

# Using Audits to Monitor Infection Prevention Practices



# Presenter

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# Learning Objective

- Describe how to design and implement audits for infection prevention practices.



# The Role of Audits

- Process of conducting an objective review of specific practices
- In healthcare, audits measures healthcare personnel's adherence with standards and processes designed to improve patient care
- Effectively implemented audits provide valuable information for improvement



# Improving Infection Prevention Practices

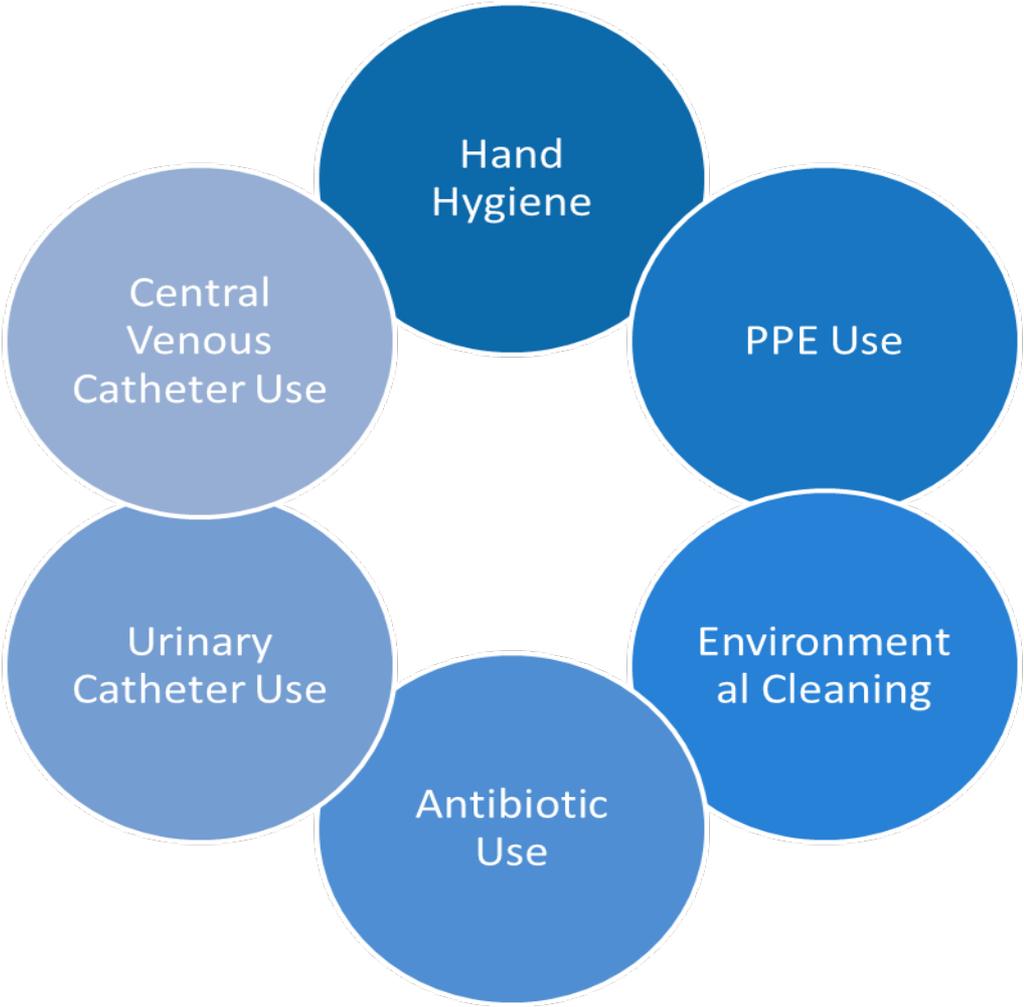


# Other Benefits of Audits

- Combined with infection surveillance, can identify gaps and strengths in infection prevention practices
- To monitor adherence to infection prevention standards in high-risk settings
- Should be an opportunity for improvement, not punishment



