

Chapter 5

Audits in Infection Prevention and Control

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Key points

- Non-compliance with appropriate infection prevention and control policies and procedures may lead to outbreaks of infection.
- A well-constructed audit tool will provide consistent benchmarking across the facility.
- Audits can help improve quality, infection prevention practices, and patient safety.

Introduction

Compliance with a good infection prevention and control (IC) policy is vital for preventing the spread of infection. A practical, objective way to determine whether a policy is appropriate and sound infection prevention and control is being practiced is an audit process using a tool.¹ Audit means checking actual practice against a standard; the process should facilitate identification of risks of infection and unsafe practices for both patients and staff. The audit should permit reporting of noncompliance or issues of concern by either healthcare workers (HCW) or the Infection Control Team (ICT). Providing results to staff enables them to identify where improvement is needed.

Audit tools are templates for ICTs to evaluate implementation of procedures, such as standard/routine practices, hand hygiene, isolation precautions, environmental cleaning, disinfection of equipment, handling linen/waste/sharps/supplies, etc., in place in their facility. In addition, specific practices may be monitored, e.g., use of personal protective equipment, insertion and care of intravascular and urinary devices, and wound care. The audit can be performed by the ICT or other designated staff. This audit tool must match the practice and resources of the healthcare setting.

Audit Method

An effective audit process should include a description of the physical layout, review of traffic flow, protocols and policies, supplies and equipment and observations of appropriate IC practice. The audit tool should be standardised to permit consistent application throughout the healthcare facility. (See Figure 5.1 for an example tool) Allow for modifications according to the services to be audited.² The ICT must be able to explain the reasons for any changes. The audit should take place over a defined time. Link personnel and ward staff may assist with the process.

SAMPLE HAND HYGIENE AUDIT TOOL³

Date: _____ Ward: _____

Auditor: _____

	Advantages	Yes	No	Comments
1	Liquid soap is available at all hand washing sinks			
1a	Alcohol-based hand rub is available			
2	Liquid soap must be in single use cartridge dispensers			
3	Dispenser nozzles are visibly clean			
4	Soft absorbent paper towels are available at all hand washing sinks			
5	Wall mounted or pump dispenser hand cream is available for use			
6	Antibacterial solutions/scrubs are not used for social hand washing			
7	Antibacterial solutions are used for invasive procedures and surgical scrubs			
8	There are no nail brushes on hand wash sinks in clinical areas			
9	The hand wash sinks are free from used equipment and inappropriate items			
10	Hand wash sinks are dedicated for that purpose			
11	Hand wash sinks, check that they do not have plugs, overflows or that the water jet does not flow directly into the plughole			
12	There are sufficient numbers of hand wash sinks available in accordance with national and local guidance (e.g., one sink per four beds in acute care settings)			
13	Access to hand wash sinks is clear			
14	Hand washing facilities are clean and intact (Check sinks, taps, splash backs)			
15	There is appropriate temperature control to provide suitable hand wash water at all sinks			

IFIC Basic Concepts of Infection Control

	Advantages	Yes	No	Comments
16	Elbow operated or automated taps are available on hand wash sinks in clinical areas			
17a	Soap dispensers are readily available			
17b	Directly accessible at the point of care (e.g., one dispenser per bed/per four beds as per local and national standards)			
17c	Portable for clinical procedures			
18	No wrist watches are worn by staff carrying out patient care			
18a	No rings are worn by staff carrying out patient care			
18b	No wrist jewellery worn by staff carrying out patient care			
19	Staff nails are short, clean and free from nail varnish			
19a	Artificial nails are not worn			
20	Posters promoting hand decontamination are available and displayed in areas visible to staff before and after patient contact			
21	Staff has received training in hand hygiene procedures within the last year. - Ask a member of medical staff - Ask a member of nursing staff - Ask a member of ancillary staff			
22	Patients are offered hand hygiene facilities after using the toilet/commode/bedpan, e.g., hand wipe			
23	Patients are offered hand hygiene facilities prior to meals			
	Observational audit: Observe practice			
24	Nursing staff use the correct procedure for decontaminating hands.			
25	Medical staff uses the correct procedure for decontaminating hands.			

