a National Sickness Service undoes this over-riding commitment to the welfare of the sick.

Relieving suffering is an enduring moral imperative; the contemporary obsession with maintaining health is part of the persistent, but recurrently illusory, human dream of controlling the future. The present day manifestation of this dream is mediated through science, with the new holy grail being a long life, devoid of suffering, and ending in extreme old age with rapid decline and death, also miraculously devoid of suffering. The pretence that this is deliverable by a reconstituted National Health Service betrays all those who are suffering here and now.

Those who promulgate the dream vastly underestimate the role of luck and contingency in human health. They want to believe that health is a simple opposite of sickness, that it is in the gift of medical science, and that it can be delivered to order. Health becomes a commodity like any other, and it is clear that the rhetoric is underpinning the rapid commercialisation of healthcare and the exploitation of sickness and fears of sickness for the pursuit of profit. Doctors are colluding with politicians and journalists in the systematic exaggeration of the power of preventive medicine, with the dangerous and misleading suggestion that more can be done to promote health through reconstituting the health service than through reforming society. Despite all the emphasis on diet and exercise, the most powerful determinants of health remain wealth and happiness. The more equal distribution of hope and opportunity achieves more than the life long prescription of cholesterol lowering drugs and the stapling of stomachs. The emphasis on lifestyle risk factors for health implies that those who have had no luck are somehow morally deficient. This is both unnecessary and vindictive.

None of this is to deny the importance of preventive health interventions within clinical encounters, where there is much that can and should be done. Recent smoking cessation interventions have been very successful but, even with smoking, more can be achieved through taxation and by minimising smoking opportunities at work and in public places than through cajoling individuals. Immunisation campaigns and similar public health interventions have been hugely beneficial, but the current trend to define risk factors for ill health as diseases in themselves and therefore to define disease on the basis of a biometric number rather than an understanding of suffering is deeply worrying and is actively turning people into patients.

A National Health Service committed to prioritising the prevention of sickness above its treatment would accelerate the pursuit of biometric risk factors for this or that disease and the development of statistically effective treatments for each one in turn. This process legitimises investment in the wholesale drug treatment of healthy people and the increasing costs of this begin to pose a very real threat to the provision of universal healthcare systems that are available and accessible to all. No universal healthcare system, funded through taxation, can possibly pay for the pharmaceutical treatment of all risks to health. An excessive and unrealistic commitment to prevention of sickness could destroy our capacity to care for those who are already sick; everyone, in time, must become sick and die.

One of the ambitions of preventive health care is that it will reduce the gap between rich and poor, but health inequalities reflect wider societal inequalities and cannot be solved by a health service operating within a persistently unequal society. As Peter Skrabanek asked many years ago, why does poverty matter only when it creates illness and disease? Why are we not appalled by poverty because it is “cruel, demeaning and unjust” long before it manifests itself as ill health? Through recent advances in psychoneuroimmunology, we begin to understand how the chronic psycho-social stress of finding oneself at the bottom of society’s pile leads to compromised immunity, disordered metabolism, and premature disease. The primary solution should not be medication but a genuine commitment to fairness and justice in a humane society.

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Should smokers be refused surgery?

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YES

Failure to quit smoking before certain elective procedures confers such clinical detriment that to proceed to surgery is ill judged. When all other clinical features are identical, costs are increased and outcomes are worse in a smoker than in a current non-smoker. In healthcare systems with finite resources, preferring non-smokers over smokers for a limited number of procedures will deliver greater clinical benefit to individuals and the community. To fail to implement such a clinical practice in these select circumstances would be to sacrifice sensible clinical judgment for the sake of a non-discriminatory principle.

Smoking up to the time of any surgery increases cardiac and pulmonary complications,1,2 impairs tissue healing,3 and is associated with more infections4 5 6 7 and other complications at the surgical site.4 7 These adverse effects compromise the intended procedural outcomes and increase the costs of care. Therefore, as long as everything is done to help patients to stop smoking, it is both responsible and ethical to implement a policy that those unwilling or unable to stop should have low priority for, or be excluded from, certain elective surgical procedures.

Such a policy should be limited to procedures where the evidence of harm is strongest. These include plastic and reconstructive surgery4 7 and some orthopaedic surgery.6 8 A study of experimental sacral incisions of 12-18 mm found that infection occurred in 12% of smokers and 2% of non-smokers.3 Infection rates in smokers who had quit for four weeks were similar to those in non-smokers. In a study of wound and other complications after hip or knee arthroplasty, no smoker who had quit developed a wound infection compared with 26% of ongoing smokers and 27% of those who had simply reduced tobacco use. Overall complications were reduced to 10% in those who had quit smoking compared with 44% in those who continued.4

The higher rate of infection is only one symptom of poor tissue repair. Independent of wound infection, after elective repair of an anterior cruciate ligament, smokers have objectively poorer outcomes and are less likely to return to their preinjury level of sports participation.8

Indirect costs of treating smokers

With arthroplasty, some of the wound infections were limited to erythema, but 13% of smokers required re-operation because of infection.9 Such infections have been shown to prolong total hospital stay, double readmission rates, and quadruple costs of orthopaedic surgery.9 This represents a 38% increase in the direct cost of care for each smoker having surgery. In the arthroplasty study the intervention group had an average length of hospital stay of 14 rather than 11 days.6

Increased use of hospital beds and associated costs mean less opportunity to treat other patients. On the basis of these data, five non-smokers could be operated on for the cost and bed use of four smokers and the non-smokers’ surgical outcomes would be better. Well informed smokers, unwilling or unable to quit, might assume an increased risk for themselves, but the decision is not theirs alone when it can indirectly affect others. Then, the community must involve itself.

With surgery that is done for purely cosmetic purposes, the increase in the risk and consequences of wound infection or fat necrosis from smoking is unacceptable and surgery is illogical.10 In reconstructive surgery, whether breast reconstruction after mastectomy or as part of head and neck cancer surgery, smoking substantially increases the risk of wound infection, flap necrosis, and fat necrosis.3 If a patient wants breast reconstruction at the time of mastectomy, the development of wound infection or flap necrosis will delay adjuvant chemotherapy or radiotherapy. Therefore, unless reconstruction is required as part of essential surgery that cannot be delayed, it is good policy not to offer reconstruction until the patient has stopped smoking.

Refined policy

Clearly these data on outcomes have some limitations.10 Some studies compare smokers with never smokers in situations where smoking related comorbidity is an important factor, such as cardiac and pulmonary complications. I have deliberately avoided this area in my discussion. Another problem is that studies use variable preoperative intervention periods and have not always validated smoking status by, for example, measuring exhaled carbon monoxide or cotinine. A study comparing groups randomised to ongoing, uninfluenced smoking with an intervention group would now be unethical. The question is whether four, six, eight, or more weeks of cessation are required for optimal benefit offset against hazards and inconvenience of surgical delay.

Smoking causes disease that may require surgery, but smoking as a cause of disease is not the issue for debate. Individuals should be treated equitably regardless of the cause of their disease. It is also true that smoking is rarely the only risk factor for a poor outcome, and smoking should not be considered to the exclusion of all others. Smoking is, however, unique in that its associated risk can be reduced substantially within a short period.

Therefore, it is not so much the principle that should be debated here but the practical aspects of implementation and exceptions that might apply. Special care must be taken to ensure that the risks and benefits of smokers with mental illness are well considered. The risks of potentially curative treatment for head and neck surgery in a smoker may be fully acceptable compared with the consequences of not operating. In the same way, a smoker awaiting hip replacement who has pain walking 100 metres but lives in a supportive social context is not the same as another who, without surgery, may be forced into nursing home care. A properly implemented policy would require that non-smoking status be validated but, for the potential benefits, this is justified.

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None declared.
Last year a primary care trust announced it would take smokers off waiting lists for surgery in an attempt to contain costs. Matthew Peters argues that denying operations is justified for specific conditions but Leonard Glantz believes it is unacceptable discrimination.

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One of the noblest things about the profession of medicine has been its single-minded devotion to patients. Doctors routinely treat patients who are despised by the society in which they live—enemy troops, terrorists, murderers. Given this, it is astounding that doctors would question whether they should treat smokers. The issue for doctors is whether they will allow the current antismoking zeal in the West to infect their practice and undermine the doctor-patient relationship.

In a surprisingly short time smokers have gone from being the victims of tobacco companies to perpetrators of wrongs against others. Secondhand smoke used to be an annoyance but is now treated as a poisonous gas. Smokers’ diseases were previously seen as the result of a heartless tobacco industry preying on the young and supplying drugs to those it addicted. Tobacco companies used to win every lawsuit brought against them by diseased smokers because they successfully argued that smokers knowingly and voluntarily assumed the risks of smoking.

But the 1988 US Surgeon General’s report on the addictive nature of cigarette smoking gave plaintiffs’ lawyers a way to rebut this argument.1 Smokers could now be portrayed as the result of a heartless tobacco industry preying on the young and supplying drugs to those it addicted. Tobacco companies used to win every lawsuit brought against them by diseased smokers because they successfully argued that smokers knowingly and voluntarily assumed the risks of smoking.

Operations on patients unless they stop smoking make the same argument that cigarette companies used—if smokers don’t want to incur the adverse effects of smoking, including refusal of surgery, they should quit.

Individual decision

Assuming we can accurately determine who falls into the class of smoker (is it someone who smokes 40 cigarettes a day, 10 a day, or the occasional cigar?), the idea of doctors treating all smokers the same way runs counter to the practice of medicine. This requires an evaluation of each patient to determine the appropriateness of a treatment regimen. Evidence exists that smokers are at an increased risk of postsurgical complications compared with non-smokers, and when smokers stop smoking before surgery their risks of complications decrease.2 But those same data show that most smokers who have surgery have no complications, and a policy denying all smokers access to surgical procedures arbitrarily denies beneficial treatment to those who would have had no complications.

Withholding surgery from smokers also distorts the modern doctor-patient relationship, which is based on partnership. Doctors determine the risks and benefits of treatment and inform the patients of these facts, and patients then decide whether to incur the risks to gain the benefits. This applies equally to smokers and non-smokers. Doctors should certainly inform patients that they might reduce their risks of postsurgical complications if they stop smoking eight weeks before the procedure. There is every reason to believe many patients would follow their doctors’ advice. The question is, “Should the price of not following the doctor’s advice be the denial of beneficial surgery?” Should someone who was crippled by arthritic knee pain be denied surgery because they would knowingly and willingly take an increased risk of incurring postsurgical complications? If the decision whether to take an increased risk is not left to patients, they are likely to lie to their doctors about their smoking. This deception, of course, will make us unable to help smokers who wish to stop but fear the repercussions of disclosing their smoking to their doctors.

Cost arguments

An argument made to support the discriminatory non-treatment of smokers is that increased complications lead to additional expenditures that could be avoided if smokers would simply stop smoking. But why focus our cost saving concerns on smokers in the context of surgery? Do patients have a general obligation to get healthy as a condition of receiving treatment? Patients are not required to visit fitness clubs for eight weeks, lose 25 pounds, or take drugs to lower blood pressure before surgery.

Many non-smokers cost society large sums of money in health care because of activities they choose to take part in. “Baby boomers” in the United States lost 488 million days of productivity in 2002 because of sports injuries. In 1991–8 sports related injuries in this age group increased 33% and cost about $18.7bn (£9.6bn; €14bn) a year in medical costs alone.3 We could reduce healthcare expenditure by simply refusing to pay for treating any injuries related to voluntary participation in sports. Let them suffer their painful knee condition which is entirely their fault. Indeed, if we treat a sports injury that person is likely risk incurring future costly sports injuries. But we don’t even think this let alone suggest it.

Discriminating against smokers has become an acceptable norm. Indeed, at least one group of authors who believe smokers should be refused surgery blithely admits that it is “overtly discriminatory.”4 The suggestion that we should deprive smokers of surgery indicates that the medical and public health communities have created an underclass of people against whom discrimination is not only tolerated but encouraged. When the World Health Organization announced that it would no longer employ anyone who smokes, public health and medical communities did not respond to this act of blatant bigotry.5,6 Similarly, it is shameful for doctors to be willing to treat everybody but smokers in a society that is supposed to be pluralistic and tolerant. Depriving smokers of surgery that would clearly enhance their wellbeing is not just wrong—it is mean.

References are in the full version on bmj.com

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Health policy: a new look at NHS commissioning

With NHS reforms seemingly having gone full circle, it is time for the government to break out of the loop

The NHS is being restructured to make health service commissioning the engine of change. However, the model that has been developed builds on a legacy of weak incentives and lack of imagination. It has focused on modifying existing organisations and changing boundaries based on geography. It does not tackle the fundamental flaws inherent in the system created in the 1990s or respond to some key questions that most other healthcare systems have confronted over the past 70 years. This paper challenges the basis on which the NHS is developing commissioning and suggests five areas for further thinking.

**Current strategy**
The annex to *Health Reform in England: update and commissioning framework* published in July 2006 sets out the vision for commissioning in England over the next few years. Although some new techniques are proposed, the plans described are essentially more of the same and provide little reassurance that commissioning really will be given the levers to secure appreciable improvements in health or health services. Five assumptions in the current thinking need to be challenged:

- That patient choice should primarily be about choice of provider rather than commissioner
- That commissioning organisations need to be defined by geography and resident population
- That purchasers can and should commission on a population basis rather than on behalf of individuals
- That general practitioners and primary care trusts should be the only commissioners and that delegating commissioning functions to other organisations necessarily means privatising commissioning
- That developing specialised commissioning organisations would undermine the commitment to a tax funded NHS and pave the way for an insurance based model.

**Choice of provider or commissioner?**
The original idea for a purchaser-provider split in the NHS came from Alain Enthoven in 1985. He argued that the NHS was gridlocked and that there were no incentives to improve efficiency and quality. He championed the “internal market model” of healthcare, adopted by the Conservative government in the late 1980s, which encouraged patient choice of provider but not of purchaser. Enthoven argued, however, that competition between purchasers would ensure greater responsiveness to patients and create real incentives to improve the quality of purchasing and provision. General practitioner fundholding did allow patients to move between practices, if they wished to change commissioner, but few did so. Recent evidence suggests that little has changed; loyalty to general practitioners remains strong and the barriers to exercising choice are high.

Experience from other countries suggests that developing competition between commissioners can really empower patients as well as create incentives to improve needs analysis, responsiveness to patients, cost effectiveness, better information, and choice. People in Belgium have been able to choose their sickness fund for many years, and recent health reforms in Germany and the Netherlands have increased choice. In Germany the proportion of people switching funds rose from 9.3% in 1998 to 23.4% in 2003. There are certainly potential disadvantages to choice of commissioner (such as funders “cream skimming” or choosing the healthiest patients). The experience in other countries shows that it is wealthier people who tend to exercise choice, and in the Netherlands, patients have given higher priority to choice of provider than commissioner. Nevertheless, commissioners elsewhere have created dynamism in healthcare markets, and the experiences are worth examining.
The English proposals are inward looking, at a time when market changes will have a profound effect. It is possible, for example, that as the NHS develops spare capacity, other European countries may look to purchase NHS services. In future foundation trusts will have incentives to sell their spare capacity overseas. Although this may currently be a marginal activity, commercially astute trusts will look beyond national boundaries for their patients—as many mainland European providers already do. Commissioners will no longer operate in a relatively predictable and managed domestic market but will face challenges from outside the NHS.