# Examples of Infection Prevention Processes



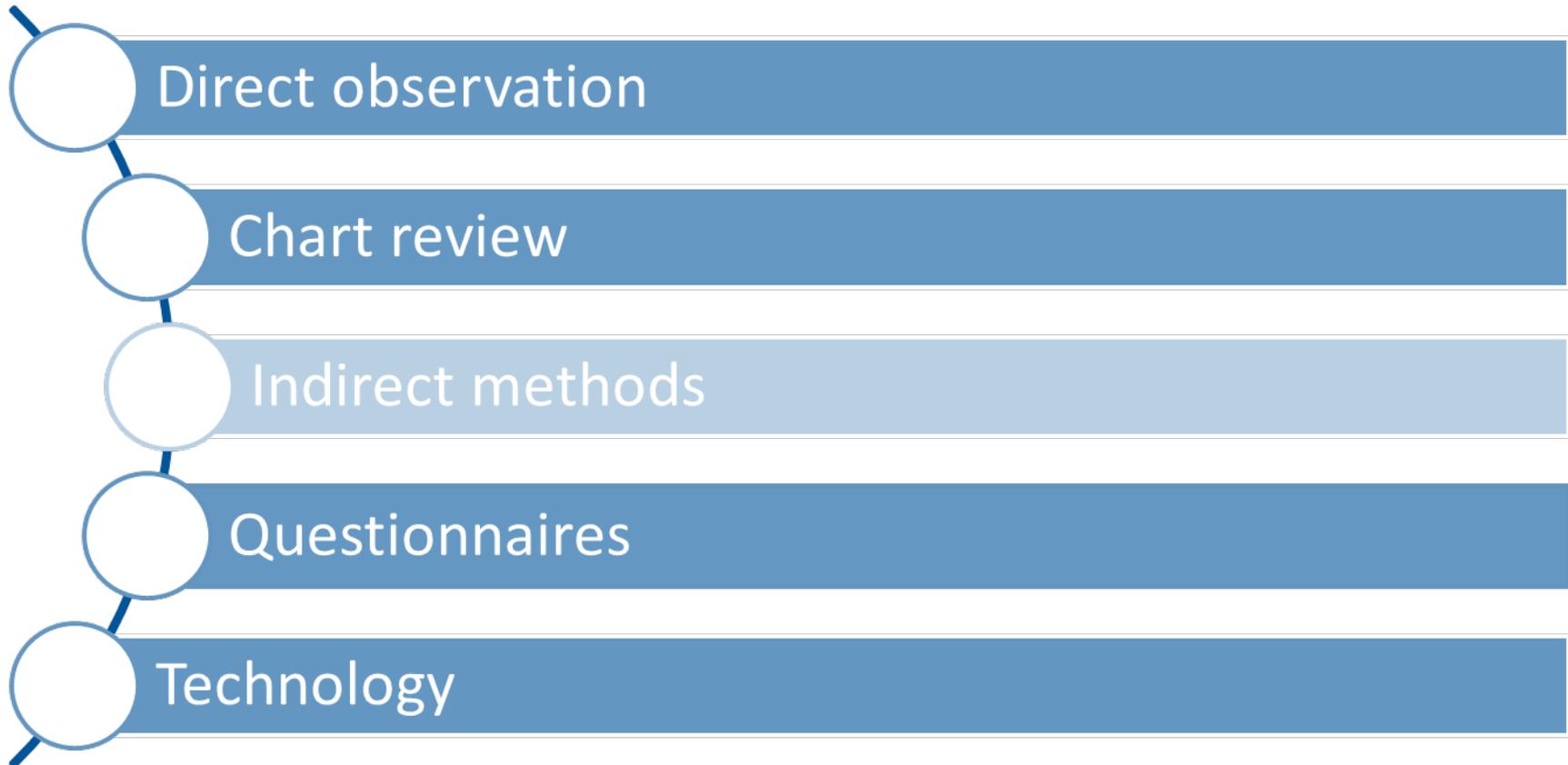
# Plan Your Audit Process

- What do you want to assess?
- What resources are available to use?
- How will you share audit results?

