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# COMPETENCY ASSESSMENT TOOL FOR INFECTION CONTROL PRACTITIONERS

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Follow table in the Excel spreadsheet

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## Glossary

**Attitude:** Refers to the professional's proactivity, willingness, and desire to take the initiative in using their knowledge and skills to solve problems.

**Self-assessment:** A method of evaluation in where the professional assesses their own performance. In this process, the professional is invited to reflect on their achievements, strengths, areas for improvement, and goals reached.

**Competency:** The proven ability to apply knowledge, skills, and personal, social and/or methodological abilities in work or study situations, and in professional and personal development. In other words, what a professional should be able to do.

**Core competencies:** Refer to the knowledge, skills, and attitudes required for an infection prevention and control (IPC) professional to practice with an in-depth understanding of situations, using reasoning, critical thinking, reflection and analysis to inform assessment and decision-making in the prevention and control of health care-associated infection and antimicrobial resistance.

**Knowledge:** The theoretical mastery of a particular subject or area. Professionals must possess basic knowledge of the subject in to develop the necessary skills and attitudes to perform their job effectively.

**Skills:** The ability and capacity acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carry out complex activities or job functions involving ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills).

**Infection prevention and control professional (IPCP):** Health care professional (medical doctor, nurse, or other health-related professional) who has completed a certified postgraduate IPC training course, or a nationally or internationally recognized postgraduate course on IPC, or another core discipline including IPC as a core part of the curriculum as well as IPC practical and clinical training.

## Overview

The World Health Organization (WHO) defines competence as the combination of knowledge, skills and attitudes necessary for infection control professionals to evaluate and make decisions regarding strategies for the prevention and control of healthcare-associated infections (HAIs) and antimicrobial resistance (AMR) based on critical and reflective thinking<sup>1-2</sup>.

Proficient infection control practitioners (IPs) are crucial to ensuring the effectiveness of infection prevention and control programs in healthcare settings.

Since the 1990s, several countries and regions, including Canada, the United States, China, the United Kingdom and the European Union, have developed instruments to measure IP competence. However, these instruments were developed based on the context of each country and do not always provide information on their validity or reliability, which limits their application. Valid instruments are essential for assessing actual competences and identifying areas of professional practice that require development<sup>3</sup>

To support this assessment, we have developed a competency self-assessment tool based on the core competencies proposed by the WHO<sup>1</sup>.

## The purpose of this document

The purpose of this document is to provide a validated and reliable tool for assessing IP competencies through self-assessment and manager assessment, identifying gaps that will guide the planning of personal development plans.

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<sup>1</sup> World Health Organization. Core competencies for infection prevention and control professionals [Internet]. Geneva: World Health Organization. 2020. p.69. <https://www.who.int/publications/i/item/9789240011656>.

<sup>2</sup> Brasil. Ministério da Saúde. Agência Nacional de Vigilância Sanitária. Competências Essenciais para Profissionais de Prevenção e Controle de Infecção -Tradução Livre [Internet]. Brasília, DF: Agência Nacional de Vigilância Sanitária; 2022. p. 112. <https://www.gov.br/anvisa/pt-br/centraisdeconteudo/publicacoes/servicosdesaude/publicacoes/COMPETENCIASESSENCIAISPARAPROFISSIONAISDEPREVENOECONTROLEINFECCOTRADUOOMS.pdf>

<sup>3</sup> da Silva Felix AM, Pereira EG, Padoveze MC. Competency assessment tools for infection preventionists: A scoping review. J Infect Prev [Internet]. 2023;24(6):259–67. <http://journals.sagepub.com/doi/10.1177/17571774231203388>

**How this tool was developed**

The development of the tool followed four stages: 1) establishment of the conceptual structure and generation of items; 2) validation of the content; 3) validation of the response process; and 4) validation of the internal structure. After validation, the tool covered 5 areas (1- Leadership and infection prevention and control programme management; 2- Health care-associated infection surveillance and infection prevention and control in clinical practice; 3-Basic microbiology and antimicrobial resistance prevention; 4- Occupational health; 5-Decontamination and reprocessing of medical devices and equipment), 37 items and Cronbach's alpha coefficient ranging from 0.91 to 0.98.

