

A decade of immunisation

Members, honoured guests and commercial partners.

The word immunisation means different things to different people. To the immunologist it means programmed memory which protects an organism from a predatory pathogen. To school doctors, GP's, ministers of health and the world health organisation it means large scale vaccination programmes to inoculate consenting groups of people to provide immunity which protects the group as a whole. To cardiothoracic surgeons and members of this society immunisation has a whole different meaning.

At the end of WWII our social and economic infrastructure was in a mess. Rationing of food and clothes was necessary and there was a consensus that the government should offer better medical services. The public were proud but disgruntled.

There was a last minute decision by the Atlee government to divert from the insurance route to socialised medicine. The government settled with the medical profession. The state would pay, doctors would remain autonomous but ration.

It created a mutual dependency – ‘the politics of the double bed’ as Klein referred to it - which suited both parties. The benefit for the profession was preservation of clinical autonomy and self-regulation. The advantage for government was that responsibility for deciding on priorities was handed over to doctors to manage in the privacy of their surgeries and clinics. In an era of paternalism and deference to professional authority, the public was none the wiser. The assumption was that people would be truly grateful for what they were about to receive.

The expectation was that The Health Service coupled with widespread immunisation programmes would eventually result in a healthier nation. The hope was that this would result in a reduced requirement for acute services and funding would find its own plateau or may even decrease as people became fitter.

But they didn't. They became older, developed age related infirmities and their expectations increased. Science advanced and technology took over and the cost escalated.

Information technology through television and the Internet combined with a more critical media has had huge impact on the cultural and behavioural dimensions of medical practice. All citizens now have access to medical databases and explicit lay texts on all sorts of ailments and treatments. They have access to previously privileged knowledge. Their relationship with physicians has changed irrevocably – the doctor no longer always knows best.

A less deferential public and media are no longer complacent regarding the NHS which has become less of a sacred cow. Although the principle of free healthcare at the point of delivery is close to the nation's heart, the blind belief that the NHS represents the “Best-of-British” has been increasingly questioned.

A decade ago, according to the media, people were dropping like flies on devastatingly long waiting lists for heart and hip surgery. Only the rich could get the treatment they needed when they needed it.

Then Bristol.

An increasingly sophisticated public became concerned. The Health Service was sick. They could no longer reasonably overlook inequity of access, waiting times or quality of service.

Is this relevant to our Society?

The role of a professional association

To understand this I now invite you to consider the role of our group, a professional society. I believe it is to provide a forum for discussion, professional and social networking and distillation of new ideas resulting in the development of consensus based professional standards. In addition, a professional organisation should not only represent the views of its members, to relevant authorities it should demonstrate leadership. The balance between consensus and leadership poses a dilemma particularly for immature democracies. I hope that our track record combined with our new reorganisation will convince you that our organisation has matured beyond this adolescent catch-22 into a nationally respected professional organisation.

This address aims to be provocative and to stimulate debate on where our society stands with respect the three P's of **professionalism, pragmatism and politics**. I propose to highlight how far we have come over the last decade, how we have been and remain a **responsible, reliable and responsive** specialty and how I believe these attributes will enable us to secure a new and exciting future for the specialty.

Society and our Society

Ten years ago we were awaiting the deliberations of the Bristol Royal Infirmary enquiry. We have given evidence at the enquiry and explained how we have fed anonymous data back to individual units and that we expected units to use that data to benchmark their own activities. The enquiry concluded that not only was the data inaccurate but that the process of anonymous feedback had demonstrably failed.

Thankfully we were able to demonstrate a change in direction by demonstrating that our society was the first to be embarking on a national clinical database which would eventually lead to risk adjusted national benchmarks. In 1996, following the report of a pilot project demonstrating feasibility, your executive had the foresight to embark on a 10-year programme to shift from the pioneering UKCSR developed in 1997 by Sir Terence English towards a patient based national cardiac surgical data collection to facilitate a more detailed understanding of our specialty, enable meaningful benchmarking and allow us not only to prevent another Bristol, but also to demonstrate to our detractors that cardiac surgery in this country is as good as it gets.

We began immediate discussions with department of health along with the BCS to establish the Central Cardiac Audit Database in 1996. We hoped this would bring us on-line data entry, centralised analysis and reliable mortality tracking. At that time the technology was immature and progress was slow, but momentum was maintained. We now have the world's best database for paediatric cardiac interventions including cardiological interventions, a good adult cardiac surgical database, a steadily improving angioplasty database and a national myocardial infarction database.

