Assessment tool on infection prevention and control minimum requirements for secondary health care facilities

World Health Organization

Introduction

The World Health Organization (WHO) assessment tool on infection prevention and control (IPC) minimum requirements for secondary health care facilities is a tool to support the implementation of the WHO minimum requirements for IPC[1], which are derived from the WHO core components for IPC programmes[2]. Users should be familiar with the WHO IPC minimum requirements before using this tool. Note that there are corresponding tools for assessment of the WHO minimum requirements for primary and tertiary health care facilities, respectively.

Purpose of this tool

The tool will assist secondary health care facilities to assess their situation regarding the WHO minimum requirements for each IPC core component and to identify those that still need to be achieved or improved. It is based on selected indicators included in the WHO IPC assessment framework (IPCAF) at the facility level[3].

The WHO *Interim practical manual*[4], supporting implementation of the IPC core components, outlines five steps for implementing IPC programmes to help maximize the likelihood of success and overcome some of the process complexity. Step 2 involves conducting a baseline assessment to establish an understanding of the current situation of IPC in the facility, including strengths and weaknesses, with a view to guiding action planning for improvement. Step 4 (evaluating impact) is concerned with assessing the effectiveness of the action plan. This tool is a valuable instrument to support steps 2 and 4 of this process. The manual[4], as well as the core components' guidelines[2] and minimum requirements[1] documents, provide definitions and explanations that will help the interpretation of the indicators included in this tool.

1 Minimum requirements for infection prevention and control. Geneva: World Health Organization; 2019 (https://iris.who.int/handle/10665/330080, accessed 17 October 2023).

2 Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level. Geneva: World Health Organization; 2016 (https://www.who.int/publications/i/item/9789241549929, accessed 17 October 2023).

3 Infection prevention and control assessment framework at the facility level. Geneva: World Health Organization; 2018 (https://iris.who.int/handle/10665/330072, accessed 17 October 2023).

4 Improving infection prevention and control at the health facility level: interim practical manual supporting implementation of the WHO guidelines on core components of infection prevention and control programmes. Geneva: World Health Organization; 2018 (https://iris.who.int/handle/10665/279788, accessed 17 October 2023).

This tool is not intended to be used as an audit tool. Its purpose is to help self-assess, plan, organize and implement a facility-based IPC programme according to the WHO minimum requirements[1]. The tool provides a structured approach to determine the status of implementation of each of the core components of IPC activities recommended to be available in secondary health care facilities. Most importantly, this tool should be used in a spirit of improvement to identify areas that still need to be tackled and to develop targeted plans to have at least the minimum requirements for IPC in place at the secondary care level. By completing it regularly, facilities can monitor their progress over time.

Who should complete and use this tool?

This tool should be completed by the health professional and/or team in charge of IPC and responsible for organizing and implementing IPC activities at the facility level. Alternatively, this tool may be completed by those who have an understanding and knowledge of the IPC capacity within the facility.

How is it structured?

This tool is structured according to eight sections reflecting the eight WHO IPC core components[2] and minimum requirements at the secondary care facility level[1], covering a total of 37 indicators. These indicators are based on evidence and expert consensus and have been framed as questions. As these are minimum requirements, the total score will be the sum of all “yes” responses for each core component.

Assessment tool on infection prevention and control (IPC) minimum requirements for secondary health care facilities

Core component 1. IPC programme		
Question	**Yes/No**	**Comments**
1. Is there at least one full-time trained IPC focal point per 250 beds in charge of IPC activities[5]?		
2. Does the IPC focal point have dedicated time for IPC activities?		
3. Is there a dedicated budget specifically for IPC activities (including salaries)?		

Core component 2. IPC guidelines		
Question	**Yes/No**	**Comments**
1. Does your facility have locally adapted/developed standard operating procedures (SOPs)/guidelines addressing **ALL**[6] of the following IPC measures: • hand hygiene • decontamination of medical devices and patient care equipment • environmental cleaning • health care waste management • injection safety • health and care worker protection and safety[7] • aseptic techniques[8] • triage[9] of infectious patients?		
2. Does your facility have locally adapted/developed specific, detailed SOPs/guidelines addressing **ALL**[10] of the following IPC measures: • standard and transmission-based precautions[11] (for example, specific SOPs for the prevention of airborne pathogen transmission); • aseptic technique for invasive procedures, including surgery (if applicable); • prevention of specific types of health care-associated infections[12] based on the local context/ epidemiology; • occupational health[13]?		

5 As per the recommended ratio of 1:250 beds with dedicated time to carry out IPC activities in the facility (for example, if the facility has 120 beds, one 50% full-time equivalent dedicated officer).
6 A "yes" is defined as having SOPs/guidelines for all of the listed IPC elements. If any one element is not present/available, then this is a "no".
7 Includes aspects of improving working conditions, post-exposure prophylaxis, detection of occupational diseases, health surveillance of workers, pre-employment screening and vaccinations.
8 The principle of asepsis is applied to many care practices and usually embedded within the respective SOPs.
9 The process of sorting patients into categories based on the need for time-sensitive treatment using validated tools. Triage identifies those who require immediate medical intervention and those who can safely wait. Triage may occur at a health post, primary health centre, clinic or emergency unit. It typically requires close physical contact (within 1 meter) with the patient during the assessment.
10 A "yes" is defined as having SOPs/guidelines for all of the listed IPC elements. If any one element is not present/available, then this is a 'no'.
11 Transmission-based precautions are to be used in addition to standard precautions for patients who may be infected or colonized with certain infectious agents for which additional precautions are needed to prevent transmission. They are based on the routes of transmission of specific pathogens (for example, contact versus droplets). More information can be found in the United States Centers for Disease Control and Prevention Guidelines for Isolation Precautions (https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html, accessed 17 October 2023).
12 Examples of specific health care-associated infections include surgical site infections, vascular catheter-associated bloodstream infections, all types of hospital-acquired pneumonia, including (but not exclusively) ventilator-associated pneumonia, and catheter-associated urinary tract infections.
13 In some facilities, the topic of occupational health, even with regard to IPC, may not be within the duties or the responsibility of the IPC team. In this case, the IPC focal point completing the tool may have to reach out to the respective department for help.