*(Esposito P, World J Nephrol, 2014)*



# Methods of Auditing



(Siegel JD, *Am J Infect Control*, 2007; Ellingson K, *Infect Control Hosp Epidemiol*, 2014; Measuring hand hygiene adherence: Overcoming the challenges, *Joint Commission*, 2009; Get Smart Healthcare in Hospitals and Long-Term Care, CDC)



# Preparing for the Audit

- Choose an audit tool
- Training the observer
- Choose the sample size (unit/floor)
- Define frequency of audits

(How-to guide: Improving hand hygiene, *IHI*, 2006; Ellingson K, *Infect Control Hosp Epidemiol*, 2014; Esposito P, *World J Nephrol*, 2014)



# Examples of audit tools

## **CDC Targeted Assessment for Prevention (TAP) Strategy**

CDI: Hand hygiene, personal protective equipment use and environmental cleaning

CAUTI: Insertion and maintenance auditing

CLABSI: Insertion and maintenance auditing

## **CDC Get Smart for Healthcare in Hospitals and Long-Term Care**

Appropriate antibiotic use



# Use Results to Drive Improvement

- Create your plan for improvement
- Implement interventions
- Audit processes to study impact
- Modify or re-educate if needed



# Summary

- Audits measures healthcare personnel compliance with infection prevention practices
- Plan ahead for an effective audit
- Audits provide valuable data to enhance quality improvement efforts



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**THANK YOU!**



# Speaker Notes



# Speaker Notes: Slide 1

Welcome to this module titled “Using Audits to Monitor Infection Prevention Practices.” It is the second module of the Competency-Based Training, Audits and Feedback for Infection Prevention course.



# Speaker Notes: Slide 2

This module was developed by national infection prevention experts devoted to improving patient safety and infection prevention efforts.



# Speaker Notes: Slide 3

The objective of this presentation is to describe how to design and implement audits of infection prevention practices.



# Speaker Notes: Slide 4

Auditing is the process of conducting an objective review of a specific practice. In healthcare, evidence-based guidelines and regulatory standards drive the implementation of practices that are used to ensure safe and effective patient care. Audits are commonly conducted to measure healthcare personnel's compliance with many of these practices. When implemented effectively, audits provide valuable information that can be used to identify opportunities for improvement.



# Speaker Notes: Slide 5

Audits also play an important role in improving effectiveness of infection prevention practices. As we heard in the previous module, competency-based training should be provided to healthcare personnel to ensure they have the knowledge, skills and attitudes to effectively perform tasks specific to their role. Auditing is a way we can assess the application of knowledge, skills and attitude in the work environment. Auditing creates an opportunity to provide feedback to healthcare personnel on their performance and allows for further education to reinforce and clarify key infection prevention concepts.



# Speaker Notes: Slide 6

Auditing also plays a key role in an infection prevention surveillance program. Auditing practices, along with surveillance of infection data can identify system level gaps and strengths in infection prevention practices. For example, auditing of personal protective equipment use in the emergency department could show improper donning and doffing of gowns and gloves, which would indicate a gap that should be further investigated. Or auditing multidisciplinary rounds in an intensive care unit (ICU) might show how effective team communication by the group helps address the need for ongoing urinary catheter use for each patient with a catheter. This would be a strength and could be used as a positive example for other units.



# Speaker Notes: Slide 6 Continued

Based on surveillance data, audits can be targeted to settings deemed as high-risk for infection. A unit with a high rate of *Clostridioides difficile* infection, despite implementing basic infection prevention practices, should have more frequent and focused audits, drilling down on practices that need improvement. For example, are healthcare personnel wearing gloves and performing hand hygiene appropriately when caring for patients with *C. difficile*? Finally, audits should serve as an opportunity for improvement and not punishment. Audit tools can be used to help guide and improve practice by educating healthcare personnel about such improvement opportunities.