**Should commissioning be based on geography and residence?**

One of the most puzzling aspects of the new commissioning arrangements, if viewed from a non-NHS perspective, is that commissioners must be defined by geography and by resident population. Commissioners in other countries can be organised around communities of interest (such as employment based health plans), but there is no automatic assumption that they would serve a geographical catchment area. The same should be true in the NHS. The debate about the configuration of primary care trusts and coterminosity with local authorities has been based on their provider function more than their commissioning function (though some argue that coterminosity will help to focus energy on health and health inequalities).

There is no reason, in principle, why a commissioner based in Hastings could not purchase services in Halifax for a subscriber who lived there. As more and better information about clinical services and their outcomes becomes available across the country, the case for working only through traditional, local, patterns of referral is weakened. Many patients may continue to prefer to receive their care close to home, but that is different from arguing that their commissioner should be based locally too.

**Commissioning for populations or individuals?**

Since the purchaser-provider split was first implemented in 1991, it has been argued that a key role in purchasing was to assess population needs and then to commission services to meet those needs. Neat circular diagrams were devised, showing needs assessment as the first stage in the cycle and a logical series of steps towards the satisfied patient. Indeed, just such a diagram appears in the latest Department of Health publication. However, there is little evidence that district health authorities, primary care trusts, and others had the skills or the data to commission services for their local populations or that they made a significant difference to the quality of provision or to the reduction of health inequalities. When changes did begin to happen it was often by aggregating the needs and preferences of individual patients through fundholding or similar mechanisms. As Smith and colleagues observed in 2004, the evidence suggests that primary care led commissioners had yet to develop any mechanisms to promote patient choice. Failures of the population based approach in the past weaken the argument for tying commissioning to geography in the future.

**Commissioning by public sector agencies**

The imaginative plans that Thames Valley Strategic Health Authority developed in October 2005 for contracting out commissioning functions were heavily criticised and rapidly squashed. The authority intended to tender for the provision of management services to Oxfordshire primary care trusts, on the grounds that current trust leadership was not adequate for the new tasks, and it invited competition from other parts of the NHS and the voluntary and private sectors. Thames Valley’s chief executive said that this “did not mean privatisation of the NHS,” but the proposal was rejected by the Department of Health.

These kinds of opportunities to delegate functions to bodies other than a local primary care trust or general practice should be re-examined. If the geographical ties were broken, there is no reason why one trust or practice should not commission on behalf of others (indeed this already happens with specialist and lead commissioning arrangements). Equally, some local authorities have become very sophisticated purchasers in recent years and have the skills to commission both health care and social care for residents and non-residents. The same would be true of some voluntary organisations. Moving commissioning responsibilities beyond their traditional boundaries does not automatically mean privatisation, and the expenditure of public money could still be managed through public sector bodies on behalf of patients.

**Competition between commissioners in a tax funded system**

A shift to competition between commissioners would necessarily be the first step down the road to an insurance funded health service. It is true that in other countries where such competition exists, the healthcare system is typically funded through social or private insurance. However, it is important to distinguish between the type of funding and the organisational arrangements that are in place for purchasing and commissioning health care. It would be possible to...
Finally, intelligent commissioning would rapidly drive a demand for better information about treatment options, clinical outcomes, and cost. There would be strong incentives to provide good information to the public and to facilitate real choice for patients and their families.

Although we are well down the road of developing a different model of NHS commissioning from the one described here, we cannot avoid addressing some fundamental questions. If we do not challenge the assumptions behind the planned model now, they will simply come back to haunt us later.

**Contributors and sources:** H is chair of the Christie Hospital NHS Trust. She was also chair of Manchester Health Authority and Family Health Services Authority and regional chair in the North West.

**Competing interests:** None declared.


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**A former colleague?**

“I am sorry, but he does not speak English,” his wife said at the breakfast table. I had approached to ask him if we had worked together. I apologised and left our London hotel to walk to the conference on a bright and cool autumn morning. I scolded myself for being a stupid old fool (“It was 25 years ago, man”) and forgot about him for the rest of the day as academia filled my brain.

That evening the thought of him crept back—“It’s him all right.” We had worked together for six months on a senior house officer rotation of the day as academia filled my brain.

That evening the thought of him crept back—“It’s him all right.” We had worked together for six months on a senior house officer rotation in the north of England. Although I had never heard of or seen him since, we got on very well and had loads of laughs. An invertebrate people watcher, I reminded myself of the features that had brought back the memories—the sallow complexion, black hair (albeit greying), his height, big Chelsea boots, the way he adjusted his spectacles, the timbre of his voice (though speaking fluently in a foreign tongue), and his gait. But his hands were unmistakable: he had large, expressive hands with long fingers and a big scallop betwixt forefinger and thumb. I do not remember his name, and, although he had spoken English with a strong regional (London?) accent, I had wondered (though I never asked) if he had an Indian or Mediterranean ancestry. I hope he is not in trouble and having to hide from persecution. I would prefer that he simply has not told his wife and family that he had a previous life. I was pleased that he seemed happy.

After leaving the breakfast room the next morning with his and an accompanying family (too many for the small hotel lift), he returned alone past our table, heading for the stairs, and said, “Morning,” and smiled broadly.

I returned his greeting, and my wife said, “There, he’s forgiven you.” I shrugged, resigned to my renewed doubts and finished my breakfast. Later, in the quiet of the museum, hindsight gave me a slap. I had missed his cue: I should have left the table and followed him to the stairs. How I would love to hear his story.

**Gordon Shepherd** senior occupational physician, Ark Occupational Health, Aberdeen (Gordon@arkoh.co.uk)
Self management for men with lower urinary tract symptoms: randomised controlled trial

Christian T Brown,1 Tet Yap,1 David A Cromwell,2 Lorna Rixon,3 Liz Steed,3 Kathleen Mulligan,3 Anthony Mundy,4 Stanton P Newman,3 Jan van der Meulen,2 Mark Emberton4

ABSTRACT

Objective To evaluate the effectiveness of self management as a first line intervention for men with lower urinary tract symptoms.

Design Randomised controlled trial.

Setting A teaching hospital and a district general hospital in London.

Participants 140 men (mean age 63 (SD 10.7) years), recruited between January 2003 and April 2004, referred by general practitioners to urological outpatient departments with uncomplicated lower urinary tract symptoms.

Interventions Self management and standard care (n=73) or standard care alone (n=67). The self management group took part in three small group sessions comprising education, lifestyle advice, and training in problem solving and goal setting skills.

Main outcome measures The primary outcome measure was treatment failure measured at 3, 6, and 12 months. Symptom severity (international prostate symptom score; higher scores represent a poorer outcome) was used as a secondary outcome.

Results At three months, treatment failure had occurred in 7 (10%) of the self management group and in 27 (42%) of the standard care group (difference=32%, 95% confidence interval 18% to 46%). Corresponding differences in the frequency of treatment failure were 42% (27% to 57%) at six months and 48% (32% to 64%) at 12 months. At three months, the mean international prostate symptom score in the self management group and 16.4 in the standard care group (difference=5.7, 3.7 to 7.7). Corresponding differences in score were 6.5 (4.3 to 8.7) at six months and 5.1 (2.7 to 7.6) at 12 months.

Conclusions Self management significantly reduced the frequency of treatment failure and reduced urinary symptoms. Because of the large observed benefit of self management, the results of this study support the case for a large multicentre trial to confirm whether self management could be considered as first line treatment for men with lower urinary tract symptoms.

Trial registration National Research Register N0263115137; Clinical trials NCT00270309.

INTRODUCTION

Standard care for men with lower urinary tract symptoms has developed into a “cascade” that escalates from “watchful waiting” through a variety of drugs to surgery.1 2 Healthcare professionals involved in the care of men with lower urinary tract symptoms routinely advise lifestyle modifications. However, the type of advice given varies considerably.3 A formal consensus development exercise was carried out to define the lifestyle modifications that are likely to be effective in improving lower urinary tract symptoms.4

We developed a self management intervention for men with lower urinary tract symptoms that incorporated the recommendations of the consensus panel.4 The purpose of the programme was to reduce urinary symptoms and to delay or avoid an escalation in treatment. We did a randomised controlled trial in two centres to compare men with lower urinary tract symptoms who participated in a self management programme in addition to standard care with those who received standard care alone.

METHODS

Patient population—We recruited men with uncomplicated lower urinary tract symptoms from the outpatient departments of two urological centres in London. We randomised the men either to attend a self management programme in addition to standard care or to standard care alone. All patients aged over 40 with lower urinary tract symptoms who were referred for the first time by their general practitioner were eligible for inclusion. We excluded some men on the basis of drug treatment, recent surgery, complications potentially related to their symptoms, or severe comorbidity.

Standard care—Standard care in the two participating centres began with watchful waiting. Escalation to medical treatment and surgery was left to the discretion of the clinician and patient.

Intervention—In addition to standard care, the intervention group took part in small group sessions (five to eight men), each lasting between 1.5 and 2 hours, which were scheduled one, two, and six weeks after randomisation. The aim of these sessions was to bring about modification of lifestyle (fluid management, avoidance of caffeine, and use of alcohol) and specific changes in behaviour (bladder retraining, double voiding, and urethral milking). (See appendix on bmj.com and reference 5 for a description of the information component.) We designed the sessions to enable the participants to learn techniques of problem solving.
and goal setting. At 3, 6, and 12 months, clinicians who were not involved in the conduct of the trial saw participants in the urology outpatient departments.

**Outcomes**—The primary outcome was treatment failure (rise of 3 points or more on the international prostate symptom score, use of drugs to control lower urinary tract symptoms, acute urinary retention, or surgical intervention) during follow-up. Secondary outcomes included severity of symptoms (international prostate symptom score), troublesomeness of symptoms (benign prostatic hypertrophy impact index), and disease-specific quality of life (American Urological Association quality of life score).

**Statistical analysis**—We analysed outcomes at 3, 6, and 12 months separately on an intention to treat basis. We did regression to adjust comparisons for potential imbalances in the baseline characteristics of the two groups (age, severity of symptoms, duration of symptoms, level of education, and number of comorbidities).

**RESULTS**
Of the 186 patients who were eligible for randomisation during the recruitment period, 46 were excluded. Of the 140 men who were included, we randomised 73 to participate in the self management programme and 67 to standard care alone. Compliance with the self management programme was high; 68 (93%) patients attended all three sessions. The five patients who did not attend were included in the self management group for analysis.

**Baseline characteristics**
The distributions of the patient demographics in the self management group and the standard care group were broadly similar (see bmj.com). Comorbidity was slightly more frequent in the self management group. Although most patients in the two groups fell in the moderate category of symptom severity, more patients in the standard care group had either mild or severe symptoms.

**Primary outcome**
At 3, 6, and 12 months, treatment failure was considerably more frequent in patients who were randomised to standard care alone than in those randomised to self management (table 1). The principal reasons for failure were prescription of β blockers or a rise in international prostate symptom score (table 2). Adjustment for baseline characteristics did not change these results.

The results in table 1 represent only patients with complete information at 3, 6, and 12 months. When we imputed missing values by using results of the previous measurements, only small changes occurred in the differences between the two groups and these differences remained statistically significant.

**Secondary outcomes**
At 3, 6, and 12 months, patients who were randomised to self management had less severe symptoms than patients randomised to standard care alone (table 1). The differences in international prostate symptom score increased slightly when we adjusted them for baseline characteristics. Patients who were randomised to self management were also less troubled by their symptoms and had a better quality of life than patients who were randomised to standard care alone (table 1). When we imputed missing values by using results of the previous measurements, the differences in symptom severity, troublesomeness, and quality of life remained statistically significant at 3, 6, and 12 months.

**DISCUSSION**
Self management in addition to standard care significantly reduced the rate of treatment failure and improved urinary symptoms, compared with standard care alone. The difference in symptoms between the treatment groups is twice as large as that seen when medical treatment is compared with placebo. The benefits of self management were seen early and were sustained at six and 12 months.

**Methodological considerations**
The treatment of men in the standard care group may have been contaminated because of the conduct of the trial. This contamination, which would have reduced the difference between the groups, may have occurred through changes in the advice the clinicians gave to their patients or through direct communication between patients allocated to different groups. However, the crucial difference between the two treatment groups is the problem solving and goal setting skills that patients acquired as a result of attending the programme. These skills are unlikely to have been conferred during the clinical consultation or transferred from one patient to another.

Lack of blinding of patients to the treatment allocation is another source of bias. However, we asked patients not to reveal their allocation to the clinicians.

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**Table 1| Primary and secondary outcomes at 3, 6, and 12 months. Values are mean (SD) unless stated otherwise**

<table>
<thead>
<tr>
<th></th>
<th>Self management (n=73)</th>
<th>Standard care (n=67)</th>
<th>Difference (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>No missing</td>
<td>Value</td>
<td>No missing</td>
</tr>
<tr>
<td><strong>Three month outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment failures (% (No))</td>
<td>10 (7)</td>
<td>2</td>
<td>42 (27)</td>
<td>2</td>
</tr>
<tr>
<td>IPSS</td>
<td>10.7 (5.9)</td>
<td>2</td>
<td>16.4 (5.8)</td>
<td>3</td>
</tr>
<tr>
<td>BPH impact index</td>
<td>3.3 (2.8)</td>
<td>2</td>
<td>4.7 (2.6)</td>
<td>3</td>
</tr>
<tr>
<td>AUA-QoL score</td>
<td>2.8 (1.2)</td>
<td>2</td>
<td>3.4 (1.1)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Six month outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment failures (% (No))</td>
<td>19 (13)</td>
<td>4</td>
<td>61 (39)</td>
<td>3</td>
</tr>
<tr>
<td>IPSS</td>
<td>10.4 (6.1)</td>
<td>6</td>
<td>16.9 (6.4)</td>
<td>6</td>
</tr>
<tr>
<td>BPH impact index</td>
<td>3.5 (2.9)</td>
<td>7</td>
<td>4.8 (2.8)</td>
<td>6</td>
</tr>
<tr>
<td>AUA-QoL score</td>
<td>2.6 (1.3)</td>
<td>6</td>
<td>3.3 (1.4)</td>
<td>6</td>
</tr>
<tr>
<td><strong>Twelve month outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment failures (% (No))</td>
<td>31 (18)</td>
<td>14</td>
<td>79 (44)</td>
<td>11</td>
</tr>
<tr>
<td>IPSS</td>
<td>10.2 (6.1)</td>
<td>20</td>
<td>15.4 (6.6)</td>
<td>16</td>
</tr>
<tr>
<td>BPH impact index</td>
<td>3.0 (3.3)</td>
<td>18</td>
<td>4.3 (2.9)</td>
<td>16</td>
</tr>
<tr>
<td>AUA-QoL score</td>
<td>2.6 (1.3)</td>
<td>19</td>
<td>3.1 (1.2)</td>
<td>15</td>
</tr>
</tbody>
</table>

AUA-QoL=American Urological Association quality of life; BPH=benign prostatic hypertrophy; IPSS=international prostate symptom score.
The only imaginable harm that can result from self management is that for some patients medical or surgical treatment is postponed.