**Target audience**

This tool is intended for IP's and their managers.

**How often should I carry out a competency assessment?**

We recommend that this assessment be carried out annually and whenever the IP's role changes.

**Where can I find the tool to download?**

The tool is available in Excel format on the PETIRAS: <https://www.petiras.org/mediaLibrary/folder/1>

**How to use this audit tool**

1. This tool contains 36 items across five areas of core competencies that have been proposed by the WHO;
2. Read the items carefully and assign a value from 1 to 4 for each of them in the "self-assessment" column;


1	2	3	4
LIMITED	MODERATE	GOOD	EXCELLENT
My knowledge, skills and attitudes are limited on this item	My knowledge, skills and attitudes are moderate on this item	My knowledge, skills and attitudes are good on this item	My knowledge, skills and attitudes are excellent on this item

3. After completing your self-assessment, your line manager should review the items and assign a value from 1 to 4 in the column labeled "manager's level of expectation";

1	2	3	4
<b>BELOW EXPECTATIONS</b>	<b>MEETS EXPECTATIONS</b>	<b>EXCEEDS EXPECTATIONS</b>	<b>EXCEPTIONAL</b>
Performance is below expectations in relation to the expected activities	Performance meets expectations, and the quality is moderately good	Performance consistently exceeds expectations, and the overall quality of work is excellent	Performance far exceeds expectations, driving by the high quality of work.

4. At the end of the table for each competence area, check the professional's competence score on a scale of 0-100%. The higher the score, the greater the competence in that area;

**Example:**

OCCUPATIONAL HEALTH			
ITEM	SELF ASSESSMENT	MANAGER'S LEVEL OF EXPECTATION	SELF ASSESSMENT X MANAGER'S LEVEL OF EXPECTATION
31- Collaborates with Occupational Health and Safety on counselling healthcare professionals regarding communicable diseases and/or exposures.	3	4	12
32- Contributes to the development of recommendations for work restrictions related to communicable diseases and/or exposures.	3	4	12
33- Encourages healthcare workers to participate in institutional immunization programmes.	4	4	16
34- Collaborates with Occupational Health Services to develop policies that improve healthcare worker safety.	3	4	12
	<b>SUBTOTAL:</b>	13	16
	<b>COMPETENCY SCORE IN THE AREA OF OCCUPATIONAL HEALTH</b>		81% 

5. Upon completing the assessment, you will have a quantitative analysis of the infection preventionist's performance relative to the core competencies;

6- In tab 2, you and your manager will be able to collaboratively develop an individual development plan based on the completed evaluation;

## COMPETENCIES FOR INFECTION CONTROL PRACTITIONERS: ASSESSMENT TOOL

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NAME OF THE INFECTION CONTROL PRACTITIONER:

DATE OF ASSESSMENT:

### OBJETIVE

To provide a validated and reliable tool for assessing IP competencies, through self-assessment and manager assessment, identifying gaps that will guide the personal development plans planning.

### GUIDANCE

1. This tool contains 36 items across five areas of core competencies that have been proposed by the World Health Organization;
2. Read the items carefully and assign a value from 1 to 4 for each of them in the "self-assessment" column;
3. After completing your self-assessment, your line manager should read the items and assign a value from 1 to 4 in the column "manager's level of expectation";
4. At the end of the table for each competence area, check the professional's competence score on a scale of 0-100%. The higher the score, the higher the competence of the area;
5. At the end of the assessment, you will have a quantitative analysis of the infection preventionist's performance in relation to the core competencies;
- 6- In tab 2, you will be able to elaborate together with your manager an individual development plan based on the evaluation carried out;