	Advantages	Yes	No	Comments
26	Allied Health Care Professionals use the correct procedure for decontaminating hands.			
27	Ancillary staff uses the correct procedure for decontaminating hands.			
28	Nursing staff can indicate when it is appropriate to use alcohol rub			
29	Medical staff can indicate when it is appropriate to use alcohol rub			
30	Allied Health Care Professionals can indicate when it is appropriate to use alcohol rub			
31	Ancillary Staff can indicate when it is appropriate to use alcohol rub			
	Hand hygiene is performed in the following circumstances: Observe practice			
32a	After removal of gloves			
32b	Prior to clinical procedures			
32c	After a clinical procedure			
32d	Prior to handling food			
32e	After handling contaminated items			
32f	After leaving an isolation room			

Preparation of Staff

All HCWs and support staff must be included in preparing for an audit and understand that its purpose is to improve IC practice. It is in no way punitive. Pre-audit meetings are essential to explain and discuss the goals and objectives of the audit, how it will be conducted, and how the results will be reported. Staff should understand that an objective approach will be maintained, that the audit will be performed consistently across the facility, and anonymity will be protected. The audit team must identify the leaders in the area being audited and maintain communication with them. Management and other key decision makers (e.g., educators) need to support the audit team in any changes required post-audit.

Knowledge Assessment

A questionnaire on employees' knowledge of safe infection prevention and control practice should be developed and distributed prior to any audit.² The questionnaire can assist in determining what areas of practice should be audited. Respondents should be identified only by job title (e.g., nurse, physician, radiographer, and cleaner). The questionnaire can be modified to suit the department or area being audited. A deadline must be provided so that questionnaires are returned on time. One person in each survey area should be asked to ensure that questionnaires are filled in and kept securely for collection and tabulation by the audit team. The results will allow the ICT to determine where more education is needed. Dissemination of results and discussion of the correct answers can be used as an educational tool.

Preliminary Audit Report

Once the audit is completed, a draft detailed report must be written and reviewed with management and key staff in the audit area before it is finalized and distributed. The report should include information on why the audit was performed, method used, findings, and recommendations. Compliance data should be included as appropriate. (See Table 5.1)

Scoring formula:

$$\frac{\text{total number of yes answers}}{\text{total number of yes and no responses}} \times 100 = \%$$

It is advisable to mark either criteria yes/no or non-applicable. Manual scoring - add the total number of yes answers and divide by the total number of questions answered (including all yes and no answers) excluding the non-applicable; multiply by 100 to get the percentage.

Categories can be allocated as follows:

- minimal compliance 75% or less
- partial compliance 76-84%
- compliant 85% or above

Table 5.1. Example of scoring chart

	Advantages	Yes	No	Comments
1	Liquid soap is available at all hand washing sinks	X		
2	Liquid soap must be single use cartridge dispensers	X		
3	Dispenser nozzles are visibly clean		X	

The score for the above table would be calculated as follows:

$$(2 \times 100)/3 = 66.6 = 67\%$$

An executive summary should be added and the staff in the area should be acknowledged and thanked for their support. Staff must appreciate that the intent is to promote good practice, improve patient care, and ensure safety. A key person must be identified in each area to help facilitate implementation of any recommendations within a specified time.

Follow Up

The introduction of any recommended changes in practice rests with the unit/department. However, the ICT and other appropriate staff

must follow up any recommendations. Identification of key personnel and specification of deadlines will aid timely follow-up. A system of feedback to the ICT on actions taken should be in place.

Summary

Development of a consistent method for auditing infection prevention and control policies and practices and implementation by both IC and the involved health care staff is a practical method for ensuring a safe health care environment for patients, staff and the public at large.

References and Further Reading

1. Millward S, Barnett J, Tomlinson D. A clinical infection control audit programme. *J Hosp Infect* 1993; 24: 219-232.
2. Bryce EA, Scharf SL, Walker MM. Infection control practitioner audit form for patient/resident service units. *Canadian J Infect Control* 2002; 17:23-26.
3. Infection Control Nurses Association (ICNA), Department of Health UK, *Audit tools for monitoring infection control standards*, 2004.