We thank all the men who agreed to take part in this trial. We also acknowledge the work of Jane Coe and Daphne Colpman, urology nurse specialists, University College London Hospitals NHS Foundation Trust, for acting as facilitators to the self management groups.

Contributors: See bmj.com.
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Competing interests: ME has received fees from GlaxoSmithKline and Sanofi-Synthelabo for acting as a consultant, giving lectures, and working as an investigator. All other authors: none declared.
Ethical approval: Medical research ethics committees of the participating hospitals.

Provision of taped conversations with neonatologists to mothers of babies in intensive care: randomised controlled trial

Tieh Hee Hai Guan Koh,1 Phyllis N Butow,2 Michael Coory,3 Donna Budge,4 Li-An Collie,4 John Whitehall,1 Martin H Tattersall1

ABSTRACT

Objective To determine whether providing mothers of babies in neonatal intensive care units with audiotapes of their conversations with a neonatologist improves recall of information and psychological wellbeing.

Design Randomised, single blinded trial.

Setting Neonatal intensive care unit, north Queensland, Australia.

Participants 200 mothers of babies in a neonatal intensive care unit.

Interventions Mothers given (n=102) or not given (n=98) audiotapes of their conversations with a neonatologist.

Main outcome measures Recall of information, attitudes to and use of the tape, satisfaction with conversations, postnatal depression, anxiety, general health, and stress about parenting, at 10 days and four and 12 months.

Results 91% (n=93) of mothers in the tape group listened to the tape (once by day 10, twice by four months, and three times by 12 months; range 1-10). At 10 days and four months, mothers in the tape group recalled significantly more information about diagnosis, treatment, and outcome than mothers in the control group. At four months mothers in the tape group were 75% more likely to recall all of the information about treatment than mothers in the control group (59% vs 34%; risk ratio 1.75, 95% confidence interval 1.27 to 2.4). Six mothers, all in the control group, could not recall their conversations. No statistically significant differences were found between the groups in satisfaction with conversations (10 days), postnatal depression and anxiety scores (10 days, four and 12 months), and stress about parenting (12 months).

Conclusion Providing the mothers of babies in neonatal intensive care units with audiotapes of conversations with a neonatologist enhanced their recall of information (up to four months). The taped conversations did not affect the mothers’ wellbeing or satisfaction with the neonatologist.

Trial registration Australian Clinical Trials Registry 12606000478516.

INTRODUCTION

Several studies have found that giving adults with cancer an audiotape of their initial conversations with oncologists improved their psychological distress, anxiety, satisfaction with conversations, and recall of information whereas other authors found no benefits.1-7 We carried out a randomised single blind trial to compare the effects of providing or not providing mothers of babies in neonatal intensive care units with an audiotape of their conversations with the neonatologist.

METHODS

Mothers were eligible for the study if their babies were admitted to the neonatal intensive care unit at the Townsville Hospital, the regional neonatal unit for north Queensland (see bmj.com). The study was a randomised controlled trial of audiotape provision, with the neonatal team blinded to allocation. Before the first conversation the mothers completed a questionnaire eliciting personal details, anxiety scores, and preferences for information and involvement in decision making. A randomisation service then allocated the mother to receive or not to receive a tape of their conversations with a neonatologist.

After randomisation the initial conversation and subsequent conversations of significance were taped and analysed. The mothers in the experimental arm received a tape of each of the conversations and a tape recorder.

Ten days and four months after the initial conversation the researcher interviewed the mothers to document their recall of the diagnosis, tests, treatment, and outcome of their babies as conveyed by the neonatologist. Mothers also completed a questionnaire to ascertain views of the taping, use of the tapes, anxiety, general health, depression, marital satisfaction, social support, and satisfaction with conversations held with...
the neonatologist. At 12 months the mothers were given the same questionnaire.

Outcome measures
Recall of information was assessed by face to face or telephone interview, which opened with a question inviting mothers to report what the neonatologist had told them and their understanding of the meaning. Transcripts of the conversations were coded by a neonatologist (THHGK).

We used the Spielberger state anxiety inventory to measure anxiety, the Edinburgh postnatal depression score for non-cases, 1 or greater for cases of greater distress. Mothers with score >10 most likely to have a depressive illness and should be further assessed. General health questionnaire score >1†:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Tape group (n=102)</th>
<th>Control group (n=98)</th>
<th>Relative risk* (95% CI)</th>
<th>P value</th>
</tr>
</thead>
</table>
| Edinburgh postnatal depression score >12*:  
10 days | 48 (47) | 40 (41) | 1.15 (0.84 to 1.58) | 0.37 |
| 4 months | 13 (13) | 18 (18) | 0.9 (0.46 to 1.76) | 0.75 |
| 12 months | 12 (12) | 10 (10) | 1.15 (0.52 to 2.5) | 0.72 |

<table>
<thead>
<tr>
<th>Measure</th>
<th>Tape group (n=102)</th>
<th>Control group (n=98)</th>
<th>Relative risk* (95% CI)</th>
<th>P value</th>
</tr>
</thead>
</table>
| General health questionnaire score >1†:  
10 days | 66 (65) | 65 (66) | 0.99 (0.8 to 1.2) | 0.92 |
| 4 months | 41 (40) | 35 (36) | 1.13 (0.8 to 1.6) | 0.51 |
| 12 months | 23 (23) | 23 (24) | 0.96 (0.6 to 1.6) | 0.88 |

* Mothers with score >12 most likely to have a depressive illness and should be further assessed.  
† Score for non-cases, 1 or greater for cases of greater distress.

Table 1 | Mothers having 100% recall about diagnosis, tests, treatment, and outcome of their babies in a neonatal intensive care unit, at 10 days and four months follow up, according to group. Values are numbers (percentages) unless stated otherwise

<table>
<thead>
<tr>
<th>Follow up</th>
<th>Tape group (n=102)</th>
<th>Control group (n=98)</th>
<th>Relative risk* (95% CI)</th>
<th>P value</th>
</tr>
</thead>
</table>
| 10 days:  
Diagnosis | 73 (72) | 52 (53) | 1.35 (1.08 to 1.69) | 0.007 |
| Tests | 43 (42) | 39 (40) | 1.06 (0.63 to 1.94) | 0.734 |
| Treatment | 64 (63) | 47 (48) | 1.83 (1.04 to 3.21) | 0.035 |
| Outcome | 82 (82) | 65 (66) | 1.24 (1.05 to 1.47) | 0.009 |
| 4 months:  
Diagnosis | 65 (64) | 49 (50) | 1.27 (0.99 to 1.63) | 0.05 |
| Tests | 45 (44) | 35 (36) | 1.35 (1.00 to 1.84) | 0.045 |
| Treatment | 60 (59) | 33 (34) | 1.75 (1.27 to 2.4) | 0.004 |
| Outcome | 82 (80) | 61 (62) | 1.29 (1.08 to 1.55) | 0.005 |

*Value greater than 1.0 indicates higher recall in tape group.

RESULTS
Between July 1999 and December 2001 200 of 256 (78%) mothers of babies admitted to the Townsville Hospital neonatal intensive care unit agreed to participate: 102 were randomised to receive audiotapes of their conversations with a neonatologist and 98 were randomised to no tape (see bmj.com).

Baseline characteristics of the mothers and babies were similar in both groups except that mothers randomised to receive the tape were more likely to have had less education than those in the control group (see bmj.com). Measures of mothers’ baseline preferences for information and role in decision making, anxiety, and social support showed no significant differences between the groups. The modal number of conversations taped was one per mother (range 1-11), and no significant differences were found between the groups.

Most (84.98%) of the mothers in both groups responded that having their conversations taped did not annoy or embarrass them or cause anxiety. Most (71-92%) of the mothers given the tapes stated that they helped their understanding, reminded them of what had been said, and helped their family to understand and recall information. Mothers listened to the tape a modal of once by10 days, twice by four months, and three times by12 months (range 1-10 for each assessment).

At 10 days and four months mothers in the tape group had significantly greater recall of information on the diagnosis or outcome of the baby and on tests or treatment, respectively (table 1). The difference between the two groups remained significant in multivariate analysis. Six mothers, all in the control group, could not recall any information.

With and without adjustment for baseline differences, no differences were found between the two groups in
Table 3 | Psychological wellbeing and stress about parenting of mothers with babies in a neonatal intensive care unit with a poor outcome. Values are percentages (numbers) of mothers unless stated otherwise

<table>
<thead>
<tr>
<th>Measure</th>
<th>Tape group</th>
<th>Control group</th>
<th>Relative risk (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edinburgh postnatal depression score &gt;12.*</td>
<td>10 days</td>
<td>60 (12/20)</td>
<td>36 (5/14)</td>
<td>1.68 (0.76 to 3.7)</td>
</tr>
<tr>
<td></td>
<td>4 months</td>
<td>33 (6/18)</td>
<td>20 (2/12)</td>
<td>0.64 (0.29 to 1.45)</td>
</tr>
<tr>
<td></td>
<td>12 months</td>
<td>19 (3/16)</td>
<td>27 (3/11)</td>
<td>0.69 (0.17 to 2.8)</td>
</tr>
<tr>
<td>General health questionnaire score &gt;1†</td>
<td>10 days</td>
<td>79 (15/19)</td>
<td>71 (10/14)</td>
<td>1.1 (0.73 to 1.7)</td>
</tr>
<tr>
<td></td>
<td>4 months</td>
<td>56 (10/18)</td>
<td>50 (6/12)</td>
<td>1.1 (0.55 to 2.2)</td>
</tr>
<tr>
<td></td>
<td>12 months</td>
<td>40 (6/15)</td>
<td>50 (6/12)</td>
<td>0.8 (0.35 to 1.9)</td>
</tr>
<tr>
<td>Parenting stress index score &gt;85%‡:</td>
<td>Child domain</td>
<td>40 (2/5)</td>
<td>25 (2/8)</td>
<td>1.6 (0.32 to 8.0)</td>
</tr>
<tr>
<td></td>
<td>Parents domain</td>
<td>67 (1015)</td>
<td>90 (9/10)</td>
<td>0.74 (0.49 to 1.1)</td>
</tr>
</tbody>
</table>

*Mothers with score >12 most likely to have a depressive illness and should be further assessed.
†Score greater than 85% indicating greater stress.

Table 4 | Anxiety and satisfaction with conversation with a neonatologist of mothers with babies in a neonatal intensive care unit with a poor outcome

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean (SD) state and anxiety inventory score:</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 days</td>
<td>P=0.8, r=0.41</td>
</tr>
<tr>
<td>Mean (95%) CI satisfaction with conversation</td>
<td>115 (104 to 123.2) (n=19)</td>
<td>P=0.0051, χ²=7.8</td>
</tr>
<tr>
<td></td>
<td>100.5 (94.1 to 109.4) (n=14)</td>
<td></td>
</tr>
</tbody>
</table>

DISCUSSION

Providing the mothers of babies in a neonatal intensive care unit with an audiotape of their conversations with a neonatologist improved their recall of information at 10 days and four months. The tapes did not influence parental wellbeing or stress about parenting. The mothers of babies with a poor outcome who received the tape were significantly more satisfied with the conversation.

The mothers in our study attended a regional neonatal intensive care unit, were prospectively recruited, and were followed up to one year. The cohort included a racially and socioeconomically diverse sample of mothers whose babies had a wide spectrum of clinical conditions. The incidence of postnatal depression at the three follow-up periods (10 days and four and 12 months) was similar to that reported among mothers with babies in neonatal intensive care units in another study, suggesting that our cohort is representative of such mothers.18

Most of the mothers in both groups were positive about having their conversations with the neonatologist taped. Overall, 96% of mothers listened to the tapes and found them helpful in recalling information. The tapes improved recall of information up to four months. That six of the mothers in the control group could not recall their conversations has important medicolegal implications.19

The mothers of babies with poor outcome did not seem to be helped by the tapes at 10 days’ follow-up; at four months, however, these mothers recalled significantly more information on the treatment and outcome of their babies compared with the control group. This may have been due to the mothers being in shock about their babies’ condition and needing time to adjust to their situation. Mothers of babies with a poor outcome were significantly more satisfied with the conversation than mothers in the control group. The results need to be interpreted with caution, however, as the number of mothers with babies given a poor outcome was small. No significant difference was found between the groups for postnatal depression, anxiety, psychological wellbeing, or parenting stress scores at 10 days and four and 12 months. Thus the benefits to recall do not seem to be associated with negative psychological effects.

The limitations of our study include a higher refusal rate for non-white mothers. No significant differences were, however, found between the groups in the proportion of mothers who were non-white. The trial involved three neonatologists so the results may be different with other neonatologists.

Conclusion

It is practical to tape conversations between the mothers of babies in neonatal intensive care units and neonatologists. In our study the tapes were listened to by both the mothers and family members. At 10 days’ and four months’ follow-up the tapes improved the mothers’ recall of information provided by the neonatologist and did not influence their wellbeing or stress about parenting. The mothers of babies with poor outcome who received the tapes were significantly more satisfied with the conversation than similar mothers in the control group.

We thank the mothers and health professionals at the Institute of Women’s and Children’s Health, Townsville Hospital, for their support.

Contributors: See bmj.com.

Funding: THHGK, PNB, DB, LC, JW, and MHT were supported by grants from the Royal Children’s Hospital Foundation/Golden Casket, Brisbane and the Townsville health district.

Competing interests: None declared.

Ethical approval: This study was approved by Townsville health district ethics committee.
Impact of case management (Evercare) on frail elderly patients: controlled before and after analysis of quantitative outcome data

Hugh Gravelle,1 Mark Dusheiko,1 Rod Sheepe,2 Penny Sargent,3 Ruth Boaden,3 Stuart Parker,5 Martin Roland4

ABSTRACT

Objectives To determine the impact on outcomes in patients of the Evercare approach to case management of elderly people.

Design Practice level before and after analysis of hospital admissions data with control group.

Setting Nine primary care trusts in England that, in 2003-5, piloted case management of elderly people selected as being at high risk of emergency admission.

Main outcome measures Rates of emergency admission, emergency bed days, and mortality from April 2001 to March 2005 in 62 Evercare practices and 6960-7695 control practices in England (depending on the analysis being carried out).

Results The intervention had no significant effect on rates of emergency admission (increase 16.5%, 95% confidence interval –5.7% to 38.7%), emergency bed days (increase 19.0%, –5.3% to 43.2%), and mortality (increase 34.4%, –1.7% to 70.3%) for a high risk population aged 65+ with a history of two or more emergency admissions in the preceding 13 months. For the general population aged 65+ effects on the rates of emergency admission (increase 2.5%, –2.1% to 7.0%), emergency bed days (decrease –4.9%, –10.8% to 1.0%), and mortality (increase 5.5%, –3.5% to 14.5%) were also non-significant.

Conclusions Case management of frail elderly people introduced an additional range of services into primary care without an associated reduction in hospital admissions. This may have been because of identification of additional cases. Employment of community matrons is now a key feature of case management policy in the NHS in England. Without more radical system redesign this policy is unlikely to reduce hospital admissions.

