

# CLINICAL GOVERNANCE

July 2003

## Bulletin

### Editorial: Improving clinical practice – guidelines and care pathways

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In recent years, the NHS has put greater emphasis on ensuring that patients receive care of high quality wherever and whenever they come into contact with the service. It is about having the right people with the right skills delivering the right care in the right place at the right time, with the aim of achieving the best outcome. This is the reason for the development of evidence-based clinical practice guidelines, which are defined as 'systematically developed statements designed to help practitioners and patients in making decisions about appropriate health care for specific circumstances'<sup>1</sup>.

Such guidelines have been increasingly used as a tool to promote clinical effectiveness, improve clinical care and decrease variation in practice. But, as care is increasingly delivered by multidisciplinary teams and the roles of health-care professionals are changing, integrated care pathways (ICPs) are now used to determine 'locally agreed, multi-disciplinary practice based on guidelines and evidence where available, for a specific client group'<sup>2</sup>. These are, in effect, multidisciplinary care plans, which

can map the sequence of interventions by health-care professionals across different care settings. ICPs are useful in facilitating the introduction of evidence-based guidelines, and in evaluating clinical processes and outcomes. They go a long way in delivering a unitary set of records for use by all members of the team and contribute to the risk management process; as variances are captured, their analysis identifies where improvements can be made. This process is continuous.

Guidelines and ICPs need to be simply written, user-friendly and patient centred. Service users need to be an integral part of their development because they have a better understanding of the impact of their condition on their day-to-day lives; and their needs and concerns, which may be overlooked by health-care professionals, should be taken on board, since their perspective on their needs may be different. Attention should be paid to the methods of users' involvement and to the means of capturing their experience; further information can be found in the Public Engagement Toolkit published by the Department of Health<sup>3</sup>.

The development of guidelines and ICPs and their dissemination are relatively easy processes, but this does not guarantee that they will be put into practice. For implementation to be successful, a multifaceted approach has to be used. What are required are a credible leader, clarity about what needs to be done and agreement on the priorities, a real team approach, involvement of all

#### Topics for future issues

- Effective strategy
- Change management
- Risk and audit

See page 12 for guidance on the submission of contributions.

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stakeholders, a clear project plan with a reasonable timescale, investment in training if required and a sound evaluation process with meaningful indicators.

This issue of the *Bulletin* includes a 'recipe' for care pathways, clinical effectiveness and strokes, an example where small changes can have major

benefit for patients in a continence service, the handling of guidance from the National Institute for Clinical Excellence (NICE) in the private sector and some useful websites. Please continue to send in your practical contributions so that your learning can be disseminated to the wider NHS.

## References

- 1 Field MJ, Lohr KN eds. *Guidelines for Clinical Practice. From Development to Use*. Washington, DC: National Academy Press, 1992
- 2 Overill S. A practical guide to care pathways. *Journal of Integrated Care* 1998;2: 93–8
- 3 [www.doh.gov.uk/pub/docs/doh/toolkit1.pdf](http://www.doh.gov.uk/pub/docs/doh/toolkit1.pdf)

# Integrated care pathways – what are they and how can they be used?

## Sue Wales

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- Integrated care pathways (ICPs) are a tool to help professionals of all disciplines to deliver good and effective health-care.
- Any tool must be applied appropriately to deliver the required outcomes; health-care professionals must be clear about what they are trying to achieve.
- The ICP tool is not a panacea; how well it works depends on its users.
- Attention needs to be given to implementation to ensure success.
- Variance analysis must be rigorous to identify areas for improvement.
- The development and implementation of an ICP can make the tool a most effective aid to improving care, or a yoke that hinders good care and efficiency.

Yes, indeed, what is all the fuss about integrated care pathways (ICPs)?

We have all been delivering health-care across the world in our own ways for many hundreds of years, so why do we need ICPs now?

New things are frightening, and always cause much pain and work for us, which we could well do without.

Why can't you just leave me alone to get on with my increasing workload and get down to the everyday business of delivering care?

The substance of this article is reproduced from Johnson S. It ain't what you do, it's the way that you do it. *Journal of Integrated Care* 2001;5:26–8, with permission from Royal Society of Medicine Press.

I do not have the time nor the money to waste on new initiatives like ICPs!

These are often the types of reactions encountered when trying to introduce ICPs into a health-care environment. We must be prepared and able to stand up to such statements.

Health-care settings in all countries are facing immense pressures, with increasing workloads from more patients with increased dependency levels and needs. New technologies and medications are emerging each week – more than any health-care professional can keep up with. Calls for more cost-effective care from managers of services add to the pressure, as the costs of maintaining comprehensive health-care services goes up for all nations. What tools do we have to aid professionals of all disciplines to deliver best care to all patients at all times? In such a pressurised and stretched health-care environment, we surely must consider carefully what tools staff need in order to be able to deliver the best care they can, be they care management tools, clinical tools or skills mix tools. ICPs are a tool.

## Review of service need

Before embarking on using any tool, it is necessary first to consider what your need is (Box 1). This involves thinking about and identifying what the target patient group or population is for your team or service. For example, if your service is the diabetic clinic at a local hospital,

### Box 1. What service are you seeking or claiming to deliver?

- What is your target group or population?
- What are the health-care needs of your target population?
- What are the desired outcomes of the service being delivered?

then your target group may be all the people with insulin-dependent and non-insulin-dependent diabetes within your town/region, over the age of 16 years.

