Healthcare governance and the modernisation of the NHS: infection prevention and control

R Pratt[1], S Morgan[2], J Hughes[3], A Mulhall[4], C Fry[5], C Perry[6], L Tew[7]

1. Professor of Nursing and Director, Richard Wells Research Centre, Thames Valley University London W5 2BS
2. Nurse Consultant in Infection Control, Freeman Hospital, Newcastle-upon-Tyne NE7 7DN
3. Nurse Consultant Infection Control, University Hospital Aintree, Lower Lane, Liverpool L9 7AL
4. Independent Training and Research Consultant, Ashmanhaugh, Norfolk
5. Nurse Advisor, Communicable Diseases, Department of Health (England), 79 Whitehall, London SW1A 2NS
6. Senior Infection Control Nurse, United Bristol Healthcare NHS Trust, Bristol BS2 8HW
7. Infection Control Nurse Manager, Royal United Hospital Bath NHS Trust, Combe Park, Bath BA1 3NG

Key words: clinical governance, clinical effectiveness, controls assurance, infection prevention and control

Summary

uality is central to the government's programme for modernising the NHS and clinical quality is at the heart of this agenda. The recent introduction of corporate governance with controls assurance and clinical governance in the NHS has established a framework for providing such excellence in clinical care.

Governance applies to all healthcare activities and provides an ideal opportunity for infection prevention and control practitioners to improve the quality of their service and reduce the risk of patients acquiring preventable healthcare-associated infections (HAI).

This paper will discuss the introduction of governance in the NHS, describe the key principles of clinical governance and relate these to infection prevention and control.

Background

The NHS was established in 1948 to provide comprehensive healthcare for all citizens based on need, not the ability to pay. Its principal aim was to ensure the highest level of physical and mental health within available resources by promoting health and preventing ill-health, diagnosing and treating injury and disease and caring for those with long-term illness and/or disability.

Half a century later, the NHS has become one of the great British institutions, employing around a million people in England alone and costing over £50 billion a year to run (rising to £69 billion by 2005).

One week in the life of the NHS in England illustrates this 'busy' organisation (see Table 1) (NHS, 2002).

Table 1: A week in the life of the NHS in England

- **1.4 million people will receive help in their home from the NHS**
- **700,000 people will visit a NHS dentist for a check-up**
- **NHS community nurses will make more than 700,000 visits**
- **NHS chiropodists will inspect over 150,000 pairs of feet**
- **Over 10,000 babies will be delivered by the NHS**
- **NHS ambulances will make over 50,000 emergency journeys**
- **Pharmacists will dispense approximately 8.5 million items on NHS prescriptions**
- **NHS community nurses will receive around 25,000 calls from people seeking medical advice**
- **NHS surgeons will perform around 1,200 hip operations, 3,000 heart operations and 1,050 kidney operations.**

The NHS has undergone gradual reshaping since its creation, but its implementation was driven by a monolithic bureaucracy, so change was slow and ineffective, resulting in a gradual deterioration in standards. Consequently, during the last decade government instituted radical changes in the way health care was managed and delivered and these resulted in striking cultural shifts within the service.

The internal market

The introduction of the 'internal market' by the Conservative government in 1990 saw the creation of a new model for managing the NHS, which identified 'purchasers,' such as health authorities and some fundholding general practitioners, 'providers,' such as acute care hospitals, community health services, and 'consumers' of health care. Providers were grouped into NHS Trusts, which became independent organisations needing to compete with each other (Department of Health, 1989).

It was hoped that the introduction of competition would stimulate a cost-effective rise in input and quality of service, force clinicians to recognise the cost of their activities and instil a culture of business principles within the service.

However, although raising the awareness of the costs of health care, this radical reorganisation created duplication of services, was deeply unpopular with NHS staff and confusing to patients. The publication by the government of the *Citizen's Charter* (Cabinet Office, 1991) and the *Patient's Charter* (DH, 1992) increased patients' awareness of their rights to certain standards of care — expectations that were difficult for many NHS Trusts to meet within budget (McSherry and Pearce, 2002). This led to dissatisfaction with the NHS and frequent recourse to litigation.

Subsequently, performance league tables were published and patients' dissatisfaction and complaints accelerated. Thus, by the mid-1990s, there seemed a general feeling that the NHS was a failing organisation.

Most recently, this was fuelled by high-profile media reports of poor clinical practice (NHS Executive South East, 2000; Bristol Royal Infirmary, 2001) and dramatic cases of criminal acts within the service (Chief Medical Officer for England, 2001) causing many to lose confidence in the ability of the NHS to provide safe and competent care.

