Telephone access to health care: the role of NHS Direct

Liam Donaldson

More than 35 million Americans had access to telephone triage systems in 1998, an increase from the 1990 figure of two million1. In the National Health Service in England, NHS Direct, a nurse-led 24 hour advice and information helpline, was introduced in early 1998 and by mid-1999 covered 20 million people, around 40% of the population2. A further 10 million people will be covered by the end of 1999.

In the United States the schemes seem to have their origins in creating more effective demand management. The impetus for introducing similar schemes in Britain through the NHS Direct initiative has been different, with emphasis on providing faster and more convenient access to NHS services, one of the key objectives of the government's NHS modernisation programme.

The growth of telephone access

Traditionally, the telephone interface between the patient and the health care system has involved making and rearranging appointments and summoning emergency assistance (in Britain the 999 call to the ambulance service or to the telephone number of the on-call general practitioner). There have been relatively few formal evaluations of this time-honoured method of contact but anecdotal accounts often point to delay in telephone calls being answered, awkward negotiations with receptionists to secure appointments and tense waits to see if planned admissions to hospital will be confirmed.

International experience

Variously termed 'telephone triage', 'nurse-led telephone triage', 'patient helplines', 'telephone access lines', these telephone services have begun to form a prominent part of health systems around the world, with schemes operating in parts of Scandinavia, Australia, Canada and North America.

In the 1960s schemes were operated in North America in which physicians screened calls by telephone to assess emergency situations3 whilst so-called 'nurse advice lines' became a feature of the services offered by health maintenance organisations (HMOs). Whilst these early trends have been attributed to the need to create a distinctive service for marketing purposes and to respond to a shift towards greater personal decision making in health care4, it is undoubtedly the case that the growth of advice lines in the US health care system of the 1990s has reflected a drive towards demand management and cost containment (Table 1). This impression is reinforced by the observation that many HMOs in the United States will not pay for every trip that the patient makes to an emergency department but expect the telephone advice line to have been used first5.

Approaches vary with a common core of functions (Fig 1). Although the most common model is based on nurses working to protocols, in some countries doctors have handled calls7. Some schemes have concentrated on particular fields of care: for example, paediatrics8, chronic pain9 or oncology10. Others have been established to deal with general problems arising, for example, out of hours or as emergencies.

NHS Direct

NHS Direct is a telephone line staffed by nurses answering calls 24 hours a day and working to defined protocols.

The declared aim of NHS Direct is to provide people at home with easier and faster access to information and advice about health, illness and services so that they are better able to care for themselves and their families. The service provides clinical advice to support self-care and appropriate self-referral to NHS services, as well as access to more general advice and information.

Three pilot sites were established in England in 1998, and a further ten pilot sites became operational in early 1999. It is intended that NHS Direct will cover the whole of England by the end of 2000. Similar services are to be established for Wales and Scotland.

As a national service, NHS Direct will be based on a network of call centres managed by local providers. These local providers cover populations averaging 2–3 million people.

Table 1. Services offered by a typical nurse-led telephone scheme in the United States.

- Advice counselling only
- Advice and referral
- Access to patient education
- Disease management services
- After-hours telephone contact for physicians

Source: Sabir6.

Liam Donaldson MD FRCP FFPHM, Chief Medical Officer Department of Health, London

J R Coll Physicians Lond 2000;34:33–35
Their size reflects a balance between call centre industry experience of economies of scale and quality management and the need to deliver a service that can integrate with the local NHS.

Some local providers have developed a hub and spoke model of provision. This model usually involves a central call centre taking all the calls for the wider area (on which economies of scale will be based) but some, if not all, nurse triage and advice is more locally based (covering populations of around 500,000).

The objective for NHS Direct is service integration with primary care and other services. NHS Direct is intended to be a service which complements primary care – it is not intended to replace or duplicate existing primary care services or threaten the special relationship between a patient and the family doctor.

NHS Direct offers advantages in providing these complementary services to primary care in ways that reflect modern social conditions (Table 2). Many patients who do not have good access to primary care – particularly those in disadvantaged communities – can gain access to advice and help through the telephone service. It is estimated that 94% of households in the UK have a telephone. Those who do not have their own telephones can use their own social networks to enable them to make calls. The growth of single parenthood has meant that at weekends many children spend time with a parent away from the parent they live with in the week. The needs of such children can be well met by the weekend parent taking advice from NHS Direct when a child is sick rather than failing to act because of confusion about whether the local general practitioner can be called.

Appropriate service integration can benefit patients and professionals alike. There is now a significant momentum towards integration.

In late 1999 NHS Direct was already working collaboratively with general practice out-of-hours co-operatives in West London, the North East of England, West Yorkshire and Nottinghamshire. The aim was to deliver an integrated model of out-of-hours care whereby NHS Direct received and triaged all out-of-hours calls on behalf of the co-operatives. Early indications are that this integrated model can relieve the workload of the co-operatives and allow general practitioners to concentrate their efforts on cases which truly need their care. Greater and more sophisticated levels of integration will become possible as technology advances, particularly with the development of NHSnet, and as professional confidence in NHS Direct increases.

The interfaces between NHS Direct and other services, such as existing primary care services, pharmacy, social services, mental health services and the voluntary sector, are important. Various NHS Direct sites are trying out particular ways of managing interfaces with other services. For example, the Essex NHS Direct site is working with the National Pharmaceutical Association to pilot community pharmacy as a formal referral end point for NHS Direct callers; the South East London site is piloting dedicated NHS Direct access points in shelters for the homeless.

An important objective for NHS Direct will be to provide a high quality service and to operate consistent national processes for ensuring clinical outcome and audit. Each site has in place a medical director and lead nurse who jointly will be responsible for the clinical safety and clinical governance of the site.

