

### Editorial: Appraisal

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Over the last few years, policy developments such as clinical governance and the NHS Plan, as well as events such as the Bristol Inquiry, have reinforced the notion that staff working in the NHS need to have the right skills for the job they do, to maintain their skills and to keep up to date. Appraisal has therefore been put in place for the review of staff performance and to inform their continuous professional development. It has become an important tool within the NHS and is to be used for all staff, including doctors. Indeed, this became a requirement when the NHS Executive notified employers of the introduction of appraisal for consultants in 2000 and 2001<sup>1</sup>; similar arrangements for non-consultant career grades<sup>2</sup> and general practitioners followed in 2002. Documentation has been agreed with the relevant royal colleges and the British Medical Association and can be downloaded from the Department of Health website<sup>3</sup>.

So what is appraisal? Appraisal is about reviewing an individual's performance over a defined period, with a view to identifying that person's training needs. An appropriate training and development plan can then be constructed and agreed. The development plan, when implemented, will not only benefit staff

and their services but ultimately also patient care.

For the process to be successful, training is required so that there is a clear, common understanding of the process, its aims and of the tools that can be used. Moreover, preparation and enough time are needed.

The process of appraisal should be:

- a constructive dialogue between the appraised and the appraiser;
- a means to discuss staff's contribution to quality improvement;
- an opportunity to discuss how the service objectives will be met and what skills need to be developed.

In the case of doctors, appraisal will also contribute to the General Medical Council's revalidation process.

While appraisal has been used routinely for managers in the NHS, it has only recently been applied to clinical staff. This issue of the *Bulletin* thus deals with the appraisal of doctors; it includes an overview of the process in the NHS, the experience of appraising consultants in a large trust in Northern Ireland, a look at the private sector and the lessons learnt from GP appraisal. Other topics include infection control and the management of medical equipment. Future issues will revisit subjects such as strategy, information, risk and audit. Please continue to send in your contributions so that your experience can be shared with the wider NHS.

#### References

- 1 Department of Health, Advance Letters (MD)6/00 and (MD)5/01
- 2 Department of Health, Advance Letter (MD)05/02
- 3 [www.doh.gov.uk/appraisal](http://www.doh.gov.uk/appraisal)

#### Topics for future issues

- Guidelines
- Effective strategy
- Risk and audit

See page 3 for guidance on the submission of contributions.

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# Appraisal of doctors in the NHS: an overview

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- Good appraisal ultimately leads to better patient care.
- Appraisal is not revalidation – it has a completely separate function.
- Appraisal is an opportunity for communication with staff and can therefore contribute to the development of the trust.
- Addressing individuals' strengths and needs will also address the strengths and needs of the trust.
- The process must be confidential for staff to feel safe to discuss important issues.
- Commitment to the process is needed from both parties.
- Effective appraisal requires adequate time and resources.
- Action points must be seen to be taken up by both the appraised and the appraiser if the process is to be valued and continued to good effect.

The introduction of formal appraisal of NHS consultants and GPs was driven by the introduction of clinical governance and the need to protect patients from poorly performing doctors. The main thrust of this protection focuses on prevention through the early identification of potential problems in doctors and the provision of appropriate support<sup>1</sup>.

## Appraisal, revalidation and assessment

The association of appraisal with the 'problem doctor' has led to some confusion about its purpose, and this has been complicated by the overlap in sources of information required for both appraisal and revalidation. Appraisal is not revalidation, nor is it assessment.

- Revalidation is the process for assessing doctors against standards of fitness to practise.
- Appraisal is a positive review process that is confidential, developmental and formative.
- Assessment may, in part, inform appraisal but its role is to aid review, discussion and action planning.

Doctors will, during their normal course of work, collect a portfolio of documentation to take to an appraisal interview. Some of this documentation can be used as part of revalidation portfolios, but it serves a different function in appraisal. Confusion between appraisal and revalidation leads to suspicion and anxiety about the whole process and can result in appraised doctors failing to make use of appraisal for their own benefit and subsequently for the benefit of their organisation.

## The purpose of appraisal

Good appraisal is an effective way for individuals to identify their own learning needs; it will also address the needs of the organisation in striving for better patient care. Focus on individuals' achievements and development, self-reflection on performance, together with review and feedback that is supportive and constructive, help to identify learning needs. Appraisal is an important part of clinical governance, as it seeks to improve patient care through continual improvement of doctors' performance, regardless of how good that performance is already. Professor Sir Liam Donaldson said<sup>2</sup>:

The primary aim is to help consolidate and improve on good performance, aiming towards excellence.

## The process of appraisal

Good appraisal is effective and does have a positive impact on patient care<sup>3</sup>. To be effective, appraisal interviews should be:

- regular
- prepared in advance
- uninterrupted
- in normal working hours
- constructive
- confidential (except where risk to patients is identified)

It is usual for the appraiser to be the line manager of the person being appraised. However, it is good practice to allow the person being appraised to opt for an alternative appraiser, to allow for discussion of sensitive issues that might involve the line manager. As GPs do not have a line manager, their appraisers are often local GPs from a different practice.

Before the appraisal interview, preparation by appraiser and the appraised doctor is essential. This is set out in Table 1.