You then may consider what the particular health needs of your target population are. For example, your diabetic population may need education on diabetes, annual screening for eye, vascular and other complications, plus many other services.

Combined with this, you could examine what the desired outcomes are for your service in meeting the needs of your target population. For example, the diabetic service may seek to reduce the rate of retinopathy, increase the number of patients who receive screening each year, and to have all diabetic patients fully informed about their condition.

You can then consider your current level of service delivery, and review whether your service is meeting the needs of your population by delivering the desired outcomes (Box 2).

## Box 2. What services are you currently delivering?

- What services are you delivering?
- How are patients gaining access to your services?
- How many patients are you serving?
- What are the waiting times in your service for access to and for completion of a package of care?
- What are the processes of the patient's journey through your services?
- What interventions and practices are used in your services?
- What are the outcomes of your services and care?
- How are multidisciplinary staff working together?
- Is your service meeting the needs of your population?

These are some tough questions to ask about your own team or service. You can review what your team/service is currently doing, how they are doing it, and with what outcomes. This may require audit of your team/service, and a review of the processes of care delivery, from how patients can access your service, how they get processed through the service, and how they are then discharged.

Appraising your service and the outcomes of its care should help you to decide whether your service is meeting the needs of the target population. You are then effectively comparing the results derived from the questions in Box 1 with those

derived from the questions in Box 2, to see what the needs are of your service. With this type of simple review you can then appraise which tool (or tools) are required to meet your service's needs, and help achieve the desired service outcomes.

## Tools

This is a common-sense approach to reviewing your care services to help you determine whether or not the ICP tool would be of potential benefit to your team and services. If you want to wash your car, you want to take away all the dirt and leave your car shining. With this desired outcome, you then select the most appropriate tools that will get the job done – you would not select a spade to wash your car but rather a sponge and bucket.

There are many tools being used around the world for the improvement of health-care delivery (Box 3), yet selecting the most appropriate tool alone will not get the job done satisfactorily. If you do not use the sponge and bucket properly, your car will not get cleaned. In the same way, even if you have selected a tool to meet the needs of your health-care organisation or team, you still have to use the tool properly and effectively to achieve the desired outcome(s).

Much comment has been made in the UK in recent years about the financial investments made in clinical audit, because it seems to have had limited effect, owing to lack of closure of the audit loop or cycle (Figure 1). In 1989–90 and 1993–94, the NHS Executive in the UK provided £218 million for clinical audit, resulting in approximately 20,000 audit projects, of which two-

## Box 3. Examples of tools used to improve health-care

- Patient-focused care.
- Staff appraisal and development.
- Team-building programmes.
- Business process re-engineering (BPR).
- Evidence-based medicine.
- Clinical audit.
- Integrated care pathways.

thirds did not result in any changes in clinical care practice<sup>1</sup>. This does not necessarily mean that the tool is at fault; more probably, it is the ineffective use of that tool that is to blame for poor outcome(s).

It is the same case with the ICP tool. After considering your own services and determining the needs of those services and teams, you may well decide that the ICP tool has much to offer. However, implementing ICPs does not magically solve all problems within a local team or organisation. Beneficial outcomes will occur only if the ICP tool is applied and used effectively.

## The ICP tool

A variety of definitions of the ICP tool are now available across the world. Within these definitions are some common elements, yet there are some differences too, which can often confuse. So, what is an ICP?

The National Pathways Association (NPA) in the UK has some good phrases in its definition of an ICP:

An ICP determines locally agreed, multidisciplinary practice based on guidelines and evidence where available, for a specific patient/client group. It forms all or part of the clinical record, documents the care given and facilitates the evaluation of outcomes for continuous quality improvement.<sup>3</sup>

There are some important elements here: the ICP is locally agreed practice, but based on evidence where it is available; the ICP is a record of patient care; and an ICP is written for a defined group of patients or clients. But the unique element of the ICP tool that

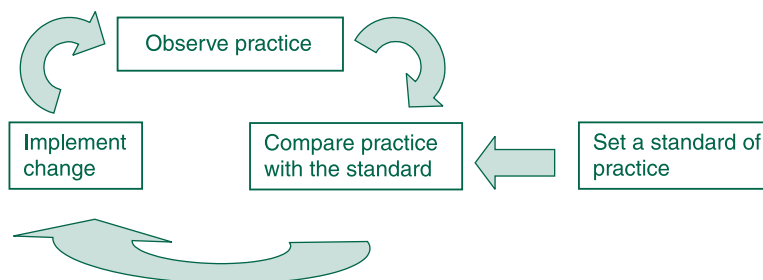


Figure 1. The clinical audit cycle. (Based on Frater and Spiby<sup>2</sup>.)

distinguishes it from previous care planning and care management tools is the recording, tracking and use of variances to improve care.

The Johnson definition<sup>4</sup>, below, has two sections: the first part could be used, as with the NPA definition, to describe any care planning system; the second phrase, regarding variance tracking, is a vital component of the ICP. If you are not variance tracking (i.e. recording, analysing and using variances to change and improve your care and ICP) then you are not truly using an ICP.