Double-blind peer reviewed paper

Table 2: Controls assurance

'A process, built on best governance practice, by which NHS organisations demonstrate that they are doing their reasonable best to manage themselves so as to meet their objectives, and protect patients, staff, visitors, and other stakeholders against risks of all kinds.' (Emslie, 2001)

Corporate governance

In 1994 the government's response was to introduce corporate governance, a system of financial and risk management based on a code of conduct that incorporates the principles of accountability, probity and openness (DH, 1994). Corporate governance is intended to minimise risk and promote value-for-money, ensuring that public funds are not wasted. Corporate governance has continued to evolve in the NHS, especially with the introduction of controls assurance (NHS Executive, 1999).

Controls assurance

Controls assurance is a system for providing evidence to the public and other stakeholders that Trust boards are managing risk properly and effectively (see Table 2) (Emslie, 2001). Clearly, risk management is central to the provision of a quality infection prevention and control service, and this aspect of corporate governance is further discussed below.

Modernising the NHS

With the election of the new Labour government in 1997, a 'new model for a new century' for managing the NHS was introduced (DH, 1997). The internal market was abolished and, in place of competition, the government promoted a collaborative approach based on partnership and driven by performance.

Doctors and nurses were empowered to play a major role in reshaping the service to ensure that clinical excellence would be guaranteed to all patients. Quality was to be the driving force for decision-making at every level. Equally important was the government's commitment to rebuild confidence in the NHS as a public service, accountable to patients, open to and shaped by their views.

Clinical governance

As NHS Trusts continued to refine the management of non-clinical aspects of health care (corporate governance), another aspect of governance was introduced to facilitate the achievement of the quality improvements in clinical care that were essential to modernising the NHS — clinical governance (see Table 3) (DH, 1997; DH, 1998).

Clinical governance is about ensuring that systems are in place to facilitate quality improvements in all clinical areas and at all levels of healthcare provision. The key components of clinical governance consist of a series of quality attributes firmly rooted in the foundations of an organisational culture working toward continuous quality enhancement and the forging of a meaningful partnership between patients and their healthcare providers (see Figure 1) (Elcoat, 2000a).

Infection prevention and control in the context of governance

To understand its relevance and utility to infection prevention and

Table 3: Clinical governance

A framework through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish.

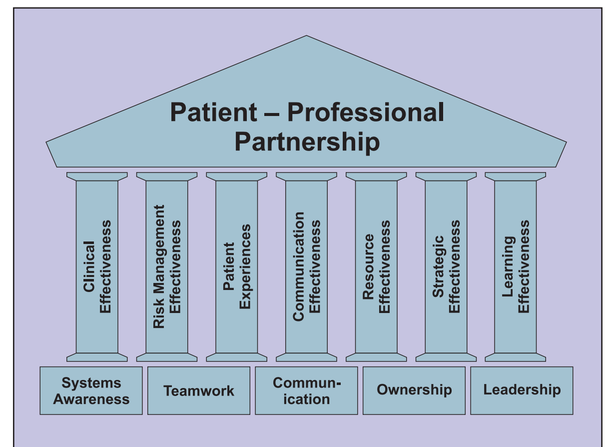

Figure 1: The components of clinical governance (Elcoat, 2000a)

control, each of the key components of clinical governance depicted in Figure 1 will be related to instances of quality improvements or examples of where the skills of infection prevention and control practitioners (IPCP) can be further developed.

The pillars of clinical governance: Clinical effectiveness

Clinical effectiveness is about ensuring that specific clinical interventions do what they are intended to do, that is, to maintain and improve health and secure the greatest possible health gain from the available resources (NHS, 1996).

One of the key principles for increasing clinical effectiveness is to ensure that clinical care and the delivery of services is based on the best available evidence of effectiveness. Thus, IPCP need to be skilled in searching for, and critically appraising evidence to support their clinical decisions. This requires several other subsidiary skills in, for example, information technology (IT) with a basic understanding of research methods and statistics. This ability to critically evaluate evidence is a core requirement of specialist practitioners and many IPCP may require support to develop these skills.

One example of a continuing nurse-led multidisciplinary initiative to promote clinical effectiveness through evidence-based practice is the 'epic' initiative. Commissioned by the Department of Health for England (DH) and the National Institute for Clinical Excellence (NICE), 'epic' is developing a series of national evidence-based guidelines for preventing HAI (Pratt et al, 2001; Pellowe et al, 2002).

Clinical audit and surveillance can be used to monitor clinical effectiveness. Audit of general infection control practices has been shown to be an effective tool in monitoring standards and influencing change (Millward et al, 1993).