INTRODUCTION

Case management of frail elderly people was recently introduced into the NHS and subsequently became a key component of the national community matron policy.1 Case management aims to improve outcomes in patients and, in particular, to reduce unplanned hospital admission.

Systematic reviews of home based support for older people have drawn mixed conclusions from no overall impact on hospital admission2 to reduced admission rates and costs, dependent on the system of care.3 Two further reviews concluded that there is limited evidence that case management of elderly people can reduce use of health services, but both suggest that the results from
individual studies cannot readily be generalised to different healthcare settings.4,5

In England case management was introduced by UnitedHealth Europe as pilots of the Evercare model of case management in April 2003. Evercare sites initially selected patients on the basis of age (≥65) and a history of emergency admissions. Advanced practice nurses agreed individualised care plans with the patient, the general practitioner, and other staff, and patients were monitored. The benefits reported included altering medication to avoid adverse reactions, coordinating care to reduce fragmentation among services, and arranging access to community-based services. The nurses judged that the intervention improved patients’ functional status and quality of life and avoided hospital admissions.6

We carried out a quantitative and qualitative evaluation of the Evercare pilots. The qualitative part included interviews with staff from United Health and primary care trusts, general practitioners, patients, carers, and advanced practice nurses, and the findings from these are reported elsewhere.7 8 In this paper we report on the effect of Evercare pilots on hospital admissions, bed days, and mortality estimated from hospital episode statistics (HES). We measured outcome rates for two populations: a high risk cohort of patients aged ≥65 with two or more emergency admissions in the preceding 13 months and all patients aged ≥65.

Analysis—We used a design that compared the change in outcomes in the Evercare practices before and during the intervention with the change in outcomes in the control practices before and during the intervention.9 This design removes the effect of baseline differences between the groups. We defined three periods before the intervention (period 1: July 2001 to March 2002; period 2: April 2002 to September 2002; period 3: October 2002 to March 2003) and three during the intervention (period 4: July 2003 to March 2004; period 5: April 2004 to September 2004; period 6: October 2004 to March 2005). We then compared period 4 against period 1, 5 against 2, and 6 against 3 to remove possible seasonal effects. We regressed the outcome rate on indicators to denote the period being analysed, an indicator for the intervention group, and interactions between the intervention group indicator and the period indicators. We also controlled for differences between Evercare and control practices using propensity score matching.10 11 This method allowed us to compare Evercare practices with control practices that were similar in terms of the factors that influenced the probability of a practice being enrolled in Evercare.

**RESULTS**

At baseline, intervention practices had significantly higher rates of admission and use of emergency bed days and faster growth rates in admissions for the general population aged ≥65 (see bmj.com). Although

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### Table 1 | Effect of intervention for the high risk population (aged ≥65, two emergency admissions in preceding 13 months) in 62 intervention practices and at least 6960 control practices. Effects shown with 95% confidence intervals

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Estimated effect/person/year</th>
<th>Percentage effect (%)</th>
<th>P value†</th>
<th>Estimated effect/person/year</th>
<th>Percentage effect (%)</th>
<th>P value†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency admissions</td>
<td>0.10 (−0.03 to 0.22)</td>
<td>16.5 (−5.7 to 38.7)</td>
<td>0.14</td>
<td>0.09 (−0.03 to 0.22)</td>
<td>16.3 (−6.0 to 38.5)</td>
<td>0.15</td>
</tr>
<tr>
<td>Emergency bed days</td>
<td>1.3 (−0.4 to 3.0)</td>
<td>19.0 (−5.3 to 41.2)</td>
<td>0.13</td>
<td>1.08 (−0.61 to 2.77)</td>
<td>15.6 (−8.7 to 39.9)</td>
<td>0.21</td>
</tr>
<tr>
<td>HES mortality</td>
<td>0.03 (0.0 to 0.07)</td>
<td>34.3 (−1.7 to 70.3)</td>
<td>0.06</td>
<td>0.03 (0.0 to 0.07)</td>
<td>34.9 (−1.1 to 71.1)</td>
<td>0.06</td>
</tr>
</tbody>
</table>

2) From fixed effect panel regression, allowing for clustering within practices and heteroscedasticity.
3) From matching by propensity score and stratification.
4) For two sided test of null hypothesis of no effect. Rates for high risk cohort in period 3 are per person in cohort at 1 July 2001 and those for after intervention in high risk population in period 6 are per person in cohort at 1 July 2003.

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### Table 2 | Effect of intervention for the general practice population aged ≥65 in 64 intervention practices and at least 6938 control practices. Effects shown with 95% confidence intervals

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Estimated effect/person/year</th>
<th>Percentage effect (%)</th>
<th>P value‡</th>
<th>Estimated effect/person/year</th>
<th>Percentage effect (%)</th>
<th>P value‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency admissions</td>
<td>0.01 (−0.01 to 0.02)</td>
<td>2.5 (−2.1 to 7.0)</td>
<td>0.29</td>
<td>0.005 (−0.005 to 0.016)</td>
<td>2.3 (−2.2 to 6.7)</td>
<td>0.31</td>
</tr>
<tr>
<td>Emergency bed days</td>
<td>−0.15 (−0.33 to 0.03)</td>
<td>−4.9 (−10.8 to 1.0)</td>
<td>0.10</td>
<td>−0.17 (−0.35 to 0.003)</td>
<td>−5.7 (−11.4 to 0.1)</td>
<td>0.05</td>
</tr>
<tr>
<td>HES mortality</td>
<td>0.003 (−0.002 to 0.007)</td>
<td>5.5 (−3.5 to 14.5)</td>
<td>0.23</td>
<td>0.003 (−0.001 to 0.007)</td>
<td>5.7 (4.9 to 14.2)</td>
<td>0.19</td>
</tr>
</tbody>
</table>

2) From fixed effect panel regression, allowing for clustering within practices and heteroscedasticity.
3) From matching by propensity score and stratification.
4) For two sided test of null hypothesis of no effect.
5) Estimated from models with log of emergency bed days as dependent variable.

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### METHODS

**Study population and outcomes**—The study period ran from 1 July 2003 to 31 March 2005. The intervention practices (n=64) were those that had patients enrolled in Evercare at any time between 1 July 2003 and 31 March 2005. We took as the control group all other practices in England (n=6960-7695, depending on the analysis). We could not track individual Evercare patients’ use of hospital and NHS services so we measured outcomes at practice level. The outcomes were practice rates of emergency admissions, emergency bed days, and mortality estimated from hospital episode statistics (HES). We measured outcome rates for two populations: a high risk cohort of patients aged ≥65 with two or more emergency admissions in the preceding 13 months and all patients aged ≥65.
intervention practices had more high risk patients, the outcomes for their high risk populations at baseline were similar to those in the control practices. Intervention practices also served populations with more health deprivation.

The results from the multiple regression models (see table A1 on bmj.com) showed that practices with a larger total list, with a higher health deprivation score, and with a higher growth rate in admissions were more likely to be in the intervention group. We therefore included these variables in the matched control analyses.

Tables 1 and 2 show the effect of the intervention as the estimated change in outcome between the last period before the intervention (period 3) and the last period during the intervention (period 6) for the Evercare practices minus the estimated change between period 3 and period 6 for the control practices. Table 1 shows the effects of the intervention in high risk patients (aged ≥65 and two admissions in the previous 13 months). The rates of admission and bed days and mortality were all higher in the intervention group, though none of the effects was significant at the 5% level. Table 2 presents the results for the general population aged ≥65, showing that the rate of admissions and mortality were higher in Evercare practices and the bed day rate reduced. None of these differences was significant.

The results were the same when we used patient years at risk as the denominator for the analysis of the high risk group (see table A2 on bmj.com) and when we included a measure of practice population exposure or the rate denominator in the regression models in an attempt to allow for errors in population measurement.

The figure shows differences in admission rates in the general population aged ≥65.

DISCUSSION
The Evercare pilots represent the first widespread implementation of case management in the NHS. Our qualitative evidence suggests that access to case management added a frequency of contact, regular monitoring, psychosocial support, and a range of referral options that had not previously been provided to frail elderly people. In this quantitative analysis, however, we found that case management had no significant impact on rates of emergency admission, bed days, or mortality in high risk cohorts. These results are consistent with those from a small case-control study from the limited evaluation at patient level published by UnitedHealth Europe.612

Caveats on interpretation
Our criterion for defining the high risk group was based on data from hospital episode statistics and does not correspond exactly with the criteria used to select Evercare patients. However, there is probably considerable overlap between our high risk group and Evercare patients as at least 60% of Evercare patients had two or more emergency admissions in the previous 13 months.6 The small number of intervention practices meant that the study had relatively low power to detect changes in outcomes.

We did not collect data on a range of other important outcomes, especially on any direct measures of the health of the target population. The intervention and control practices had different admission rates at baseline, though our analyses controlled for these.

Our estimate of mortality failed to count some deaths outside hospital, and we probably underestimated mortality less in practices with higher rates of admission as more of their patients who die will have been in hospital recently and hence have their death recorded by hospital episode statistics.

Case management of frail elderly people in the NHS introduced an extra range of services to primary care without reducing hospital admissions. Although lessons have been learnt from these initial pilots—for example, better methods of identifying high risk groups—we predict the same outcome from the newly introduced community matron policy, which is based on the same principles. Community matrons are likely to be popular with patients and increase access to care, but they are unlikely to reduce hospital admissions unless there is also a more radical system redesign.

WHAT IS ALREADY KNOWN ON THIS TOPIC
Case management of frail elderly people can affect outcomes, depending on the context in which it is introduced
The NHS introduced case management using the Evercare approach provided by UnitedHealth Europe in nine trusts in England
Employment of community matrons is now a key feature of case management policy in the NHS in England

WHAT THIS STUDY ADDS
Evercare’s approach to case management in the NHS in England did not reduce emergency admissions, emergency bed days, or mortality

Ethical approval: Thames Valley multi-centre ethics committee.

Competing interests: None declared.
Funding: Department of Health grant to the National Primary Care Research and Development Centre.
Contributors: See bmj.com.
Long term hormone replacement therapy with estradiol alone is linked to breast cancer

**Research question**

What are the risks of breast cancer associated with different types of oestrogen only hormone replacement therapy?

**Answer**

Women who use oral or transdermal estradiol for more than five years have a higher risk of breast cancer than the general population.

**Why did the authors do the study?**

The evidence linking oestrogen only hormone replacement therapy to breast cancer is mixed. These authors wanted to find out if the risk varied with the type of oestrogen, the dose, or the route of administration. They focused on estradiol, the oestrogen most commonly used by women in Europe.

**What did they do?**

They linked data from a Finnish register containing records of all reimbursements for oestrogen only hormone replacement therapy, with data from the Finnish cancer registry, which is thought to be almost 100% complete. Most of the reimbursements were for estradiol pills, patches, or gels. The few women prescribed conjugated equine oestrogens were excluded from the analysis. The authors looked for associations between breast cancer incidence and hormone use by calculating standardised incidence ratios—the ratio of observed to expected cases of breast cancer among women using systemic estradiol (oral or transdermal), oral estriol, or vaginal oestrogen creams. They did separate analyses for short term (up to five years) and long term (five years or more) use. The final cohort included 110,984 postmenopausal women aged over 50 who had used oestrogen alone for more than six months. All the women had had a hysterectomy.

**What did they find?**

Women who took estradiol orally or transdermally for less than five years were no more likely to get breast cancer than women of a similar age in the general Finnish population (standardised incidence ratio 0.93 (95% CI 0.8 to 1.04)), but longer use of systemic therapy was associated with a significant rise in breast cancer incidence (ratio 1.44 (1.29 to 1.59)). Vaginal oestrogens and oral estriol seemed safe, even when used for more than five years. The risk associated with long term use of systemic estradiol didn’t vary significantly with the dose. Long term use was associated with both lobular and ductal cancers, and with both early and later stage disease.

**What does it mean?**

These data suggest a link between breast cancer and long term treatment with oral or transdermal estradiol in postmenopausal Finnish women. It’s possible that the hormone encourages the growth of breast cancers directly, but it’s also possible that confounding factors such as body weight, age at the birth of the first child, and parity were at least partly responsible for the inflated risk. The authors were unable to account for any of these factors in their analysis, so we can’t say for certain that the observed association was causal. Detection bias could also be relevant here. Women taking hormone replacement therapy may be more likely than other women to have breast examinations and mammograms.


This summarises a paper that has been selected by bmjupdates. To register for bmjupdates (free email about high quality new papers in your favourite subjects) go to http://bmjupdates.com/
Acute gastroenteritis accounts for millions of deaths each year in young children, mostly in developing communities. In developed countries it is a common reason for presentation to general practice or emergency departments and for admission to hospital. Dehydration, which may be associated with electrolyte disturbance and metabolic acidosis, is the most frequent and dangerous complication. Optimal management with oral or intravenous fluids minimises the risk of dehydration and its adverse outcomes. Routine use of antibiotics, antiarrhoeal agents, and antimetics is not recommended and may cause harm. Prevention is the key to controlling gastroenteritis, and recently licensed, highly effective rotavirus vaccines will have a major effect on public health.

**Sources and selection criteria**
I searched the Cochrane Library database using the keywords “acute gastroenteritis” (all text), “acute disease”, “gastroenteritis”, and “child”. I searched Medline via PubMed clinical queries using the keywords “gastroenteritis” together with “oral rehydration”, “antiarrheal”, “antiemetic”, “probiotic”, and “zinc” with the options “find systematic reviews” and “search by study category—therapy.” The options of “aetiology” and “diagnosis” were also applied using the term “gastroenteritis”. I also searched the child health section of Clinical Evidence and reviewed the reference lists of publications found during searches for other relevant manuscripts.

**What is the epidemiology and impact of gastroenteritis?**
Acute gastroenteritis—diarrhoea or vomiting (or both) of more than seven days duration—may be accompanied by fever, abdominal pain, and anorexia. Diarrhoea is the passage of excessively liquid or frequent stools with increased water content. Patterns of stooling vary widely in young children, and diarrhoea represents a change from the norm. Worldwide, 3-5 billion cases of acute gastroenteritis and nearly 2 million deaths occur each year in children under 5 years. In the United States, gastroenteritis accounts for about 10% (220 000) of admissions to hospital, more than 1.5 million outpatient visits, and around 300 deaths in children under 5 annually, with a cost of around $1bn (£0.5bn; €0.8bn; $23m). In the United Kingdom, 204 of 1000 consultations with general practitioners in children under 5 are for gastroenteritis, and the annual hospital admission rate in this group is about seven per 1000 children. Children in childcare settings are often infected but asymptomatic and may unwittingly transmit infection.

Children with poor nutrition are at increased risk of complications. In the north of Australia, Aboriginal and Torres Strait Islander children have increased rates of admission for gastroenteritis, malnutrition, comorbidity, and electrolyte disturbance (especially hypokalaemia) and a longer hospital stay than their non-indigenous counterparts. The cost of gastroenteritis to the community is huge but often underestimated if costs to the family, including lost time at work, are not considered.