[An ICP] amalgamates all the anticipated elements of care and treatment of all members of the multidisciplinary team, for a patient or client of a particular case-type or grouping within an agreed time frame, for the achievement of agreed outcomes. Any deviation from the plan is documented as a 'variance', the analysis of which provides information for the review of current practice.<sup>4</sup>

Many sites around the world have put much effort into setting out comprehensive, robust plans for the

day-to-day best care of a chosen patient group. This is then often used to guide health-care professionals' care delivery. However, this is a plan, not an ICP, if variances to the plan are not being tracked. Variance tracking is the unique element of the ICP tool that takes ICPs a step further than other care planning techniques.

## Conclusion

I have outlined a common-sense approach to reviewing the needs of your service to determine whether the ICP tool would be of potential benefit to your teams. I have also claimed that a good tool will not deliver good outcomes and benefits unless that tool is used effectively. ICP may be an excellent tool, but how well it works for you and your team depends on the users of the tool. ICP projects and programmes have had great success but have met with failure, too, because of the way in which the ICP tool was used and implemented by the local teams.

Effort is needed to implement one or many ICPs successfully. Implementation, or the way teams use the ICP tool, is the factor that determines success or failure. There is a need for research and evaluation of ICP implementation strategies and methodologies, of where ICP projects have worked or have failed, to identify how we could use the ICP most effectively.

Papers written on ICP work tend to expound successful projects. Now is the time to hear of limited successes, or failed projects, so that we can all learn each other's lessons, and not repeat mistakes.

## References

- 1 National Audit Office. *Clinical Audit in England*, HC27. London: HMSO, 1996
- 2 Frater A, Spiby J. *Measured Progress. Audit for Physicians: A Manual of Theory and Practice*. Public Health Directorate, North West Thames Regional Health Authority, 1990
- 3 National Pathways Association. Care pathways definition. *National Pathway Association Newsletter* 1998: spring issue
- 4 Johnson S. *Pathways of Care*. Oxford: Blackwell Science, 1997: ch. 2

# Developing clinical effectiveness for stroke services

## Gina Griffiths

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- Patients who had suffered a stroke were asked to record their feelings about the care they had received. This exercise allowed us to develop a more patient-centred service.
- A local implementation team that incorporated key stakeholders developed standards in care using the National Service Framework, and the patient journey was mapped in order to establish who was involved, at what level and for how long, and what effect this had on patient care.
- Stroke services are now offered across the interface of hospital and community, and incorporate a multidisciplinary approach.

- The key issues that have been addressed have related to service provision, documentation, community follow-up, home support and primary prevention.
- The service we have developed has come about as a direct result of the needs and wishes of patients and carers. We feel that the commitment and enthusiasm demonstrated by the team have created a service which allows excellence of care for patients and carers, and which allows for seamless transfer between sectors.

The formation of a primary care trust in south Manchester in 2000 provided an opportunity to develop

stroke services across the acute and community sectors and to incorporate multi-agency usage. To this end, 100 patients who had previously suffered a stroke were written to and asked to record their feelings and stories about the care they had received both in hospital and in the community. A number of common issues were identified and a series of vignettes provided, which served as a powerful insight into patient care. This exercise allowed us to consider a more patient-centred service.

A local implementation team was developed, which incorporated key stakeholders, including GPs, primary care trust managers, acute trust clinicians and social services. This

local implementation team was responsible for acting as a working party to develop standards in care using the National Service Framework (standard 5, stroke care). There was a clear understanding that the main focus was to create a smooth patient journey with high standards of care delivered across sectors.

The patient journey was mapped in order to establish who was involved, at what level and for how long, and what effect this had on patient care. This mapping allowed us to look at bottlenecks where patients were delayed owing to poor organisation.

The primary care trust and acute trust have now worked closely together for three years in developing stroke services across the interface of hospital and community, and which incorporate a multidisciplinary approach. A number of key issues have been addressed concerning the delivery of high-quality, evidence-based care to stroke patients.

## Key issues

### Lack of continuity of staffing and poor communication between disciplines

'Hand-offs', where patients were being moved from one service to another, increased the likelihood of a breakdown in communication and a lack of continuity. In order to address this, the team committed itself to an umbrella approach, in which core members of the stroke team were identified to see patients at any point of their journey from the accident and emergency department to the acute unit, to rehabilitation, to intermediate care beds, and follow-up in the community. This allowed patients the opportunity to see the same members of staff throughout their whole journey of care, and so facilitated the development of relationships between the stroke team and patients and carers.

### Service provision

Service provision was improved by the introduction of a three-stage approach to care. This required the establishment of a comprehensive acute and rehabilitation unit at Wythenshawe Hospital, as well as the designation of intermediate care beds. The three stage-approach then encompassed:

- a 10-bed acute section with a complex flexible monitoring system to facilitate patient observation;
- a 16-bed rehabilitation section that offers a wide range of multi-disciplinary specialist stroke skills;
- intermediate-care beds jointly run by the acute trust and primary care trust, so that patients who need a longer period of rehabilitation can be transferred to a suitable facility.

### Documentation

For the umbrella team to work effectively, clear cross-boundary documentation is necessary. An integrated care pathway with multi-professional documentation was developed. The pathway begins in the accident and emergency department and follows patients for six weeks after their transfer back to the community.