Risk management effectiveness

Because modern healthcare systems are complex, mistakes due to organisational, technological or human error will occur. The concept of risk management (see Figure 2) has always been a key feature of proactive infection prevention and control strategies, as failing to control such risks can have disastrous consequences for healthcare organisations, practitioners and patients

The ongoing cycle of risk management (see Figure 2) involves continual evaluation to identify potential risks and assess the methods that are in place to control these. Effective reporting of adverse events, error and 'near misses' is essential to the ongoing identification of risk and developing risk management responses.

The reality of the risk

Patients are at significant risk of acquiring infections as a result of healthcare interventions. The prevalence of HAI has hardly declined in NHS hospitals over the last decade, affecting approximately 9% of all hospital in-patients (Meers et al, 1981; Emmerson et al, 1996).

A report by the Public Health Laboratory Service (PHLS) on HAI

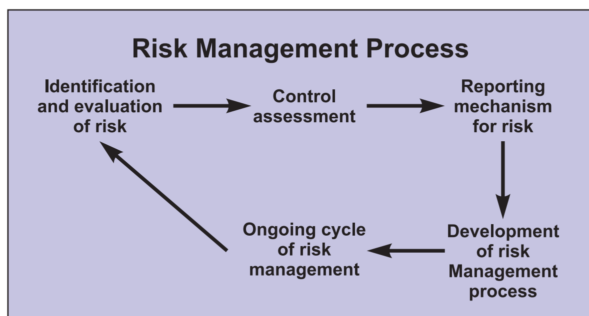

Figure 2: Best Practice for Risk Management (adapted from O'Neill, 2000a). Risk management is the identification, evaluation and control of potential adverse outcomes that threaten the delivery of appropriate care to patients.

(Plowman et al, 1999) suggested that it may be costing the NHS in England £1 billion a year, with potential avoidable costs of approximately £150 million annually. HAI may be responsible for 5,000 deaths per year, and although not all are avoidable, it is estimated that 15% to 30% of HAI are preventable (House of Commons Committee of Public Accounts, 2000).

An organisation with a memory

The NHS is striving to become 'an organisation with a memory', effectively and consistently using risk management processes to learn from failures and from 'near miss' events.

The DH has identified the key elements that need to be incorporated into risk management processes (see Table 4) (DH, 2000a). Perhaps the most important is moving away from a 'blame culture' and developing an atmosphere where the system, as much as individual practice, is examined when failure occurs — not asking 'who is wrong?', but rather 'what is wrong?' (O'Neill, 2000a).

Although accountable for the standard of their own individual practice, practitioners who make mistakes are often a 'second victim,' experiencing emotional and psychological distress as they become identified as the cause of the failure, while any inadequacies of the system are ignored (Wu, 2000).

Establishing an open and supportive 'safety culture' helps to ensure accurate reporting by staff of errors and 'near misses', so that lessons can be learned and remedies incorporated into clinical practice. Organisations that principally focus on blame and punishment are unlikely to learn from their mistakes, and consequently are doomed to repeat them (O'Neill, 2000a).

Responses to risk

Each NHS Trust has a Clinical Risk Management Committee and produces reports to the Trust board on how risk is being managed across the organisation. Action plans are then agreed, implemented and regularly reviewed as part of each service's performance assessment. The occurrence of an HAI is a 'clinical incident' and needs to be recorded and properly investigated.

There are many examples of practical responses to controlling identified risk. It is well recognised that good hand hygiene is possibly the most important factor in preventing HAI, yet adherence to national guideline recommendations is poor (Pittet et al, 2000).

Table 4: Key elements of an effective risk management process

- **Unified mechanisms for reporting and analysis when things go wrong**
- **An open culture, in which errors or service failures can be reported and discussed**
- **Mechanisms for ensuring that, where lessons are identified, the necessary changes are put into practice**
- **An appreciation of the value of the system approach in preventing, analysing and learning from errors.**

Responding to this risk requires organisations and individual IPCP to ensure that local up-to-date protocols are available, staff are adequately trained, and protocol recommendations are being incorporated into routine practice.

Other organisational and environmental factors, such as ensuring safe staffing levels and the provision of appropriate and well-sited hand decontamination facilities, are also necessary.

Patient experiences

Understanding and using the patient's experience of care to improve quality and reduce risk is central to modernising the NHS and to effective clinical governance (O'Neill, 2000b).

Patient Advice Liaison Services (PALS) are central to this new system of patient and public involvement. The participation and involvement of patients in their care can have a powerful impact on the quality of that care and patient outcome, including improvements in quality of life and shortening the period of hospitalisation (Lorig et al, 1999).