There have been shadows along the way. The longest of these was Bristol which acted as the catalyst for the bravest decision ever taken by a professional organisation in Europe. At our Edinburgh meeting in 1998 we, you, agreed, under the presidency of David Wheatley, to establish a performance surveillance mechanism based on un-risk adjusted activity and mortality for a variety of procedures in adult cardiac, thoracic and congenital cardiac procedures.

In 1997 a new government came in to power. Worried that the NHS had become a financial black hole with little or no knowledge of its clinical outcomes or healthcare benefit they embarked on a series of radical legislative changes. Their intentions were articulated in the white paper a first class service published in 1998 which introduced the concept of institutional clinical governance based on standard clinical setting and performance monitoring. But we were already ahead of the game. In 1998 we published our second Blue book and were able to demonstrate responsible surveillance and feed back to our members ahead of any other professional group.

By 2000 the principles of the white paper had been enshrined in statute through The Health Service Act. Among other things this put a statutory duty of responsibility on chief executives of NHS organisations to focus equally on fiscal and clinical performance and this tightened the noose. Clinical governance was to be monitored by the Commission for Health Improvement against standards set by NICE and the NSF's all of which came in to being that year.

At the end of 2000 the Bristol Royal infirmary enquiry report was released and whilst focused on cardiac surgery the specialty and our society were largely exonerated and massive failings in a variety of NHS processes were highlighted. The government responded in July 2001 by announcing a focus on information across the board to help underpin the recently acquired new responsibilities imposed on NHS organisations through the health service act the previous year. Later that year we were ambushed by Dr Foster who planned to publish vaguely risk adjusted mortality ratios for coronary and aortic valve surgery for units in England using administrative data. Despite our protestations the Department of Health joined in. The leadership of your society responded robustly. Firstly, the well rehearsed arguments surrounding the publication were published in a full page article in the Times. But when the smoke of battle had settled we worked with Dr Foster to produce a Guide to Heart Disease which carried the Society's logo. The next year the data were published in 8 point times in alphabetical order.

A satisfactory response to a mature engagement strategy by this Society.

We also engaged with the newly appointed National Director for Heart Disease, Dr Roger Boyle who was welcomed at our annual meetings and selected executive committee meetings.

In July 2001 the DH responded to the BRI inquiry and things began to hot up for us. With another example of indefigability from our members we responded by publishing another, even more detailed, Blue Book, but this time we included un-risk adjusted mortality for every unit in the UK for CABG and AVR in the hope of silencing our critics. This was on the one hand very effective, but on the other turned up the heat even more.

The Prime Minister's chief policy advisor was married into an America medical family and this directly led to increasing demands from the media and Government for us to develop and use our data to publish risk adjusted results on individual surgeons along the lines used in New York State.

In September 2004 the Society of Cardiothoracic Surgeons published its national adult cardiac surgical database report which included an analysis of mortality data for every surgeon in the United Kingdom over a three year period. The analysis was based on crude mortality data because risk adjusted data were simply not available for all surgeons. The analysis presented the data as a funnel plot indicating that all surgeons fell within pre-determined limits of acceptability. But we were criticised in the press for not presenting a specific mortality rate for each surgeon

Surgeons had argued that whilst publishing unit specific outcomes was appropriate, publishing results down to individual surgeon level was not. Ministers and the media argued that, in the aftermath of "Bristol", such data were in the public interest, and that the precedent existed in Pennsylvania, New York and New Jersey and would soon be introduced in Massachusetts and California.

Recognising the unstoppable momentum an increasing number of units began publishing their surgeons' results on trust websites, generally in differing formats. This not only put pressure on other units to do the same, but also fuelled the belief in the media that such data had merit and that perhaps units shying away from publication had something to hide.