Appraisal interviews usually have the following structure:

- outline structure of the meeting;
- negotiate areas for discussion;
- general overview of achievements and progress (from the person being appraised first)

**Table 1.** Preparation required by an appraiser and appraised doctor before the appraisal interview

Appraiser	Appraised doctor
Collect assessments of performance relating to the doctor being appraised from reliable sources	Collate evidence of performance and develop a personal portfolio that includes details of the current personal learning plan (PLP)
Review documentation on identified goals and objectives from previous appraisal	Review targets in current personal learning plan
Review evidence of the doctor's strengths and areas for further development	Review personal strengths and areas in need of development
	Identify barriers to development and possible solutions

- two-way discussion of specific performance issues, including feedback (both positive and constructive criticism);
- negotiation on specific needs;
- agree on action plan and personal development plan.

For consultants and GPs there is often a period of reflection followed by a second meeting to agree on the final action. With doctors in training, the whole process is usually completed in one meeting but appraisal meetings are more frequent.

Appraisers should have a mechanism for feeding anonymous appraisal information to the organisation to inform its planning process (for example, through the medical directors and chief executive in hospitals, or a primary care trust's clinical governance lead).

### The need for training in appraisal

Appraisers need adequate training. Bad appraisal is worse than no appraisal at all as it can be demotivating and time consuming. It can also lead to those being appraised developing a strategic approach, presenting information and saying what they believe the appraiser wants to hear, rather than taking the appraisal as an opportunity for self-benefit<sup>4</sup>. Several sources of training in the appraisal process are available<sup>5</sup>. The NHS Clinical Governance Support Team<sup>6</sup>, in partnership with the Department of Health and Edgecumbe Consulting Ltd, ran a national training programme for over 900 GP appraisers in 2002 and several royal colleges run training programmes. In addition, some deaneries and trusts run local courses and the Department of Health and the General Medical Council have been developing information websites<sup>7</sup>.

### Experience within the LNR Postgraduate Deanery

Appraisal of training-grade doctors in the Leicestershire, Northamptonshire and Rutland (LNR) Postgraduate Deanery has been established for several years, yet continues to develop through evaluation. It has been most effective where:

- appraisers have been trained, feel committed to the process and are given protected time;

- trainees are guided and encouraged in preparing for appraisal meetings;
- trainees make use of guidelines for documenting their educational and training experiences;
- trainees are helped to develop skills in reflection and analysis of their experiences;
- adequate time is allowed for one-to-one discussion and planning.

We have some evidence that appraisal of junior doctors in training has led to early identification of performance problems, such that intervention programmes could be implemented to reduce the need for periods of extended training<sup>8</sup>.

### Conclusion

If clinical governance is to be successful, individuals have to be able to contribute to the planning and development of the organisation. Appraisal is a mechanism for this to happen in a safe and confidential way, so that barriers caused by suspicion and fear of blame will disappear and better health-care for patients will result.

### References

- 1 Department of Health. *Supporting Doctors, Protecting Patients*. A consultation paper on preventing, recognising and dealing with poor clinical performance of doctors in the NHS in England. Department of Health, November 1999. See [www.doh.gov.uk/cmconsult.htm](http://www.doh.gov.uk/cmconsult.htm)
- 2 Donaldson L. Foreword. In: *Appraisal for General Practitioners. Training the Appraisers Course Handbook*. Department of Health, NHS Modernisation Agency (Clinical Governance Support Team), Edgecumbe Consulting Ltd, 2002 (unpublished)
- 3 West MA, Borrill C, Dawson J, et al. The link between the management of employees and patient mortality in acute hospitals. *International Journal of Human Resource Management* 2002;13: 1299–1310
- 4 Fry H, Ketteridge S. *A Handbook for Teaching and Learning in Higher Education*. London: Kogan Page, 1999
- 5 See, for example, [www.appraisal-skills.com](http://www.appraisal-skills.com)
- 6 See [www.cgsupport.org](http://www.cgsupport.org)
- 7 See [www.doh.gov.uk/nhsexec/consultantappraisal/](http://www.doh.gov.uk/nhsexec/consultantappraisal/)
- 8 Gregory R, Cavendish S, Walls J. *Early Identification of Pre-registration House Officers with Problems – Has 'The New Doctor' Made a Difference?* Unpublished report presented as a poster at the Conference of Postgraduate Medical Deans (COPMeD), Wadham College, Oxford, July 2000

## Contributions

The audience is predominantly practising clinicians and managers, so please make your article as practical and relevant to everyday practice as possible.

**Length:** 500–800 words plus a maximum of five references in Vancouver (numerical) style.

**Illustrations:** where appropriate, use tables, charts, summary boxes etc. to present information, and to break up the text.

**Web links:** where possible, provide web and/or email addresses for further information – e.g. Department of Health reports or circulars, publications, societies, etc.

**Presentation and submission:** On the first page include the article title and author names and addresses (including email addresses); please also indicate which author is responsible for correspondence about the article and proofs. Start the article with three to five brief bullet points summarising the key lessons learned. Use plain, unjustified text throughout, with subheadings in bold upper and lower case.

Please send your contribution, by email (or by post with floppy disk), to:

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# Implementing consultant appraisal in an acute hospital

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- Training is essential for both staff being appraised and those undertaking to appraise colleagues.
- Appraisal needs to be 'sold' to consultant staff.
- It requires the willing participation of staff.
- Staff must be briefed on the level of data and evidence required in appraisal documentation.
- Post-appraisal evaluation is useful to assess the quality of the data collected and to review the administration of appraisal.
- A useful additional tool to provide qualitative data on performance is '360-degree appraisal'.
- Appraisal needs resources in terms of staff time and finance for continuing professional development.

