

FACILITATOR GUIDE

Long-Term Care Certification in Infection Prevention Exam Preparation Study Sessions

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Introduction

Certification in infection prevention and control (IPAC) ensures IPAC professionals have the knowledge, skills and abilities to be proficient in their field. Certification is offered through the [Certification Board of Infection Control and Epidemiology, Inc.](#)¹ (CBIC) and is described as a designation that represents a commitment to ongoing professional development and continual improvement of IPAC practices. The Long-Term Care Certification in Infection Prevention (LTC-CIP) offered by CBIC includes long-term care-focused content designed for IPAC professionals working in long-term care (LTC) settings. The initial certification is obtained by successfully challenging a multiple-choice exam covering a range of IPAC topics related to current IPAC best practices. Re-certification is required every five years and can be obtained by re-writing the examination or by obtaining continuing education credits called infection prevention units (IPUs). Recertification by IPUs is out of scope for the resources which are the subject of this Facilitator's Guide.

These resources are intended to support IPAC Canada Chapters and any other organization with IPAC expertise interested in facilitating exam preparation sessions. These resources provide a comprehensive, accurate and current exam preparation approach using content consistent with the [CBIC LTC-CIP exam outline](#).¹ The content is informed by Association for Professionals in Infection Control and Epidemiology (APIC) resources and other relevant IPAC best practice documents. These resources use terminology that may not always be consistent with terms used in Canada, but are meant to prepare the learner to successfully answer the exam questions, which are United States-based. The examination questions will be broadly applicable to long-term care homes (LTCHs) and not specific to the regulations, organizations or practices of one particular country. Chapters can identify their own session facilitators and determine the schedule and mode of delivery that best meets their members' needs. Members will benefit from support, consistency and motivation that group study sessions can provide.

The content of these resources is informed by and used with permission from the Association for Professionals in Infection Control and Epidemiology.^{2,3} Within this guide, key messages are provided to identify the central ideas that are the focus of each session. Content notes will provide additional context or suggestions to enhance the delivery of the sessions. Suggestions for discussion questions can support engagement with session participants and additional resources have been provided to both support the knowledge of the facilitator and participant learning.

Please see the [CBIC](#)¹ website for additional examination information, including eligibility requirements.

Each of the modules covered in the examination have a corresponding section in this Facilitators Guide, and include:

- Learning Objectives
- Key Messages
- Content Notes
- Sample Discussion Questions
- Links to Additional Resources

Resources

These resources are comprised of nine slide decks covering topics consistent with the content of the LTC-CIP exam:

- Long-term care settings
- Management and communication of the infection prevention program
- Identification of infectious disease
- Surveillance and epidemiologic investigation
- Prevention and control of infectious and communicable diseases
- Environment of care
- Cleaning, disinfection, and sterilization of medical devices and equipment
- Antimicrobial Stewardship
- Employee/occupational health

In addition, this Facilitator's Guide provides outlines for each session including key messages and content notes, suggestions for session delivery, additional resources and evaluation questions. Optional discussion questions are also included to further participant understanding through more in-depth discussion on particular exam content topics. Series facilitators may choose to add discussion questions to address specific participant needs.

The modules for each of the sessions in this LTC-CIP exam preparation resources can be accessed from the [Public Health Ontario \(PHO\) website](#).

Target Audience

These sessions are intended for:

- IPAC Canada Chapter leads (or other organizations with IPAC expertise) that are facilitating study sessions for Chapter members intending to challenge the LTC-CIP exam
- IPAC professionals and leads who intend to challenge the LTC-CIP exam within the next year

Session Delivery

LTC-CIP exam preparation study sessions can be delivered virtually as a webinar series, in-person, or as a hybrid of both formats. Facilitators who are experienced and confident in the subject matter should be identified to lead each session. Consider the preferences of both the facilitator and participants when deciding on the delivery of the sessions. For example, content-heavy topics may be split into more than one session if preferred. Ensure that session facilitators are scheduled in advance to allow for review of the session material, and that facilitators agree to the schedule, length, format and content of the sessions. Facilitators can supplement the content provided in the slide decks by using their own images or discussion questions/learning activities to enhance the learning experience. See appendix for sample agenda.

