

Your Infection Control Plan: Smart Strategies for its Care and Maintenance

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Your Infection Control Plan: Smart Strategies for its Care and Maintenance

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OBJECTIVES:

1. To describe various types of planning strategies that can be used in developing an infection control plan.
2. To list suggested topics to be included in an effective infection control plan.
3. To recommend methods to use in dissemination of the contents of an infection control plan.

An effective infection control plan is essential in any healthcare organization. The author describes various types of planning strategies and gives suggestions in developing and maintaining an infection control plan. The purpose of the article is to assist anyone responsible for establishing and maintaining an infection control plan in a health care setting. Personal observations, published journal articles and nursing management text books are used as reference. Once an effective plan is developed, a routine review process can be used to keep the information current and activities up to date.

Plan Development

Dwight D. Eisenhower once said, "Plans are worthless, planning is essential."¹ This statement could refer to any written plan found in manuals on shelves in our institutions. Planning could be described as deciding what to do, who to do it, how to do it, when and where to do it, well

in advance of any action. Developing a workable infection control plan is the first step in actually implementing and having a plan for all to use.

Like any process or plan in a healthcare institution, the infection control plan must flow from the overall philosophy, mission and goals of the organization. If the mission statement of the organization includes reference to community service for example, the infection control plan should also address community activities. All infection control plans must be flexible. There must be room to alter the plan in response to unexpected disease processes or environmental issues. All plans should also include an evaluation step and a regular review process to ensure up-to-date information and activities.¹

Young and Hayne (1988 in Marquis and Huston, 1994) described reactive planning, accomplished after a problem occurs. Reactive planning is usually directed toward changing situations back the way they were in the past. Frequently this is done in haste addressing some crisis and could be a careless decision.

Inactivism considers the status quo as a stable environment. A great deal of energy is spent preventing change and maintaining conformity. If there are problems, they are treated, rather than solved.

Preactivism-type plans use technology to accelerate change. Preactivists are unsatisfied with the past or present, do not value experience and think the future is always better. A preactive infection control plan could be very difficult to use in the day-to-day operation of an organization.

The interactive or proactive planning mode is the most desirable type of planning for infection control issues. Proactive planners consider past, present, the future, and how to adapt the plan to all eventualities. Proactive plans encourage the best use of resources, and minimize risks and uncertainty. Plans can include anticipated issues such as providing for expanded services.

Healthcare organizations usually have several types of plans in effect at any given time from long-range strategic plans to daily operational plans. The infection control plan should be of intermediate length, in the one-year to five-year range. Intermediate plans involve a particular project or an ongoing program such as infection control.

Education of Infection Control Professionals

Emerson (1997) describes an educational program in the United Kingdom that offers a diploma in hospital infection control. The purpose of the course is to provide training that prepares practitioners to develop a thorough infection control service. Topics included in the course are epidemiology, microbiology, economics, statistics, surveillance methods and patient management. The course

is open to physicians and nursing personnel with prior infection control knowledge.

The course is divided into modules that include theory as well as hands-on practice. Much of the course is self-directed, which helps busy professionals set their own schedule for learning and completing the assignments and post-tests required. Each participant is also given a mentor with which to work to improve the overall outcome of learning.

The course is usually completed on a part-time basis in two years. Some students advance at a faster pace while others may take the entire five-year maximum time frame to complete the course. Extensive education may be required for persons responsible for developing and maintaining an infection control plan, however, timely evidence-based education must be provided for all staff who are responsible for carrying out the plan.

Components of an Infection Control Plan

An infection control plan may be a document labeled as such, or a group of policies and procedures identified as guidelines used to deal with infection control issues. Infection control starts with staff members. Each hospital employee must learn how to protect him or herself from possible infection thus preventing passing the infection to other patients or other healthcare providers.

Methods of Communication

The infection control plan should include how the plan will be communicated to the staff. Many institutions may have one or two copies of the infection control manual which includes the plan and associated policies, educational material, and other supporting documentation, while others may have a copy on each nursing unit, and supporting departments such as the lab and X-ray. The manual or plan may also be on the institutions' intranet or other computerized resource. Besides written information, the plan may also include methods of communicating the contents of the infection control plan. Posters, videos, oral reports or formal presentations may be used to communicate the contents of the plan.