A comprehensive appraisal system is a fundamental component of any clinical governance strategy and is a forward-looking process essential for the professional development of an individual. The development of clinical governance and the proposals from the General Medical Council (GMC) for the revalidation of doctors have underlined the need for a comprehensive annual appraisal scheme for all medical and dental staff<sup>1</sup>.

This paper discusses the system used within the Royal Hospitals to implement consultant appraisal, which forms an integral component of the organisation's performance management process.

## Implementation timetable

In April 1999, preparatory arrangements for the introduction of consultant appraisal were put in place. This started with several workshops for clinical directors and consultant staff, to prepare them for the appraisal process. In these workshops there was discussion of:

- the evidence required in appraisal, including documentation;

- different people's roles in the process;
- the time scale for implementation.

In addition, to prepare for the imminent compulsory introduction of consultant appraisal in April 2001, the Royal Group of Hospitals devised its own scheme for implementation towards the end of 2000. This preceded any formal scheme or documentation from the Department of Health, Social Services and Public Safety (DHSSPS)<sup>2</sup>. The local scheme was piloted by volunteers across all clinical directorates and provided the necessary groundwork for the implementation of the DHSSPS appraisal scheme from April 2001.

During this time, a number of consultant medical staff also participated in the GMC's revalidation pilot scheme, and feedback from these colleagues has enabled us to refine our systems and process, particularly in relation to appraisal documentation and evidence.

Clinical directors were then tasked with ensuring that all consultant staff within their directorate participated in the appraisal process. This requirement formed part of the 2001/2002 trust management plan and corporate clinical governance objectives. Clinical directors were given a time scale for completion of the appraisal meetings and the onward transmission of the appraisal documentation to the chief executive's office for formal signing off.

## Evaluating the appraisal process: a survey

In June 2002, the Royal Hospitals carried out an audit of the appraisal process. Fifty-five per cent ( $n = 130$ ) of the questionnaires distributed were completed and returned within the required time scale.

## Key findings from the perspective of appraisers

- *Information.* The survey revealed concerns about the lack of clinical information provided by staff being appraised, including activity data, audit projects, complaints and incidents.
- *The appraisal meeting.* The majority of respondents were satisfied with the meetings and stated that they felt able to cover all relevant issues. On average appraisal meetings lasted 1–2 hours.
- *Objective setting.* The majority stated they found setting objectives useful; however, concerns were expressed regarding future development needs and the resources available to meet them.
- *The appraisal process.* The majority were satisfied with the overall process; however, concerns were expressed regarding data collection, appraisal documentation and the time taken to review data.

## Key findings from the perspective of consultants being appraised

All consultant staff had received training in the appraisal process; however, 20 stated that they would like further training. The responses to the questions concerning preparation for an appraisal interview are shown in Table 1. Box 1 lists the sources of information consultants used in preparing for an appraisal interview. Ratings of the appraisal meeting itself are shown in Table 2.

## Action plan

Results of the survey and feedback from individual consultant staff have been used by the medical director to refine and develop our appraisal system. The results of the survey were presented and discussed both by the trust board and at a meeting of the clinical directors; they have been shared with the Chief Medical Officer of the DHSSPS. In addition,

**Table 1.** Survey results relating to consultants' preparation for the appraisal interview

	Percentage of respondents
<i>Time spent preparing for appraisal meeting</i>	
> 7 hours	47%
3–7 hours	43%
1–3 hours	9%
< 1 hour	2%
<i>Information</i>	
Able to access information to support appraisal meeting	64%
Unable to provide appropriate information due to insufficient information technology systems	35%
<i>Documentation</i>	
Satisfied with appraisal documentation	63%

**Table 2.** Consultants' ratings of the appraisal interview

	Percentage of respondents
<i>Rating of appraiser's skill</i>	
Very good	26%
Good	46%
Satisfactory	23%
Poor	4%
Very poor	1%
<i>Preparation</i>	
Appraiser was prepared	93%
<i>Discussions</i>	
There was opportunity to discuss all issues	86%

they have been included on the clinical governance intranet site for wider dissemination.

### Incomplete appraisal documentation

A number of staff had completed their appraisal meeting but had given insufficient evidence in the appraisal documentation. It was agreed by the medical director that consultant staff who did not return appraisal folders within the agreed time scale would not be eligible to apply for discretionary points.

### Quality assurance for appraisal documentation

Comments received following our evaluation suggested that some staff were unhappy about the amount of information and evidence they were being asked to submit as part of the appraisal process. It became clear, particularly from appraisers, that there was wide variation in the quality and type of data submitted as

evidence in appraisal folders. It was therefore agreed to audit the information provided in appraisal folders to help us improve our appraisal process. A checklist used by the GMC<sup>3</sup> has been customized and will be used for quality assurance of appraisal data. This process is ongoing. Consent from consultant colleagues is gained before any review of appraisal folders.

### Developing the process: 360-degree appraisal and patient involvement

Although the Royal Group of Hospitals has in place a process for assessing and monitoring clinical performance, it is now becoming increasingly important to ensure that doctors also include evidence of their working relationships with both colleagues and patients. This was reinforced by comments made following our evaluation by consultant colleagues who suggested the need to include patient involvement and the views of the wider clinical team.