So the newspapers lay in wait. The Freedom of Information Act (2000) became effective on 4th January 2005 in England and "*in the public interest*" several major national papers approached the Society of Cardiothoracic Surgeons for their data on surgeon activity and mortality. But we're not a public body we said, we receive no public funding, we don't believe in the publication of crude mortality data, our data is getting better and we'll publish when the data is good enough. This defence didn't last long. The first off the blocks was the Guardian who approached Trusts directly for the information using the weight of the law to bypass the Society, the Department of Health and the Healthcare Commission and making our historical protestations irrelevant. Of course there were problems with the published data: some was risk adjusted, some was crude; some units submitted calendar years, some fiscal years, some included redo operations some did not. One unit was left out completely and some surgeons were attributed to the wrong hospitals. Whilst this provided some comfort to detractors of the process the shortcomings are not important in the grand scheme of public disclosure. The point is that the genie is now out of the bottle, there is no going back.

In the meantime this whole issue has cast a blight over British cardiac surgery. Other important, impending issues remain unaddressed while we worry about the negative consequences of this forensic scrutiny on our behaviour. We worried about operating on high risk cases, particularly if we think we are near some mythical limit. We worried about how to train future generations of surgeons on a population of patients whose demographics are changing because of more effective percutaneous intervention, whilst keeping our mortality low. Most of all we were concerned by the potential, unnecessary humiliation of surgeons whose mortality may be high. At worst this would result in the public crucifixion of a competent surgeon; at best it would further humiliate a surgeon in difficulty, who with the current systems in place will already have been identified, and hopefully helped, by a combination of the Trust and Society clinical governance mechanisms, and such humiliation will make remedial measures even more difficult.

In the end we agreed to work with an independent regulator, the Healthcare Commission, to produce compulsory risk adjusted comparisons of hospital results and voluntary individual surgeon results. This has been extremely well received by the media, patients and politicians and has stimulated interest, at the highest level, in publication of results for a variety of other surgical and non-surgical therapies. This will happen in mid 2007 and on the basis of our leadership is supported by the RCS Eng and all nine major surgical specialties.

Indeed, in May 2003 The Secretary of State, Mr Alan Milburn told the GMC that, "If clinical autonomy was at the heart of the old relationship, clinical accountability is assuming greater significance in the new. The decision, for example, of the British Society of Cardiothoracic Surgeons to work with government and CHI in publishing surgeons outcome data is in my view not only a brave step towards even greater openness but I believe it has opened a door which other branches of medicine will need to enter."

In parallel, Dame Janet Smith's fifth report on Shipman stimulated a review of professional regulation which was commenced by the CMO at the beginning of 2005. In both the initial report and the recently released parliamentary white paper published last month, our Society has received considerable credit and positive publicity for our professional approach to performance review. We had seen this coming and had gained approval from The GMC in 2001 for our own data to be used for members' revalidation. This has been reinforced in the white paper and our leadership has underpinned the principle which will be enshrined in legislation that specialist associations should be responsible for setting the standards for revalidation.

Recurrent events of concern have led, over the last decade, directly and indirectly to a series of changes in health policy within the UK and England in particular.

1. There has been a move towards greater openness and accountability
2. Best international practice is now enshrined through NICE and pragmatically implemented through the National service frameworks
3. Service provision has been devolved to local communities
4. Funding of this service provision has passed to primary care

5. Greater regulation is on the horizon to ensure uniformity of services within this newly devolved healthcare economy between institutions, communities and across the public-private divide through the Healthcare Commission
6. Patient choice, in some form, will soon be a reality

To quote Mr Alan Milburn, the architect of some of these changes, "Whether we like it or not this is a consumer age. People expect services that are tailored to their individual needs. They want choice and they demand quality. We all do it and we all know it. Those changes cannot be ignored. They are here to stay."

As a result we are entering a competitive and increasingly regulated environment which provides us with enormous opportunities to invigorate and enhance a number of our initiatives.

It is absolutely clear that we must now reinvigorate our national cardiac and thoracic databases. We must move away from the blunt measures of mortality towards measures of best practice and long term survival. We must develop more comprehensive quality measures. This is a big, no huge, opportunity to inform our patients and enhance further the reputation of our Society and its members.

But reputation and professionalism are in some respects nebulous drivers. There is a more tangible and immediate driver thundering towards us down the tracks. One which has been skilfully addressed by the STS in the US largely due to the efforts of Dr Fred Grover, our honoured guest.

