Medicine in the millennium: confronting the issues

A Crockard, PKumar and JTinker

This joint conference of the Royal College of Physicians of London, the Royal College of Surgeons of England and the Royal Society of Medicine took place on 1 November 1999 at the Royal Society of Medicine in London.

Just another millennium meeting? Not so! When the Presidents of the Royal College of Physicians (London) and Surgeons (London), the Royal Society of Medicine, the chairman of NICE, and CHI financial advisors to the NHS came together on the 1 November 1999 with an audience of about 100 clinicians and healthcare workers, there was bound to be a lively discussion on the direction and funding of healthcare in the NHS. Decisions are difficult when expectations are limitless, and resources quite the opposite. The hope was to set in context the aspirations of patients, clinicians and politicians against a background of limited fundraising and 'value for money'.

The audience was not prepared only to sit and listen to the official speakers. To enhance their participation, all were supplied with electronic voting which, at a touch of button, showed if and how speakers had influenced their opinions (Box 1).

The day began with a general discussion on current and projected resources and demography, and moved to expectations of individuals and changing attitudes. The second part focused on the three main causes of death and debility: heart disease, neurodegenerative disorders and cancer; to address specifically the 'value for money' aspects of various forms of therapy. Finally the audience took on the panel of speakers in a wide-ranging debate.

Where is health care going?

Clive Smee, chief economist at the Department of Health, was upbeat about the next thirty years. There will be a slow rise in the population of 65 year olds, currently just over eight million, until 2030 when it will rise steeply to 12 million. The numbers of 85-plus year olds will, however, only increase from 500,000 to one million. There was an implication that, within these boundaries, people will live healthier lives, with dependency ratios of the elderly falling from 6.2 to 5.8 per 100,000 persons of working age. While there may be fewer taxpayers, productivity and thus revenue will rise by 2.25% per annum. NHS expenditure is expected to rise by 3% per annum and to account for up to a 7% share of national income by 2020. Hospital beds, which have been reduced from 250,000 in the 1970s to 150,000 in 2000, will be maintained at this level. Day case admissions will rise to half of all patient admissions. Longer stay patients will be older, with an increase in 85 year olds from 400 to 1,150 per thousand admissions. More doctors will be required, from 105,000 today to 180,000 in 2020; even with the new medical schools this cannot be provided within the system, and 25% to 35% of the numbers required will have to come from overseas. England currently has the lowest number of practising physicians per thousand population in Europe (1.75 per 1,000). Austria, Denmark, France and Portugal have three per thousand, and Italy 5.5 per thousand.

This 'steady as she goes' approach certainly provoked a great deal of discussion. Indeed, it was difficult to see how the smooth predictive curves were derived from the same retrospective sources used by Mr Colin Reeves, Director of Finance and Performance, NHS Executive, Leeds, who showed a huge annual variation in NHS costs varying from 7% to 150,000

Conference programme

I Introductory address
Professor Sir George Alberti, President,
Royal College of Physicians
Mr Barry Jackson, President,
The Royal College of Surgeons of England

Older population, lowering of GDP, smaller funding base
Mr Clive Smee, Chief Economic Advisor, Department of Health

The structure and dynamics of the new NHS
Ms Kate Harmond, National Patient Access Team

Where should the NHS put its money?
Professor Sir Michael Rawlins, Chairman, NICE

CARDIAC ISSUES:
A lifetime of diet and drugs, or an artificial heart?
The medical view: Dr Howard Swanton, London
The surgical view: Dr Stephen Westaby, Oxford

NEURODEGENERATIVE ISSUES:
Living too long, or wearing out early?
The medical view: Professor Michael Rosssor,
National Hospital for Neurology and Neurosurgery
The surgical view: Professor John Pickard,
University of Cambridge

CANCER ISSUES: Curable in our time?
The medical view: Dr John Troy, Imperial Cancer Research Fund
The surgical view: Professor R J Heald, North Hampshire Hospital
plus 12.6% to minus 3% of the projected allocation, caused by unexpected demands to cope with political decisions such as the Salmon Report. What would be the cost of Crown Indemnity and changes in working hours due to European Law? Even if the 85 year old population did not increase, what about the cost to the community, not necessarily the NHS, of a large increase in dependent dementia? The debate was vigorous, perhaps because neither side really understood each other’s position. Could it be that doctors need lessons in actuarial interpretations?

Kate Harmond, clinical director of the National Patients Access Team, gave us an insight into what the population felt they got from the NHS. Those who were over 70 years old were grateful, presumably remembering times before the NHS; 60 year olds were less content; 40 to 50 year olds were exploring healthcare on the NET. Twenty to 40 year olds were less confident of the NHS and would choose not to use it. Discontent centro around waiting – waiting for the GP, waiting for the outpatient appointment, waiting in the outpatients department, waiting for the results of tests, hospital admissions, operations etc. How could the waiting be brought down to French levels? Miss Harmond described a variety of government initiatives: primary healthcare ‘walk in’ centres, NHS Direct, ‘hospital at home’ systems in Peterborough, ‘one stop’ cancer services in Kent, ambulatory care, and ‘fast track for back pain’. But who does the routine work when a health care team is switched to a waiting list initiative?” asked one member of the audience. “Where is the evidence that these novel and eye catching initiatives have improved care or reduced costs?” asked another. Substantial evidence is needed as well as slick presentation.