# Speaker Notes: Slide 7

There are many areas within the realm of infection prevention that can benefit from auditing. Practices related to device use, including central lines and urinary catheters, should be assessed for adherence to insertion and maintenance procedures. Reviewing insertion and maintenance practices with checklists, is one way to assess that processes are being followed. Observation of daily rounds is another way to verify that healthcare personnel are addressing the daily need of the devices based on appropriate indications. Proper hand hygiene and personal protection equipment (PPE) use are other important practices to audit.



# Speaker Notes: Slide 7 Continued

Direct observation is frequently used to measure these practices. Environmental cleaning is critically important to preventing infections and healthcare personnel assigned to these roles should be audited to ensure key steps are being completed in accordance with best practice and policy. Finally, antibiotic stewardship is another area that auditing can prove to be valuable, especially for determining appropriate use of antibiotics.

Hospitals should determine auditing focus based on local risk factors, data and individual organization priorities.



# Speaker Notes: Slide 8

Hospitals should plan ahead for audits, considering many different factors that could impact the effectiveness of the process. There are key questions to consider before conducting audits. What practice do you want to measure? You will want to consider auditing practices that have an impact on patient outcomes. This may be indicated by published evidence-based literature, regulatory standards or by reviewing your hospitals infection and patient safety data. You may identify care settings or specific practices that have higher than desired rates of adverse outcomes. This would represent an opportunity to conduct more frequent and focused audits.



# Speaker Notes: Slide 8 Continued

For example, if you are having high *C. difficile* infection rates on a particular unit, you would consider monitoring hand hygiene, glove use and/or environmental cleaning practices to determine the practice that requires further improvement.

Next you will want to identify what resources are available to conduct audits. You may choose to utilize healthcare staff, quality improvement staff or infection prevention staff to conduct audits. The time commitment for those individuals will depend on the method that you choose to complete the audit and the frequency in which you choose to measure. Also, consider if other resources, such as information technology (IT) or data analysis support, might be necessary. If you decide that you will need their support, it is important to include them in the planning process.



# Speaker Notes: Slide 8 Continued

Finally, plan for who and how you will share your findings. Remember, auditing is about improving quality, not being punitive. A key component of the auditing process is providing feedback. Audit results should be shared with the healthcare personnel that are being measured. Part of the planning process should include how and when that feedback should be given to be most effective. Additionally, audit results should be shared with key stakeholders involved in the improvement process. This may include your infection control and patient safety committees, environmental services, unit-based nursing councils and nursing, physician, and administrative leadership.



# Speaker Notes: Slide 9

As we already discussed there are many different infection prevention practices to audit, and with that, different methods with which to audit. Some infection prevention strategies may benefit from using a multimodal approach for auditing. We will now discuss some of those methods that can be used.

Direct observation is a method that allows observers to see how healthcare personnel are performing practices and provide real time feedback. Direct observation is considered the gold standard for hand hygiene monitoring, and can also be used to monitor adherence to contact precautions and personal protective equipment use. Issues to consider with direct observation include whether to observe overtly or covertly.



# Speaker Notes: Slide 9 Continued

Covertly, sometime referred to as the secret shopper method, may provide more reliable results, however sustaining a covert observation program over time may be difficult. Another factor to consider with direct observation is if observers will intervene and provide “just in time” feedback. An example of this is when observing a missed opportunity for hand hygiene, the observer interacts with the healthcare personnel to remind them to clean their hands. Challenges with direct observation are that it can be difficult to find staff or time to conduct the observations and observers may need special training to accurately conduct the audit.



# Speaker Notes: Slide 9 Continued

Chart reviews provide a way to review clinical documentation in the patient record. Chart audits can be done retrospectively or prospectively. When planning for a chart audit, you will want to consider the purpose of the audit and how rapidly feedback should be provided to the healthcare personnel. For example, as part of an antimicrobial stewardship program, a pharmacist would want to prospectively audit antibiotic prescribing, so that any recommended changes to drug, dose or duration could be made in real time with the prescriber.



