REVIEW

The role of the infection control link nurse

S.J. Dawson

NPHS Microbiology Carmarthen, West Wales General Hospital, Carmarthen, Wales, SA31 2AF, UK

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Summary Link nurses act as a link between their own clinical area and the infection control team. Their role is to increase awareness of infection control issues in their ward and motivate staff to improve practice. It is essential that they receive training from the infection control team to ensure their competence. They have been shown to be of value to Trusts by improving clinical ward audit scores, helping infection control nurses implement policies and collecting data on hospital-acquired infections. In some hospitals, however, there are operational difficulties for link nurse schemes including high turnover of staff and insufficient time for training and monitoring their effectiveness.

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Introduction

Hospital-acquired infections (HAIs) have been shown to be expensive, extend patients stay and increase mortality.1 Trusts have an obligation to do their reasonable best to reduce HAIs to an absolute minimum.2 All healthcare workers need to ensure that effective infection control practices are implemented in the care of patients to achieve this. It is important for wards and directorates to develop 'ownership' of infection control. One way of assisting this is by the use of infection control link nurses (ICLN's) who have been implemented by infection control teams (ICTs) as a method of improving practice at a clinical level.3

ICLN's are a link or intermediary between the clinical areas/wards and ICTs. A key part of their role is to provide information to assist in the early detection of outbreaks of infection and to help increase awareness of infection control issues in their ward. They should draw the attention of the infection control nurses (ICNs) to changes in practice or equipment, which could have implications for infection control.4,5 In some trusts they have been trained to collect surveillance data on HAIs for the ICT.6 It is essential that they have sufficient clinical experience and standing to have authority with managers and colleagues.5 ICLNs should not be seen as a substitute for the ICN, they are ward-based staff who act under the supervision of the ICN as a resource and role model for colleagues.4,5

The ideal ICLN should be a keen, enthusiastic, motivated volunteer,7 with a special interest in infection control. It is essential that they are ward-based and directly involved with patient care,8 as this places them in a position to observe and influence colleagues practice.1,8 Good teaching and presentation skills are necessary, as is a charismatic approach in order to encourage ward staff to practice up to date, research-based skills.7 The ICLN should preferably be someone who can act
as an ‘opinion leader’ as they have been shown to be effective in educating colleagues and implementing change at ward level.

The concept of link nurses (LNs) has been used throughout hospitals, and not just by the infection control department. LNs have been used for the specialities of tissue viability, nutrition, continence care, palliative care, and pressure sore care. They have also been used to enhance research and development in clinical areas throughout hospitals.

The ICLN concept has been developed by ICTs in acute hospital trusts. It can also be promoted in a community setting, for example, staff in nursing homes may have a link person for infection control or district nurses can be recruited. Other professionals allied to medicine have been advocated to take on the role. In the Mid-Essex trust there are link nurses in other departments such as pharmacy, X-ray and physiotherapy. Ayliffe et al. consider that in some hospitals a link doctor could be useful, although this type of post has yet to be developed in the UK.

The ICLN system is used in other countries as well as the UK, for example, in the Netherlands and also Portugal which also has link doctors in a few hospitals.

It has been recognized that ICLNs can play an important role in their clinical area to facilitate liaison with the ICT and to act as a resource for colleagues. A Department of Health/Public Health Laboratory Service working party has suggested that their duties and responsibilities should be included as part of their job description. This has been endorsed by the Mid-Essex Trust where they have been awarded formal appointments.

The recent UK audit of infection control practices in 219 acute NHS Trusts in England by the National Audit Office (NAO) found that 128 Trusts (59%) use a ICLN system. At least half of these found it was fairly successful and a fifth thought it was very successful. However, 18% considered it to be fairly unsuccessful or not successful at all. In addition 16 NHS Trusts (7%) have tried the ICLN system and abandoned it, reasons given were: high staff turnover and because wards nominated junior nurses to act as ICLNs who lacked authority with other members of staff.

The role of the ICLN

ICLNs have only relatively recently been introduced into hospitals by ICTs and are still a developing concept. They act as a link between the ICT, their clinical area and managers. A job description has been proposed covering the various responsibilities that can be expected from an ICLN such as clinical liaison, dealing with policies and infection control practice and their role as an educator. This can act as a basis for ICTs and directorates to develop ICLN groups, although throughout the country there is variation in the tasks that ICLNs perform.

The Department of Health/Public Health Laboratory Service working party summarized that the role of ICLNs should be to help create and maintain an environment that ensures the safety of the patient-client, his or her relatives, visitors and healthcare workers using infection control knowledge, communication skills, nursing and teaching skills and attitudes appropriate to each situation.

The variety of roles that ICLNs take on aims to achieve this.