**What are the causes and clinical characteristics?**
Box 1 lists some causes of acute gastroenteritis in children. Worldwide, most cases are due to viral infection (fig 1; box 2), with rotaviruses and noroviruses being most common. Viral infections damage small bowel enterocytes and cause low grade fever and watery diarrhoea without blood. Rotavirus infection is seasonal in temperate climates, peaking in late winter, but occurs throughout the year in the tropics. Rotavirus strains vary by season and geographically within countries. The peak age for infection is between 6 months and 2 years for presentation to general practice or emergency departments, and 115 000 general practice consultations occur annually for rotavirus alone, with an estimated cost of $A30m (£12m; €18m; $23m). In the United Kingdom, 204 of 1000 consultations with general practitioners in children under 5 are for gastroenteritis, and the annual hospital admission rate in this group is about seven per 1000 children. Children in childcare settings are often infected but asymptomatic and may unwittingly transmit infection.

**SUMMARY POINTS**
- Rotavirus is the most common cause of acute gastroenteritis worldwide and vaccination will have a major impact on disease rates, morbidity, and mortality.
- Most children are not dehydrated and can be managed at home.
- Dehydration, metabolic acidosis, and electrolyte disturbance can be prevented and treated by fluid therapy.
- Most children with mild-moderate dehydration can be treated with oral or enteral rehydration using low osmolality oral rehydration solutions.
- Severely dehydrated or shocked children usually need intravenous fluids and hospital admission.
- Drugs are usually unnecessary and may do harm.
- General practitioners have an important role in prevention, through encouraging breastfeeding, recommending and advocating free access to rotavirus vaccination, and educating carers about personal and food hygiene.
gens. Ingestion of food containing toxins produced by bacterial contaminants (for example, *Staphylococcus aureus* in ice cream or *Bacillus cereus* in reheated rice) causes rapid onset of vomiting or diarrhoea (or both). Water may be contaminated with bacteria, viruses, or protozoa including *Giardia lamblia*, cryptosporidium, *V cholerae*, and *Entamoeba histolytica*, which causes amebic dysentery. With increasing rates of overseas travel and immigration, clinicians in developed countries increasingly see children with “traveller’s diarrhoea” caused by a range of organisms not normally seen in that environment.

**How is it diagnosed?**

Diagnosis can be made clinically. Information should be sought about recent contact with people with gastroenteritis, nature and frequency of stool and vomitus, fluid intake and urine output, travel, and use of antibiotics and other drugs that may cause diarrhoea.

Chronic constipation is common in children, and faecal overflow incontinence may present as spurious diarrhoea. Diarrhoea and vomiting are non-specific symptoms in young children, and the diagnosis of gastroenteritis should be questioned in children with high fever, prolonged symptoms, or signs suggesting a

**Box 1 | Causes of acute gastroenteritis in children**

<table>
<thead>
<tr>
<th>Viruses (about 70%)</th>
<th>Protozoa (10%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotaviruses</td>
<td>Cryptosporidium</td>
</tr>
<tr>
<td>Noroviruses</td>
<td><em>Giardia lamblia</em></td>
</tr>
<tr>
<td>Enteric adenoviruses</td>
<td><em>Entamoeba histolytica</em></td>
</tr>
<tr>
<td>Caliciviruses</td>
<td></td>
</tr>
<tr>
<td>Astroviruses</td>
<td></td>
</tr>
<tr>
<td>Enteroviruses</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bacteria (10-20%)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Campylobacter jejuni</em></td>
<td></td>
</tr>
<tr>
<td>Non-typhoid <em>Salmonella</em> spp</td>
<td></td>
</tr>
<tr>
<td>Enteropathogenic <em>Escherichia coli</em></td>
<td></td>
</tr>
<tr>
<td><em>Shigella</em> spp</td>
<td></td>
</tr>
<tr>
<td><em>Yersinia enterocolitica</em></td>
<td></td>
</tr>
<tr>
<td>Shiga toxin producing <em>E coli</em></td>
<td></td>
</tr>
<tr>
<td><em>Salmonella typhi</em> and <em>S paratyphi</em></td>
<td></td>
</tr>
<tr>
<td><em>Vibrio cholerae</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Helminths</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Strongyloides stercoralis</em></td>
<td></td>
</tr>
</tbody>
</table>

years, and the mode of spread is by the faecal-oral or respiratory route.

Bacterial pathogens such as *Campylobacter jejuni* and *Salmonella* spp invade the lining of the small and large intestine and trigger inflammation. Children with bacterial gastroenteritis are more likely to have high fever and may have blood and white blood cells in the stool. Bacterial pathogens occasionally spread systemically, especially in young children. Infection with Shiga toxin producing *Echerichia coli* or *Shigella dysenteriae* may cause haemorrhagic colitis (with severe bloody diarrhoea), which may be complicated by haemolytic uraemic syndrome. This syndrome is endemic worldwide and characterised by acute onset of microangiopathic haemolytic anaemia (fig 2), thrombocytopenia, acute renal impairment, and multisystem involvement (see appendix on bmj.com).8

The enteric fevers (due to *Salmonella typhi* and *S paratyphi*) cause severe illness in young children, characterised by high swinging fever, diarrhoea or constipation, leucopenia, and sometimes central nervous system involvement, including encephalopathy, which is a rare complication of non-typhoid *Salmonella* infection.7

*Vibrio cholerae* toxin causes chloride and water secretion from the small bowel but does not damage the intestinal mucosa; it results in “rice water” stools that have a high sodium content but do not contain blood or white blood cells.7

Gastroenteritis is acquired by person to person spread or ingestion of contaminated food and drink (“food poisoning”).7 Undercooked, or inappropriately stored cooked or processed meats (chicken, beef, pork) and seafood are common sources of bacterial patho-

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**Fig 1 | Rotavirus particles seen under the electron microscope. Courtesy of Alan Philips**

**Fig 2 | Typical peripheral blood film in a patient with haemolytic uraemic syndrome, microangiopathic haemolytic anaemia, and thrombocytopenia. It shows irregular, fragmented, and helmet shaped red blood cells (schistocytes) and an immature platelet**
surgical cause (such as severe abdominal pain, bilious vomiting, abdominal mass). Children with diabetes mellitus and inborn errors of metabolism may present with vomiting. Children with underlying diseases may be at increased risk of complications and referral to a paediatric service should be considered.

It is not necessary or practical to take stool specimens from all children with gastroenteritis. Samples should be taken during outbreaks—especially in childcare, school, hospital, or residential settings—where there is a public health imperative to identify the pathogen and establish its source. Samples should be cultured for bacteria and tested for viral pathogens. Testing for rotavirus, norovirus, and sometimes other viruses is available in most children’s hospitals using methods for rapid antigen detection (such as enzyme linked immunosorbent assay). Rapid diagnosis allows for isolation of the child to prevent nosocomial infection, which is common and is often used as a marker of the effectiveness of precautions to control contact infection. Stool samples should also be taken from children with bloody diarrhoea, a history of recent foreign travel, and from young or immunocompromised children with high fever. In many countries legislation requires clinicians to notify public health authorities about a range of viral and bacterial infections.

How is dehydration assessed?

It is important to assess hydration in gastroenteritis as hydration status determines the immediate management of this condition. The infant or child with profuse watery diarrhoea and frequent vomiting is most at risk. Clinicians often overestimate the extent of dehydration. Clinical signs are usually not present until a child has lost at least 5% of his or her body weight. Documented recent weight loss is a good indicator of the degree of dehydration, but this information is rarely available. The best clinical indicators of more than 5% dehydration are prolonged capillary refill, abnormal skin turgor, and absent tears. The recommendations for assessing and managing dehydration shown in table 1 are adapted from the World Health Organization classification and are supported by the literature. Serum electrolytes are not routinely required but should be measured before and after starting intravenous fluids.

How is gastroenteritis treated?

Table 1 summarises the management of dehydration4 10-23 and table 2 lists the type of evidence supporting management decisions in gastroenteritis (a longer version of table 2 (table A) is available on bmj.com). Management aims to prevent and treat dehydration, maintain nutrition, and minimise harm.

Which fluid therapy?

Children with no dehydration or mild dehydration can usually be managed at home, although children with high risk for complications or who cannot be adequately cared for at home should be considered for admission. Children with mild-moderate dehydration who do not tolerate oral fluids should be admitted for observation. Oral rehydration solutions are preferable to other clear fluids for preventing and treating dehydration.4 11 Fluids high in sugar (such as cola, apple juice, and sports drinks, which contain ≤20 mmol/l sodium and have a high osmolality of 350-750 mOsm/l) may exacerbate diarrhoea and should be avoided.11 Breast feeding should be continued during acute gastroenteritis and supplemented with an oral rehydration solution if needed.11 12

Although most children with dehydration drink readily, some refuse rehydration solutions because they dislike the taste, feel nauseated, or have profuse vomiting. Older children may be afraid of vomiting and parents may perceive fluids are the cause of vomiting. If small sips cannot be tolerated, use of a syringe can help in infants. If oral intake is inadequate, a fine bore naso-
A measure of skin turgor. Assessed by pinching the skin of the abdomen or thigh between the thumb and the bent forefinger in a longitudinal manner. Results are unreliable in obese or severely malnourished children.

Other signs of severe dehydration include circulatory collapse (weak rapid pulse, cool or blue extremities, sunken eyes, thirst, or irritability, or hypotension), rapid breathing, and sunken anterior fontanelle.

Table 1 | Assessment and management of dehydration

<table>
<thead>
<tr>
<th>Dehydration (% weight loss)</th>
<th>Clinical signs</th>
<th>Pinch test*</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>No dehydration</td>
<td>None</td>
<td>Normal (skin fold retracts immediately)</td>
<td>Most can be managed at home; encourage normal diet and fluids (continue breast milk); consider admission if high risk of dehydration (very young, diagnosis in doubt, large losses)</td>
</tr>
<tr>
<td>Some dehydration:</td>
<td>Two or more of</td>
<td>Slow (skin fold visible &lt;2 sec)</td>
<td>Some can be managed at home with oral rehydration therapy; some need to be observed and, if therapy is not tolerated or large ongoing losses occur, may need nasogastric or intravenous fluids over 4-6 h; normal diet when tolerated</td>
</tr>
<tr>
<td>includes previous</td>
<td>restlessness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>categories of mild (5%)</td>
<td>or irritability,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and moderate (6-9%)</td>
<td>sunken eyes,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dehydration</td>
<td>thirst</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe dehydration</td>
<td>Two or more of</td>
<td>Very slow (skin fold visible &gt;2 sec)</td>
<td>Check acid base status, urea, electrolytes before intravenous fluids; if shock present, first resuscitate with intravenous bolus; rehydrate intravenously (enteral fluids have been used) over 4-6 h with regular clinical and biochemical review</td>
</tr>
<tr>
<td>(&lt;10%) with or without</td>
<td>abnormally sleepy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>shock</td>
<td>or lethargic,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sunken eyes,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>drinking poorly or not at all</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*A measure of skin turgor. Assessed by pinching the skin of the abdomen or thigh between the thumb and the bent forefinger in a longitudinal manner. Results are unreliable in obese or severely malnourished children.

Other signs of severe dehydration include circulatory collapse (weak rapid pulse, cool or blue extremities, sunken anterior fontanelle), rapid breathing, and sunken eyes, thirst (eagerness to drink), or irritability, or hypotension, prolonged capillary refill time, or hypotension, rapid breathing, and sunken anterior fontanelle.

The most common adverse effect of intravenous cannulation is infiltration at the cannula site, but infection, pain, bleeding, and physical and emotional trauma may also occur. Intravenous therapy is more expensive than oral rehydration therapy and requires hospital admission. Iatrogenic complications—especially electrolyte disturbance due to inappropriate composition, rate of administration, or volume of intravenous fluids—may lead to complications, including hyponatraemia with brain injury or death (box 3). If rapid intravenous rehydration is used, careful supervision is needed to avoid fluid overload (dehydration is often overestimated) and electrolyte imbalance.

**Which oral rehydration solution?**

Solutions with low osmolality (200-250 mOsm/l) and sodium (60-70 mmol/l) that contain glucose, potassium, and a base (such as citrate) are recommended for developed and developing communities (table 2; table B on bmj.com). Although cereal based oral dehydration solutions are beneficial in choleralike diarrhoea, evidence of benefit in non-choleralike diarrhoea is scant and further trials are needed to evaluate efficacy and cost effectiveness.

**What about diet?**

In a systematic review, probiotics—used as an adjunct to oral rehydration therapy—decreased the duration of diarrhoea, especially in rotavirus gastroenteritis (table 2). Further research is needed to determine the optimal type, dosage, and regimen of probiotics before they are recommended for routine use.

### Table 2 | Evidence based management of gastroenteritis

<table>
<thead>
<tr>
<th>Question</th>
<th>Type of evidence available</th>
<th>Results and conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home care or hospital admission?</td>
<td>Clinical guidelines10</td>
<td>Admit if severe dehydration, shock, high risk of dehydration, uncertain diagnosis, or parents unable to manage at home; observe if mild-moderate dehydration for adequate fluid intake and review</td>
</tr>
<tr>
<td>Enteral (oral or nasogastric) or intravenous fluids?</td>
<td>Systematic reviews11</td>
<td>Enteral rehydration reduces hospital stay and adverse effects (seizure, death), but results are influenced by one large trial including children with severe dehydration.12 Enteral and intravenous fluids equally effective for weight gain, duration of diarrhoea, hyponatraemia, hypernatraemia, and fluid intake.14-15 Low failure rate (5%) for oral and nasogastric routes; risk of phlebitis with intravenous route (number needed to treat (NNT) 50); risk of paralytic ileus with oral rehydration (NNT 33).15</td>
</tr>
<tr>
<td>Low or high osmolarity oral rehydration solutions?</td>
<td>Systematic reviews16-18</td>
<td>Non-cholera diarrhoea: reduced osmolarity solutions reduce need for intravenous fluids (odds ratio 0.59, 95% CI 0.45 to 0.79), stool output, and vomiting frequency; no difference in rate of hyponatraemia. In cholera: low osmolarity solutions increase rate of hyponatraemia (&lt;130 but not &lt;120 mmol/l); no symptomatic hyponatraemia or death; no difference in need for intravenous fluids</td>
</tr>
<tr>
<td>Cereal or glucose based oral rehydration solutions?</td>
<td>Systematic review19 and randomised controlled trials20</td>
<td>Systematic review (developing communities): cereal based solutions decreased stool output and duration of diarrhoea; no benefit in non-cholera diarrhoea. Small randomised controlled trial (developed community): cereal based solutions decreased stool volume, duration of diarrhoea, time to starting normal diet</td>
</tr>
<tr>
<td>Probiotics as adjuvant to oral rehydration solutions versus rehydration alone?</td>
<td>Systematic review21</td>
<td>Adults and children: probiotics reduce diarrhoea at 3 days (relative risk 0.66, 0.55 to 0.77) and mean duration of diarrhoea (by 30.48 hours, 18.51 to 42.46); type, regimen, and dosage of probiotics not yet established</td>
</tr>
<tr>
<td>Antidiarrhoeal (loperamide)?</td>
<td>5 randomised controlled trials22</td>
<td>Loperamide (v-placebo) reduced duration of diarrhoea in mild-moderate dehydration and increased weight gain in 2 trials; no effect on hospital stay, stool output in 2 other trials; insufficient evidence to assess risk of adverse effects; not recommended for routine use</td>
</tr>
<tr>
<td>Antiemetic (ondansetron)?</td>
<td>Systematic review, randomised controlled trials23</td>
<td>Ondansetron (v-placebo) reduced vomiting during oral replacement therapy, need for intravenous fluids, and hospital admission but increased risk of diarrhoea and representation after discharge; not recommended for routine use</td>
</tr>
<tr>
<td>Lactose-free feeds?</td>
<td>Systematic review, randomised controlled trials24</td>
<td>Conflicting results on duration of diarrhoea with lactose-free (v lactose containing) milk; systematic review limited by heterogeneity, poor quality of trials; not recommended for routine use</td>
</tr>
</tbody>
</table>
Children should resume their normal diet once their appetite returns. They deal with the symptoms rather than causes of disease and may distract from the use of appropriate fluid therapy. Antibiotics are not indicated in viral or uncomplicated bacterial gastroenteritis and may cause harm. For example, in non-typhoid *Salmonella* infections antibiotics increase the risk of prolonged carriage and disease relapse. Treating gastroenteritis due to *Shiga toxin producing E.coli* with antibiotics may increase the risk of haemolytic uraemic syndrome. Antibiotics are required, however, for bacterial gastroenteritis complicated by septicaemia and in cholera, *shigellosis*, amoebiasis, *giardiasis*, and enteric fever.