We have been grappling with Payment by Results in which our institutions receive payment, based on a national tariff, for different procedures. The original idea was to encourage institutions to review and understand their accounting procedures or even to price expensive hospitals out of the emerging NHS market. Later this month the DH will announce the next step – Pay for Performance, unashamedly copied from the US. This attempts to link clinical outcomes, quality and incentives by linking reimbursement to clinical outcomes and other measures of clinical quality. A forthcoming issue of the Annals of Thoracic Surgery will reveal the deliberations of the STS and define a methodology on how best to maximise our opportunities when this arrives in the UK. I understand that the initiative will first be piloted in the North West of England and will likely be rolled out in April 2008 in yet another accelerated Government initiative.

I make no apologies for the suggestion that we consider very seriously the STS proposals based on external consultation to identify measures of good quality which will include such measures as IMA usage and secondary prevention drugs at discharge. The methodology exists in CCAD and has already been used to demonstrate that the one year survival following myocardial infarction is related to the number of secondary prevention drugs prescribed at discharge.

Challenges associated with Clinical change

There is a simple truth that improvement is always associated with change, change is not always associated with improvement. But change is both inevitable and unstoppable. We can at best hope to stimulate change, influence change or respond to change – we cannot prevent it.

Until recently the specialty had enjoyed unparalleled expansion as the demand for effective cardiac revascularisation exploded. The randomised trials of the 1970s coupled with advances in myocardial protection fuelled our belief in the supremacy of surgery as a revascularisation strategy. We were unassailable. Then in the late 1970s the crazy concept of balloon angioplasty emerged from the mountains of Switzerland. Before long commercial interests took hold, new technology emerged and evidence accrued that percutaneous transluminal coronary angioplasty worked well in selected cases. Surgeons observed from the sidelines as a series of strategies were explored to tackle the problem of restenosis, safe in the knowledge that no percutaneous technique could challenge the documented benefits of the internal mammary artery as a routine graft. But four issues have conspired to erode the growth of coronary surgery. Firstly, patients do not want operations if there is another alternative; secondly, over-the-wire and stent technology has dramatically improved the safety and efficacy of percutaneous coronary interventions; and thirdly, the cardiologists, who themselves offer an alternative treatment are the gatekeepers of surgical practice. Finally, improved pharmacological treatment in the form of statins and better antiplatelet therapy has resulted in more effective plaque stabilisation and reduced progression of disease before patients are ever considered for surgery.

For example, In England, through the NSF the expenditure on statins has grown from 20million in the first quarter of 1997 to just under one billion per year in 2006. There has been less, but significant growth in antiplatelet agents, nitrates and ACE inhibitors.

The end result has been a dramatic reduction in coronary surgery. In this country waiting lists have fallen from 18 months in 2000 to an average of 10 patients per surgeon today, with some units have virtually no waiting lists. The waiting list reduction is good for the patients and we should not mourn its passing.

However, there is a dark side. Evidence is accruing that alternative percutaneous revascularisation strategies have not achieved their promise. As a specialty we are founded on robust clinical evidence and are feeling disquiet at the unbridled expansion of alternative strategies based at best on an incoherent evidence base. We must not, under any circumstances, be seen as Ludites, as a specialty paralysed by the glare of innovation and progress, as a Society running scared. But we can and must, legitimately review emerging evidence, not only in the interests of the future of the specialty but also as professionals, as doctors, as informed guardians of the public interest. In the CMO's recent report "Waste Not Want Not" he highlights that "both under use and over use of treatments are rife in this and most other countries and are enemies of effective healthcare". Is our job to engage in debate to find the balance without stifling innovation. But there are dark forces at work. Commercial and special professional interest groups are conspiring to pervert the course of this honest debate. But we must not engage in the politics of protectionism where principles of honesty, integrity and are sacrificed on the alter of professional and commercial self interests. We must retain our sense of scientific enquiry and honest analysis. We must strive to be impartial. We must thank Professor David Taggart for his talents in forensic analysis for bring this debate to the boil in an increasingly widening arena.

Technology may also help. This slide illustrates the clarity of new 64 slice CT. Note the good graft, the narrowed graft, the stump of the old graft and the stent. But in the first combined CT scanner and rubidium scanner this can be combined in a single overlay scan to identify areas of ischaemia. The first of these in Europe has been installed at UCL and is offered as an open GP referral service. This has implications for the future identity of the gatekeeper in the referral pathway.