It is important to note that different terms that are synonymous may be encountered during preparation for the LTC-CIP exam (e.g. infection prevention and control professional (ICP) versus infection preventionist (IP)). Facilitators may want to acknowledge different terms used between American, Canadian and International resources.

Webinar

- Consider polling participants to determine the optimal timing for sessions.
- Consider timing the frequency of webinars so that they are considerate of the participants' workloads and allow time to review content between sessions.
- Consider the availability of computers and conferencing platforms (i.e. choose a conferencing platform participants will have access to).
- Webinars sessions could be recorded for those who are unable to attend sessions.

In-person Sessions

- Schedule sessions on days and times that work best for participants.
 - Consider polling participants to determine the optimal timing for sessions, acknowledging that dates/times outside of normal business hours may be preferred.
- Book a room with adequate space for participants and with equipment needed for the session (e.g., projector, screen, laptop, etc.).
- Consider providing printed agendas and/or summary handouts to participants. Facilitators may also wish to share slide decks with participants in advance of the session.
- Consider having flip chart paper and markers to support discussion of the topic or to list questions participants may have.

Exam Writing Tips

Facilitators may choose to share exam writing tips with session participants or lead a discussion on strategies for successfully writing the exam. Some examples of exam writing tips include:

- If writing the exam at a testing centre, arrive early with appropriate identification and leave restricted personal items at home.

- If writing the exam at home, ensure the environment is free from distractions and follow [CBIC's remote testing policy](#).
- Provide an answer for every question, even if unsure of the correct response.
- Review every question carefully and identify key words that can help interpret the questions correctly (e.g., “all”, “always”, “never”, “none” or “some”).
- For multiple choice questions with an “all of the above” response option, if two of the options are true, the correct response will be “all of the above”.
- Manage time appropriately while writing the exam (e.g. if you have an hour to write the exam, you should have completed half of the questions after the first 30 minutes).

Session Topics

Long-Term Care Settings

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

1. The basic principles of ethics to IPAC practices and decision-making in LTCHs.
2. The benefits and risks associated with communal gatherings of residents.
3. The influence of the normal aging process on the risk of infections in a LTC population and the IPAC strategies needed to reduce the risk.
4. Special considerations for IPAC programs in LTC populations.

FACILITATOR'S NOTES

Key Messages

- Ethical principles should be a key driver of IPAC-related decision-making with a focus on respecting the resident's right to privacy, autonomy, and psychosocial needs.
- Long-term care settings have unique IPAC challenges related to an aging resident population with complex medical needs.
- The normal aging process affects the risk, frequency and severity of infections.
- An interdisciplinary team consisting of all relevant disciplines (e.g. clinical staff, resident and family, dietary, IPAC, social work and other specialists) is needed to develop effective resident care plans.

Content Notes

- The discussion of the application of ethical principles can be enhanced by the inclusion of IPAC specific examples. For example, consider a scenario where treatment of an infection may be inconsistent with the wishes of a palliative resident, but is required to discontinue Additional Precautions (e.g. invasive Group A *Streptococcus* infection).
- The nature of communal gatherings may vary depending on the level of care and resident population risk. Discussion related to communal gatherings should focus on IPAC principles applicable to a variety of types of communal gatherings (e.g. indoor and outdoor gatherings or gatherings requiring close proximity of residents, such as dining).

- IPAC professionals may have differing levels of clinical knowledge and training. During discussions related to clinical procedures or medical devices, include definitions of specific terms to ensure participant understanding (e.g. catheterization (intermittent, suprapubic), aseptic technique and/or parenteral nutrition).