Antidiarrhoeal and antiemetic agents are not recommended for routine use because of the risk of adverse effects (table 2; table A on bmj.com). Although new generation antiemetics (such as the serotonin antagonist ondansetron) do not have extrapyramidal effects and reduce the duration and frequency of vomiting, they also increase diarrhoea. Antimotility agents (such as loperamide) decrease the duration of diarrhoea, but they have potential severe adverse effects and evidence that benefits outweigh potential harms is lacking.

In developing countries, oral zinc given at the onset of symptoms decreases the duration and severity of acute diarrhoea and is recommended by the WHO. Vitamin A does not influence the course of acute gastroenteritis.

**Box 3 | Complications of acute gastroenteritis**

- Dehydration
- Metabolic acidosis
- Electrolyte disturbance (hypernatraemia, hyponatraemia, hypokalaemia)
- Carbohydrate (lactose, glucose) intolerance
- Susceptibility to reinfection
- Development of food (cow’s milk, soy protein) intolerance
- Haemolytic uraemic syndrome
- Iatrogenic complications (due to inappropriate composition or amount of intravenous fluids)
- Death

**Is a lactose-free diet necessary?**

Carbohydrate (particularly lactose) intolerance is a common complication of viral gastroenteritis as a result of damage to and loss of mature enterocytes containing lactase. Lactose intolerance is usually mild and self limiting and does not require treatment. If lactose intolerance persists, a lactose-free formula is recommended for four to six weeks. The damaged gut is more permeable to foreign antigens and intolerance to food proteins (β lactoglobulin in cow’s milk and other proteins) is occasionally seen after gastroenteritis; it can be managed by a period of dietary exclusion.

**Can gastroenteritis be prevented?**

Although rotavirus may be spread in aerosols, gastroenteritis is usually spread by the faecal-oral route. Bacterial gastroenteritis can occur in young children served uncooked fermented meats, undercooked hamburgers, unwashed fruits and salads, and water contaminated by animal faeces. Gastroenteritis may also be acquired from environmental sources, such as children’s animal farms, swimming pools, and beaches. Good hygiene is important to prevent spread of infection. This includes careful hand washing, nappy disposal, and preparation and storage of food and drinking water, as outlined in the WHO’s five step guide to safe food (table C on bmj.com). Hygiene is particularly important in institutions, including hospitals where nosocomial infection is common.

A major recent advance in prevention has been the development and licensing of two oral rotavirus vaccines, whose safety and efficacy have been confirmed in recent large scale trials, each involving more than 60 000 children. *Rotavirus* (Merck) is a three dose live human-bovine pentavalent reassortant vaccine. *Rotarix* (GSK) is two dose attenuated human (strain G1P) monovalent vaccine. Both vaccines are highly immunogenic. They provide cross protection against common serotypes and decrease rates of severe gastroenteritis, the need for intravenous fluids, and hospital admission. Importantly, neither is associated with appreciable adverse effects or increased risk of intussusception, which was seen with the first licensed vaccine, RotaShield. Free access to rotavirus vaccine in all communities is imperative and will have an enormous impact on childhood morbidity and mortality.
CLINICAL REVIEW

What to exclude (differential diagnosis)

- Other infections, such as urinary tract infection, otitis media, pneumonia, septicaemia
- Surgical causes, such as intussusception, appendicitis, small intestinal obstruction (including malrotation)
- Taking antibiotics or other drugs
- Spurious diarrhoea; for example, in chronic constipation with overflow incontinence
- Non-infectious diseases such as diabetic ketoacidosis, inborn errors of metabolism
- Occasionally acute infectious gastroenteritis unmasks gastrointestinal disease (such as coeliac disease, chronic inflammatory bowel disease), so if diarrhoea persists beyond two weeks take a family and medical history and do appropriate investigations

When to refer to paediatric service

- If diagnosis in doubt
- Gastroenteritis in a young infant (<6 months)
- High risk of dehydration—worsening diarrhoea and vomiting with significant fluid loss
- Severe dehydration or shock
- Severe abdominal pain, localised tenderness, or mass
- Evidence of anaemia, thrombocytopenia, poor urine output, or hypertension (think haemolytic uraemic syndrome)
- Increased risk of complications—underlying disease (such as diabetes), malnutrition, renal failure, high fever
- Parent or carer unable to manage the child at home
- Persistent diarrhoea beyond two weeks may indicate complications such as reinfestation, lactose intolerance, or underlying bowel disease

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CORRECTIONS AND CLARIFICATIONS

Independence may be most cost effective way to improve health care

In the second sentence of this letter by Peter R Mansfield, we might have confused readers by inadvertently reversing the meaning that he had intended (BMJ 2006;333:1121-2, 25 Nov, doi: 10.1136/bmj.39037.695069.3A). His intended meaning was that “it would be good to have more talks like the one given by Adrian Fugh-Berman, especially if such talks are effective at reducing subsequent drug company sponsorship of medical education because doing so may be the most cost effective way to improve health care.”

This week in the BMJ

In the final sentence of the item headed “Baseline serum albumin concentrations do not affect resuscitation outcomes” we wrongly wrote that “Rates of admission to intensive care and renal replacement therapy, and length of mechanical ventilation and hospital stay did not differ between groups” (BMJ 2006;333, 18 Nov, doi: 10.1136/bmj.333.7577.0b). In fact, we should have said: “The relative risk of death with albumin or saline was similar, regardless of patients’ baseline serum albumin concentration.”

Awareness of driving while sleepy and road traffic accidents: prospective study in GAZEL cohort

In this paper by Hermann Nabi and colleagues, we published some of the authors in the wrong order

We have already published these corrections on bmj.com...
Dyspepsia is common; up to 40% of adults in the United Kingdom have the condition. A general practitioner will see on average 210 patients with dyspepsia each year (around 4% of all consultations) and will refer about one in 10 of these patients for more investigations. Around 10-20% of people who use non-steroidal anti-inflammatory drugs will develop peptic ulcer disease that can be detected with endoscopy. The annual cost of drugs that inhibit acid secretion in the UK is about £500m.

What should I already know about this condition?

Dyspepsia is not a diagnosis. It is a term used to describe a range of symptoms, from upper abdominal pain to heartburn, nausea, bloating, and retrosternal pain. Most dyspepsia is “functional,” which means no abnormalities are found on endoscopy. The National Institute for Health and Clinical Excellence (NICE) has produced clear guidelines on when you should refer patients for endoscopy (see below). Of those patients referred for endoscopy, some 30% have normal findings, and only 2% of endoscopies reveal malignancy. The most common abnormal findings on endoscopy are:

- Gastritis, duodenitis, and hiatus hernia (together making up 30% of endoscopic diagnoses)
- Oesophagitis (10-17%)
- Duodenal ulcer (10-15%).

Infection with Helicobacter pylori causes most duodenal ulcers (85%) and gastric ulcers (70%). It is also likely to cause around 9% of dyspepsia cases where no ulcers are detected. Treating patients for H pylori infection is more likely to benefit those whose main symptom is gastritis than those with acid reflux as their most prominent symptom.

Which test should I do?

Urea breath test

The urea breath test is the most accurate way to detect H pylori, with a sensitivity of 95% and a specificity of 95%. You should advise patients to stop taking antibiotics for at least four weeks before the test, to stop proton pump inhibitors at least two weeks before, and to stop histamine H2 receptor antagonists at least one day before. Several different urea breath tests are available on an FP10 prescription, but at a cost of £15–£20. In addition, patients may need to be supervised during administration of the urea breath test, with extra costs incurred in terms of appointment time with a practice nurse or healthcare assistant.

Stool antigen test

With a specificity of 91.9% and a sensitivity of 92.4%, stool antigen tests are almost as good as the urea breath test. You should advise patients to stop taking antibiotics for at least four weeks before the test, proton pump inhibitors at least two weeks before, and histamine H2 receptor antagonists at least one day before.

Serology

Serology is much less specific than the urea breath test and leads to about four times as many false positive results. Patients do not need to stop taking proton pump inhibitors before having the blood test.

Endoscopy

If you decide to refer your patient for an endoscopy (see below), you should advise them to stop taking proton pump inhibitors and histamine H2 receptor antagonists two weeks before the procedure.

What new evidence do I need to know about?

Bristol helicobacter project, 2006

In a sample of people from Bristol, about 15% tested positive for H pylori and were randomised to eradication treatment (ranitidine 400 mg plus clarithromycin 500 mg twice daily for two weeks) or to placebo.2
The study found
• Of the 787 people in the eradication group, 55 (7%) consulted for dyspepsia over the two year follow-up, compared with 78/771 (10%) of people in the placebo group (number needed to treat 33)
• NHS costs were £84.70 greater per participant in the eradication group over the two years
• The cost of screening in practice is likely to be £1500–£2000 per successful treatment and is unlikely to be offered to patients who do not have symptoms of dyspepsia.

Bottom line
Would screening the general population for H pylori be cost effective? Probably not.

CADET-Hp trial
This randomised controlled trial looked at the efficacy of the “test and treat” strategy for anyone presenting with symptoms of moderate or severe dyspepsia in the preceding month. It found that, of those patients who received one week of eradication treatment, 50% were symptom-free after one year, compared with 36% of those given a proton pump inhibitor alone.

Bottom line
“Test and treat” is likely to be more effective than treating patients with proton pump inhibitors alone in patients with uninvestigated dyspepsia.

Bristol helicobacter project, 2004
Previous studies have shown that eradicating H pylori in patients with symptoms of reflux might increase symptoms. In this study, people who tested positive for H pylori were randomised to eradication treatment (clarithromycin 500 mg and ranitidine bismuth citrate 400 mg twice daily) for two weeks or to placebo. The study found
• After two years, treatment did not improve the symptoms of patients who had heartburn or reflux at the start of the study
• People who did not have any symptoms to start with did not have any side effects as a result of the treatment.

Bottom line
Although eradicating H pylori does not benefit patients with heartburn or reflux, it does not worsen their symptoms.

Cochrane review: initial management strategies for dyspepsia
Bottom lines
• Proton pump inhibitors are more effective than both histamine H2 receptor antagonists and antacids for treating dyspepsia
• Initial endoscopy is associated with a small reduction in the risk of recurrent dyspeptic symptoms compared with H pylori test and treat (odds ratio 0.75), but is not cost effective (mean additional cost of endoscopy is £214 (€319, $401))
• Test and treat may be more effective than acid suppression alone (relative risk 0.59 (95% confidence interval 0.42 to 0.83))

What new guidelines have been produced over the past two years?
You should refer under the “two week rule” (that a patient must be seen by a specialist within two weeks of referral) anyone with any of the following alarm symptoms:
• Chronic gastrointestinal bleeding
• Unintentional weight loss
• Difficulty swallowing
• Persistent vomiting
• Iron deficiency anaemia
• Epigastric mass
• Suspicious findings after barium meal.

You should also refer urgently patients older than 55 years with dyspepsia that is persistent (lasting four to six weeks), unexplained (for example, not related to taking non-steroidal anti-inflammatory drugs), or of recent onset, even in the absence of alarm symptoms. You should consider referring for urgent endoscopy patients with iron deficiency anaemia, persistent vomiting, or weight loss even if they do not have symptoms of dyspepsia.

Patients with dyspepsia who do not have alarm symptoms—After you have reviewed patients’ current treatments and offered lifestyle advice, first line treatments for people with dyspepsia are (a) empirical treatment with a proton pump inhibitor or (b) testing for and treating H pylori. There is not enough evidence to advise on which of these you should offer first.

Patients with gastro-oesophageal reflux disease shown on endoscopy—You should prescribe a full dose proton pump inhibitor for one or two months. If symptoms recur after initial treatment, offer a proton pump inhibitor at the lowest dose possible to control symptoms, with a limited number of repeat prescriptions.

Patients with peptic ulcer disease shown on endoscopy—You should (a) stop any treatment with non-steroidal anti-inflammatory drugs, (b) start a full dose proton pump inhibitor or histamine H2 receptor antagonist for two months, and (c) offer eradication treatment if H pylori is present.

Patients with dyspepsia without peptic ulcer disease on endoscopy—You should arrange for these patients to have initial treatment for H pylori, followed by management
of their symptoms, and monitoring perhaps every three months. You should not offer routine retesting after eradication.

Which eradication regimen to use—For patients who test positive for H pylori (by urea breath test, stool antigen test, or laboratory based serology), you should recommend a seven-day, twice daily course of eradication treatment consisting of a full dose proton pump inhibitor with either (a) metronidazole 400 mg plus clarithromycin 250 mg or (b) amoxicillin 1 g plus clarithromycin 500 mg.

Practical management tips

Review patients who have been taking acid suppression treatment for more than six weeks. This is important for assessing their need to continue treatment. Try to step down treatment (for example, advise patients to take a proton pump inhibitor only when they have symptoms) or stop it when feasible.

Patients with gastric ulcers shown during endoscopy usually need at least one month of treatment with a full dose proton pump inhibitor in addition to H pylori eradication treatment. After a month’s treatment, arrange for these patients to have a repeat endoscopy because of the small (2%) risk of cancer.

In patients at high risk of peptic ulcer disease who test positive for H pylori, consider giving eradication treatment before starting treatment with non-steroidal anti-inflammatory drugs. Such patients include:

- Elderly people
- People with a history of peptic ulcer disease
- People taking other drugs that can cause peptic ulcer disease.

When should I refer my patient?

The NICE guidelines on managing dyspepsia in adults in primary care offer guidance on who to refer urgently (see above). Also consider referring patients who do not respond to treatment outlined in the figure.

Common pitfalls

Remember to consult the NICE guidelines on which patients to refer for endoscopy. Do not underestimate the risks associated with non-steroidal anti-inflammatory drugs: about 10-20% of people who use these drugs regularly will develop peptic ulcer disease that is detectable by endoscopy, and some 1–1.5% of regular users develop serious complications such as perforation or major bleeding.