Recent studies have demonstrated that when patients were empowered to ask healthcare staff if they had washed their hands prior to caring for them, adherence to hand decontamination protocols, especially by medical staff, increased (McGuckin et al, 2001; O'Connor, 2002). However, the active involvement of patients in hand hygiene initiatives may increase anxiety and healthcare staff need to be sensitive to this. The experience of patients is also essential when auditing infection prevention services, and mechanisms need to be in place to capture and learn from complaints and commendations. Finally, representatives from patients' organisations need to be involved in the development of infection prevention and control services and clinical practice guidelines.

Communication effectiveness

The effectiveness of infection prevention and control practice and the potential of clinical governance to drive quality improvements largely depends on communication skills, specifically our ability to first understand others and then to move people from understanding to involvement and commitment. Our recent experience in disseminating national infection prevention guidelines (Pratt et al, 2001) echoes the series of steps involved in effective communication suggested by O'Neill (2000c) (see Figure 3):

- Step 1 focuses on 'getting awareness' by giving people information. We believe that multi-modal methods are generally more effective than single-method approaches. Consequently, we used a variety of methods to disseminate the epic guidelines, including publication in several peer-reviewed professional journals, direct communications from the DH to all NHS Trusts, enclosing and commending the guidelines, simultaneous publication on the DH website (www.doh.gov.uk/hai), numerous conference presentations and a variety of educational initiatives.
- Step 2 ('getting understanding') is about listening to practitioners, clarifying issues and perceived problems associated with the need to adapt national guidelines into local protocols. This requires an understanding that different Trusts and groups of healthcare staff are at various stages of achievement in their quest for clinical effectiveness.

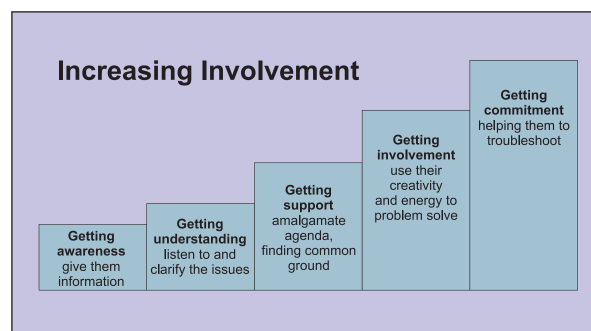

Figure 3: Increasing involvement

- Step 3 is about 'getting support' — amalgamating agendas and finding common ground with key stakeholders, initially infection control practitioners then with all frontline practitioners.
- Step 4 is all about 'getting involvement' by using peoples' creativity and energy to identify and neutralise problems associated with resistance to the changes that guideline implementation may involve.
- This generally results in step 5, 'getting commitment' to change — preparing staff for change and then introducing and monitoring change.

Resource effectiveness

Clinical governance is about quality. Good quality services are resource-effective, as the waste and failure of poor quality can add 10% to 35% to the costs of health care (Elcoat, 2000b). Adverse events harming patients cost the NHS £2 billion each year and an additional £400 million is paid annually in clinical negligence claims (DH, 2000a).

Quality has been likened to 'gold in the mines' (Elcoat 2000b; Juran, 1964), releasing saved money back into the system. For example, if HAI cost the NHS in England £1 billion annually (Plowman et al, 1999) and 15% to 30% of them are potentially preventable (DH, 2000a), then if we 'get it right first time and all the time,' (Donaldson and Gray, 1998), an extra £150-300 million could be saved each year. Resource effectiveness is critical and infection prevention and control services may have more 'gold in the mines' then any other department or directorate in every NHS Trust.

Basing infection prevention and control interventions on evidence of efficacy is one avenue toward improved quality. However, the evidence for many interventions in this field is often weak or non-existent. Even when good evidence is available, practitioners remain unaware of it and thus fail to incorporate it into clinically effective practice. It may not be appropriate for all direct care-givers to be expected to retrieve and scrutinise evidence for its rigour. However, specialist practitioners, such as IPCP, are ideally placed to undertake such activities and act as a resource for others.

Surveillance systems to monitor the pattern of and trends in HAI are another method of promoting resource effectiveness, providing that a meaningful feedback approach is used that motivates clinicians to investigate 'out of control' situations and institute remedial interventions. The use of process variation charts for this purpose have proved effective (Curran et al, 2001). The Infection Control Nurses Association (ICNA) is currently preparing a national study to seek further evidence for this approach.

Finally, national evidence-based guidelines for preventing HAI (Pratt et al, 2001) and the *National Infection Control Manual* recently commissioned by the DH will facilitate greater resource effectiveness, allowing practitioners to share evidence for best practice and adapt it into the local clinical environment.

Strategic effectiveness

Strategic effectiveness is concerned with the approach a service or an organisation takes to the future and the mechanisms they develop and use to deliver the desired agenda and outcomes (Elcoat, 2000c).