Sample Discussion Questions

1. How do ethical considerations intersect with infection prevention and control measures in LTCHs?
2. In the context of IPAC, what challenges could arise in upholding resident autonomy?
3. Discuss the challenges posed by the various age-related changes (e.g. cognitive impairment, infection risk) in implementing IPAC practices.

Links to Additional Resources

- Centers for Disease Control and Prevention (CDC). Nursing homes and assisted living (long-term care facilities [LTCFs]) [Internet]. Atlanta, GA: CDC; 2020 [cited 2023 May 23]. Available from: <https://www.cdc.gov/longtermcare/index.html>
- Feinsod FM, Wagner C. 10 ethical principles in geriatrics and long-term care. Ann Longterm Care. 2005;13(5). Available from: <https://www.hmpgloballearningnetwork.com/site/altc/content/10-ethical-principles-geriatrics-and-long-term-care-2>

Management and Communication of the Infection Prevention Program

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

1. IPAC program planning for LTCHs that incorporates regulatory requirements, emergency preparedness, and risk assessments.
2. The principles of implementation science as they apply to best practices and policies and procedures that inform IPAC practices.
3. The characteristics of high quality scientific research.
4. The role of performance concepts and indicators, and product and process evaluation in quality improvement.

FACILITATOR'S NOTES

Key Messages

- The evidence used to support the development of IPAC programs and plans require critical appraisal of the literature and recognition of the strengths and weaknesses of different study designs and analytical methods.
- Consideration of the principles of adult education is important in the design, development and delivery of IPAC education and training.

Content Notes

- Components of the IPAC plan are to be consistent with regulatory and advisory requirements. There may be differences between American and Canadian requirements which may be reflected in examples found in the APIC Text.

- During the section on IPAC education and training, consider providing some personal examples of IPAC education and training experiences that were effective or felt ineffective to support a discussion on designing effective learning sessions.
- In the section on Basic Statistics, consider providing example numbers in order to have participants practice using the formulas and performing the calculations.

Sample Discussion Questions

1. How can the principles of adult education be incorporated into the design of IPAC training sessions for LTC staff?
2. Compare and contrast the different performance improvement concepts (e.g. Failure Mode Effects Analysis, Root Cause Analysis, Strengths Weaknesses, Opportunities and Threats (SWOT) analysis etc.) and discuss which concept would be most appropriate to use to investigate:
 1. An outbreak of an antimicrobial-resistant organism (ARO) in a LTCH
 2. A catheter-associated urinary tract infection in a resident
 3. A recognized lapse in cleaning and disinfection practices of commodes

Links to Additional Resources

- Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for infection prevention and control programs in all health care settings [Internet]. 3rd ed, 3rd revision. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2024 Feb 01]. Available from: <https://www.publichealthontario.ca/-/media/documents/b/2012/bp-ipac-hc-settings.pdf?la=en>

Identification of Infectious Diseases

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

- Correlating clinical signs, symptoms, and risk factors with infectious disease processes
- Appropriate practices for specimen collection, transportation, handling, and storage
- Interpretation of relevant diagnostic, radiologic, procedural, and laboratory reports to support the diagnosis of infections with epidemiologically significant organisms

FACILITATOR'S NOTES

Key Messages

- The Chain of Transmission (Infection) provides a framework for understanding the spread of infections and for the development of strategies to break the links and disrupt transmission.
- Understanding and interpreting bacterial morphology in the context of clinical specimens is critical to the early identification of infectious diseases.
- Additional Precautions are required to mitigate the risk of transmission of epidemiologically significant organisms such as antimicrobial-resistant organisms, respiratory pathogens and enteric pathogens, which are commonly found in the LTC population.
- Proper specimen collection methods are essential for accurate identification of infectious agents.

Content Notes

- In addition to the content of the slide decks, additional images of infectious agents could be shown to participants to highlight the variety of types of microorganisms that cause infections and to add visual appeal.
- Accurately identifying the causative agent of an infection may require interpreting laboratory, diagnostic and radiologic test results in combination with clinical signs and symptoms. Consider including case studies to demonstrate how these elements are used in combination to diagnose an infection.