Offer patients older than 65 who need regular non-steroidal anti-inflammatory drugs some form of gastric protection, possibly a proton pump inhibitor or misoprostol.

Other people at high risk of peptic ulcers whom you should consider for gastric protection include those

- With history of a gastroduodenal ulcer, gastrointestinal bleeding, or perforation
- With serious comorbidity, especially chronic lung disease
- Taking other drugs that might increase the risk of adverse gastrointestinal events. These include bisphosphonates, selective serotonin reuptake inhibitors, corticosteroids, calcium channel blockers, and nitrates.

Competing interests: None declared.

We don’t need another 400 plastic surgeons

PERSONAL VIEW M JUSTIN ZAMAN

I recently overheard a junior doctor complaining about the new career pathway structure in the United Kingdom for trainees (Modernising Medical Careers). Apparently there are 400 plastic surgical trainees competing for only 20 training programmes. The complaint from this aggrieved young trainee was of how many of them were being “cast aside” and how few trainees were being allowed to train in their chosen field. My immediate thought on this was whether the UK actually needed that many plastic surgeons. Is there really that amount of burns and reconstructive work here? Perhaps plastic surgical trainees all want to be cosmetic surgeons? Surely not…

When, during my second year at medical school, I decided on cardiology as my career choice, one of my reasons was that cardiovascular disease was and still is the major cause of death in the UK. Then as I matured into a thinking junior doctor, I learnt that 58% of the decrease in coronary heart disease mortality rates in England and Wales over the past 20 years was down to population risk factor reductions, with only 8% down to the modern management of acute myocardial infarction, with even less down to revascularisation procedures such as angioplasty and bypass (Circulation 2004;109(9):1101-7). So I decided to do research in epidemiology and preventive cardiology to try to make the biggest impact.

A famous politician once said, “Ask not what your country can do for you, but what you can do for your country.”

The views of the trainee doctor who inspired this article are simply a reflection of today’s developed world society. The rights of the individual have surpassed the rights of the community. Self interest over-rides altruism, and we pursue individual rather than collective gain. This is a legacy of that dogma of market economics that states that “to promote the gain of all, all we have to do is concentrate on ourselves.” We know more and more that this is not true, as gaping inequalities appear as the gross domestic product per person heads ever more skyward.

Do doctors think more about how they will benefit society or more about what personal rewards they will receive, such as the salary or lifestyle they will enjoy?

The fact is that we probably need public health specialists more than we need plastic surgeons. Few doctors would deny this. Having more plastic surgeons may even be associated with more demand from the population for cosmetic surgery (I would never suggest this was a cause-effect relationship). But such a shift in careers will not occur if left to the whim of individuals. What is needed is societal restructuring, and an example of this is the situation of primary care in this country. Once unfairly considered the option for failed hospital medics and women, primary care training has become highly competitive, no doubt related to the dramatic improvement in working conditions over the past few years, with shorter hours and greater remuneration. Nowadays, most aspiring primary care physicians require a long list of postgraduate qualifications that until recently were the preserve of high flyers. Good primary care is vital for national public health and having such candidates enter the field is encouraging.

The introduction of more public health training posts within junior doctor rotations is an example of how training can be restructured to serve the interests of the country.

Epidemiologists, economists, and policy makers should be the influences on government as to what a country’s healthcare service needs in terms of personnel.

As doctors we need to serve the community; it is not there to serve us. Medicine is broad enough for everyone to have more than one career choice. Ask yourself, “Are you needed?” If not, evolve.

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Medical journals: past their sell by date?

A former BMJ editor lets rip about journals, but is he right, asks Stuart Derbyshire

According to Richard Smith, former editor of the BMJ, there is much trouble with medical journals. They include studies that are often misleading through author negligence, a failure of peer review, a conflict of interest, or because of blatant fraud. Journals are insensitive to the needs of patients and too responsive to the needs of the big drug companies. They employ poorly trained editors who are blind to the ethical abuses documented in submitted studies. They even look awful and there are too many of them.

To an extent, Smith is following in the footsteps of other “miserabilist” tracts regarding the state of the world in general and medical science in particular. But Smith does, at least, do it with some humour. It is hard not to warm to an author who explains that publication does not equal editorial support with the following self-deprecating example: “The BMJ has carried many letters arguing that I am an idiot. That argument doesn’t always have my editorial support” (p 25).

And Smith does raise some truly serious problems. It is puzzling, for example, that drug companies employ excellent scientists, doing good research, who consistently produce results favourable to the company. Smith suggests several mechanisms that almost guarantee this outcome. A trial might involve a patient sample large enough to demonstrate equivalence between two drugs but not large enough to show one as inferior to the other, avoiding any risk that the company drug might be inferior. Alternatively, a trial might involve a lower than optimal dose of the company drug to minimise side effects and/or a higher than optimal dose of a competitor drug to enhance side effects. It is difficult to disagree with Smith that doctors and pharmaceutical companies would benefit from a more professional relationship, involving less hype and hospitality, fewer glossy brochures, pens, and post-it notes.

Nevertheless, Smith reports a lot of problems and they are not all as obviously supportable. Berating doctors and other medical professionals for the failings of peer review and the occasional instances of fraud and patient abuse unfairly maligns medical practice and demoralises those who strive to uphold the essentially positive fundamentals of the profession. Smith is far too ready to smear medicine with the basest of human behaviours: “Those who work in healthcare are human beings and just as prone as any other humans to acting in their own interest, responding to economic incentives, and stumbling into fraud and corruption. Anybody who has knocked around in the world and read Dante, Juvenal, Balzac and Dickens knows that this is how human beings behave” (p 123).

Human beings can behave poorly but there is abundant evidence that they behave with considerable regard towards the plight of their fellow beings, at least some of the time, and rarely with frank malevolence. Medics deliver more because they are compelled by professional concern to act against their self interest and in the interests of their patients. This concern is expressed in the willingness to go beyond contractual duties, to be willing to provide services unconnected with remuneration, to act with genuine compassion towards patients, and to think imaginatively about ways of caring. Smith has forgotten, or fails to observe, that medicine is a calling that depends upon and enhances the moral character of the practitioners. Honesty, reliability, beneficence, a sense of personal responsibility, integrity, and independence are necessary for medicine and enhanced by the practice.

Not observing, or denying, this character of medicine leads Smith to propose reforms that are neither necessary nor helpful. To cite just one example, Smith wants to put patients on to editorial boards. This proposal sounds entirely admirable but there are serious problems. The first problem is that patients tend to be ill and so it is normal to relieve them of burdens while providing care and attention to make them better. Furthermore, patients often cease being patients and return to a normal desire to be as far away from doctors as possible, for as long as possible. “Career patients” who want to be on editorial boards are unlikely to be representative.

The most serious problem, however, is that patients are not medical professionals. Putting patients on to editorial boards means placing the identity of the journal into the hands of novices who have no stake in the intellectual integrity of the journal. The status of a journal is a matter for the members of the discipline that the journal supports, for those with the requisite expertise and who stand to lose if the disciplinary database is compromised by other agendas. The introduction of patients into the heart of medical research and communication can only enhance antiprofessional and consumerist views and thus erode professional concern as doctors lose control of their own discipline. Increasing calls for audit, inspection, and regulation are inevitable, as is a growing resentment of doctors and bewilderment of patients stuck between a need for competent doctor led care and a system that seems perversely reluctant to deliver it.

Smith’s book may be amusing and accurate in parts but this contribution to the erosion of professionalism within medicine is neither funny nor useful.

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VIEWS & REVIEWS
The generation game

“Dad, you’ve got an earring!” She gazed at the photo of me from the mid-1980s. “At least I’m not wearing make up,” I said, but this only made her eyes narrow more. I’m no baby boomer and, according to Wikipedia, I am part of “Generation X.” Clearly Generation X smacks of the school geek coming to the Christmas party in a pair of sunglasses—tiresome, unimaginative, and just plain dumb. But with the new look BMJ comes our turn to shape the medical agenda.

What of the baby boomers? It is foolish to make sweeping generalisations, but let’s not let reason get in the way of an argument. This postwar generation has held sway over our political and medical lives for the last decade and will do so for a few more to come. Spawned on postwar optimism, shaped in the heady 1950s and 1960s, they are a huge, glimmering shoal. The baby boomers have a sense of certainty and self confidence like no others. But certainty is concrete—strong, but ugly and brittle. The mantra that money and resources will “cure it all” has defined their tenure, with polypharmacy to modify all manner of medical risk, a “need to screen,” and, most of all, a need to intervene. Contrary to popular perception, unfortunately, screening paradoxically delivers little benefit to the individual. More medicine, money, and meddling are an unholy trinity.

Will we Generation X-ers be any different? We had the 1970s and 1980s, with their social unrest, unemployement, and the rise of the cult of the individual. We are a small generation, with many of us coloured by an insecure childhood. We are uncertain about marriage, worried about children, fearful of commitment, and unsure of roles in society. What will happen on our watch? Will we see some form of euthanasia? Will medicine turn its energies to the developing world? Will we see a backlash against thoughtless obsession with intervention? Will we see a halt to the relentless obsession with specialisation and value once again the role of the generalist?

We in the United Kingdom do have one duty, however—to be the fearless guardians of the NHS. The NHS, with all its faults, has provided equity and integrated, high quality care like nowhere else. We have been spared the excesses of fee for service systems, with their inherent financial conflicts of interest. Bear witness to the distorted health care elsewhere in the developed world. We should look back to the founding values of the NHS—vocation, duty, continuity, commitment, and—most of all—community. We must also look forward, for our time is now.

The 1980s are back, my daughter likes big hair, plastic jewellery, and stretch jeans, and she gave me a small pencil as a Christmas present this year. “What’s this,” I said. “Guyliner,” she smiled. X smacks of the school geek coming to the Christmas party dressed as a pirate in a pair of sunglasses—tiresome, unimaginative, and just plain dumb. But with the new look BMJ comes our turn to shape the medical agenda.

Shy and retiring?

It’s never too early to start planning your retirement party. Don’t assume someone else will do it for you. The NHS will acknowledge your 40 years’ service by deactivating your swipe cards, not by organising a booze-up. Alcohol and cigars are out, even though shortening your life would benefit the pension fund. And your contemporaries may well retire before you, so it’s up to you.

Don’t slip away quietly. Your workmates will hate you for wasting an excuse to jive or twist. Who knows, you may even enjoy the party yourself. But not if you try to organise it unaided. This is where we come in. Shyandretiring.com will take the strain, leaving you free to get tired and emotional or bitter and twisted, as you choose.

Our website is packed with fun ideas for a great leaving do. Our standard package (two speeches) and our premium package (no speeches) both include a surprise retiragram—your P45 presented by a stunny health secretary lookalike or a hunky guy wearing a car park attendant’s uniform (but not for long).

What about a theme evening? With our “Pirates of the Caribbean” party you can walk the plank, prodded by a cutlass-wielding clinical director. At our “Sicilian” party a genuine former chief executive jumps out of the cake with a submachine gun. Or why not splash out on our deluxe package? Return to the boardroom where you were interviewed, trash, then fly to Greece to renew your Hippocratic Oath.

Scared that no one will turn up? Our friends at Rentacolleague.com provide past friends to reminisce with and fellow consultants whose names (let’s face it) you’ve always been a bit vague about. They’ll also include some heartwarming surprise guests. At last you’ll meet the man with the hammer-drill who’s been working next to your consulting room.

No need to worry about that farewell speech. We supply handouts for your guests to treasure forever, with titles ranging from “168 hours a week—we loved it!” to “21 reasons why the NHS is doomed.” End your evening with our NHS karaoke, singing “I did it my way,” and afterwards benefit from our FREE personal tutorial on how to behave when retired.

Rule one: don’t gloat.

James Owen Drife is professor of obstetrics and gynaecology, Leeds.

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Home truths about anatomy

When I was a boy, my grandparents used to take the News of the World. I wasn’t allowed to read it, presumably because, in the advertising slogan of the time, “All human life was here.” In those days, all human life was precisely what parents were there to protect children from.

I can’t help thinking of that slogan whenever I look through the 19 volumes of Household Words, the journal that Dickens edited between 1851 and 1859. Who can resist articles entitled “Bankruptcy in Six Easy Lessons,” or a true story that begins “Our hero was hanged… at the age of twenty”? It continues, “[His autobiography] appeared three or four days after his execution, with a frontispiece-sketch of its author sitting in the condemned cell in a meditative attitude, with folded arms, crossed knees, and a gratified expression on his face.”

There is much of medical interest in Household Words. For example, in the volume that contains the above articles is another entitled “Use and Abuse of the Dead.” It is about the Anatomy Act that put an end to murder for the purpose of dissection. Bodies could be sold to the anatomy schools for dissection. But even after the passing of the Anatomy Act, the undertakers combine to stop the operation of the marketplace. There follows a description of fights in graveyard, turf wars I suppose they’d be called nowadays, and even of the technique used to rob a grave, leaving a mess so that a vigil would be posted, thereby ruining the business of a rival gang.

But even after the passing of the Anatomy Act, “the undertakers combine to extort money from the hospitals under the name of burial fees,” at the same time selling the bodies to the anatomy schools for dissection. Prejudice against undertakers dies hard, to coin a phrase. I remember walking into my ward one morning when the television was tuned to an attack by angry widows on the representative of the undertakers’ association on account of the high cost of funerals. “These days,” said a patient who had just tried to kill herself, “they don’t even let you die cheaply. I wish I was dead.”

Theodore Dalrymple is a writer and retired doctor who wish to submit reviews of medical classics should email Trevor David Haslam, president, Royal College of General Practitioners davidhaslam@hotmail.com

MEDICAL CLASSICS

M*A*S*H


Insubordinate, frequently irritating, cynical, totally human, and 100% caring—who could ask for a better doctor than Dr Benjamin Franklin Pierce?

I’ve always felt embarrassed that my medical hero is fictional. Be that as it may, I believe that M*A*S*H, the story of the 4077 Mobile Army Surgical Hospital during the Korean war, reached closer to the heart of what it means to be a doctor than any other work of art that I know.

You can taste M*A*S*H in three distinct flavours. There was the original novel by Dr Richard Hornberger, written under the pseudonym Richard Hooker while he was waiting to see patients in his clinic, and based on his experiences in Korea. There was the Oscar winning 1970 film directed by Robert Altman, starring Donald Sutherland as Hawkeye and Elliot Gould as Trapper John, released at the height of the Vietnam war, and oozing humour and wit as well as blood and bone. And there was the extraordinary television series starring Alan Alda, which ran for 251 episodes but which is still showing in an endless and justified cycle of repeats around the world.

If you’ve never seen M*A*S*H, then names like Radar, Hot Lips, Trapper, BJ, Klinger, Henry Blake, Sherman Potter, Charles Emerson Winchester 3rd, Father Mulcahy, or the world’s greatest psychiatrist—Sidney Freedman—will mean nothing to you. And you may be puzzled as to what possible relevance the world of blood and guts surgery in a field hospital at war might have to a rural Cambridgeshire general practitioner, whose surgical skills were only ever limited to the occasional sebaceous cyst.