The government's strategic plan for the NHS reaffirms the continuing imperative of clinical governance to help develop a culture that is patient-focused and where all sections of the NHS will work across traditional organisational boundaries (DH, 2000b; 2000c). Because preventing infections is 'everyone's business' and because micro-organisms don't acknowledge boundaries, IPCP have a long history of supporting and working with a disparate number of services and organisations to prevent HAI. In doing this, Trusts and infection prevention and control services have an opportunity to share and learn from each other and from innovations and best practice in different sectors and organisations.

Within each Trust, the infection control team (ICT) is responsible for developing an annual 'infection control programme', which addresses the priorities identified by assessment against the *Controls Assurance Standards for Infection Control* (DH, 2001). This programme will identify local strategies for infection prevention and control services and will reflect the strategic direction of the organisation. Once approved by the Trust board, the programme becomes an essential component of the overall Trust strategy and will be integrated into the Trust business planning process.

The ICT needs to be involved in and support strategic effectiveness through a broad range of Trust activities, including (NHS Estates, 2001):

- Capital and strategic planning of other services, for example new build and refurbishment
- Equipment and medical device purchasing
- Facilities management contracts.

Learning effectiveness

Clinical governance is about creating a 'learning organisation' (Squire, 2001a). Many attributes contribute to the growth of an effective learning organisation (see Table 5) (Garrat, 2000; Squire, 2001a). All of these are applicable to developing an organisation's capacity to learn from success and failure (their own and others) and to search for and use robust evidence to improve the effectiveness of infection prevention and control services. Clinical governance incorporates clinical supervision, which is a key strategy for improving quality through staff support and development.

Since 'infection prevention is everyone's business,' each organisation should have a comprehensive, ongoing, multidisciplinary educational strategy for infection prevention and control in place. Although a needs assessment will inform this strategy, it should be flexible to respond rapidly to critical incidents, surveillance and audit feedback, the availability of new evidence and the emergence of new infection threats, e.g., the emergence and spread of new antimicrobial resistant micro-organisms.

Making it happen

Clinical governance has elicited much debate between healthcare professionals — both managers and clinicians. Much of the initial discussion focused on the advantages/disadvantages of a manager being accountable for the delivery and quality of clinical care (Miller, 2000). However, the most pressing issue concerns how clinical governance can be effectively implemented. Although criteria for assessing implementation have been published (NHS in Scotland, 1998), it is the reality of 'making it happen' that occupies healthcare managers and leaders. These are some of the difficulties facing Trusts:

- Lack of resources — although the Controls Assurance Standards are eminently reasonable, Trusts may be unable to implement them since no extra resources are being provided
- Concurrent initiatives for the government, e.g. reducing waiting

Table 5: Attributes that contribute to the developing of a 'learning organisation'

- **A clear vision held by all staff**
- **Actively learning from patients and users**
- **A developmental culture that empowers individuals to challenge tradition and ask difficult questions and which supports staff to accept new practices**
- **Enabling staff to try new things and integrate them into new ways of working**
- **Engaging staff in decision-making processes**
- **Caring for staff and viewing them as assets**
- **Sharing good practice in interdisciplinary forums**
- **Encouraging cross-fertilisation between disciplines and agencies.**

Double-blind peer reviewed paper

lists, may deflect staff/resources away from clinical governance

- Trust/service reorganisations and mergers compete for time/resources, for example new Primary Care Trusts have so much to organise and consider that clinical governance related to infection prevention and control may 'fall off the agenda'
- The availability of skilled leaders and implementers — Trusts are facing difficulties appointing applicants for new posts in clinical governance, especially in areas such as risk management that have not traditionally formed part of the NHS
- Lack of experience — have Trust boards got the skills and experience to deliver on clinical governance? Although individuals may be experienced in components of clinical governance, strategies to disseminate their expertise and knowledge are needed. For example, IPCPs may be experienced in risk assessment, but find it problematic to implement it in practice, as ward staff find the concept new and confusing.

The above provide only a sample of the potential difficulties involved in implementing clinical governance. It is clear that both time and an evolving and developing culture will be required. The pillars of clinical governance need to be developed alongside organisational structures that focus toward a change in culture and improvements in quality across the whole organisation.

The foundation stones of clinical governance

Systems awareness

Clinical governance needs to be developed and deployed within the context of complex organisations, each having different structures, relationships, values, beliefs, targets and management styles. Systems awareness concerns staff understanding how the many parts of their unique organisation can function as a whole to bring about quality improvements. 'Systems thinking' identifies organisational problems and obstacles to quality improvements and encourages creative responses to these issues (O'Neill, 2001a).