A prime function of ICLNs is to aid clinical liaison between the ICT and the ICLN’s ward. They should ensure the ward notifies the ICN of any compromised or infected patient and that appropriate precautions are in place and also provide information to assist the team in the early detection of outbreaks. In some hospitals they are involved with infection control surveillance and documentation of HAIs at ward level, e.g. the Mid-Essex Trust.

They may assist the ICT with writing, reviewing and updating of infection control policies, procedures and standards for their own speciality. In addition they should have a responsibility to ensure they are implemented at ward level and thereby facilitate the improvement of infection control practices within their clinical area.

The ICLN should also become knowledgeable regarding purchase/introduction and use of equipment in their clinical area in relation to infection control hazards, care and maintenance, decontamination and storage. They should notify ICTs of planned purchases or any problems that are encountered with current equipment.

It has been suggested that their role can also involve work in conjunction with the Occupational Health Service on aspects related to infectious disease contact, needle/sharp injury exposure and follow-up and COSHH.

The ICLN should have involvement as an educator and assist with education of staff in their clinical area on the principles and practice of infection control. Part of this involves acting in conjunction with the ICT as a resource person for staff concerning infection control related problems in clinical areas. ICLNs can help by using planned, regular updates, teaching, creating resource files and hands-on, practical teaching.
The role of the infection control link nurse

To assist with all these tasks and responsibilities they need to ensure they regularly update and extend their knowledge by attending link meetings provided by the ICT. They should also take opportunities to advance their teaching, communication and change management skills. All this can be used as evidence of professional development in a professional portfolio.

Their role, although extensive, is not a substitute for the ICN. It is very important that, when acting in their capacity as ICLN, they should undertake only those duties that are appropriate to that role.

The value of ICLNs

There are advantages to using a ICLN scheme for both the ICT and trust. These included a higher profile for infection control, improved communication with staff working in the clinical areas—including the community and enhanced standards for infection control practice. Perry considers ICLN systems that use clinically based practitioners should be encouraged to enable infection control to be recognized as an issue of maximum importance in all areas of clinical care. They may be particularly useful to ICTs in outlying or non-acute hospitals, or in highly specialized units.

Their value in influencing infection control practices at ward level has been demonstrated by Millward et al. They developed and implemented an infection control audit programme to monitor standards of infection control practice across three district health authorities. One of these (Stafford) used an ICLN system. For each ward a clinical audit was performed and a questionnaire on infection control knowledge was completed by three members of staff. The scores obtained for the clinical ward audits were significantly higher for those wards with ICLNs and they considered that these senior staff appeared to act as leaders influencing other ward staff in infection control practices. It was also found that higher scores were obtained in the questionnaire by ICLNs than non-ICLNs thereby demonstrating the value of the ICLN training course. They did, however, find that questionnaire scores of other nurses on wards with ICLNs was not affected. They concluded that this indicates that even though clinical audit scores were improved by the presence of an ICLN the knowledge base upon which changes in practice occurred, was not disseminated to colleagues.

They have also been of value to ICTs in collecting data for HAIs. In the Mid-Essex Trust they take the lead in completing weekly ward statistics on HAIs after appropriate training. Results have been feedback to wards and clinicians when problems have been identified so that they can be dealt with. This has helped decrease infection rates and thereby costs for the trust. In addition the Royal Hospitals Trust, Belfast, used ICLNs to collect data on HAIs in the Hospital Infection Society second national prevalence survey in 1993. When compared with ICTs in other hospitals they found this method was more time efficient. Other teams took on average 13.3 min/bed and Belfast ICLNs took 5.5 min/bed. They concluded that by involving staff at ward level they can answer questions more readily in relation to the patients in their care and recommended this method of data collection for future surveillance.

ICLNs can also be of value with ward education programmes and the introduction and implementation of policies. This was demonstrated by Ching and Seto when they used ICLNs to introduce a policy on urinary catheter care in their hospital. The ICNs provided lectures for all staff, then the ICLNs provided tutorials for their wards. An evaluation of policy non-compliance found that in wards with ICLNs, scores were lower. The lectures given by ICNs were only attended by about 30% of nurses, but the tutorials given by the ICLNs could reach all nurses and they remained in the ward so could continue as a resource for education and to motivate nurses to comply with new policy. They concluded that ICLNs can be of value and enhance education programmes at ward level.

Gould studied ward-based education for infection control and found that nurses think that the ward should provide an effective learning environment. There must, however, be a lead person as it has previously been shown that existing ward staff are unreliable at cascading information informally. ICLNs can also help in providing continuous education on infection control. Peacock considers that establishing an ICLN system in her district general hospital is achieving this objective.