Sample Discussion Questions

1. Discuss how the Chain of Transmission can be used to determine effective strategies to interrupt the transmission of:
 1. Influenza virus
 2. Norovirus (gastroenteritis)
 3. *Mycobacterium tuberculosis*
 4. Methicillin-resistant *Staphylococcus aureus* (MRSA)
2. Provide examples of laboratory results (e.g. Gram stain results from blood or urine cultures) and explain how these laboratory results can aid in determining the need for Additional Precautions.

Links to Additional Resources

- Association for Professionals in Infection Control and Epidemiology (APIC). APIC text. Washington, DC: APIC; 2014. Chapters 21-26, 70-99, 120. Available from: <https://text.apic.org/the-apic-text>
- Chachere CA, Hernandez A. Ready reference for microbes. 4th ed. Washington, DC: APIC; 2018.
- Heymann D, editor. Control of communicable diseases manual. 21st ed. Washington, DC: APHA; 2022.
- Kulich PA, Taylor DL, editors. The infection preventionist's guide to the lab. Washington, DC: APIC; 2012.
- Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Routine practices and additional precautions in all health care settings [Internet]. 3rd ed., 3rd revision. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2024 Feb 01]. Available from: https://www.publichealthontario.ca/-/media/Documents/B/2012/bp-rpap-healthcare-settings.pdf?sc_lang=en

Surveillance and Epidemiologic Investigation

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

1. The basic principles of epidemiology to understand and mitigate the risk of infection transmission.
2. Surveillance methods, data collection, analysis and reporting.
3. The concepts and steps involved in outbreak investigation and management.

FACILITATOR'S NOTES

Key Messages

- Epidemiology and surveillance are essential to understanding and preventing the transmission of infectious agents within the resident population in the LTCH.
- Robust surveillance plans in LTC should involve support from an interdisciplinary team and require comprehensive data collection and analysis.
- Surveillance data can be used to identify, implement and assess the effectiveness of IPAC measures.

Content Notes

- As per the CBIC outline for this topic, there may be some content overlap with the Management and Communication session (i.e. data analysis and basic statistics). Consider referring to the other session to reinforce content ideas.
- Providing a sample dataset will allow participants to practice calculating the different types of rates and/or interpreting the different types of data presentation methods.

Sample Discussion Questions

1. Compare and contrast the strengths and weakness of different study designs as they relate to studying transmission of infectious diseases.
2. Describe the difference between an incidence rate, a prevalence rate and an attack rate and how to calculate each.
3. Discuss considerations for developing effective surveillance plans and what resources might be needed.

Links to Additional Resources

- Happe J, Agnihotri N, Clark J, Conrod D, Duran K, Elford BA, et al. Surveillance definitions for infections in Canadian long-term care homes: 2023 update. *Can J Infect Control*. 2023. Available from: <https://cjjc.ca/96-summer-2023/381-surveillance-definitions-for-infections-in-canadian-long-term-care-homes-2023-update-2>
- Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for surveillance of health care-associated infections in patient and resident populations [Internet]. 3rd ed., 3rd revision. Toronto, ON: Queen's Printer for Ontario; 2014 [cited 2024 Feb 01]. Available from: <https://www.publichealthontario.ca/-/media/documents/bp-hai-surveillance.pdf?la=en>

Prevention and Control of Infectious and Communicable Diseases

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

1. Standard and transmission-based precautions (i.e. Routine Practices and Additional Precautions)
2. The regulatory requirements that pertain to personal protective equipment and food handling practice

FACILITATOR'S NOTES

Key Messages

- Understanding how the key elements for a hand hygiene (HH) program, standard and Transmission-Based Precautions as well as Personal Protective Equipment (PPE) (e.g., selection, procurement, donning and doffing), and point of care risk assessments (PCRA) form the backbone of infection prevention and control practices.
- Safe medication practice management, including injection safety, safe disposal (e.g., multi-dose vials, intravenous (IV) medications, glucometers, and insulin pens) and a residential immunization program are an essential part of an LTCH IPAC program.
- Comprehensive food safety, including safe food handling (e.g., regulatory requirements, Hazard Analysis and Critical Control Point [HACCP]) are crucial to prevent the spread of food-borne illness.
- IPAC considerations with regards to ancillary services (e.g., podiatry, dental, environmental services) must be considered in the context of LTC.