Professor Sir Michael Rawlins, chairman of the National Institute of Clinical Excellence (NICE), pointed to the Scylla of pharmaceutical pressure and the Charybdis of limited resources in the flood of public expectations for a cure for everything. Relenza might help – but how much? How could improvements in the nation’s health be measured? It was this challenge of measuring the effect of a planned treatment on the individual as well as the community that set the scene for the more focused discussions in the second part of the conference.

**Box 1: Examples of questions on which the audience voted**

**Cardiology**

In you had disease would you have:

- A stent
- An operation
- Tablets
- Nothing
- Alternative medicine

If you had end stage (grade IV) heart failure would you have:

- Optimal medical treatment
- A transplant
- Xenotransplantation
- Artificial heart
- Nothing

If you had £20,000 would you use it for:

- A defibrillator in one patient
- One heart transplant
- Statin therapy for 100 people for five years

**Neurodegenerative disorders**

How do you want to die?

- Liver failure
- Lung failure
- Heart failure
- Brain failure
- Kidney failure

Imagine that you are a gate keeper based in primary care. How would you prioritise between the following presenting complaints for a group of patients over seventy years of age?

- Blindness in both eyes
- Deafness in both ears
- Going off legs
- Loss of sphincter control
- Demented but continent

One aim of neurosurgery in the elderly is to avoid dependent care, but intervention carries a risk. What balance of risk (of severe disability or death) to benefit (avoidance of dependent care) would you be prepared to accept for a) your patient b) your parent c) yourself?

**Risk and benefit:**

| Risk (%) | Benefit (%) |
|----------|-------------|
| a)       | 75          | 25         |
| b)       | 50          | 50         |
| c)       | 50          | 75         |
| d)       | 25          | 75         |
| e)       | 15          | 75         |

**Cancer**

Given limited resources, which of the following items is most important?

- Screening
- Surgical training
- Oncology training
- Chemotherapy
- Palliative care
- Research

**Specific diseases**

By serendipity, the diseases chosen for detailed discussion (heart disease, neurodegenerative disorders and cancer) were those announced by the incoming Secretary of State for Health, Alan Milburn, as a particular focus of his administration. The session was structured as follows: a surgeon and a physician presented evidence of best treatment and best value in their particular specialty; together they had prepared questions on which the audience could opine by instant electronic voting. While only ‘snap shots’ of the problems could be presented by the speakers in the time available, the individuals in the audience had to consider many of these factors on a daily basis. It became obvious during discussion that the ‘snap shots’ had provoked profound feelings and opinions.
Heart disease

Dr Howard Swanton, consultant cardiologist, showed how the skilled and practised cardiologist could produce almost as good a five-year survival in coronary artery disease (85%) as open heart surgery (90%) at a fraction of the cost, considering that the patient would be in hospital for a day as opposed to five days, and would occupy a full cardiac team for surgery. There was the rub – only hugely experienced cardiologists (in the UK there are perhaps only about 120 in this category) can produce such good statistics. The message is clear and two-fold: the cardiologist with angio-plastic skills is claiming surgical ground, provided there is a great enough throughput in his unit. Specialist skills in specialist centres, with patients travelling for the procedure, make therapeutic and economic sense.

What about heart transplants? Mr Steven Westaby put things in context. Donors are the rate limiting step and even changing UK law to conform with other European countries could yield only a modest increase in the availability of suitable materials. The answer, in his opinion, will be artificial hearts or temporary cardiac assistance by an artificial pump.

The audience was swayed by the speakers: 63% opted for a stent for three-vessel coronary disease; only 33% wished for open surgery; and for ‘end stage’ heart failure 57% were attracted to temporary cardiac assistance by artificial pump. Surprisingly, only 1% of this educated audience considered xenotransplantation the treatment of the future. With limited resources, what is the best value for money? Eighty-nine percent of the audience considered that statin therapy for 100 people for five years would be of greater benefit to the community than one heart transplant.

Neurodegenerative disorders

Professor Martin Rossor, professor of cognitive disorders, and Professor John Pickard, professor of neurosurgery, used a different format for their session: questions were put to the audience before the presentation and repeated afterwards.