# Speaker Notes: Slide 9 Continued

Indirect methods such as monitoring product usage, like measuring alcohol-based hand rub or glove usage, do not require as many resources as direct observation. This method can be used to trend usage of a product over time, but does not provide information about how the healthcare personnel are performing the practices with those products.

Questionnaires can also be used as a method to query healthcare personnel to self-report their experiences with infection prevention practices. This is a way to educate and involve healthcare personnel in the auditing process.



# Speaker Notes: Slide 9 Continued

While it can be a useful way to engage and solicit feedback from healthcare personnel, some studies show that when compared to direct observation, self reporting of compliance rates were higher, suggesting that self reported data alone may not be as reliable as a multi-modal audit strategy.

Finally, with advances in technology and environmental design, there are increasing options available for electronic monitoring of healthcare personnel compliance with certain practices. While there is limited evidence to suggest that electronic alert systems that prompt healthcare personnel to, for example wash their hands, can increase compliance. These systems can be expensive and may not be accessible to all hospitals.



# Speaker Notes: Slide 10

Once you decided which practice to audit and the method to use to conduct the audit there are some additional issues to consider. Note that infrequent events may not be appropriate for audits, but instead could be reviewed through a root cause or failure mode analysis. To measure the practices across the disciplines, a mixed sample of healthcare personnel roles should be included

First, you will need to decide what audit tool you will use to measure. You may decide to create you own tool or you may use or modify a tool that is already in existence. There are many field tested and validated tools that are widely available through organizations like the CDC or the World Health Organization.



# Speaker Notes: Slide 10 Continued

The tool should be constructed in a way to collect the data on the specific practice and should be relatively easy to use. When using a new audit tool, you may consider testing the tool first as part of a trial, then making any necessary changes before implementing widespread use.

Whoever is conducting the audit should be properly trained on the data collection method as well as the process steps they are auditing. This will help ensure interrater reliability among observers and validity of data collection. For example: when monitoring hand hygiene, the observers should be trained on the policy and steps for how hand hygiene should be performed as well as how to accurately observe and document their findings.



# Speaker Notes: Slide 10 Continued

When it comes to choosing the sample size, such as a unit or floor, you will want to consider auditing practices that occur with enough frequency to provide accurate results. For hand hygiene, the Institute for Healthcare Improvement suggests measuring at least 10 observations of multidisciplinary healthcare personnel per month. The frequency of audits should be determined by the needs and resources available within the organization. Audits should be conducted at a frequency that allows accurate and ongoing assessment of the infection prevention practices. If compliance rates with practices or infection data indicate ongoing problems, like an outbreak or persistently high infection rates, the hospital may consider targeting the audits to a particular setting and increasing the frequency of the audits.



# Speaker Notes: Slide 11

There are many different infection prevention auditing tools that hospitals may use. The CDC's Targeted Assessment for Prevention (TAP) strategy provides examples of several different auditing tools for various practices related to *C. difficile* infection (CDI), catheter-associated urinary tract infection (CAUTI) prevention and central line-associated blood stream infection (CLABSI). These include hand hygiene, PPE use and environmental cleaning auditing tools. The CDC's Get Smart for Healthcare initiative focuses on improving appropriate antibiotic use in hospitals and long-term care facilities and has tools to review appropriate antibiotic use for common infections like urinary tract infection and community acquired pneumonia.



# Speaker Notes: Slide 12

Remember, audits should be used as an improvement tool, so make sure to incorporate them into your quality improvement design. Using the PDSA model as an example, hospitals should create their plan for improvement and use auditing data as a driver for which changes can be implemented. Once interventions are in place, audit compliance, and use the results to make any modifications that may be needed. These modifications may include increased competency-based training or providing more frequent and direct feedback to healthcare staff.



# Speaker Notes: Slide 13

In summary, there are different ways that audits can measure healthcare personnel compliance with infection prevention practices. Conducting well planned and effective audits will provide valuable data that will enhance quality improvements efforts directed at preventing infections.



# Speaker Notes: Slide 14

No notes.



# Speaker Notes: Slide 15

No notes.