I put it to you that angioplasty is here to stay. It is a good technique but the indications need to clarify and stabilise. We were complacent. We were arrogant. It took off under our noses. Because there was such a demand for surgery we failed to learn the techniques. The vascular surgeons learned from our failure. I fear we are now sleepwalking into the same mistake again - this time with valves. In our unit over 150 patients have been spared complex redo surgery by successful percutaneous pulmonary valve implantation, with excellent results in terms of clinical outcome and resource consumption. Two valves each Wednesday before lunch!

The aortic valve arena is hotting up. The issues surrounding embolisation and coronary occlusion are rapidly being eliminated. Paraprosthetic regurgitation is being tackled. It is clear that in terms of valve orifice area the percutaneous valves which do not have a sewing ring offer a significant advantage. Flexible metal valves, biodegradable metal stents and other remarkable technologies coupled with shareholder and other interests will drive this forward. We must learn to do this before it is too late.

Thoracic surgery

I have not said much about thoracic surgery because in all but one area thoracic surgeons have got their act together. Frankly, they are ahead. In the 1980s and early 90s they tackled the threats and opportunities offered by emerging minimally philosophy in the form of VATS. With help from the NHS Cancer Plan published in 2000 they have developed effective MDTs across the nation which provides a unique international model. But there are still patients not receiving surgery who should. This is mainly because of the difficulties of early identification of respectable disease. But again technology may come to the rescue. Volatile organic compounds, are carried in the breath and can serve as biomarkers. Cancer cells make different groups of these volatile compounds than normal cells. Researchers have known since the mid-eighties that these differences can be detected on lung-cancer patients' breath using a combination of gas chromatography and mass spectrometry. The Cleveland lung-cancer sensor is a disposable piece of paper called a colorimetric array. The paper has 36 chemically sensitive dye spots that change color when they interact with compounds in the breath. Changes in color are read by a flatbed scanner, which sends the images to a computer for analysis. Although early in development, proof of principle has been achieved, which may open the door to early screening and diagnosis and lead to an increased demand for curative surgery.

Employment

Our trainees are entering uncomfortable times. After years of personal investment they face the spectre of unemployment. Your Executive, guided by Chris Munsch, has deliberated on this issue and has failed to identify an immediate solution.

In 2000 when the NSF for CHD was launched waiting lists were long, demand for coronary surgery was growing and angioplasty hadn't taken off. There was an anticipation that coronary surgery would not only remain the staple diet of cardiac surgery but that national capacity would need to grow significantly. As part of the NSF the English Department of Health espoused a strategy to increase coronary surgery by massive capital investment to expand existing units and open new units coupled with an increase in the number of trainees. So the DH invested the equivalent of \$1.1 billion dollars in expanding cardiac surgical facilities with the anticipation that these facilities would require staffing at about the time that the additional trainees gained their CCST. We were grateful for this investment in real estate and human resources but we were nervous about the logistics of such rapid and large scale expansion. The SAC under the chairmanship first of Mr Patrick Magee and then Peter Goldstraw argued for caution and we eventually ended up with half the proposed increase.

Meantime demand has dropped off. Now we have a cohort of good trainees in a different environment. When the expansion was opened the bar for entry was lowered, there was a perception that jobs would be secure and the competitive stimulus for trainees to distinguish themselves was greatly attenuated. We are now back to the position where consultant job acquisition will be highly competitive and will therefore exclude non competitive trainees. This will inevitably lead to sub consultant service grades to fill the gaps that will be exposed as the process of Modernising Medical Careers evolves. The reality is that within the context of 1.4 million NHS employees, 50-100 unemployed cardiac surgeons is not a worry to the powers that be, particularly since there is an argument that a modest oversupply drives competition and quality. It is the job of this Society to help expose the problem, encourage additional appointments as the EWTD will soon be applied to consultants, and to provide a temporary oasis for our young surgeons to maintain their skills by critically reviewing the demands for additional waiting list activity in individual units. But perhaps most importantly we can and should support educational activities in a variety of forms.

Congenital Cardiothoracic Surgery

Towards the end of last year the Government began to readdress the issue of service reconfiguration.

Conclusion

I believe that in our response to external influences we have been professional, progressive and pragmatic and that through our responsible and responsive

actions we have immunised ourselves against external micro management and political interference by engagement.

But how do we immunise ourselves against autoimmune disease or our own apathy. The answer is by listening to members and democratising the structure of the Society. I hope you will agree that the new constitution and structures go some way to addressing this issue.

Thank you for listening and thank you for the privilege of serving as your president.