## Box 1. Consultants' essential information sources for supplementary evidence

The consultants recommended the following sources of information for the compilation of the supplementary evidence needed for an appraisal interview:

- Log books, activity details, waiting lists, workload data.
- Audit data, complaints, clinical incidents.
- Patient letters and surveys.
- Documentation of continuing professional development.
- Interaction with colleagues (360-degree appraisal).
- Feedback from patients and members of the clinical team.

## Box 2. Doctors and 360-degree appraisal

The concept of 360-degree appraisal originated in industry and refers to feedback from everyone within an individual's circle of influence, that is, those with knowledge of their behaviour at work. It is essential to ensure that the most effective approach is used in order to get the most beneficial outcomes. While 360-degree appraisal has been implemented in the NHS for many managers, for doctors the prospect of gathering views from colleagues about how they are performing at work can be viewed as both intriguing and threatening. Concerns about the process commonly centre on:

- having performance rated by others;
- anonymity and confidentiality;
- it might be time consuming and costly to establish and maintain;
- negative feedback might be badly handled;
- the necessary support systems to help people understand process and results might not be established.

A small working group was established early in 2002 to investigate this initiative and prepare a proposal on the way forward. Members of the group carried out research into 360-degree appraisal (Box 2) and also contacted a number of trusts in

England which had used this method.

The working group has agreed to establish a pilot trial of 360-degree appraisal. Accordingly, 10 volunteers from each clinical directorate have been sought. A peer review questionnaire based on the Ramsey model will be used; it has been referred to by the Revalidation Leeds Group of the Academy of the Royal Medical Colleges as providing suitable evidence for revalidation on the fitness to practise. The pilot will begin with each consultant nominating 16 people from a range of occupations and grades who have direct contact with him or her in the workplace. In addition, the consultant will also be asked to complete a self-assessment

questionnaire. The names of the 16 staff will be forwarded to the appropriate clinical director or appraiser, who will select 13 from the list to receive questionnaires. The consultant will then be responsible for distributing the questionnaires with a prepared covering letter setting out the aims of the pilot study. Only the first 11 questionnaires returned will actually be processed as part of the feedback report. This will allow for non-return or return after the deadline.

### Conclusion

Consultants have been encouraged to share the outcome of their 360-degree appraisal with their appraiser

and to incorporate this into their personal development plan. Results from the audit have demonstrated the need for additional resources for administration of this process and to deliver continuing professional development to consultant staff. A re-audit to evaluate the usefulness of 360-degree appraisal will be undertaken.

### References

- 1 General Medical Council. Fitness to Practise Procedures. See [www.gmc-uk.org](http://www.gmc-uk.org)
- 2 Department of Health, Social Services and Public Safety. *Annual Appraisal for Consultants*. Circular HSS (TCS) 3/01
- 3 General Medical Council. Revalidation. See [www.gmc-uk.org](http://www.gmc-uk.org)

## Consultant appraisal in the independent sector

### Geoffrey Glazer<sup>1</sup> and Rosemary Hittinger<sup>2</sup>

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- From 2005, doctor revalidation will become a requirement of the General Medical Council and regular annual appraisal of each doctor will be part of the revalidation process.
- Systems of appraisal for the independent doctor will, of necessity, be slightly different from NHS appraisal.
- A precise system of appraisal has yet to be agreed in the independent sector and suitable appraisers have yet to be identified.
- Appraisal is a professional issue and should not be confused with renewal of consultant privileges and the granting of admission rights in private hospitals.

The General Medical Council (GMC) has laid down the pathway for medical revalidation<sup>1</sup>. The first revalidations will occur in 2005 and thereafter on a five-yearly cycle. The process will depend on either the production of regular annual appraisal documents (from April 2003) or a portfolio of professional development. It seems likely that the

majority of consultants will follow the appraisal route.

### Difficulties with appraisal in the independent sector

Within the public sector, NHS trusts began appraisals in 2001, but the position of independent doctors working without an NHS commitment is unclear at present. The British Medical Association (BMA) has argued for 'whole practice' appraisal, whereby a consultant's NHS work and private work are reviewed together, but the practical aspects of this have yet to be successfully addressed. Some have suggested the need for two appraisers (one for the NHS and one for the private components), but the process would become unwieldy, time consuming and expensive. The matter remains under discussion.

It is evident that the appraisal pro forma used in the NHS may not be entirely appropriate for the truly independent doctor. An appraisal pro forma is being refashioned by the Independent Healthcare Association, working together with the Federation of Independent Practitioner Organisations,

and a workable appraisal system should soon be available.

The original aims of the appraisal system, as set out in 1999<sup>2</sup>, included a number of objectives concerning career development, use of NHS resources and the advancement of local health-care. As the boundaries between the NHS and private sector are increasingly blurred, some of these may become of mounting importance for the independent doctor. Others, such as teaching or research, may, for the moment at least, be less of an issue.

There are, however, other difficulties with appraisal in the independent sector:

- The volume of work performed by an individual consultant will almost certainly be less than for an NHS counterpart and this makes statistical analysis (already difficult) particularly hard.
- The identification of suitable appraisers needs consideration. (The royal colleges, professional associations and medical advisory committees would seem to be the most likely recruiting ground.)