Content Notes

- During discussion on the establishment of HH, PPE and PCRA training programs in LTC, facilitators should consider showcasing resources used in their own LTC training programs to highlight program development in this sector.
- Consider adding examples of immunization policies and procedures to demonstrate all the elements of an immunization program in a LTCH.
- Case studies of food borne outbreaks, recalls or food safety issues in a LTCH would reinforce the concepts of food safety and HACCP.
- Additional images from ancillary services in LTCH could be shown to participants to highlight common IPAC lapses/gaps that may occur.

Sample Discussion Questions

1. Provide clinical examples and case studies to encourage a discussion on how additional precautions can be initiated and discontinued within the LTCH
2. What are the key parts of a food safety program in a LTCH?
3. What are some common examples of IPAC lapses in foot care, dental and environmental services that have been observed in LTC?

Links to Additional Resources

- Centers for Disease Control and Prevention (CDC). Current recommendations from the Advisory Committee on Immunization Practices [Internet]. Atlanta, GA: CDC; 2023 [cited 2023 Aug 01]. Available from: <https://www.cdc.gov/vaccines/acip/index.html>
- Centers for Disease Control and Prevention (CDC); National Healthcare Safety Network (NHSN). Surgical site infection event (SSI) [Internet]. Atlanta, GA: CDC; 2023 [cited 2023 Aug 01]. Available from: <https://www.cdc.gov/nhsn/pdfs/pscmanual/9pscscsscurrent.pdf>
- Heymann D, editor. Control of communicable diseases manual. 21st ed. Washington, DC: APHA; 2022.

- Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Routine practices and additional precautions in all health care settings [Internet]. 3rd ed., 3rd revision. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2024 Feb 01]. Available from: https://www.publichealthontario.ca/-/media/Documents/B/2012/bp-rpap-healthcare-settings.pdf?sc_lang=en

Environment of Care

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

1. The IPAC practices that contribute to a safe care environment.
2. The risks and mitigation measures related to construction and maintenance.

FACILITATOR'S NOTES

Key Messages

- Ventilation can impact the risk of infection spreading within every type of health care setting, and heating, ventilation and air conditioning (HVAC) system exposures, or infections caused by airborne infectious agents do not happen frequently, but when they do the entire facility may be affected.
- Preventative maintenance, including strict cleaning and disinfection schedules, along with sink/feature design characteristics, can help mitigate or eliminate the risks associated with plumbing.
- While hospital waste is generally contaminated with a broader range of organisms, household waste is often more heavily contaminated, and waste from health care settings often does not require special handling prior to disposal.
- Laundering in LTCHs poses specific challenges, though the recommendations are the same as other health care settings. All individuals involved in laundry activities (which may include family of residents) should be aware of correct procedures, including sorting, washing and storing.
- Because of the interdisciplinary nature of infection control risk assessments (ICRAs) often involving outside contractors, rigorous policies for ICRAs must be implemented, and should specify:
 - Responsibilities for each section of the ICRA
 - Types of work that require use of ICRAs
 - Definition of terms used in the ICRA
 - Procedures for ensuring compliance with the ICRA
 - Any documentation requirements
- The Centers for Disease Control and Prevention (CDC) recommends surveillance to monitor for airborne infections in vulnerable residents, as well as periodic review of laboratory results and post mortem data to identify any infections that could have been related to construction, renovation, maintenance and design (CRMD) activities.