An infection control practitioner (ICP) should oversee the distribution of the information in the plan. All employees should know the contents of the plan and how they are to use the plan in everyday patient-care situations. The infection control plan should be a part of orientation and reviewed periodically by all employees. Annual or periodic review could take place in a variety of ways. There are many computer-assisted programs that can offer information, include a post test for reinforcement and record each person's participation. Hospital-wide newsletters could be used to communicate the plan, or simple

posters or other types of announcements are also effective. Infection control information could also be posted during routine educational programs such as basic life support.

Approval and Review Process

Dates of approval and revision dates should also be included. It is suggested that the infection control plan be reviewed on the same schedule as the policies of the hospital. This will help assure that the plan is reviewed and revised on a regular basis. The persons required for the review should be included on a face sheet or heading with areas for signatures. Signatures of leaders in an organization always give credence to the contents of a policy or manual.

Handwashing

One basic component of any infection control program is hand washing with related skin integrity of healthcare providers. Medical schools have realized the importance of teaching their students the importance of good handwashing techniques. Nursing education has always included handwashing, but there is always room for improvement. Creative ways of teaching proper handwashing have been used for years. One effective method is by applying a personal examination handwash product that shows areas missed during routine handwashing when the hands are held under an ultraviolet light.

Posters have also been strategically placed in employee, patient and visitor bathrooms. This practice had fondly been referred to as "potty training." Care should be taken to change the posters every few weeks as they become "invisible" after being viewed day after day.

Available supplies and proper location of sinks should also be considered. Use of waterless antimicrobial solutions can be used, but everyone must realize the restrictions of such products. They do not remove foreign matter or debris from the hands. Proper use of all products for hand washing should be included in the infection control plan.

Infectious Waste Management

Infectious waste and its disposal has become an important element to include in infection control plans. Regulations for the handling and disposal of infectious waste have caused the cost of infectious waste management to drastically increase. Many hospitals have chosen to contract outside services for waste management, which has also shown to increase costs. Some hospitals, however, have developed educational programs to inform the staff about effective waste management. Instead of placing all trash in special marked bags for incineration or sterilization, many items could be disposed of in regular trash, which requires no special treatment before transport to a landfill. The key to

success with such a program lies with communication and education of appropriate disposal techniques.

Bloodborne Pathogens

Areas to consider involving the patient should include education about bloodborne pathogens with hepatitis B and HIV (human immunodeficiency virus) being the most life threatening. Hepatitis B is much easier to contract from exposure than HIV. About 9,000 healthcare workers in the United States contract hepatitis B each year. Of that number, approximately 200 will die from the infection (OSHA #2, 1992, by Hunter, 1998). Since the early 1980s when AIDS became a recognized diagnosis, there have been a total of 52 cases reported of work-related exposure among healthcare providers. An additional 114 are strongly suspect, but not confirmed (CDC #1, 1997, by Hunter 1998).

Vaccination for hepatitis B should be a part of the infection control plan. Any employee that has the chance of coming in contact with blood or body fluids should be given the opportunity to receive the vaccine. For those who choose not to receive it, comprehensive education and counseling must be given.

Hepatitis C is also of concern. At least one Board of Nurse Examiners now requires education on the topic of hepatitis C for relicensure. All healthcare providers should be included in the education of all bloodborne pathogens.

A comprehensive, but simple program for reporting exposure should be included in the plan. All levels of employee are to be considered when procedures are written. If the steps are confusing, or not clearly listed, reporting might not be carried out.

Bioterrorism Readiness

"The Association for Professionals in Infection Control and Epidemiology (APIC), in cooperation with the Centers for Disease Control and Prevention (CDC) have developed the *Bioterrorism Readiness Plan: A Template for Healthcare Facilities*. (Shadel 2001, p. 347). In addition to this document, hospitals may want to include a portion, or summarize the contents to include in their infection control plan. As was mentioned, plans require flexibility. Even the best thought-out plan may require instantaneous revision in the event of such an event as a bioterrorist attack.