On transfer of the patient to the community, a bridging document is sent out to the patient's GP surgery, which gives all the information and advice to the GP, district nurse and practice nurse about the patient's current level of function and ability. It also clearly sets out those multi-disciplinary goals that have been achieved and those planned for the future. This is all done in conjunction with patients and carers. Once home, patients retain their own set of paper notes, in which all members

of the multidisciplinary team write. These notes are brought back to a post-stroke clinic for six-week review by the umbrella team.

### Follow-up in the community

The local implementation team created a structure in the community whereby patients and carers are supported long term. The team set up a multi-agency group in a local Methodist church that has patient and carer facilities. This group is part-funded by voluntary organisations affiliated to the Stroke Association and has input from both the acute and primary care trusts. It offers a range of activities and events which are free, and concentrates on maintaining patients' function and supporting carers in the community.

### Home support

The local implementation team was also keen to ensure a network of home support. The team is currently piloting a scheme in which district nurses visit patients at home after discharge from hospital to offer assessment and support. Education has been provided for GPs and district nursing services.

### Primary prevention

A need for primary prevention to be more actively addressed in the local area was also identified. In collaboration with the local community, a group concerned with the primary

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prevention of stroke and transient ischaemic attack (TIA) has been set up in a local community centre, which provides lifestyle advice and education about this disease. The group is multi-agency and has input from the primary care trust's 'healthy living network' and the acute trust. It runs in partnership with a stroke prevention clinic, which is held in

the outpatient department and offers more diagnostic interventions.

### Conclusion

The service we have developed has come about as a direct result of the needs and wishes of patients and carers. We feel that the commitment and enthusiasm demonstrated by the

team have created a service which allows excellence of care for patients and carers, and which allows for seamless transfer between sectors. This has been possible only because of the excellent working relationships between the primary care trust and acute trust in south Manchester, and the clear vision that all have worked towards.

## Simplifying the client journey for females with urinary incontinence

Rowena Lavender<sup>1</sup> and Roger Walker<sup>2</sup>

<sup>1</sup>Senior Nurse Specialist, Bladder and Bowel Dysfunction, NEECH West Park Hospital, Horton Lane, Epsom, Surrey KT19 8P8, email rolavender@hotmail.com; <sup>2</sup>Consultant Urologist, EGH, Dorking Road, Epsom, Surrey

- Both anecdotal comments from clients and reflection from practitioners indicated that changes were required to the service offered. Consequently, a project emerged, entitled 'Simplifying the Client Journey for Females with Urinary Incontinence'.
- Being honest about the failures in the system was the first step towards improvement.
- Working with a user group was enormously helpful.
- Small changes to the service resulted in significant improvements in client care.

- The relationships built throughout this project have promoted the integration of the continence service.

### Background to the project

The nurse-led continence service based at the New Epsom and Ewell Cottage Hospital has had to increase, over the last two years, the number of clinics it holds, in order to cover the newly configured East Elmbridge and Mid-Surrey Primary Care Trust (PCT). The majority of clients are

women; however, the female pathway did not appear as straightforward as the male pathway. For instance, many of the female patients were seeing several professionals before getting the help they needed. Some of the female clients were dissatisfied with both the number of appointments needed and the time that was spent in the 'system' before their continence problem was thoroughly addressed. In some cases it was possible for a client to be referred to the physiotherapy department, gynaecologist and urologist as well as to the continence service for the

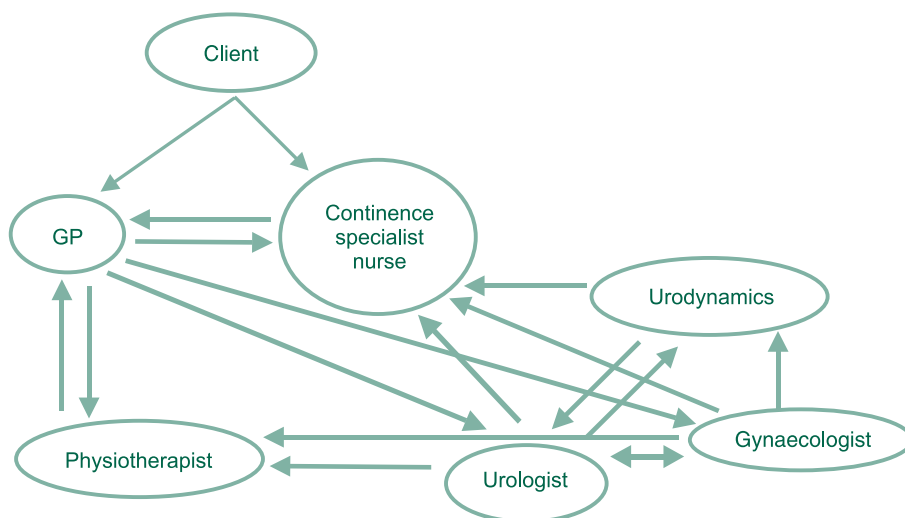
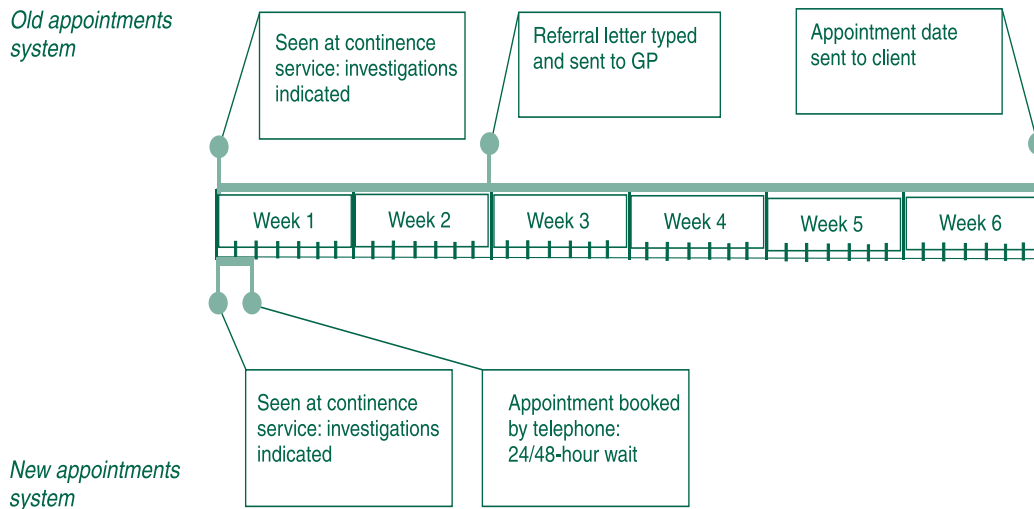