Content Notes

- While protective environment guidelines exist in the United States, a Provincial Infectious Disease Advisory Committee (PIDAC) statement indicates “There is insufficient evidence to support the use of a protective environment (formerly known as ‘reverse isolation’) for most immunocompromised patients. It is critical that health care providers and others who are acutely ill with a communicable infection do not enter the room of immunocompromised patients. To prevent invasive fungal infections, some centres recommend that new allogeneic haematopoietic stem cell transplant (HSCT) patients should be accommodated in a single room with positive pressure ventilation relative to the corridor; high-efficiency particulate air [filter] (HEPA) filtration of incoming air; sealed rooms to prevent flow of air from the outside; and ventilation to provide ≥ 12 air changes per hour”.⁴
- In the US, ventilation requirements may be driven by regulatory and accrediting agencies which can determine whether licences and certifications are provided based on things such as whether settings meet the minimum construction standard.
- The Canadian Standards Association (CSA) provide many of the recommendations in Canada, that Facility Guidelines Institute (FGI) provides the recommendations for the United States.
- Consider providing small, medium and large-scale construction-related scenarios to support a discussion about IPAC practices needed during CRMD activities.

Sample Discussion Questions

1. Discuss the different ways ventilation and plumbing can contribute to or reduce the risk of transmission of infections.
2. Describe considerations for safe handling, processing and storage of laundry.
3. Describe what an ICRA is and the IPs role in developing the ICRA.
4. What are the considerations when undertaking a CRMD project? What are the responsibilities of the IPAC professional?

Links to Additional Resources

- Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Routine practices and additional precautions in all health care settings [Internet]. 3rd ed., 3rd revision. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2024 Feb 01]. Available from: https://www.publichealthontario.ca/-/media/Documents/B/2012/bp-rpap-healthcare-settings.pdf?sc_lang=en

Cleaning, Disinfection, Sterilization of Medical Devices and Equipment

The Cleaning, Disinfection, Sterilization of Medical Devices and Equipment section of the LTC-CIP exam covers the basic principles and practices of reprocessing medical devices and equipment shared between residents. Various methods and technologies used for reprocessing are also addressed.

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

1. Describing cleaning, disinfection and sterilization methods.
2. Identifying requirements and methods for medical equipment and devices based on their intended use.
3. Discussing the management of single-use devices.

FACILITATOR'S NOTES

Key Messages

- The level of reprocessing of medical devices and equipment is determined by the intended use and the associated risk according to the Spaulding classification system.
- The different methods and products available for cleaning, disinfection and sterilization each have advantages and disadvantages, and may not all be suitable for all equipment and devices. The manufacturer's instructions for use should always be followed.

Content Notes

- The Types of Disinfecting Agents table is not meant to be covered in full detail, but is included to support learning.
- Examples of medical equipment and devices commonly used in LTCHs could be included to support learning about the required level and methods of reprocessing.
- Consider showing images of common medical equipment and devices during the sessions to illustrate specific considerations during reprocessing. For example, a walker with foam handles could be used as an example of equipment that is challenging to clean or equipment with grooves or lumens could be used to highlight the need for careful and thorough cleaning and disinfection.

SAMPLE DISCUSSION QUESTIONS

1. How can Spaulding's classification system be used to determine the level of disinfection or sterilization needed for shared resident medical equipment?
2. Identify the level of disinfection or sterilization required for the following items and state the rationale:
 1. Blood pressure cuff
 2. Urinary catheter
 3. Bed pan
 4. Pulse oximetry probe
 5. Scalpel
 6. Fingernail clippers
 7. Toenail clippers

LINKS TO ADDITIONAL RESOURCES

- Centers for Disease Control and Prevention (CDC). Disinfection and sterilization [Internet]. Atlanta, GA: CDC; 2019 [cited 2023 Jun 08]. Available from: <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/index.html>
- Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for cleaning, disinfection and sterilization of medical equipment/devices in all health care settings [Internet]. 3rd ed. Toronto, ON: Queen's Printer for Ontario; 2013 [cited 2024 Feb 01]. Available from: <https://www.publichealthontario.ca/-/media/documents/b/2013/bp-cleaning-disinfection-sterilization-hcs.pdf?la=en>

Antimicrobial Stewardship

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

1. The key terms and elements of antimicrobial stewardship programs (ASPs) in Long-Term Care.
2. The proper indications and use of antimicrobials, including considerations related to antimicrobial resistance.