Professor Rossor’s theme was that the purpose of the body is to preserve brain function; thus one has to maintain good systemic function for optimal brain metabolism. Professor Pickard illustrated, using work carried out in the Wessex region, that neurosurgery in the elderly is good value for money. Keeping people mobile and self-caring longer lessens the financial burden for the NHS. In a census taken before the presentation, 47% of the audience opted for heart failure and 29% for brain failure as their chosen death. After the presentation, 62% preferred heart failure and only half the original voters still considered brain failure to be a dignified mode of existence. In terms of value for money and maintenance of patients' independence and dignity, the audience considered the treatment of blindness should be the priority for primary caregivers. Following the presentation this view was reinforced but care in dementia was considered the second-most important. For all its sophistication, this audience revealed a tendency to react emotionally: considering a neurosurgical operation for an elderly person which was aimed at avoiding dependent care, but carried risks of disability or death, the audience were quite content with a projected benefit of 75% and a risk of 25% or less, but when asked for their recommendation to their own parent, there was a massive shift of opinion towards a least risk strategy, while for themselves, most of the audience opted for the least risk strategy. If this is the attitude of a sophisticated audience in possession of all the scientific facts, then what chance would a lay audience or member of the public have of coming to a decision on priorities in health care and relating the public purse to individual aspirations?

Cancer

Professor John Toy, medical director of the Imperial Cancer Research Fund, showed that drugs produce excellent results in blood based cancers like leukaemia, but that solid organ cancer with subsequent metastasis poses a different problem. Genetic studies are unravelling the problem, but not as quickly as expected. Also, looking at the country as a whole, there seems to be a ‘post code lottery’ for breast cancer and colorectal cancer in terms of survival, but might these variations be due to social status or local environment, or to imbalance in resources throughout the regions?

Professor Bill Heald produced a powerful argument that swayed the audience. Taking the example of colorectal cancer, he demonstrated how mortality rates for this disease had been dramatically reduced over a decade in Stockholm by training a cohort of surgeons to perform surgery of the highest standard. Only those surgeons who had been trained in these techniques were permitted to carry out the surgery. The message was again loud and clear: referral to a specialist unit is best for patients, and the training of surgeons is paramount. Professor Heald made a strong plea for resources dedicated to this. The audience was swayed by such a powerful argument, and even though there were only 13 surgeons voting, everyone was persuaded that with limited resources, surgical training provides better value for money than screening and research when treating solid cancers.

Discussion

What mechanisms can be put in place to allow referral of patients from anywhere in the country to the best unit? How does one identify the best units? How exactly are treatment episodes paid for? How would such changes in referral pattern affect local hospitals, training programmes and all healthcare workers? Do individual families consider the disruption and inconvenience caused by referral to centres other than the local hospital to be a price worth paying? Some of the general practitioners in the audience eloquently pointed out that what may seem obvious in a
centre of excellence might not necessarily be greeted enthusiastically by a family distant from such a centre. 'And why wasn’t the Royal College of General Practitioners invited to participate in such an important debate?' The organisers were suitably chastened by this omission.

And the way forward?

Professor Sir George Alberti and Mr Barry Jackson were clear that the debate must go on at every level. The Royal Colleges are in danger of becoming outdated examples of the boundaries and defences set up in the past by specialists. A fresh approach to healthcare is now necessary: treatment teams need to be redefined; new specialities need to be established; the roles of physicians and surgeons have to become more interactive and interchangeable; appropriate training, information and consultation will have to be provided.

It is over a quarter of a century since Archie Cochrane proclaimed that evaluation should be the first priority of the National Health Service. A flowering of evaluative studies and techniques has occurred since then, aimed at measuring effectiveness and efficiency of medical treatments. Subsequent developments in health service organisation and management have inaugurated various types of health care review, inspection and audit, revealing differences in health service activity, clinical standards and medical outcome at national and local level.

The National Institute of Clinical Excellence (NICE) is the government’s response to variations in health care quality in England and Wales. Set up as a Special Health Authority in April 1999, NICE’s brief is to recommend whether specific health technologies and treatments can be deemed sufficiently effective and affordable to be provided by the NHS. Its assessments are to offer ‘authoritative, robust and reliable guidance on current best practice’. The Institute held its first conference and exhibition last December, when 1,800 people converged on Harrogate in carnival spirit, to participate in the two day event. Delegates heard the Secretary of State for Health, Alan Milburn MP, compare NICE to the Monetary Policy Committee of the Bank of England: ‘it will be hard-nosed, authoritative and evidence-based... and will help bring order and rationality to a system that all too often has appeared arbitrary and unfair’; aspirations for NICE fuelling fears that a new regulatory state is fast displacing the old Welfare State.

Sir Michael Rawlins, the Institute’s Director, emphasised its semi-virtual nature; it is to be a dynamic organisation of (and from) the NHS and its allied institutions, with a core staff providing cognitive capacity at the centre of a network of collaborative health service professional, patient and carer organisations. The rigour and transparency of its deliberations, Sir Michael told the conference, would guarantee its independence and earn NICE the respect and confidence of professionals and patients alike. With a conference fee of £250 per delegate (not including travel, accommodation or locum costs), much of it, one assumes, paid for by provider trusts and primary care groups, what more tangible demonstration of support and interest could its first director have wished for but 3,600 spell-bound ears straining on his every word?

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J R Coll Physicians Lond 2000;34:389–90