

Increasing the impact of infection control

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Abstract

During the past 5 years an infection prevention and control network has evolved at Nambour General Hospital (NGH), and has emerged as one of the three major components of the hospital's infection prevention and control program. The Infection Monitoring Prevention and Control Team (IMPACT) was implemented in September 1992. Since then, there have been a number of phases in the program's development, including education, marketing and monitoring. Activities have extended beyond the original Infection Control Liaison Nurse concept to embrace a range of quality activities aimed at self-evaluation of the program as well as influencing standards of patient care. Early 1997 saw the first steps taken to extend the IMPACT concept beyond the nursing division. Operational staff at NGH have responded enthusiastically to the call for their involvement and it is planned to continue expansion of the program to other divisions. There have been successes and failures, and many lessons have been learned by all involved, but the overall direction has been strongly forward. This paper will consider the IMPACT program – past, present and future – and is dedicated to the members of the team who form the infrastructure that is the NGH infection prevention and control program.

Introduction

Nambour General Hospital (NGH), located 100 kilometres north of Brisbane, has approximately 320 acute care beds and offers a range of specialty clinical services. In June 1992, the newly created position of infection control clinical nurse consultant (CNC) was filled, with its primary and initial responsibility that of developing and implementing a coordinated approach to infection control. This paper will describe the development of the infection control infrastructure at NGH, which can be illustrated by the simple conceptual model shown in Figure 1. The emphasis, however, will be on the vital role of members of the Infection Monitoring Prevention and Control Team (IMPACT).

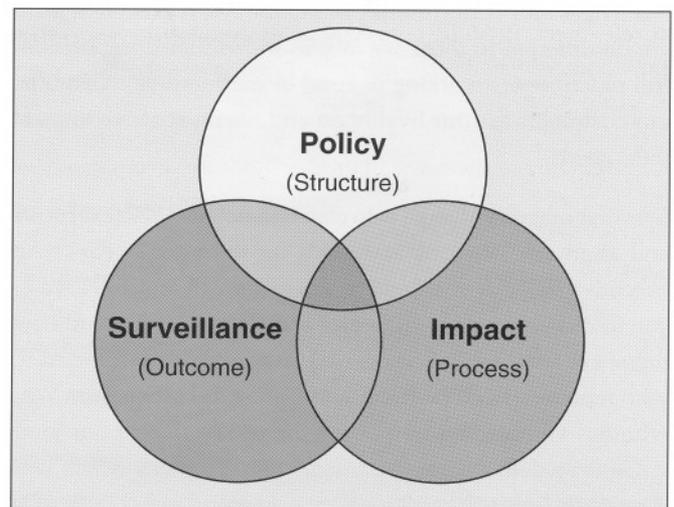
Discussion

Development of the

Infection Control Liaison Nurse program

In September 1992 approval was sought and obtained from the nursing executive to develop an Infection Control Liaison Nurse (ICLN) program, the aim of which was to establish effective, two-way channels of communication between the clinical areas and the infection control CNC. During the next few months, each clinical area offered at least one member of their nursing staff to fulfil the role of an ICLN. At this stage,

Figure 1. Conceptual model of Nambour General Hospital Infection Control Program.



there were approximately 40 recruits, with each attending a full-day training session conducted by the infection control CNC. The content of this training session included introductory microbiology, infection prevention and control principles, equipment decontamination and surveillance for nosocomial infections. During the day, the participants also visited the central sterile services department (CSSD) and the microbiology laboratory.

All members of the group were encouraged to attend monthly meetings with the infection control CNC, to participate in discussion and so that the CNC could outline the progress of the evolving infection control program. Minutes of the meetings were recorded and distributed to all ICLNs. In addition, each ICLN was given a badge depicting the 'chain of infection' concept and bearing the words 'ICLNs – helping to break the chain'.

Roles and responsibilities of ICLNs

The major roles and responsibilities of the ICLNs had been documented and distributed. They include:

- approved education at the ward/unit level, and
- communication with the infection control CNC regarding any infection control issues relating to laboratory results, patient placement and clinical practice.

At all times the ICLNs were expected to discuss concerns or issues with the CNC for their area before taking any action or involving the infection control CNC. A formal monthly report on infection control activities was encouraged but not enforced.

A newsletter, *Nosocomial News*, was developed and contained information updates, a question-and-answer section and a crossword. It was hoped that ICLNs would contribute their experiences to the newsletter and perhaps play a role in its production.

Difficulties encountered

In retrospect, it could be said that the program was overly ambitious, since it certainly could not be maintained effectively with the resources available at the time. It was unrealistic to expect that busy clinicians, often working shifts, could guarantee their attendance at monthly meetings or be able to coordinate infection control education in their areas. Formal consideration of infection control issues was new to most of the ICLNs and the amount of support they required could not be sustained. Further, contributions to the newsletter were not as forthcoming as had been hoped, although the crossword was certainly popular. While it was inevitable that the program would lose its impetus, this outcome was disappointing for all involved.

Despite that, the ICLN program was not formally disbanded and some ICLNs remained quite active. However, the channels of communication so important to the infection control infrastructure were not effectively in place.

Development of the IMPACT program

In July 1995, approximately 3 years after the original ICLN program began, an opportunity to improve the situation appeared: an additional 0.5 level 1 nursing position was permanently allocated to infection control. During development of the position description and in consultation with the

nursing executive, it was decided that its primary role would be that of coordinating the ICLN program.

The new ICLN coordinator subsequently suggested revising the program's image. Thus, the Infection Monitoring Prevention and Control Team was proposed and a four-stage plan developed.