The LN system can also be of value in helping Trusts build a link between research and practice. Through this system, evidence-based care can be cascaded and thereby disseminated among a larger proportion of the general nurses in a hospital, which ultimately can result in the provision of a higher standard of care for the patient. As Tinley states, this benefits the patient and would, in the event of litigation, be of substantial benefit in proving that correct quality of care was administered. For Trusts it could be of economic benefit with respect to the unknown costs of litigation and malpractice suits.

They are also of value for ICTs and directorates in
raising the profile of infection control and promoting it at ward level. An effective ICLN can help improve practice through education and motivation and promote the concept of 'ownership'.

Education of ICLNs

An effective educational programme must be developed for the ICLNs to ensure their competence.3,33 There should be a training programme under the direction of an ICN, as a part of the ICLNs continuing professional development.4 Cooper suggested that it should provide knowledge and skills in an acceptable manner that generates debate and critical appraisal.3

Hill et al.23 discovered that a variety of training models, including short courses, have been developed within the UK and there are courses/modules that have been accredited with universities at diploma and degree level, or with the English National Board—for example, NJ6. Holliday and Murdoch17 consider training courses for ICLNs need to be validated nationally, yet they should be available locally to enable shift workers to study part-time.

Throughout the UK design and content of education programmes for ICLNs is not standardized. Some infection control departments run induction training courses for their ICLNs, others use regular meetings for education, updates and peer discussion.6,17,18,23

It is important when planning courses that the content, teaching and learning strategies, and also the assessment and evaluation processes are considered.34 Courses should teach infection control knowledge but also develop skills for teaching and management change. It is important to emphasize active learning rather than passive acquisition of knowledge.35 In-course assessments should demonstrate clinical competence rather than the ability to retain and recall unrelated facts.35

Horton18 developed an introductory course for ICLNs that lasted for 10 days over a 10 week period. It included sessions on microbiology, risk factors for infection, interpreting laboratory reports, monitoring infections/surveillance, food hygiene and visits to the laundry and medical physics department. Also, a clinical psychologist taught them how to cope with peer-group opposition.18 Similarly Teare and Peacock6 run an infection control course for ICLNs, this lasts for eight days over 12 weeks, and in addition they are required to produce a project on an aspect of infection control that they consider is a problem in their work environment.6 Assessment is also included in an ICLNs course developed in Solihull.23 This involves completion of a reflective diary based on the application of new knowledge to practice, also they need to perform and analyse critically an audit and prepare a 2000 word assignment. This course aims to extend ICLNs knowledge of microbiology, the principles and application of infection control practices and also to raise critical awareness in decision making and the risk assessment process.23

In the future these introductory courses for ICLNs could be prepared as computerized learning packages. Infection control learning packages have previously been used successfully for teaching infection control to medical students and nurses.36 They have advantages in that they are convenient and flexible, allow learners to progress at their own pace and provide immediate and detailed feedback.37,38 They also allow new ICLNs to start the course at any time, but do require access to computers and a degree of computer literacy. In addition, the initial programme preparation can be labour intensive and time-consuming for the infection control department, although this is less so for maintenance and updating.34,35

Once the link nurses have received their initial training they should receive regular education sessions to update their knowledge and to discuss problems with the ICT and peers. Throughout the UK these meetings vary in the frequency and length of sessions. For example, in Birmingham education sessions are held every two months23 and in the Mid-Essex Trust every three months.6 The latter last for 1 h and they are held over lunchtime with coffee and sandwiches. They include talks by an 'expert' and liaison with colleagues.6

However, it is important that the content of these sessions is varied and not just focused on infection control. They need to expand ICLNs interpersonal, presentation and management skills. This is endorsed by Cooper who considers that it is particularly important that the link nurses critically examine communication and interpersonal skills, as these skills are crucial in the process of negotiating change with the rest of the ward-based team.3 The link group should discuss the skills required to be an effective teacher and an approachable role model, as this is also crucial for success.3 The programme should also include information about processes involved in the management of change.3 It is important to develop ICLN skills to create a group who are clinical ‘opinion leaders’. Seto and colleagues demonstrated that ‘opinion leaders’ giving active in-service instruction achieved the best compliance with infection control policies.9

A study day held by the Mid-Essex Trust ICT
allowed ICLNs to assess their capabilities and limitations in communicating with and influencing colleagues. One exercise 'Building your own ICLN' enabled them to examine their strengths and weaknesses and to develop a personal development plan for their own effectiveness. As Teare et al. state, the strength of ward-based ICLNs depends upon their effectiveness as role models and their ability to influence practice on their wards and beyond.

Trudigan considers leadership skills need to be developed, as well as learning how to manage change in her tissue viability link nurse group. She states making an impact on clinical practice is dependent on individual management styles and the ability to enable the development of others. She aims to teach the importance of using leadership skills to effect change to encourage the professional development of colleagues. Also at a palliative care LN meeting they boost the nurses' skills at disseminating information by using a presentation skills session as part of the LN programme.