IPCP are familiar with 'whole systems thinking', as this has always been an essential component of their role, but they and the entire healthcare team will need opportunities to further develop their skills in this area. Systems thinking can be facilitated through in-house management staff development programmes, staff focus groups, organisational communications (staff newsletters, intranet facilities) and 'problems and suggestion boxes.'

As each of the components of clinical governance develop, they have a knock-on effect on other sections of the organisation. Systems thinking is critical to coordinating developments and taking advantage of growing strengths in different sectors of the organisation.

Teamwork

Well-led teams are central to clinical governance (O'Neil, 2001b). Knowing how to build, lead and support multidisciplinary teams is fundamental for ensuring a proactive and cohesive ICT.

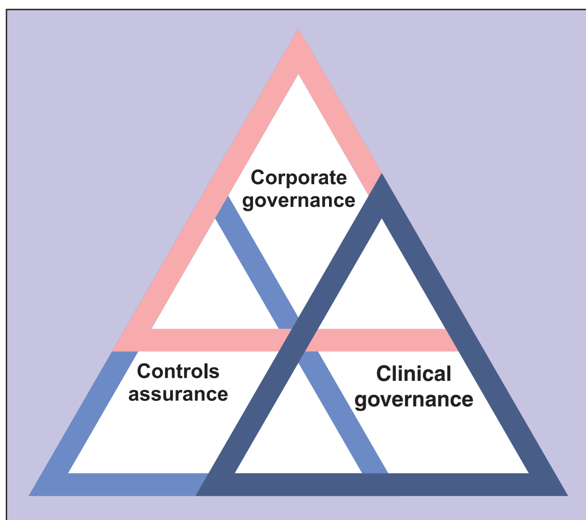

Figure 4: Healthcare governance

Patients need to be involved appropriately in such teams — reviewing services, defining quality and planning quality improvements (O'Neil, 2001b). Effective team working requires good communication, clear team mission and goals, honesty, trust, opportunities for feedback/sharing of problems and matching the individual skills/experiences of team members to the tasks (O'Neil, 2001b).

Communication

Communication is central to good practice. Patients need to be given the right information in an understandable way, so that they can make informed choices and truly become equal partners in their care.

Communication among colleagues needs to be equally skilled, so that interdisciplinary care can be safely planned and implemented (O'Neill, 2001c). Communication needs to be multidirectional — up, down and across organisational structures. Relevant information, such as surveillance and audit data, new evidence, guidelines and protocols, needs to be communicated promptly and clearly to those that need it.

Ownership

Encouraging a sense of ownership is a fundamental building block in the success of clinical governance (Squire, 2001b). Developing and using all of the areas explored in this paper — communication, teamwork, patient experiences, risk management — all of these can be used to develop a bottom-up approach to changing organisation culture. Changing to a culture where staff and patients are valued and believe they are valued, in developing, planning, implementing and monitoring the sustainable changes needed to create that 'culture where excellence will flourish.'

The changes in clinical practice needed to reduce infection risks often seem straightforward, for example staff decontaminating their hands after each episode of care.

However, in reality, achieving this is difficult. Bottom-up solutions, where staff and users drive and consequently own the strategy for change, may be the most effective means to bring about changes in practice. However, ownership needs to be worked at. It requires skills, awareness, training and inspired leadership.

Leadership

Successful clinical governance is dependent on creative leadership (O'Neill, 2001d). The *NHS Plan* (DH, 2000b; DH, 2000c) sets out the strategy for action, but national ideals, standards and strategies need to be translated into everyday practices at all levels of the service. Leaders need vision, humility and the ability to 'think out of their boxes.' ICT need to be well-led and self- and peer reflection can enable an appraisal of current leadership effectiveness and develop a strategy to continue to strengthen it.

Summary

This paper has explored the evolution of governance within the NHS, identifying how corporate governance and controls assurance set the scene for the introduction of governance focused on clinical services.

Each aspect of governance is intertwined and intended to work in synergy (see Figure 4) (McSherry and Pearce, 2002). The harmonisation of these into 'healthcare governance' is now driving the risk reduction and quality enhancement agenda within the NHS.

Governance is creating the framework for profoundly increasing the quality of NHS services, not least of all infection prevention and control services. Although still unfolding, a recent analysis has concluded that governance is a positive evolutionary process for infection control services and, ultimately, for the patients they seek to protect (Robinson, 2002). It has the feel of success attached to it and governance may present us with the first real opportunity in decades to dent the never-ending risk to patients of HAI.

Acknowledgement
This paper was inspired by a series of articles called *Clinical governance in action* by Steve O'Neill, Catherine Elcoat and Sarah Squire at the NHS Clinical Governance Support Team (CGST) in Leicester. They appeared in *Professional Nurse* during July 2000 to July 2001 (all cited in the references to this paper).