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## Role of the independent hospital

Appraisal is a professional issue and not something with which the hospital should be directly involved. The role of the independent hospital in the appraisal process should therefore be limited to the production of the data and work patterns of the individual consultant, together with any positive or adverse clinical outcomes reports. However, in line with the requirements of the National Care Standards Act<sup>3</sup>, each hospital must review all consultant admission privileges at least

biannually. No doubt appraisal reports will be considered by the hospital with other data as part of the regular renewal of admission privileges. The role of the local medical advisory committee will be critical to these issues and its impartiality must be assured.

## Conclusion

While there is, as yet, no final agreement on the manner and content of independent sector appraisal, the conduct and practicalities have been recognised. These issues will be resolved within the coming months.

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## References

- 1 General Medical Council. *A Licence to Practise and Revalidation*. London: GMC, 2003
- 2 Department of Health. *Supporting Doctors, Protecting Patients*. A consultation paper on preventing, recognising and dealing with poor clinical performance of doctors in the NHS in England. Department of Health, November 1999. See [www.doh.gov.uk/cmconsult.htm](http://www.doh.gov.uk/cmconsult.htm)
- 3 Department of Health. *Independent Health Care: National Minimum Standards and Regulations*. See [www.doh.gov.uk/ncsc](http://www.doh.gov.uk/ncsc)

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# Appraisal for general practitioners – what have we learned?

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- There is confusion over the main purpose of NHS appraisal and its connection with revalidation.
- Appraisal should cover the way doctors behave as well as how they carry out the technical aspects of their work.
- The climate in which the appraisal takes place is important.
- General practitioners should already have the skills necessary to conduct an effective appraisal since these are similar to the ones they use in their clinical consultations.
- Primary care trusts should consider what kinds of resources they may need to put in place to deal with the outcomes of appraisals.

## Background

By now, GPs should have had their first appraisal. In practice, some may not have done, since the setting up and training has taken a while to complete. Moreover, some primary care trusts (PCTs) are still short of an adequate number of appraisers and setting up the system across England has been a major exercise set against the background of other major

changes. Initial evidence from one PCT suggests that appraisal has been generally helpful for the first batch of GPs.

## Definitions

Many GPs believe that the main purpose of appraisal is some kind of performance management check of their delivery on targets and other requirements by the PCT. This is due to confusion over the different uses of appraisal in various organisations and the type of feedback doctors have often had in the past (which has not always been helpful). In spite of the fact that appraisal has been introduced against the backdrop of publicity surrounding failing doctors, its stated aim in the NHS is principally developmental and it is important to be clear that too much time spent on performance management will drive out the developmental aspect. Appraisers and the doctors being appraised need to understand this before the process begins.

There is concern on the part of many GPs that the passing of paperwork to the General Medical Council (GMC) for the purpose of revalida-

tion compromises confidentiality. It is important to be clear that what the GMC seems to be interested in is the process of reflection on professional practice and not some kind of total quality check. More information on this is given on the website [www.revalidationuk.info](http://www.revalidationuk.info).

## The importance of behaviour

If you ask a group of GPs to list the attributes of an excellent doctor, they will produce a long list, much of which is about the way a doctor behaves. This is supported by evidence that many of these attributes, such as consultation skills and teamwork, affect patient care<sup>1,2</sup>. The official list of criteria for NHS appraisal does not convey this richness and there is a danger that clinical care is simply appraised by means of audits and critical incidents. Many of the difficulties faced by GPs (and other doctors) relate to decision making, relationships and communication with others (whether patients or colleagues), drive and motivation, flexibility and resilience. It is crucial that these matters are included in an appraisal. Indeed,

they are often matters that doctors wish to discuss.

## The importance of climate

One of the most important factors determining the outcome of an appraisal is the relationship between appraiser and appraised. Mutual trust and respect are essential ingredients. There is evidence that the climate at work affects the performance of the workforce<sup>3</sup>. Equally, climate affects the appraisal process, and perhaps the most important ingredients are the combination of support and challenge. PCTs therefore have to establish systems of pairing up appraisers with those being appraised that take account of this.

## Skills

West has emphasised that those who conduct appraisals and identify training needs must be sufficiently skilled<sup>4</sup>. Many GPs are concerned that they may not have the ability to conduct an appraisal but in fact these skills are similar to those used during a consultation. They include in-depth listening and reflection, asking a combination of different kinds of questions, making sense of

the answers, and giving feedback in an appropriate way. It needs a measure of sensitivity and an understanding of what facilitates a sensitive discussion.

We have seen some excellent appraisals conducted by GPs during practice training sessions. What has sometimes been more difficult is turning development needs into action plans.

## Resources

A number of development needs should be identified at the end of an appraisal and it is important that the PCT responds appropriately where necessary. Some of these needs will be to do with further training. This may be in a clinical or interpersonal area, such as assertiveness, introducing change or communication skills. Indeed, very often the real development need for those with ideas for improvement of the practice is how to persuade others to adopt their ideas. It is also important that the combined, anonymous development plans are made available for the PCT board and those responsible for future development. There is a feeling sometimes that PCTs have simply left the GPs to get on with it.

## Conclusions

In spite of a high degree of suspicion on the part of GPs, appraisal seems to be taking shape. In one PCT in Devon, preliminary findings have shown that the two most appreciated results have been the opportunity for reflection and reassurance that they are doing a good job. A number of GPs said they had found it more constructive and useful than they thought it would be. In contrast, most complained of the bureaucracy and paperwork and the time involved. What is essential now is that the PCTs monitor their appraisal systems so as to ensure they continue to develop.