FACILITATOR'S NOTES

Key Messages

- Antimicrobial stewardship involves a multifaceted approach to optimizing the use of antimicrobials in long-term care.
- It is important to recognize the factors that are unique to the long-term care population that may also influence antimicrobial use (e.g. age-related risk of colonization or infection).¹
- In addition to the development of resistance, there are numerous potential harms associated with improper use of antimicrobials.

Content Notes

- Sample antibiograms could be provided to participants to have them practice interpretation and selection of the most appropriate antibiotic for an infection.

Sample Discussion Questions

1. How do ASPs impact the overall health outcomes of residents in LTCHs?
2. What steps can be taken to ensure judicious use of antimicrobials in long-term care while still effectively treating residents?
3. What is the role of antibiograms in ASPs in long-term care?

Links to ADDITIONAL Resources

- Centers for Disease Control and Prevention (CDC). Core elements of antibiotic stewardship for nursing homes [Internet]. Atlanta, GA: CDC; 2021 [cited 2023 May 16]. Available from: <https://www.cdc.gov/antibiotic-use/core-elements/nursing-homes.html>

Employee/Occupational Health

LEARNING OBJECTIVES

In this review session, the main topics that will be covered are:

1. The key components of an occupational health and safety program
2. Occupational risk and infection prevention strategies
3. Regulatory requirements related to occupational exposures and infections

FACILITATOR'S NOTES

Key Messages

- Discussion of the regulatory requirements related to occupational exposures and infections, understanding occupational risks, due to needle stick injuries and infectious disease exposures and review incubation times and prophylaxis for various occupation illness exposures. And the relationship to workplace safety
- Infection prevention strategies such as immunization for healthcare workers is a key strategy in maintaining a healthy workplaces

Content Notes

- The discussion of occupational health and safety can be enhanced by the inclusion of examples of occupational exposures to various infectious diseases. For example, consider a scenario where an employee is exposed to an infectious disease and outline all follow up that is needed resulting from this exposure (e.g. workplace Tuberculosis (TB) exposure).
- Review requirements for compliance with regulatory and advisory agencies (e.g., respiratory protection programs, sharps safety), fitness for duty and work restrictions associated with communicable diseases (e.g., exposure, illness, compliance with PPE procedures) and employee Immunizations.
- Consider having a discussion with session participants about the responsibilities and actions for follow-up after needlestick injuries in the workplace. Case studies could be provided to support the discussion.

Sample Discussion Questions

1. What steps and considerations are taken into account for a pre-placement assessment?
2. Outline the process following an occupational needle stick exposure?
3. Provide a case study of an occupational exposure (e.g. COVID-19, invasive Group A Streptococcus (iGAS)) and review the steps for follow up of patient and employee contacts.

Links to Additional Resources

- Centers for Disease Control and Prevention (CDC); National Institute for Occupational Safety and Health (NIOSH). Healthcare workers [Internet]. Atlanta, GA: CDC; 2023 [cited 2023 Aug 01]. Available from: <https://www.cdc.gov/niosh/topics/healthcare/>
- Heymann D, editor. Control of communicable diseases manual. 21st ed. Washington, DC: APHA; 2022.

Evaluation

Evaluations of individual sessions and/or the entire series can be helpful in determining the effectiveness of the delivery of content and format of the sessions, and to identify opportunities to make revisions and improvements. Additionally, the learning preferences of the participants can be explored to help plan for future sessions. The session facilitator could provide an anonymous survey (either a paper copy for in-person sessions or a virtual survey for online sessions) to participants in order to gather and later analyze data.