NHS Direct has been recognised as having much wider potential than just providing a helpline. A number of major extensions are being developed (Table 3).

One of the potentially most exciting developments will be in relation to NHS Direct's involvement in disease management programmes. Evidence from the United States suggests that disease management programmes with a strong element of targeted telephone-based advice and monitoring can reduce the need for hospitalisation for people with chronic conditions. Effective disease management can bring benefit to patients and the NHS and there could be much to learn from experience in the United States about how NHS Direct could play a part in this process.

Table 2. Some information gaps filled by NHS Direct.

- Lack of education and skill in basic self-care
- Need for health education advice
- Need for advice in chronic disease management
- Lack of knowledge of the roles of services, what is available and how to access them

Evaluation

A preliminary evaluation11 showed high degrees of patient satisfaction, with 97% of users satisfied or very satisfied with the new service. The outcome of calls reflected that active management was at work in providing the clinical
assessments, giving advice and directing callers to the appropriate part of the health system; around 70% of callers were advised to take a different course of action to that intended at the outset of the call. In general many more callers are directed to less urgent forms of care than they had thought they needed. However, around 2–3% of callers were judged to require the attendance of an emergency ambulance. NHS Direct has demonstrated that it can save lives where people with serious symptoms have not recognised the need to seek help. In his commentary on this early evaluation, Pencheon identified two issues which are regularly expressed professional concerns: extension of the service without adequate evidence, and fears that it will undermine the traditional relationship between general practitioner and patient (particularly with respect to continuity of care).

The use of NHS Direct has recently increased sharply. Whilst the final valuation is still underway anecdotal accounts do not support the emergence of a parallel service. Indeed, the way in which some NHS Direct sites are running in collaboration with general practitioners' out-of-hours services, as well as taking emergency calls to accident and emergency services, suggests considerable integration.

There is no evidence that the service inequitably favours middle class health consumers; in fact, it may be the opposite by improving access for disadvantaged communities. The declared aim of NHS Direct is not demand management but better access and more appropriate care. Services in the United States have shown some evidence of reduced demand. Others, especially some general practitioners, have echoed the warning against over-hasty implementation.

Early evaluation suggests that the service is popular with the public. The high proportion of callers changing their intended course of action as a result of the call tends to support the anecdotal evidence that NHS Direct can lead to more efficient and appropriate use of NHS services. Providing a visible challenge to the public perception that the NHS is inaccessible is an important advantage in its own right.

Further evaluation is planned as the service is developed. Four key issues will need to be addressed during this stage:

- Further evaluation (now being undertaken) of the outcome of contact with NHS Direct
- Evaluation of the experience of different models of provision (eg single call centre, hub and spoke)
- Evaluation of the experience of different staffing patterns, including the respective roles of nursing staff and the non-clinical call handlers
- National procurement of new clinical decision support systems, drawing on the experience of the three different systems tested during the pilot phase.

The future

With the advent of digital television, and its link up with the telephone network, delivery of health care information into the home will develop rapidly. The digital revolution will provide major opportunities for people in their own homes directly to access reliable and relevant information about health, illness and services, and to interact with health care professionals electronically.

Table 3. Planned developments to NHS Direct.

| NHS Direct integrated access | NHS Direct as a gateway to out-of-hours care, providing integrated access with out-of-hours doctors, social services and mental health services. |
| NHS Direct outbound | Using NHS Direct nurses proactively to call people who may need help or advice, for example to remind people who could benefit from a flu jab or to check that a patient is all right following discharge from hospital. |
| NHS Direct online | Setting up NHS Direct online to provide the public with a gateway to information on the Internet and public access to the National Electronic Library for Health. People using the service will have access to an interactive self-care guide and to accredited information about diseases and self-help groups. |
| NHS Direct information points | Public access points for NHS Direct will be installed in surgeries, libraries, pharmacies, A&E departments and healthy living centres. |
| NHS Direct health care guide | Drawing from the experience of the telephone service the guide will provide advice on common ailments and problems about which NHS Direct nurses routinely advise callers. An online version will be available on the NHS Direct Online website. |

References

1. Wheeler SQ, Siebert B. Calling all nurses: how to perform telephone triage. Nursing 97 1997;27:36–42.
2. Department of Health Press Release, 7 April 1999 (1999/0203).
3. Bergman BB, Dassel SW, Wedgewood RI. Time motion study of practising paediatrics. Paediatricians 1966;38:254–63.
4. Malloy C. Managed care and ethical implications in telephone-based health services. Adv Pract Nurs Q 1998;4:30–33.
5. Robinson DL, Anderson MM, Erpenbeck PM. Telephone advice: new solutions for old problems. Nurse Pract 1997;22:179–92.
6. Sabin M. Telephone triage improves demand management effectiveness. Healthcare Financial Management 1998;52:49–51.
7. Christensen MB, Olesen F. Out of hours service in Denmark: evaluation five years after reform. Br Med J 1999;316:1502–5.
8. Jackson DS, Wall TC, Fargason CA, Byars TI, King WD. Pediatric telephone management, a comparison of pediatric residents and a nurse triage system. Ambulatory Child Health 1997;2:311–7.
9. Crawley I, Webster C. Telephone help for chronic pain. Practice Nurse 1998;15:259–63.
10. Chobanuk J, Pituskin E, Kashuba I, Bates J. Telephone triage in acute oncology. Canadian Nurse 1999;95:30–2.
11. Munro J, Nicholl J, O’Caithain A, Knowles E. Evaluation of NHS Direct first wave sites. First interim report to the Department of Health. Sheffield: Medical Care Research Unit, University of Sheffield.
12. Pencheon D. NHS Direct. Br Med J 1998;317:1026.