## References

- 1 Grol R, Mokkink H, Helsper-Lucas A, *et al.* Effects of the vocational training of general practice consultation skills and medical performance. *Medical Education* 1989;25:512-21
- 2 Borril C, West MA, Shapiro D, Rees A. Team working and effectiveness in health care. *British Journal of Health Care* 2000;6:364-71
- 3 Brown SP, Leigh TW. A new look at psychological climate and its relationship to job involvement, effort and performance. *Journal of Applied Psychology* 1996;81:258-68
- 4 West M. How can good performance among doctors be maintained? *British Medical Journal* 2002;325:669-70

# WhoWhatWhere?

## Appraisal on the web

Performance Appraisal Services  
[www.performanceappraisal.co.uk](http://www.performanceappraisal.co.uk)

The site of a UK company that provides performance appraisal services. The site gives a selection of performance appraisal articles covering a wide range of issues, such as aims, purpose of developmental performance appraisal, and what if it did not exist.

Business Open Learning Archives  
<http://sol.brunel.ac.uk/~jarvis/bola/appraisal>

An overview of staff appraisal and details of available schemes, including the use of 360-degree appraisal.

Appraisal and Revalidation  
[www.appraisaluk.info](http://www.appraisaluk.info)  
[www.revalidationuk.info](http://www.revalidationuk.info)

This site is a joint initiative of the General Medical Council and the

Department of Health. It has a number of articles written by doctors on the appraisal process, such as 'Ten ways to get the most out of your appraisal'.

Department of Health  
[www.doh.gov.uk/appraisal](http://www.doh.gov.uk/appraisal)

This site gives access to all relevant guidance and appraisal forms for consultants, GPs, non-career-grade doctors, etc.

Electronic Journal of Sociology  
[www.sociology.org/content/vol005.001/coates.html](http://www.sociology.org/content/vol005.001/coates.html)

Article using a case study to discuss the experience in a trust hospital.

Royal colleges websites  
[www.rcog.org.uk](http://www.rcog.org.uk)  
[www.cybermedicalcollege.com/CPDPortfolio/AppraisalToolkit](http://www.cybermedicalcollege.com/CPDPortfolio/AppraisalToolkit)

## The Editor's Choice

Educational Appraisal Skills – an interactive programme for trainees and trainers.

[www.appraisal-skills.com](http://www.appraisal-skills.com)

This is an online educational package that has been developed to provide medical trainers and trainees in hospital medicine and in general practice with the opportunity to use web-based technology to help develop their skills in appraisal.

General Medical Council  
[www.gmc.org.uk](http://www.gmc.org.uk)

Information on revalidation and appraisal.

# Cross-infection in hospitals: an audit of stethoscope use

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- Hospital-acquired infection is a major cause of death, morbidity and expense in hospitals.
- We found that stethoscopes are a potential source of infection to patients.
- We found that all stethoscopes cultured heavy or moderate growth of bacteria: 100% cultured *Staphylococcus aureus* and 86% grew methicillin-resistant *Staphylococcus aureus* (MRSA).
- Simple cleaning eliminates the risk.

In a recent audit at our hospital we found that no doctors made any attempt to clean their stethoscopes during the ward rounds. It makes sense to clean instruments between patients. White coats, pens and even ties have been shown to be vectors for cross-infection between patients.

The infection control department at our hospital recommends that stethoscopes are cleaned between uses, with detergent and water if they are visibly soiled, and with swabs (with 70% alcohol solution) if they are apparently clean.

A recent study reported that 11 genera and species of bacteria, including *Staphylococcus aureus*, were isolated from the stethoscope diaphragm of a surgical house officer following a typical ward round<sup>1</sup>. A study performed by paediatric physicians working in community clinics found that 90% of their stethoscopes were colonised by micro-organisms, including staphylococci<sup>2</sup>.

We decided to investigate how many organisms and what kind of organisms could be harboured on the stethoscopes of doctors working in hospital medicine. We also investigated whether or not using alcohol wipes to clean stethoscopes makes any difference to the number of organisms on stethoscopes.

## Methods

Seven stethoscopes belonging to doctors from a chest and general medical team were cultured following three separate ward rounds, involving 20, 22 and 23 patients, none of whom was known to be positive for methicillin-resistant *Staphylococcus aureus* (MRSA). Stethoscopes belonging to three doctors – one senior house officer (SHO) and two pre-registration house officers (PRHOs) – were cultured after two ward rounds, and from one doctor (a registrar) after a third ward round.

The stethoscopes were sampled for bacterial cultures by two methods.

- Direct impression of the diaphragm section of each stethoscope on to a blood agar plate for 2 seconds.
- Passing a swab with a sterile cotton tip over the surface of the diaphragm of the stethoscope, then applying the swab to a blood agar plate.

After this, the same stethoscopes were cleaned using alcohol wipes (70% isopropyl alcohol solution). One alcohol wipe was used per stethoscope, and it was passed over the diaphragm and bell for 2 seconds. The stethoscopes were then sampled again for bacterial culture using the same methods as above, except that only one blood agar plate was used to pick up organisms from both direct impression and the cotton tip.

The plates were then incubated at 37°C for 48 hours before being examined for colony growth. Pathologists reported whether the plates had no growth, scanty growth, moderate growth or heavy growth. They also reported whether the organisms were skin flora, and whether they contained *Staphylococcus aureus* and MRSA.