Sample Questions for the Evaluation of Individual Sessions

Questions 1 and 2 are designed to measure perceived changes in confidence on the topic covered in that section – this can be a useful indicator for whether participants are understanding and feel ready to apply the topic. It can also help you to know if you need to revisit any particular topic covered (question 3 will also ask about this).

Questions 4 and 5 can be used to collect feedback on the facilitation and identify what is going well or needs improvement for session delivery. Feel free to add specific prompts if there are areas you'd like to address in your feedback form.

1. How confident did you feel about today's topic before the session?
 1. Not confident at all
 2. Somewhat confident
 3. Neutral
 4. Fairly confident
 5. Very confident
2. After attending today's session, what is your current confidence level?
 1. Not confident at all
 2. Somewhat confident
 3. Neutral
 4. Fairly confident
 5. Very confident
3. Are there any specific topics discussed today that you are still unclear or unsure about?
4. Please rate your agreement with the following statement (strongly disagree, disagree, neutral, agree, strongly agree):

The facilitator of today's session provided information that was:

 1. Clear
 2. Engaging
 3. High quality
 4. Relevant
5. Please share any suggestions you have to improve this session or any additional comments or feedback on what is working well, or not working well, for these sessions so far (open text response)

Sample Questions for the Evaluation of the Entire Series

These questions can be asked at the end of the series to help capture feedback on attendance, other forms of support received, and perceived expectations and preparedness for challenging the exam. A follow-up survey to participants in 6-12 months could be used to determine how many participants successfully challenged the LTC-CIP exam.

1. Did you attend all of the sessions?

1. Yes, I attended all of the sessions
2. No, I did not attend all of the sessions

If you did not attend all of the session, please share how many you attended (optional open text field)

2. Aside from this series, please indicate if you have participated or plan to participate in any other exam preparation offerings in order to prepare for challenging the exam? Check all that apply.

1. Other study groups
2. Practice exam sessions
3. IPAC education course
4. Other
5. No I have not participated or will not participate in other exam preparation offerings
6. Unsure at this time

3. How well do you feel your expectations for the LTC-CIP examination preparation series were met?

1. Not met at all
2. Somewhat met
3. Met
4. Exceeded
5. Greatly exceeded

Please share why you selected your option above (optional open text field)

4. How prepared do you feel to write the LTC-CIP examination?

1. Not prepared at all
2. Somewhat prepared
3. Adequately prepared
4. Well-prepared
5. Exceedingly well-prepared

Please share why you selected your option above (optional open text field)

5. Would you recommended this LTC-CIP examination preparation series to a colleague who is planning on challenging the exam?

1. Yes
2. No
3. Unsure

If you answered 'no', please share why not (optional open text field)

6. Please share any suggestions you have to improve the series (open text response)

7. Please provide any additional comments or feedback about the sessions (open text response)

References

1. Certification Board of Infection Control and Epidemiology, Inc (CBIC). CIC outline [Internet]. Arlington, VA: CBIC; c2019 [cited 2023 Jun 20]. Available from: <https://www.cbic.org/OffNav/Content-Outline1.htm>
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4. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Routine practices and additional precautions in all health care settings [Internet]. 3rd ed, 3rd revision. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2024 Feb 01]. Available from: https://www.publichealthontario.ca/-/media/Documents/B/2012/bp-rpap-healthcare-settings.pdf?sc_lang=en

Appendix: Sample Agenda

Table 1A: Sample agenda for running individual sessions

Introduction [5 min]	Content delivery and discussion [50 – 100 min]	Wrap-up [5 min]
Welcome, housekeeping, speaker introductions	Deliver content using slide decks provided	Provide a quick summary and reminder of topic for next session
Review schedule for series	Pause for discussion and questions throughout	Conduct session evaluation
Agenda	Schedule breaks for long sessions	Conduct series evaluation at the end
Share session learning objectives	Consider providing discussion questions to further understanding of content	Use feedback to improve next series offered, as necessary

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