### SELF ASSESSMENT

1	2	3	4
<b>LOW</b>	<b>MODERATE</b>	<b>GOOD</b>	<b>EXCELLENT</b>
My knowledge, skills and attitudes regarding this item are limited	My knowledge, skills and attitudes regarding this item are moderate	My knowledge, skills and attitudes regarding this item are strong	My knowledge, skills and attitudes regarding this item are excellent

### MANAGER'S LEVEL OF EXPECTATION

1	2	3	4
<b>BELOW EXPECTATIONS</b>	<b>MEETS EXPECTATIONS</b>	<b>EXCEEDS EXPECTATIONS</b>	<b>EXCEPTIONAL</b>
Performance is below expectations in relation to the expected activities	Performance meets expectations, and the quality is moderately good	Performance consistently exceeds expectations, and the overall quality of work is excellent	Performance far exceeds expectations, driving by the high quality of work.



AREAS OF COMPETENCE			
LEADERSHIP AND INFECTION PREVENTION AND CONTROL PROGRAMME MANAGEMENT			
ITEM	SELF ASSESSMENT	MANAGER'S LEVEL OF EXPECTATION	SELF ASSESSMENT X MANAGER'S LEVEL OF EXPECTATION
1- Implements the infection prevention and control (IPC) action plan addressing local needs.			0
2- Develops an infectious diseases epidemic/ outbreak plan with clear objectives, a defined timeframe, assigned responsibilities, and detailed budget.			0
3- Sets professional development plans for infection control practitioners.			0
4- Evaluates performance and provides constructive feedback to other infection control practitioners.			0
5- Mentors other infection control practitioners.			0
6- Engages with the organization's leadership and/or clinical governance framework to prioritize IPC activities within the context of quality and patient safety programmes.			0
7- Influences and persuades up to and including the executive level, building consensus within and across stakeholder groups.			0
8- Provides feedback on the design of construction and/or renovation projects for health services			0
9- Understands evidence-based strategies related to workload, staffing, and bed occupancy to prevent the transmission of healthcare-associated infections (HAI).			0
10- Ensures continuous and adequate supply of appropriate personal protective equipment (PPE) for both clinical care and healthcare waste handling and cleaning.			0
11- Develops IPC policies and strategies to ensure that the healthcare facility meets the minimum requirement to effectively recognize and respond to infectious disease threat, including planning, preparation, implementation, evaluation, and communication			0
12- Evaluates the effectiveness of education and training sessions, including processes and learning outcomes.			0
13- Advises on IPC indicators and benchmarks to be included in quality and patient safety assessment tools and systems.			0
14- Provides regular and timely feedback on HAI rates and compliance with infection prevention practices to key stakeholders.			0
	<b>SUBTOTAL:</b>	<b>0</b>	<b>0</b>
<b>COMPETENCY SCORE IN THE AREA OF LEADERSHIP AND MANAGEMENT OF THE INFECTION PREVENTION AND CONTROL PROGRAM</b>			

HEALTH CARE-ASSOCIATED INFECTION SURVEILLANCE AND INFECTION PREVENTION AND CONTROL IN CLINICAL PRACTICE			
ITEM	SELF ASSESSMENT	MANAGER'S LEVEL OF EXPECTATION	SELF ASSESSMENT X MANAGER'S LEVEL OF EXPECTATION
15- Uses standardized definitions for HAI surveillance.			0
16- Periodically reviews epidemiological characteristics.			0
17- Conducts epidemiological surveillance.			0
18- Uses and interprets appropriate statistical techniques to describe epidemiological data			0
19- Utilizes information technology to collect, interpret, and disseminate data.			0
20- Systematically analyses routine surveillance data to identify clusters or outbreaks early.			0
21- Develops standard operation procedures (SOPs) for the implementation of standard precautions and transmission-based precautions.			0
22- Recommends the appropriate precaution category based on the modes of microorganisms transmission.			0
	<b>SUBTOTAL:</b>	<b>0</b>	<b>0</b>
<b>COMPETENCY SCORE IN THE AREA OF HEALTH CARE-ASSOCIATED INFECTION SURVEILLANCE AND INFECTION PREVENTION AND CONTROL IN CLINICAL PRACTICE</b>			