In a recent study reported by Shadel et al (2001) educational topics for consideration included, isolation, triage and epidemiology of pathogens. The participants felt it was important for healthcare professionals to have the ability to identify an infectious process as compared to a chemical hazard.

Patient Outcomes

The goal of any infection control plan is to prevent nosocomial infections. Much time may be spent on developing the contents of the plan, educating the staff about the contents of the plan and implementing each step in the plan, but the value of any plan lies in the data collected regarding patient outcomes. Infection rates must be accurately collected and reported.

The Centers for Disease Control and Prevention (CDC) developed the National Nosocomial Infections Surveillance (NNIS) system more than 30 years ago. Hospitals participating in NNIS have the advantage of benchmark activities to compare infection rates between similar hospitals. Standardized data collection methods are provided, as well as guides to prevention.

As more healthcare services are provided outside the hospital, post discharge and outpatient surveillance techniques must be refined. Gaynes et al, (2001) report that two thirds of nosocomial infections are preventable. By changing the behavior of caregivers, surveillance can improve the quality of patient care.

All hospitals are challenged with isolation practices. The infection control plan should include procedures for identifying patients requiring various types of isolation. In a report by Kidd et al (1999) a comprehensive plan was described to change isolation practices to the new CDC guidelines for isolation, standard precautions, and transmission-based precautions. Formal presentations were given to employees over a two-month period. Participants were given a post test and signed a statement of accountability for the content of the program. A video was made of one of the live presentations that was available for viewing by those who were not able to attend a live presentation. A third method was a written self-learning packet that could be completed by the learner. They were made available to physicians and managers who had not attended one of the other offerings. Physicians were asked to instruct incoming residents and all new employees were given the information during hospital orientation.

Despite all the work the education department did to ensure all staff received the information needed to institute a change in isolation techniques, there was zero compliance using the appropriate signage for patients who required isolation. Only when infection control practitioners made rounds on all units and advised staff members as patients were put into isolation, did compliance improve. Each unit received individualized instruction and coaching which proved to be much more effective than formal presentations. This report shows that any type of change is best implemented when the participants can see the change in action and practice the change with individual instruction.

This description of changing infection control practices could be seen as an evidence-based practice change. Recent emphasis on outcomes research has led infection control professionals across the nation to develop programs including evidence-based practice, patient safety and quality improvement issues. The main goal of any infection control practice is to improve health.

In summary, infection control plans must be carefully developed, reviewed on a regular basis, and most importantly, be communicated to everyone using the plan. Education plays a big part in the communication process. Nursing and other education resources in a hospital setting should be involved at the onset of plan development.

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TEST QUESTIONS: TRUE OR FALSE	T	F
1. Planning could be described as deciding what to do and when to do it.		
2. All infection control plans must be rigid and consistent.		
3. Components of an infection control plan should flow from the mission of the organization and contain an evaluation step.		
4. Reactive planning is frequently carried out in haste.		
5. The proactive mode is the most desirable type of planning.		
6. An infection control plan should be a strategic, long-term plan.		
7. Infection control starts with administration.		
8. It is suggested that the infection control plan be reviewed on the same schedule as the policies.		
9. Teaching handwashing techniques is one of the most important components of any infection control plan.		
10. The use of waterless antimicrobial solutions do not require any additional education for the staff.		
11. All waste in a hospital should be considered infectious.		
12. Hepatitis B is easier to contract than HIV in healthcare environment exposures.		
13. Bioterrorism plans are of no concern to hospitals, since APIC and CDC have developed a plan.		
14. The infection control plan should be presented during orientation and periodically for all employees.		
15. The value of an infection control plan is evidenced by patient outcomes.		
16. The NNIS system is based on each hospitals infection control data individually.		
17. Two thirds of nosocomial infections are preventable.		
18. The most effective education about an infection control plan is carried out on individual units.		
19. Data collection of compliance of infection control practices is considered evidence-based research.		
20. Hospital educators should be involved with any infection control plan from the beginning of development.		

Answers

1. T

2. F

3. T

4. T

5. T

6. F

7. F

8. T

9. T

10. F

11. F

12. T

13. F

14. T

15. T

16. F

17. T

18. T

19. T

20. T