Stage 1 – marketing

A number of strategies were employed to advertise the new program, stimulate the interest of existing members and recruit new ones. These included a regular column in the hospital's newsletter and the distribution of flyers and starter kits. All promotional materials incorporated the colours yellow and black and the 'chain of infection' logo. Particularly successful were the starter kits given to all new and existing members – they contained novelty items such as balloons, pens and badges, information about the program, roles and responsibilities and the benefits of involvement, a pocket-book to assist with record-keeping, and a Self Learning Activity Package (SLAP). The latter, which was designed to introduce basic infection control concepts and allow self-paced completion, also contained a pre- and post-completion knowledge test.

Finally, a Christmas party organised for IMPACT members allowed them to meet and socialise with each other in an informal environment.

Stage 2 – team structuring

It was considered important to promote the concept of teamwork to IMPACT members. In addition to their involvement as members of a ward-based team, they were encouraged to recognise their role as part of a hospital-wide infection control network, since the concept of IMPACT embraces team involvement. Each IMPACT member was sent a list of all members and strongly encouraged to collaborate with those in different areas. Also, area-based consultations were organised, to allow the IMPACT coordinator and the infection control CNC to participate in focused discussions with clinical staff. These discussions were frequently facilitated by the IMPACT member for that area.

Stage 3 – problem-solving

A simple, commonly used algorithm was promoted. Designed to assist IMPACT staff in the identification and resolution of infection control problems, it consisted of assessment, planning, implementation and evaluation phases. IMPACT staff were encouraged to consider possible solutions before involving the infection control CNC, the intention being to promote ward-level accountability for infection control. IMPACT staff were asked to submit a monthly report outlining their problem-solving activities.

Stage 4 – education

A certain amount of education was possible during the area-based consultations. However, the major approach to

education for IMPACT staff was through the SLAP. The intention had been to develop a series of SLAPs, with each covering a different topic.

Ongoing management of the IMPACT program

In early 1996 the IMPACT coordinator accepted a position as a nurse educator and a new person was appointed to take charge of the program.

Education

The SLAP approach to education was discontinued early in 1996, due to poor compliance with completion. It did not seem feasible to continue developing packages when the initial package had been completed by less than 20 per cent of IMPACT members, so the decision was made to conduct a full-day seminar for IMPACT members instead.

Support was sought and obtained from the nursing executive to make attendance mandatory for all IMPACT members and a number of alternative days were offered from August to December 1996. The seminar structure included comprehensive discussion of the recently revised infection control policies and guidelines for preparing presentations. Participants were asked to prepare a short education session and present it to the seminar group. Pre- and post-seminar knowledge testing was used to evaluate the effectiveness of the strategies employed during the session.

Development of compliance indicators

Early in 1997, four monitoring tools – known as ‘compliance indicators’ – were developed by the infection control CNC and the IMPACT coordinator. The indicators, which measure and are intended to improve compliance with key aspects of the policies relating to sharps, linen, handwashing and use of personal protective equipment, were piloted by IMPACT members. The development of additional indicators is also planned.

Where possible, use of the compliance indicators should precede, then follow, policy education. Although the observations recorded focus on practice, not individuals, and pre-/post-education surveys will almost certainly involve different staff, demonstration of improvement is interpreted as a positive evaluation of the effectiveness of the policy education. The compliance indicators can then be used periodically to identify the need for further education or other interventions. Results of the surveys are processed by the IMPACT coordinator and fed back to the relevant clinical area. A resulting increase in staff awareness of policy content, and compliance in their area, is considered a desirable outcome. Another valuable feature of these tools is their ability to highlight problems with actual policies. In this sense, the policies are being formally evaluated by the end-users. Compliance problems may be related to a particular policy

directive that, ultimately, is impractical and using the compliance indicators assists the infection control CNC with policy review.

The future of IMPACT

There are plans to expand the IMPACT program beyond the nursing division. Operational staff are particularly enthusiastic about being involved and already one member of the wardsman service has been welcomed onto the team. It is envisaged that, during the next 12 months, members will be recruited from a wide range of occupational groups within the hospital.

Maintaining enthusiasm and IMPACT activity among staff with busy clinical workloads is a challenge and will require continued application of marketing strategies.

Education of new and existing members must be managed within existing resources. Plans exist to reintroduce the SLAP concept and develop a series of shorter packages, which IMPACT staff may be more inclined to complete. Another IMPACT education seminar series began in September 1997, with the focus of the full-day session on nosocomial infections. The first part of the day involved presentations concerning the epidemiology of nosocomial infections and was followed by an exercise in which participants had to investigate a hypothetical outbreak of infection.

The use of selection criteria for recruitment purposes is also anticipated and the IMPACT coordinator has developed a set based on those used at Fremantle Hospital¹. Further, there has been preliminary planning regarding the development of competency-based assessment for IMPACT staff.

Conclusion

The development of an infection control infrastructure at NGH has been both challenging and a learning experience. Processes for monitoring infection control practice, with area-based accountability, have been established and incorporate measurable outcomes relevant to the overall philosophy of the IMPACT program. An effective network exists but maintaining it will require continued effort and support. The planned expansion to other divisions within the hospital will also be challenging but the necessary links with many departments have already been established and have evolved in line with the infection control program.

Despite the obvious benefits of a program such as this, the resources required to sustain it should not be underestimated. The program will not run itself but does provide a strong foundation on which to base a continually improving infection control regime.

Reference

1. McPherson M, Infection Control Consultant Fremantle Hospital. Private communication, 1997.