We are grateful to the CGST for permission to use Figure 1 (Elcoat, 2000) and to Simon Jones, Data Manager in the Richard Wells Research Centre at Thames Valley University for additional artwork (see Figures 3 and 4).

Correspondence
Send correspondence to Professor Robert J Pratt, Richard Wells Research Centre, Thames Valley University, 32-38 Uxbridge Road, Ealing, London, W5 2BS
Email: robert.pratt@tvu.ac.uk

References

Bristol Royal Infirmary. (2001) *The Inquiry into the management of care of children receiving complex heart surgery at the Bristol Royal Infirmary 1984-1995*: Final Report. July 2001. Available at: www.bristol-inquiry.org.uk

Cabinet Office. (1991) *Citizen's Charter*. The Stationery Office: London. Available from: www.cabinet-office.gov.uk/1998/co_report/section3/groups/ccu.htm

Chief Medical Officer for England. (2001) *Harold Shipman's Clinical Practice 1974-1998*. Department of Health/The Stationery Office: London.

Curran ET, Benneyan JC, Hood J. (2001) Controlling methicillin-resistance *Staphylococcus aureus*: a feedback approach using annotated statistical process control charts. *Infection Control and Hospital Epidemiology* **23(1)**: 13-8.

Department of Health. (1989) White Paper: *Working for Patients*. The Stationery Office: London.

Department of Health. (1992) *The Patient's Charter: Raising the Standards*. The Stationery Office: London.

Department of Health. (1994) *Corporate Governance in the NHS, Code of Conduct, Code of Accountability*. The Stationery Office: London.

Department of Health. (1997) *The New NHS Modern, Dependable*. Department of Health/The Stationery Office: London.

Department of Health. (1998) *A First Class Service: Quality in the new NHS*. Department of Health. The Stationery Office: London.

Department of Health. (2000a) *An Organisation with a Memory*. Department of Health/The Stationery Office: London. Available from: www.doh.gov.uk/orgmemreport/index.htm

Department of Health. (2000b) *The NHS Plan: A plan for investment, a plan for reform*. The Stationery Office: London. Available from: www.nhs.uk/nhsplan

Department of Health. (2000c) *The NHS Plan — an action guide for nurses, midwives and health visitors*. The Stationery Office: London. Available from: www.doh.gov.uk/agnmhv/index.htm

Department of Health. (2001) *Controls Assurance Infection Control Standard*. Available from: www.doh.gov.uk/riskman.htm

Donaldson LJ, Gray JAM. (1998) Clinical governance: a quality duty for health organisations. *Quality in Health Care* **7(suppl)**: 37-44.

Elcoat C. (2000a) Clinical governance in action. Part 1: Key issues in clinical effectiveness. *Professional Nurse* **15(10)**: 622-3.

Elcoat C. (2000b) Clinical governance in action. Part 5: Resource effectiveness. *Professional Nurse* **16(2)**: 880-1.

Elcoat C. (2000c) Clinical governance in action. Part 6: Strategy for health care. *Professional Nurse* **16(3)**: 944-5.

Emmerson AM, Enstone JE, Griffin M, Kelsey MC, Smyth ETM. (1996). The second national prevalence survey of infection in hospitals — an overview of results. *Journal of Hospital Infection* **32**: 175-90.

Emslie S. (2001) Controls assurance in the National Health Service in England — the final piece of the corporate governance jigsaw. *Corporate Governance* 12 March. Abg Professional Information: London.

Garratt B. (2000) *The Learning Organisation*. HarperCollins: London.

House of Commons. Committee of Public Accounts. (2000) *Forty-second report: the management and control of hospital acquired infections in acute NHS Trusts in England, together with the proceedings of the Committee relating to the report, the minutes of evidence and appendices*. Session 1999-2000. The Stationery Office: London.

Juran JM. (1964) *Managerial Breakthrough*. McGraw-Hill: New York.

Lorig KR, Sobel DS, Stewart AL. (1999) Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalisation: a randomised trial. *Medical Care* **37(1)**: 5-14.

McGuckin M, Waterman R, Storr IJ, Bowler IC, Ashby M, Porten L. (2001) Evaluation of a patient-empowering hand hygiene programme in the UK. *Journal of Hospital Infection* **48(3)**: 222-7.

McSherry R, Pearce P. (2002). *Clinical Governance: A Guide to Implementation for Healthcare Professionals*. Blackwell Science: Oxford.

Meers PD, Ayliffe GA, Emmerson AM, Leigh DA, Mayton-White RT, Mackintosh CA, Stronge JL. (1981) Report on the national survey of infection in hospitals 1980. *Journal of Hospital Infection* (Supplementary) **2**: 1-11.