Figure 1. The unclear and time-consuming referral pathway that existed before the project.



**Figure 2.** Comparison of old and new waiting times to receive an appointment for investigations at the urodynamics and haematuria clinic.

same problem. Such service problems were challenged by the Department of Health in 2000<sup>1</sup>.

Both anecdotal comments from clients and reflection from practitioners indicated that changes were required to the service offered. Consequently, a project emerged, entitled 'Simplifying the Client Journey for Females with Urinary Incontinence'.

## Aims

The aims of the project were:

- to reduce the time clients had to wait to see the appropriate professional;
- to move closer to an integrated continence service;
- to reduce confusion about

professional roles among professionals and clients;

- to increase client understanding of access to the continence service;
- to improve client information.

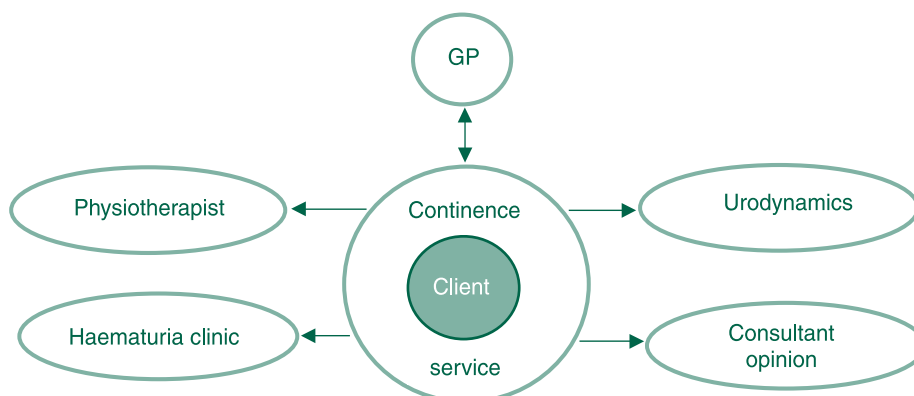
## Method

The work was initiated by the newly formed Integrated Continence Forum (ICF). We started by using a simple mapping technique on a wall chart. The aim was to paint the reality of the client journey 'warts and all'. Without this analysis, implementing change would not have been effective. This was time-consuming but enabled us to see how little clarity there was about our individual roles and the most appropriate route for the client. Figure 1

shows the complexity of the client journey before changes were made to the organisation of the system.

## Bringing about change

Once the 'sticking points' in the patient journey had been identified, some of them were easily resolved. For example, clients who needed a medical or surgical opinion or investigations could previously be referred only by their GP. This involved further delay for the client and the nurse specialist had to defer to the GP not for clinical but for bureaucratic reasons. With the agreement of the GPs and urology team, continence nurse specialists began to refer directly to these services (see Figure 2). This decision-making process has evolved as nurse



**Figure 3.** The initial referral pathways now established for the continence service. These are much clearer than existed previously (compare with Figure 1).

**Table 1.** The project's aims, outcome measures and results

Aim	Outcome measure	Result
1 Reduce the time clients wait to see the appropriate professional	Time taken for referrals from one clinician to another	A reduction in the waiting time for referrals
2 Move closer to an integrated continence service	Attendance at meetings as a measure of the commitment to integration of the continence service	Establishment of the Integrated Continence Forum; more user involvement; increased partnership
3 Reduce confusion about professional roles among professionals and clients	Decrease in level of confusion with regard to referral pathway	Better communication; clearer referral pathways; greater clarity regarding professional roles; appointment of urology specialist
4 Increase client understanding of access to the continence service	The amount of increase in user involvement and influence on care delivery pathways	Setting up of user group to consider issues of access and information
5 Improve client information	Amount and accessibility of client information on key treatments and investigation areas	Three more information leaflets available; website launched

specialist competence has increased. Policy and protocol writing has underpinned these changes; where any lack of clarity exists, decisions are made in partnership with the medical team.