In Birmingham the continuing education of ICLNs is enhanced by setting them annual objectives. These include undertaking an infection control audit of their clinical area, carrying out handwashing training and promoting their role as an ICLN by acting as the first line of contact for their colleagues. This is a means by which ICTs can audit their ICLNs individual effectiveness and needs to be considered as a method of monitoring any ICLN programme. Group effectiveness for ICLNs may be demonstrated by a lower rate of HAIs throughout the trust, improved infection control knowledge of staff and less complaints.

Operational difficulties of ICLN groups

However, not all ICTs and Trusts consider ICLNs are effective and a worthwhile investment. A recent national audit office survey found 16 (7%) trusts have tried ICLN groups and abandoned them. Several problems have been highlighted as operational difficulties for ICLN Scheme and include high turnover of staff, the need for adequate training time, recognition and monitoring of the link programme and the sustained effort required to achieve an enthusiastic and informed link team.

One problem is rapid staff turnover. As soon as link nurses have been trained they may move to a different department or leave the hospital. The effects of this were seen in an audit of ICLNs in nursing homes in Scotland. Holliday and Murdoch found that of the 13 ICLNs who had attended an introduction course two years earlier, only two still remained in post. The NAO survey suggests that ICLNs may only be of value to trusts when there is a stable workforce.

Training is essential to ensure ICLN competence. Owing to clinical pressures, however, attending meetings during work time may be problematic. It is essential that there is management backing for ICLNs to allow training time, although in some trusts ICLNs may be motivated to attend in their own time. In a recent audit of 20 LNs in palliative care it was found that 80% attended the session in their own time.

Link nurse groups also require significant input from the ICT. Time and effort needs to be invested by the ICNs in the development and management of a link nurse system if it is to succeed. Training programmes need to be organized, and there need to be regular updates and discussion groups, as well as monitoring of the scheme. This may be difficult if the department is short staffed or has junior ICNs who themselves may not have fully developed their skills and knowledge base.

Sustained senior management backing and interest are essential in ensuring success of ICLN groups. Managers often fail to consider the long-term economic benefits of ICLN groups and view them as a costly experiment. The time and cost of training ward nurses to become ICLNs is time spent absent from the ward and consequently away from the patient. This is only a short-term view. Longer term it can improve quality of infection control, prevent HAIs and promote 'ownership' of infection control at ward level. It is considered by some, however, that further research is needed to substantiate that ICLNs are cost-effective to train.

Another problem that the NAO survey highlighted was that wards nominate junior nurses to act as ICLN who lacked authority with other members of staff. The Department of Health/Public Health Laboratory Service working party suggested that ICLNs should have a minimum of two years post-registration experience, excluding any post-registration course, although Horton considers ICLNs should preferably be a qualified nurse of a senior grade.

New ICLNs may feel at a disadvantage if they join well-established groups. To overcome this they need support from the ICT supplemented by comprehensive written information describing the role profile, philosophy and aims and objectives of the scheme. One Trust issues badges to ensure their ICLNs are easily recognizable to other ward
staff and this should help new ICLNs ensure they are identified.

It is essential that ICLNs are not seen as a substitute for an ICN, they have a defined role. It is important that they only undertake those duties appropriate for an ICLN and have the competence to perform.

Teare and Peacock comment that with the development of ICLNs there is a danger of all infection control matters focusing on the link nurse, everyone else taking the view that they need not bother. They consider it important to reinforce that infection control is everyone’s business. Tinley recommends that to ensure general nurses do not become deskillled the LNs needs to be recognized as an educator at ward level and to ensure that regular teaching sessions and resource files are provided. They need to motivate other ward staff and promote the concept of 'ownership' of infection control practice at ward level.

Staff members must be interested in the subject rather than being nominated by a manager. There may be problems if members of staff are forced to attend meetings in which they have no interest. In addition, problems may also be encountered if ICLNs come from a clinical area that is resistant to change. In these areas ICLNs will need support and assistance from the ICT.

ICLN Schemes currently offer no financial incentives and some no evidence of study such as a formal qualification. The latter can be overcome by aiming to ensure teaching given to nurses is formally recognized and to introduce approved induction courses.

Conclusion

The role of ICLNs is one that is still evolving. Many Trusts have used them with success and they have been of particular value in the light of controls assurance and clinical governance. It is important for infection control to become a part of directorates and the use of ICLNs at ward level can assist with this.

The NAO found that departments consider they are effective when there is a relatively stable workforce, the hospital is on a small number of sites, nurses have recognized authority, and they are allocated time to attend meetings and training sessions.

Maybe in the future, the role of ICLNs will become more formally acknowledged at a national level, as suggested by Teare and Peacock, and consideration given to establishing a ICLN network.

References