Miller JA. (2001) *Clinical Governance. NT Monographs No. 56*. Emap Healthcare: London.

Millward S, Barnett J, Thomlinson D. (1993) A clinical infection control programme: evaluation of an audit tool used by infection control nurses to monitor standards and assess effective staff training. *Journal of Hospital Infection* **24**: 219-32.

NHS. (2002) T*he NHS Explained. NHS UK website*; cited 18 May 2002: Available from: www.nhs.uk/thenhsexplained/what_is_nhs.asp

NHS Estates. (2001). *Guidelines on infection control and the built environment*. NHS Estates: London.

NHS Executive. (1996) *Promoting Clinical Effectiveness: A framework for action in and through the NHS*. NHS Executive: Leeds.

NHS Executive. (1999) *Governance in the New NHS: Controls Assurance Statements 1999/2000: Risk Management and Organisational Controls Health Service Circular 1999/123*. The Stationery Office: London.

NHS Executive South East. (2000) *Report of the External Review into Oxford Cardiac Services*. NHS Executive SE: London.

NHS in Scotland. (1998) *Clinical Governance: Discussion papers* PMHO3807.078, PMEO3110.108. HMSO: Edinburgh.

O'Connor C. (2002) *Power to the People! Patient empowerment in hand hygiene*. Abstracts of the Royal College of Nursing 4th Commonwealth Conference, Cyprus.

O'Neill S. (2000a) Clinical governance in action. Part 2: Effective risk-management strategies. *Professional Nurse* **15(11)**: 684-5.

O'Neill S. (2000b) Clinical governance in action. Part 3: Patient experience. *Professional Nurse* **15(11)**: 746-7.

O'Neill S. (2000c) Clinical governance in action. Part 4: Communication. *Professional Nurse* **16(1)**: 816-7.

References (contd)

O'Neill S. (2001a) Clinical governance in action. Part 8: Systems awareness. Professional Nurse 16(5): 1074-5.

O'Neill S. (2001b) Clinical governance in action. Part 9: Teamworking. *Professional Nurse* **16(7)**: 1204-5.

O'Neill S. (2001c) Clinical governance in action. Part 10: Promoting communication. *Professional Nurse* **16(7)**: 1270-1.

O'Neill S. (2001d) Clinical governance in action. Part 12: Leadership. *Professional Nurse* **16(10)**: 1396-7.

Pellowe CM, MacRae ED, Loveday HP, Reid P, Harper P, Robinson N, Pratt R. (2002). The scope of guidelines to prevent healthcare-associated infections. *British Journal of Community Nursing* **7(7)**: 374-8.

Pittet D, Harbath S, Mouroga P, Sauvan V. (2000). Effectiveness of a hospital-wide programme to improve compliance with hand hygiene. *Lancet* **356**: 1307-21.

Plowman R, Graves N, Griffin M. Roberts JA, Swan AV, Cookson B, Taylor L. (1999) *The Socioeconomic Burden of Hospital-acquired Infection*. Public Health Laboratory Service and The London School of Hygiene and Tropical Medicine: London.

Pratt RJ, Pellowe C, Loveday HP, Robinson N, Smith GW and the epic guideline development team: Barrett S, Davey P, Harper P, Loveday C, McDougall C, Mulhall A, Privett S, Smales C, Taylor L, Weller B, Wilcox M. (2001) The epic Project: Developing National Evidence-based Guidelines for Preventing Healthcare associated Infections. Phase 1: Guidelines for Preventing Hospital-acquired Infections. *Journal of Hospital Infection* **47(Supplement)**: S1-S-82. Available from: www.doh.gov.uk/hai

Robinson B. (2002)A PEST analysis of the role of clinical governance in hospital infection control. *British Journal of Infection Control* **3(1)**: 22-5.

Squire S. (2001a) Clinical governance in action. Part 7: Effective Learning. *Professional Nurse* **16(4)**: 1014-5.

Squire S. (2001b) Clinical governance in action. Part 11: Encouraging a Sense of Ownership. *Professional Nurse* **16(9)**: 1332-3.

Wu A. (2000) Medical error: the second victim. *British Medical Journal* **320**: 726-7.

Additional recommended reading

Chambers R, Boath E. (2001) *Clinical Effectiveness and Clinical Governance Made Easy* 2nd ed. Radcliffe Medical Press Ltd: Oxon.

Masterton RG, Teare EL. (2001) Clinical governance and infection control in the United Kingdom. *Journal of Hospital Infection* **47**: 25-1.

Taylor K, Plowman R, Roberts JA. (2000) *The Challenge of Hospital Acquired Infection*. National Audit Office: London.