By working together it was possible to identify clear criteria for a client to see a consultant and for some basic conservative treatment to be undertaken before the referral. A female continence clinic where both a nurse specialist and consultant urologist could see clients together was also established.

During the project, when female clients with a continence problem were referred directly to the urology consultant they were redirected to the continence service, for nursing assessment and conservative treatment.

A clearer referral pathway for female clients with incontinence now exists (see Figure 3). The referral pathway been represented on a flow chart for primary/secondary use. Wider dissemination was planned for 2003.

Table 1 summarises the aims and results of the project. The whole purpose of the project was to improve the service for the clients. There have been learning opportunities for both the nursing and the medical

staff. Consequently, both the urology team and the continence team are able to offer improved assessment and treatment. In addition, specific client information leaflets are available and are used in both primary and secondary care settings. These are also available on the continence service website.

A user group has been set up as a result of the project, following a general letter of invitation and subsequently from specific invitations. The group meets quarterly over lunch; taxi costs are reimbursed for those who require it. It has made a valuable contribution, particularly on issues of access and client information<sup>2</sup>.

## Conclusion

The aims of this project were to reduce waiting times, move towards integration of the continence service, reduce confusion and increase client access to information. The analysis and reflection necessary both to clarify the pathway and to specify clinical roles have been time consuming but very productive. The roles of those delivering care are now understood and clear referral pathways now exist; in addition, professional relationships have been

enhanced. Client engagement with the project has specifically involved access and client information leaflets.

Now the Integrated Continence Forum exists, future projects will be influenced by this group of service users. We have also learnt to design projects with more measurable outcomes from the outset. For example, pre- and post-project client satisfaction data could be used. As a result of this work between urology and continence, an effective pathway for clients with faecal incontinence and a clinic for faecal incontinence have now been established.

The project was concerned in the first instance with the complexities and the variety of initial contacts with the continence service. Further work is now necessary to measure and evaluate the time taken from initial contact to final resolution. This will be challenging, as there is at present no robust means of data collection between primary and tertiary care.

## References

- 1 Department of Health. *Good Practice in Continence Services*. London: Stationery Office, 2000
- 2 Department of Health. *Essence of Care*. London: Stationery Office, 2001

# Application of NICE guidelines for central line insertion in relation to practice in a private sector hospital

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- The National Institute for Clinical Excellence (NICE) recently published guidance concerning the elective insertion of central venous lines under ultrasound control.
- Wholesale application of these guidelines may not always be appropriate.
- Any changes made to comply with new guidelines should be tested for appropriateness to the setting.

The standard technique for placing central venous catheters was, until recently, by using anatomical landmarks. In 2002 the National Institute for Clinical Excellence (NICE) published guidance recommending that central line insertion using real-time two-dimensional ultrasound guidance significantly reduced risks<sup>1</sup>. Aspects of this guidance have since been debated<sup>2</sup>.

The Wellington Hospital is a large private hospital in north-west London; it provides a range of services similar to those of a district general hospital (apart from obstetrics and accident and emergency). As part of the clinical governance programme of the hospital, the board considered this guidance from NICE and recommended that its appropriateness to a private hospital be tested.

An audit was therefore undertaken with the overall aim of determining the clinical effectiveness and cost-effectiveness of providing a portable ultrasound machine in each area where the placement of central venous catheters would be likely to occur. The audit was designed:

- to determine the complication rate following line insertion;
- to evaluate the grade of doctor inserting the line;
- to assess the need for a portable ultrasound unit in each theatre (there are two wings with 11 theatres in total).

## Methods

All wards and departments in which this procedure is regularly carried out were provided with an audit form and information sheet about the audit. The following areas were covered:

- type of insertion – emergency or planned;
- place of insertion – theatre, ward or intensive care unit (ICU);
- type of patient/problem – cardiothoracic, general surgery, medical, multi-organ failure;
- doctor's grade – consultant, resident medical officer, specialist registrar;
- whether the procedure was successful or unsuccessful;
- complication type (if any) – more than one attempt made to introduce the line, haematoma, bleeding, migration of catheter, pneumothorax.

## Results

A total of 111 patients were audited over three months; two forms were discarded because they were incomplete. The audit findings were:

- 85% of insertions were successful at the first attempt;
- 83% were planned and 17% were emergency procedures (7% in theatre and 10% in the ICU);
- 90% were inserted in theatre by a consultant anaesthetist, either as a planned procedure or in an emergency;
- consultants carried out 96% of insertions and specialist registrars 4% (there were no insertions by resident medical officers);
- only one-quarter of the complications were associated with insertions by a consultant.

In 16 cases (15%) there were complications: in eight patients the first

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attempt to site the line was unsuccessful; in four there was migration of the catheter; in two there was bleeding; and in two there was a failure to cannulate.

The study therefore demonstrated that, in a consultant-led service as is typically found in the independent sector, the complication rate for central line insertion is low. A higher failure rate was demonstrated for insertions performed by specialist registrars; however, it should be noted that most of the patients cannulated by the latter group were suffering from multi-organ failure and therefore were more difficult to cannulate.

## Recommendations

After presentation of this audit, the hospital's clinical governance board made the following recommendations:

- One portable ultrasound unit

should be made available in each building.