## Results

All 14 blood agar plates from uncleaned stethoscopes (seven from direct impression, seven from sterile cotton tips) cultured heavy or

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**Table 1.** Summary of culture results

Stethoscope	Direct culture	Cotton-tip culture	Culture after cleaning
PRHO 1	Heavy growth of skin flora and MRSA	Heavy growth of skin flora and MRSA	No growth
PRHO 2	Heavy growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	Heavy growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	Scanty growth of skin flora
SHO	Heavy growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	Heavy growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	No growth
PRHO 1	Moderate growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	Moderate growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	Scanty growth of skin flora
PRHO 2	Heavy growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	Heavy growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	No growth
SHO	Moderate growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	Heavy growth of skin flora, <i>Staphylococcus aureus</i> and MRSA	No growth
Registrar	Moderate growth of skin flora and <i>Staphylococcus aureus</i>	Moderate growth of skin flora and <i>Staphylococcus aureus</i>	No growth

moderate growth of bacteria, including *Staphylococcus aureus*. Six (86%) of the stethoscopes also grew MRSA.

Two of the plates (29%) which were taken after the stethoscopes were cleaned with an alcohol wipe gave scanty growth of skin flora and the remaining five plates (71%) cultured no bacteria. None (0%) of the cleaned stethoscopes grew MRSA.

The results are shown in Table 1.

## Discussion

Spread of infection within hospitals is a major problem. Patients in hospitals are particularly susceptible to infection and infections in hospitals are particularly aggressive. Eight per cent of hospital patients suffer a hospital-acquired infection. The cost of their treatment is 2.8 times more than that of uninfected patients; such patients stay in hospital an average of 11 days longer. The 100,000 cases of nosocomial infection in England each year cost the NHS £1 billion and 5000 lives<sup>3</sup>. MRSA infections are even more problematic; they result in an increase in mortality and morbidity, and the intravenous antibiotics needed to treat them are expensive.

Stethoscopes are major vectors of transmission of infection. After general medical ward rounds they culture heavy or at least moderate amounts of bacteria. They harbour *Staphylococcus aureus* and MRSA. MRSA was cultured on stethoscopes following ward rounds which did not involve patients who were known to be MRSA positive.

Cleaning stethoscopes by wiping the bell and diaphragm with one alcohol swab eliminates micro-organisms: 71% of stethoscopes which cultured heavy or moderate growth of bacteria before cleaning cultured no bacteria after wiping, and the remaining 29% grew only scanty amounts of skin flora after cleaning. MRSA and *Staphylococcus aureus* organisms were removed with one alcohol wipe on all the stethoscopes tested.

By employing such simple measures, spread of infection between patients can be dramatically reduced. Thus morbidity, mortality and cost can be reduced in hospitals. We have shown that stethoscopes can be a major source of infection in the hospital, and that the use of a single alcohol wipe removes this potential.

## Recommendations

We therefore recommend that stethoscopes are cleaned with an alcohol wipe between all patient examinations. In our hospital we are now taking alcohol wipes around on the patient notes trolley, and have made them available at the end of each bay along with the usual soap, sinks and alcohol gel. It has also been particularly useful to allocate one member of the team to remind everyone to practise good infection control. It is the duty of every doctor in the NHS to protect patients from infection, and not unwittingly to deliver infection and perhaps even death while attempting to examine and treat patients.

## References

- 1 Marinella MA, Pierson C, Chenoweth C. The stethoscope. A potential source of nosocomial infection? *Archives of Internal Medicine* 1997;157:786-90
- 2 Cohen HA, Amir J, Matalon A, Mayan R, Beni S, Barxilal A. Stethoscopes and otoscopes – a potential vector of infection? *Family Practice* 1997;14:446-9
- 3 Crawford P. Nosocomial infection. See [www.doctorupdate.net](http://www.doctorupdate.net)

# The clinical management of medical equipment

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- By law, an employer (e.g. NHS trust) is responsible for ensuring that an employee who may be required to use a piece of equipment in the workplace has had effective training in its use.
- Up to 75% of incidents with medical devices are due to lack of competency of persons required to programme, operate and monitor the devices.
- Organisations should introduce a strong system of management to control all aspects of the lifecycle of a medical device – procurement, deployment, use, maintenance, replacement.
- Standardisation, the choice of simple, efficient equipment, training, retraining and competency assessments are essential.
- Good record keeping and assessment of all staff (including medical staff) are necessary.

Medical devices can be broadly defined as equipment used for the diagnosis, prevention, monitoring, treatment or alleviation of a disease, injury or impairment<sup>1</sup>. The Health and Safety at Work Act 1974 stipulates that the employer (e.g. NHS trust) is responsible for ensuring that an employee who may be required to use a piece of equipment in the workplace has had effective training in its use.

## The scale of the problem

The Medical Devices Agency (MDA) estimates that between 50% and 75% of incidents with medical devices are due to lack of competency of persons required to programme, operate and monitor them. In 1999, 432 patients were injured or died as a result of incidents relating to the use of medical devices<sup>2</sup>. Medical error now causes a significant number of deaths worldwide, including those involving the use of medical equipment<sup>3</sup>.