BASIC MICROBIOLOGY AND ANTIMICROBIAL RESISTANCE PREVENTION			
ITEM	SELF ASSESSMENT	MANAGER'S LEVEL OF EXPECTATION	SELF ASSESSMENT X MANAGER'S LEVEL OF EXPECTATION
23- Works in partnership with the microbiology laboratory to identify infectious agents of epidemiological importance.			0
24- Understands the difference between colonization, infection, and contamination.			0
25- Knows the classification, taxonomy, and key characteristics of microorganisms.			0
26- Understands the differences between sensitivity, specificity, positive/negative predictive value.			0
27- Contributes to national and/or local efforts to minimize antimicrobial resistance.			0
28- Knows the definition of antibiotic-resistant microorganisms.			0
29- Provides IPC policies and strategies to guide the surveillance of antibiotic-resistant microorganisms.			0
30- Implements Antimicrobial Stewardship Program measures to enhance IPC.			0
	<b>SUBTOTAL:</b>	0	0
<b>COMPETENCY SCORE IN THE AREA OF BASIC MICROBIOLOGY AND ANTIMICROBIAL RESISTANCE PREVENTION</b>			

OCCUPATIONAL HEALTH			
ITEM	SELF ASSESSMENT	MANAGER'S LEVEL OF EXPECTATION	SELF ASSESSMENT X MANAGER'S LEVEL OF EXPECTATION
31- Collaborates with Occupational Health and Safety on counselling healthcare professionals regarding communicable diseases and/or exposures.			0
32- Contributes to the development of recommendations for work restrictions related to communicable diseases and/or exposures.			0
33- Encourages healthcare workers to participate in institutional immunization programmes.			0
34- Collaborates with Occupational Health Services to develop policies that improve healthcare worker safety.			0
	<b>SUBTOTAL:</b>	0	0
<b>COMPETENCY SCORE IN THE AREA OF OCCUPATIONAL HEALTH</b>			

DECONTAMINATION AND REPROCESSING OF MEDICAL DEVICES AND EQUIPMENT			
ITEM	SELF ASSESSMENT	MANAGER'S LEVEL OF EXPECTATION	SELF ASSESSMENT X MANAGER'S LEVEL OF EXPECTATION
35- Contributes to the development of monitoring process for the physical layout of the Sterile Service Department.			0
36- Contributes to the development of documentation and reporting practices to ensure full traceability of sterilized medical devices to the patient on whom they were used.			0
37- Coordinates the investigation of breaches in the reprocessing of medical devices that may have caused harmed to patient.			0
	<b>SUBTOTAL:</b>	0	0
<b>COMPETENCY SCORE IN THE AREA OF DECONTAMINATION AND REPROCESSING OF MEDICAL DEVICES AND EQUIPMENT</b>			



## COMPETENCIES FOR INFECTION CONTROL PRACTITIONERS: INDIVIDUAL DEVELOPMENT PLAN WORKSHEET

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NAME OF THE INFECTION CONTROL PRACTITIONER

DATA:

### OBJECTIVE

The individual development plan (IDP) is a tool designed to develop the technical and behavioral skills of infection control practitioner. It is a plan that systematizes actions to achieve the goal of enhancing knowledge, skills and attitudes.

### DIRECTIONS

1. Based on the results of the competency assessment, identify the areas and competencies that need to be developed. We recommend prioritizing the areas with the lowest competency scores;
2. Document the actions to be taken, such as participation in events, courses, lectures;
3. Establish a deadline for completing the proposed action;
4. Specify the evidence that will demonstrate the development of the competency in practice, e.g., demonstrates skill in analyzing indicators
5. List the resources and costs involved, e.g., free course, cost of X

### INDIVIDUAL DEVELOPMENT PLAN WORKSHEET

AREA	COMPETENCE	ACTION	DEADLINE	SUCCESS INDICATORS	RESOURCES AND COSTS