- There should be training for specialist registrars in the use of this equipment.
- All insertions by specialist registrars should be carried out under ultrasound guidance.
- Consultants should be encouraged to use ultrasound guidance if a first attempt fails.
- A re-audit should be carried out following implementation of these recommendations.

## Conclusions

We conclude that NICE guidance should be implemented with reference to the setting in which it will be used. NICE guidance could be applied blindly, without considering the cost and staff implications. Its guidance should therefore be used cautiously for review of existing practice within individual settings.

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## References

- 1 National Institute for Clinical Excellence. *Guidance on the Use of Ultrasound Locating Devices for Placing Central Venous Catheters*. Technology Appraisal Guidance No. 49, 2002. Available at [www.NICE.org.uk](http://www.NICE.org.uk)
- 2 Richardson AJ. Ultrasound guidance for central lines: is it NICE? *British Medical Journal* 2002;325:1373

# WhoWhatWhere?

## Guidelines and care pathways on the web

National Guideline Clearinghouse  
[www.guidelines.gov](http://www.guidelines.gov)

This US site is a public resource for evidence-based clinical practice guidelines. It is sponsored by the Agency for Healthcare Research and Quality and the US Department of Health and Human Services, in partnership with the American Medical Association and the American Association of Health Plans.

Royal College of Physicians  
[www.rcplondon.ac.uk/pubs/books/stroke/index.htm](http://www.rcplondon.ac.uk/pubs/books/stroke/index.htm)

Stroke guidelines.

Royal College of General Practitioners  
[http://www.rcgp.org.uk/rcgp/webmaster/quality\\_and\\_standards.asp](http://www.rcgp.org.uk/rcgp/webmaster/quality_and_standards.asp)

Guidelines on the treatment of low back pain and type 2 diabetes.

The Cochrane Library  
<http://update.cochrane.co.uk/info>

Regularly updated electronic library. The Cochrane Database of Systematic Reviews (CDSR) has reviews available

in many areas, such as pregnancy and childbirth, stroke, and schizophrenia, as well as a number of protocols covering conditions such as respiratory infections and diabetes. The York Database of Abstracts of Reviews of Effectiveness (DARE) provides structured abstracts on a number of systematic reviews. In addition the site has links to the Cochrane Controlled Trials Register (CCTR) and the Cochrane Review Methodology Database (CRMD).

Cochrane Collaboration  
<http://hiru.mcmaster.ca/cochrane/>

This is an international research initiative set up to produce, maintain and disseminate systematic reviews of the evidence about the prevention and treatment or control of health problems.

The NHS Centre for Reviews and Dissemination (NHS CRD)  
[www.york.ac.uk/inst/crd/](http://www.york.ac.uk/inst/crd/)

The Centre reports on specific health-care issues, such as ethnic minority health, or the relationship between volume and quality, and produces a bimonthly bulletin in which the effectiveness of particular health-care

## The Editor's Choice

Scottish Intercollegiate  
Guidelines Network (SIGN)

[www.sign.ac.uk](http://www.sign.ac.uk)

The Network promotes the dissemination of guidelines as a means to improve the quality of care and decrease the variation in the way care is provided.

interventions is examined by systematic reviews.

Clinical Evidence  
[www.clinicalevidence.com](http://www.clinicalevidence.com)

National Service Framework  
[www.doh.gov.uk/nsf/nsfhome.htm](http://www.doh.gov.uk/nsf/nsfhome.htm)

National Centre for Health Outcomes Development (NCHOD)  
[www.ihs.ox.ac.uk/nchod/](http://www.ihs.ox.ac.uk/nchod/)

# Performance measurement in Europe: a survey of health outcomes

**Siobhán McCarthy**

*Irish Clearing House on Health Outcomes, Front Building, St Camillus' Hospital, Shelbourne Road, Limerick, Ireland, email smccarthy@ich.ie*

- A European database on outcomes indicators and evidence-based practice (EDOE) is being developed to gather and disseminate information on all European activity.
- There are variances in practice across Europe that need to be noted and evaluated. Gathering information on activity and research is vital for learning about variances in practice and outcome.
- The EDOE project aims to facilitate learning and information sharing on outcomes, indicators and evidence-based practice in Europe.

## Background

There are large variations in clinical practice across Europe and a lack of documentation relating to performance assessment and clinical indicators. Information on outcomes, evidence-based practice and indicators is vital for comparative assessment of health-care systems in Europe.

The purpose of the European database on outcomes indicators and evidence-based practice (EDOE) is to enable easier access to relevant information. The database will incorporate information, guidelines, literature and current research on health outcomes. It will also collect clinical and process indicators and information on evidence-based practice in Europe and will enable access to and exchange of valid, comparable data related to quality in health-care. The database is being developed as one of the projects directed by the European Society for Quality in Healthcare (ESQH) and in conjunction with the Irish Clearing House on Health Outcomes.

## Public health relevance and rationale

It is anticipated that these actions, both interactive and innovative, will

offer a wide network for communication on issues relating to quality and best practice in European health-care. Lack of knowledge relating to best practice is hindering effective and efficient health-care. Relevant information collected can be used for public information as well as policy making. It supports the development of a health monitoring system as envisaged by the European Community in the field of public health.