For most health-care providers, resources invested in medical devices are significant and demand appears to be increasing year on year. Traditionally, medical physics or medical electronics departments have been perceived as having lead management responsibility. This ignores the wide range of medical devices in use, including laboratory and patient mobility equipment, and the sheer volume of consumables used annually.

Organisations should introduce a strong system of management to control all aspects of the lifecycle of a medical device (Figure 1):

- procurement
- deployment
- use
- maintenance
- replacement

Poor systems of procurement control will result in lack of standardisation, and two or more devices will be available for the same clinical application.

## Controlling the risks

Strict control of how medical devices enter the organisation is essential (Figure 2). Arrangements have to ensure that, for any devices obtained, appropriate risk control measures are in place. These measures include:

- standardisation
- training
- maintenance

Potential routes into clinical use include 'normal' organisational procurement but other entry points, for example devices obtained as part of consumables or drugs contracts, must be considered. Letting sales representatives have free rein in the organisation can also circumvent internal control systems. A strong policy policed by procurement departments is essential. Potential stresses in the procurement system can arise when devices are described as replacements for existing ones. It is in fact rare for replacements to be identical.

Care must be taken to ensure that the organisation really understands

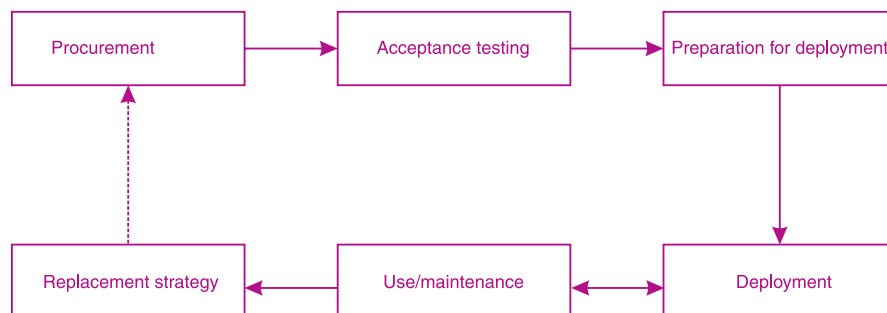
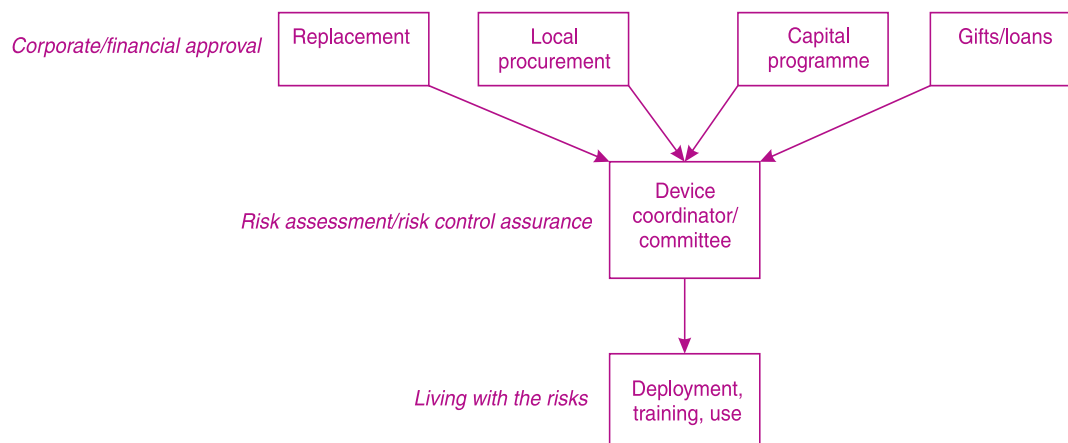


Figure 1. Lifecycle of medical devices and equipment.



**Figure 2.** Control of introduction of medical devices into the organisation.

how new devices should be managed. Many organisations now have dedicated medical device managers or coordinators, who take a total risk management approach to these issues, but medical devices committees can also play a key role in developing and implementing the corporate strategy.

### Documenting the process of management

An assessment process to prove competency in the use of a piece of equipment is essential. Training

systems should be targeted and based upon the risk with each device. We classify devices using a traffic light system: 'red' devices require formal training and competency assessments, while 'green' devices require only reading of the instructions. This risk-assessed approach was essential to give some focus to the sheer volume of devices that all grades of staff need to be trained on.

Good record keeping is required by the medical devices committee to ensure that only staff who have accomplished the necessary competency level are permitted to

use the appropriate equipment; this includes medical staff.

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- 1 Medical Devices Agency. *Devices in Practice*, 2001. See [www.medical-devices.gov.uk](http://www.medical-devices.gov.uk)
- 2 Department of Health. *An Organisation with a Memory*, 2000. See [www.doh.gov.uk/orgmemreport](http://www.doh.gov.uk/orgmemreport)
- 3 Kohn LT, Corrigan JM, Donaldson MS, eds. *To Err is Human: Building a Safer Health System*. National Academy Press, 2000

### Web links

- 1 Department of Health: [www.doh.gov.uk](http://www.doh.gov.uk)
- 2 Medical Devices Agency: [www.medical-devices.gov.uk](http://www.medical-devices.gov.uk)
- 3 The Leapfrog Group for Patient Safety: [www.leapfroggroup.org](http://www.leapfroggroup.org)
- 4 Australian Clinical Risk Site: [www.clinicalrisk.com](http://www.clinicalrisk.com)

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