But the great thing about all these people is that they cared. Hawkeye might have joked, womanised, drunk, teased, and argued—but, my God, how he cared. You could see it in the way that he cried, became angry and frustrated, and passionate. Medical school didn’t teach us much about caring. The lecturers taught us about glycogen storage diseases, immune deficiency, the Krebs Cycle, and the median nerve. They taught us how to care for patients, but rarely mentioned caring about them. And so as doctors we develop coping strategies that somehow get most of us through the days, but that leave others permanently damaged—at either unable to show their patients that they care, or else dependent on inappropriate supports. But when Hawkeye felt the pain of being a caring doctor it showed. It moved me then, it moves me now, and it still makes me laugh. What else could you ask for?

David Haslam, president, Royal College of General Practitioners davidhaslam@hotmail.com

This is the first in a series of reviews of books, films, plays, television series, and artworks that relate to the practice of medicine. Readers who wish to submit reviews of medical classics should email Trevor Jackson (tjackson@bmj.com).
Anthony Oakhill

Pioneer of unrelated bone marrow transplantation for childhood leukaemia

In a brilliant career cut short by cancer, Tony Oakhill built the team that developed the most important recent advance in the treatment of childhood leukaemia: bone marrow transplantation using unrelated donors. The technique is now standard and has saved hundreds of lives. His team also developed a method of detecting minimal residual disease.

In the 1980s many children were being cured of leukaemia, but around a quarter had a relapse after chemotherapy. High dose chemotherapy and bone marrow transplantation saved many, but this was possible only when there was a close family match. The idea of using unrelated donors was heresy.

Tony Oakhill and the team he built widened the use of transplantation to enable children to receive, safely, partially matched bone marrow from unrelated donors. Their technique used Campath antibodies to kill the T cells that caused graft versus host disease. Now, most children who need bone marrow transplantation can be treated successfully, and their outcome is as good as with transplants from siblings.

Patients receiving transplants can discard cyclosporine after a few months, by which time the donor cells will have engrafted and their white blood cells will be those of the donor.

Oakhill was an outstanding scientist with a talent for choosing his team. He built up the largest bone marrow transplant unit in Britain, with many patients—including adults—referred from the rest of the United Kingdom and overseas. His team’s results were based on good science and meticulous attention to detail.

Minimal numbers of residual leukaemic cells cannot be detected by microscopy as they resemble ordinary blast cells. By making patient specific gene probes, Oakhill’s team developed a method for detecting leukaemia cells at a concentration of 1 in 105 normal cells, which is now provided nationally as a networked service coordinated from Bristol. The information this gives is used to alter treatment regimens to prevent relapse, and studies are under way to see if this is effective.

Oakhill was awarded an honorary chair (a rare distinction at Bristol) in recognition of his research, and the Royal College of Physicians invited him to give its 1994 Lockyer lecture. He published 150 papers and a book on the supportive care of the child with cancer (K Wright Bristol 1988), and gave invited lectures around the world. He disliked committee work, and had no interest in high office within the medical establishment.

He was happiest and at his best with the families and children under his care. He was brilliant with children, overcoming his natural gravitas and shyness to clown about, and he could make them laugh before he had spoken a word to them. Like a pied piper, he was followed on his ward rounds by a string of children who were so captivated by him that they did not want him to leave their bedside.

Oakhill was interested in his patients and remembered every one of them, what they liked at school, their pets, where they went on holiday, and the football teams they supported. He knew more bad Skoda jokes than anyone could have thought possible.

He was also involved throughout and after the treatment of every patient, and he remained in contact with bereaved families and supported them.

Anthony Oakhill was born on 19 August 1950 in Leicester, the son of a painter and decorator. He was educated at the City of Leicester Boys’ School and Birmingham University.

He trained in paediatric oncology in Birmingham and Philadelphia before his appointment in Bristol. He did most of his postgraduate training at the Birmingham Children’s Hospital, where he was senior registrar from 1978 to 1980. He followed this with a two year fellowship in paediatric oncology at the Children’s Hospital of Philadelphia before taking up his appointment in Bristol.

Oakhill was a cultured man with wide interests. He was prodigiously well read and knowledgeable about theatre and travel, rugby and soccer. He was extraordinarily knowledgeable about art. He and his wife cultivated a large and beautiful garden. He also kept pet ornamental snakes.

He died from a leiomyosarcoma that originated in a lung blood vessel. It took over a year to get the correct diagnosis. His illness meant that he had to retire in 2003, whereupon he took a complete break from paediatrics, resigned from the Royal College of Paediatrics and Child Health, and took a degree course in art history in his own university.

In remission after the removal of a lung, he was planning a doctoral thesis on the portraits of Alexander Pope when he had a relapse.

Tony Oakhill’s first wife died from an unknown cause at an early age. He was divorced from his second wife, Sue; they have a daughter.

In 1996 he married Dr Chris Elliot, a widow, who was also a paediatric oncologist. He leaves his mother, his wife, his daughter, and his stepdaughter.

Caroline Richmond

Lewis Saunt Castleden  
Former general practitioner Great Dunmow, Essex (b 1918; q St Bartholomew’s Hospital, London, 1942), d 29 October 2006. As a student, Lewis Castleden’s responsibilities included suturing blast injuries by day and spotting for incendiary bombs on the hospital roof by night. A keen fisherman, he courted his future wife, Cynthia, with gifts of trout at the nurses’ home at Hill End after the hospital was evacuated there. In 1943 he was surgeon lieutenant in the Royal Naval Volunteer Reserve, serving on HMS Swale in the Far East. In 1946 he entered general practice in Dunmow, Essex, where he spent 34 years at the High Street Surgery. After retirement he enjoyed many happy years of beekeeping, bell dinghying, sailing, and, of course, fly fishing. He leaves Cynthia, four children, and 12 grandchildren.

Matthew Castleden, Andrew Castleden, William Castleden

James Irvine Havelock Hadfield
Former consultant surgeon Bedford Hospital (b 1930; q Oxford/St Thomas’ Hospital, London, 1955; MA (Oxon), FRCS, FRCE), died from duodenal cancer on 17 May 2006.

At Oxford James Irvine Havelock Hadfield participated in Olympic rowing trials. After qualifying he first taught anatomy and then trained in surgery, being appointed initially as clinical tutor at Oxford, and then consultant surgeon at Bedford in 1966. James’s teaching attracted international trainees, his ebullient personality contributing to the original content of his tutorials. He developed a major interest in urology and parathyroid surgery, and was a previous Arris and Gale lecturer, as well as an examiner for the Edinburgh Royal College of Surgeons. Later, he became medical director of Bedford Hospital and in retirement taught anatomy at Jesus College, Cambridge. He leaves a wife, Ann; three children; and six grandchildren.

John Fergus, John Watkinson

George Masterton
Former consultant venereologist Glasgow (b 1917; q St Andrews 1940; DPH), died from metastatic prostate cancer on 14 November 2006. George Masterton left school at 15 to become a professional golfer but quickly realised he wasn’t good enough. On qualification in medicine he was designated unfit for active service because of poor vision, but he enlisted in the Royal Air Force after memorising the eye test cards. Dissatisfied with his first posting as golfing partner for senior officers in the Home Counties, he requested an overseas posting and served in the Far East from 1942 to 1946 as medical officer to fighter squadrons. George took up a consultant post in Glasgow in 1965 and remained there till he retired in 1982. He championed the cause of venereology as a valid specialty, nationally and internationally. He leaves a wife, Mary; three children; and nine grandchildren.

George Masterton, Robert Masterton

Frances Mary Mules
Former general practitioner Bromley (b 1925; q Royal Free 1951), died from cancer of the pancreas on 25 March 2006. In 1953 Frances Mary Mules joined a practice with two women partners in the basement of a Victorian house in Bromley. The practice rapidly outgrew the premises, and in 1968 Frances and her partner Dr Margaret Martin joined forces with Drs John Wishart and Peter Browne in a converted detached house. The surgery was unique in that two separate practices shared staff and premises. In 1979 Dr Mary Matthews joined the practice, and they worked together until Frances retired in 1990. Frances was an active member of the Mothers’ Union and coordinated the sewing of a quilt that raised £7000 for a children’s hospital home from home. Predeceased by her husband, Alexander (“Sandy”) Knox, she leaves two daughters and one grandson.

Nicola Payne

Isobel Stewart Proctor
General practitioner Newcastle upon Tyne (b 1953, q Dundee 1976; MRCGP, DRCOG), died from breast cancer on 20 August 2006.

Isobel Stewart Proctor had always wanted to be a general practitioner. After completing vocational training in her native Dundee, she married John Boyd, the brother of a fellow student. Within only months of becoming a principal, she found herself senior partner. She was actively involved in her church choir as well as Northern Opera and the New Tyneside Orchestra. The test of a new car was always whether the harp would fit in the back. Ill health led to early retirement. True to form, she made the best of it. She encouraged her children’s studies, travelled, socialised, and pursued her hobbies. The week before her death she was tending her garden. She leaves John and two children.

Carmen Coupland

Roger Unwin
Former general practitioner Canterbury (b 1930, q St Mary’s Hospital, London 1955; DObst RCOG), died from cancer of the caecum on 16 May 2006.

Roger Unwin moved to Canterbury after national service with the Royal Army Medical Corps in Germany, where he developed his interest in obstetrics and gynaecology that had started at St Mary’s with Sir George Pinker. He joined a local practice in Castle Street, where he continued his interest in home deliveries. The practice amalgamated with the New Dover Road Surgery, and he became a trainer. His particular brand of teaching endeared him to his many trainees. In the 15 years of his retirement he devoted much of his time to his large family and producing high quality furniture from his workshop. He leaves a wife, Marion; five children; and 18 grandchildren.

Jonathan Unwin

ADVICE
We will be pleased to receive obituary notices of around 250 words. Pressure on space means that in most cases we will be able to publish only about 100 words in the printed journal, but we can run a fuller version on our website. We will take responsibility for shortening. We do not send proofs. Good quality, original photographs are welcome. Please give a contact telephone number and, where possible, supply the obituary on a disk or by email to obituaries@bmj.com. If sending a picture electronically, please attach as a jpeg or a tiff rather than as part of a Word document. We need to know the year of birth and exact date of death of the deceased, and we prefer obituaries to state the cause of death.
MINERVA

Premedicating patients with melatonin before they are given general anaesthetics significantly reduces the doses of propofol and thiopental needed to induce anaesthesia, according to a prospective randomised double blind study in *Anesthesia and Analgesia* (2006;103:1448-52). Successful induction was assessed by loss of response to the command “open your eyes” and disappearance of the eyelash reflex.

The British Doctors and Dentists Group is a self help group of doctors and dentists who are recovering from chemical dependency and addiction—mainly alcohol and drugs. Monthly support meetings take place in 16 centres around the United Kingdom. The group uses a 12 step recovery programme and separate support is available for the families of members. To find out more contact Paul at paulr4bddg@aol.com or go to www.bddgfamilies.org.uk.

It is not bad hair days that hairdressers should worry about, but bad hand days. The Health and Safety Executive (www.badhandday.hse.gov.uk) has warned salon owners to wise up to dermatitis caused by exposure to shampoos, hair dyes, and prolonged immersion of the hands in water. More than half of the 130 000 hairdressers in the UK have an unpleasant skin condition at some point in their career, and it can be avoided simply by wearing disposable non-latex gloves.

Keen cyclists may want to participate in a London to Paris bike ride that is scheduled to take place from 12-15 July 2007, a week after the Tour de France leaves London for the first time. The event will raise funds for Médecins du Monde UK, a humanitarian aid organisation whose medical volunteers provide health care to vulnerable people around the world. For more information go to www.medecinsdumonde.org.uk.

The fourth edition of the Hall report (2003) states that no further check up is needed for acquired undescended testes if the testes are “well down” at six weeks. However, a retrospective audit published in the *Journal of Pediatric Urology* (2006;2:392-7) suggests that the natural course of this condition makes this advice unsafe. Of 83 were hospital between 1992 and 2003, 83 were performed on boys who had scrotally placed testes at birth and at 6 weeks. Vigilance is performed on boys who had scrotally placed testes at birth and at 6 weeks. Vigilance is needed until puberty.

A postmature baby had poor cardiocogram traces, a cord pH of 6.86, and a base excess of –17.8. He had also aspirated meconium and needed ventilation. On day 8 we noted firm, fluctuant violaceous nodules over his back, buttocks, and thighs, which resolved by 3 months. Subcutaneous fat necrosis of the newborn is an uncommon acute hypodermatitis that affects full term or postmature babies during the first 6 weeks of life. Predisposing factors are perinatal asphyxia, birth trauma, aspiration of meconium, and hypoxia. Complications are hypoglycaemia, anaemia, thrombocytopenia, and hypercalcaemia. The condition is usually self limiting and resolves without scarring within weeks to months.

The surge in oxytocin when labour starts may make delivery safer. Scientists have found that just before delivery the neurotransmitter γ aminobutyric acid signalling system in the fetal rat brain switches from an excitatory state to an inhibitory one. The switch is triggered by a surge in maternal oxytocin. This “quieting” of neuronal activity may reduce the brain’s energy demand, thereby protecting the brain against low oxygen conditions during the birth process (Science 2006;314:1788-92).

Scientists have sequenced a gene called SHANK3 in more than 200 people with autism and found mutations in three families. SHANK3 encodes a protein that interacts with neuroligins—proteins that have an important role in neuronal signalling. Previous research identified mutations in two genes that encode neuroligins. These results indicate that neuroligin may hold the key in the search for the biological basis of autism (*Nature Genetics* 2006).

Next time you are potting out plants, beware. A case control study from South Australia identified *Legionella longbeachae*, which is found in commercial potting mix, as a cause of infection. Recent use of potting mix was associated with illness, but better predictors included poor hand washing practices after gardening, long term smoking, and being near hanging flower pots that drip. Inhalation and ingestion are the likely modes of transmission (*Epidemiology and Infection* 2007;135:34-9).

Minerva’s roving eye was caught by the title of an essay in the *Journal of the Royal Society of Medicine* (2006;99:625-7 www.jrsm.org/cgi/content/full/99/12/625?etoc), “Attenti alle bufale” (Beware of red herrings). It is the first in a series about making evidence based medicine work for you. In a nutshell, the authors say that everything and anything we read or hear in biomedical sciences has to be approached critically. Moreover, a critical mentality needs to be developed and nurtured. It doesn’t just grow overnight.

Large trials have come out in favour of carotid endarterectomy for asymptomatic carotid artery stenosis, but patients take years to get over the perioperative risks and to benefit from the reduced risk of stroke or death. Estimating long term survival may be useful in deciding whether to proceed with this prophylactic operation. Predictors of decreased longevity identified in a population based study of more than 6000 carotid endarterectomies performed in Sweden were all pretty obvious—age at operation, diabetes, heart disease, and previous vascular surgery (*Stroke* 2006;37:2886-91).

Another case of the blooming obvious is found in a study of snoring in Chest (2006;130:1779-83). Risk factors for habitual snoring were confirmed as being male, being overweight, and recent weight gain. Not so obvious factors were the development of asthma and taking up smoking.