## Current status

The ESQH is engaged in a number of active projects in areas such as indicators, leadership, and training and education. As part of the ESQH indicators project, the EDOE team (Box 1) has developed and is currently collecting published information and project activity

### Box 1. The EDOE team

Alison Brettle, UK  
Andrew Long, UK  
Jan Mainz, Denmark  
Siobhán McCarthy, Ireland  
David Somekh, UK  
Benno vanBeek, The Netherlands

data. The team sends periodic calls for indicator projects through the ESQH group of networks.

Having a composite list of European indicator projects in a central source will allow for knowledge sharing and learning. The project team is currently gathering information on outcome research, indicator research and performance

## Quality Improvement Travel Fellowship 2003/04

*Sponsored by the Forum on Quality in Health Care*



The RSM Forum on Quality in Health Care organises and supports an annual Quality Improvement Travel Fellowship. It is intended to provide an opportunity for a person working on quality improvement in health-care in the UK, who would not normally get such an opportunity through their work to travel either nationally or internationally to study the theory and practice of quality improvement in health-care. It is open to anyone working in health-care, and there is no requirement to be a member of any particular profession or organisation.

The closing date for applications this year is Friday 28 November 2003. The successful applicant will be notified after 17 December 2003. Once an award has been made, the recipient is asked to prepare a budget and timetable outlining in more detail how he or she plans to use the award. The budget may seek funding of up to £1500. The timetable should also show the award being used within a six-month period.

For an application form and further details, please contact Laura Milne, Academic Department, Royal Society of Medicine, 1 Wimpole Street, London W1G 0AE. Telephone: 020 7290 3942. Email: [quality@rsm.ac.uk](mailto:quality@rsm.ac.uk)

## Box 2. Further information

European Society for Quality in Healthcare (ESQH)

Website: [www.esqh.net](http://www.esqh.net)

Email: [nharrington@mwhb.ie](mailto:nharrington@mwhb.ie)

Irish Clearing House on Health Outcomes (ICH)

Website: [www.ich.ie](http://www.ich.ie)

Email: [info@ich.ie](mailto:info@ich.ie)

European database on outcomes indicators and evidence-based practice (EDOE)

Website: [www.edoe.org](http://www.edoe.org)

Email: [info@edoe.org](mailto:info@edoe.org)

measurement activity across Europe. Findings will be placed on its website (see Box 2) in 2003. A proposal is being prepared for the European Commission's sixth Framework fund.

## Performance measurement

Evaluation is a requirement for both evidence-based medicine and information on health outcomes, and in several countries around the world performance measurement programmes have been established. To assist internal and external review of patient care and to enable hospitals to compare quality of care with other hospitals, sets of national clinical performance indicators have been developed<sup>1</sup>.

Evidence-based practice, the benefits of which are well documented in the literature, can facilitate significant improvements in clinical and other decision making, which is too frequently based on the memories of health-care practitioners, who are expected to remember, synthesise and utilise complex data and information. An evidence-based approach will provide the necessary knowledge and information:

- to deal with unexplained variations in clinical practice;
- to encourage health professionals to increase the proportion of clinical practice based on validated research evidence;
- to reduce the delays in translating research evidence into clinical practice;
- to provide more efficient and cost-effective health services to patients.

## Performance measurement activity in Europe

Variance in health-care practice across Europe is commonplace. Gaining knowledge about these variances, to learn about different activities, requires a cooperative network to gather, analyse and disseminate information on performance measurement and outcomes. The need for valid information about performance is also vital<sup>2</sup> and this is what EDOE is striving to achieve. Evidence suggests<sup>3</sup> that decision support systems can offer physicians quality information to improve diagnostic performance. It is the aim of the EDOE project to develop information tools for use by clinicians and consumers – offering information

and comparison on current best practice in Europe.

It is the purpose of the EDOE project to provide a central and validated source to users on the Internet, with access to information and knowledge about what is happening in Europe and what publications are worth noting in the area of health-care quality and measurement (see Box 2).

## References

- 1 Sweeney J, Leahy A. Indicators of quality. *Journal of Health Gain* 2000;4(4):2–4
- 2 Baker R. Managing quality in primary health care: the need for valid information about performance. *Quality in Health Care* 2000;9(2):83
- 3 Eta S, et al. Effects of a decision support system on physicians' diagnostic performance. *Journal of the American Medical Informatics Association* 1999;6(5):420–7

## Contributions

*Clinical Governance Bulletin* is a publication for clinicians and managers working in trusts, health authorities and PCTs, and aims to communicate practical examples, pool shared experience and highlight and disseminate best practice on a broad range of issues in health management. It is published bimonthly by The Royal Society of Medicine Press, London, in both print and electronic form ([www.clinical-governance.com](http://www.clinical-governance.com)). Examples of topics covered include:

- Patient experience
- Clinical effectiveness
- Clinical information
- Communication
- Resource effectiveness
- Complaints
- Risk management
- Effective strategy
- Knowledge management
- Effective teamwork
- Clinical errors

- 1 The audience is predominantly practising clinicians and managers, so please make your article as practical and relevant to everyday practice as possible.
- 2 Length: 500–800 words plus a maximum of five references in Vancouver (numerical) style.
- 3 Illustrations: where appropriate, use tables, charts, summary boxes etc. to present information, and to break up the text.
- 4 Web links: where possible, provide web and/or email addresses for further information – e.g. Department of Health reports or circulars, publications, societies, etc.
- 5 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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