3. Are the SOPs/guidelines in your facility based on national or international guidelines (if they exist)?		
4. Do you regularly (for example, once per year) monitor the implementation of at least some[14] of the IPC SOPs/guidelines in your facility?		

Core component 3. IPC education and training		
Question	**Yes/No**	**Comments**
1. Do all new front-line health and care workers receive education and training on IPC SOPs/guidelines upon employment?		
2. Do all new cleaning staff receive education and training on IPC SOPs/guidelines upon employment?		
3. Do all IPC staff in your facility receive specific IPC training[15]?		

Core component 4. Health care-associated infection surveillance		
Question	**Yes/No**	**Comments**
1. Is health care-associated infection surveillance undertaken in accordance with national or sub-national plans/policy?		

Core component 5. Multimodal strategies for the implementation of IPC interventions		
Question	**Yes/No**	**Comments**
1. Do you use multimodal strategies[16] to implement priority IPC interventions (at the very least) to improve **ALL** of the following: • standard precautions • transmission-based precautions?		

Core component 6. Monitoring/audit of IPC practices and feedback		
Question	**Yes/No**	**Comments**
1. Does your facility conduct periodic or continuous monitoring of IPC practices and indicators according to local priorities?		
2. Do you have trained personnel responsible for conducting IPC monitoring?		
3. Is hand hygiene compliance monitored as a process indicator in your facility?		
4. Do you provide timely and regular feedback on IPC monitoring data[17] to key stakeholders, particularly to the hospital management and senior administration in order to lead to appropriate action?		

14 "Some" is defined as at least two or more IPC SOPs regularly monitored.

15 Specific IPC training either on-line or participation in courses in the facility or externally.

16 Multimodal strategies comprise measures to support the implementation of IPC improvement interventions and commonly focus on: 1) system change (infrastructure and human resources for IPC); 2) training and education; 3) monitoring and feedback; 4) communications/reminders; and 5) safety climate/culture change.

17 For example, feedback on hand hygiene compliance data or other processes.

Core component 7. Workload, staffing and bed occupancy[18]		
Question	**Yes/No**	**Comments**
1. Are there systems in place to reduce overcrowding[19] according to existing guidelines/SOPs?		
2. Are staffing levels assessed in your facility to ensure that they are appropriate according to patient workload, using WHO and/or national tools (national norms on patient/staff ratio)[20]?		
3. Is a system in place in your facility to improve staffing levels when they are considered to be too low[21] according to the assessment?		
4. Is a system in place in your facility to establish the standard bed capacity for the facility?		
5. Does the hospital administration enforce a system to manage the use of space when the designed standard bed capacity is exceeded?		
6. Is bed occupancy in the facility kept to one patient per bed?		
7. Is adequate spacing of more than 1 meter between patient beds ensured in your facility?		

Core component 8. Built environment, materials and equipment for IPC at the facility level[22]		
Question	**Yes/No**	**Comments**
Water		
1. Is a safe and sufficient[23] quantity of water available for all required IPC measures and specific medical activities, including for drinking, and piped inside the facility at all times — at a minimum to high-risk wards (for example, maternity ward, operating room/s, intensive care unit)?		
Hand hygiene and sanitation facilities		
2. Are functioning hand hygiene stations (that is, with alcohol-based handrub solution, soap, water and clean single-use towels or, if unavailable, clean reusable towels) available at **ALL** points of care and service areas[24]?		

18 Particularly for these questions, the IPC team may need to consult with other relevant teams in the facility to be able to respond to questions accordingly.

19 Examples include a system for patient flow, a triage system including a referral system, and a system for the management of consultations.

20 The WHO Workload indicators of staffing need method provides health managers with a systematic way to determine how many health workers of a particular type are required to cope with the workload of a given health facility and aid decision-making (https://iris.who.int/handle/10665/44414, accessed 17 October 2023).

21 'Too low' is defined according to the tool used to assess staffing levels in core component 7, question 2.

22 This component can be assessed in more detail using the WHO Water and sanitation for health facility improvement tool (WASH FIT) (https://iris.who.int/handle/10665/353411, accessed 17 October 2023). Particularly for these questions, the IPC team may need to consult with other relevant teams in the facility to be able to respond to questions accordingly and accurately.

23 "Sufficient" is defined as enough of it for a particular need or purpose.

24 Service areas include sterilization, laboratory, kitchen, laundry, showers, waste zone and mortuary.

3. Are functioning hand hygiene stations available within 5 meters of toilets (at least with soap, water and clean single-use towels or, if unavailable, clean reusable towels)?		
4. Are there a minimum of two functional, improved sanitation facilities, equipped with menstrual hygiene facilities, available for outpatient wards and one per 20 users for inpatient wards[25]?		
Power supply, ventilation and equipment		
5. Is there a sufficient[23] and reliable energy/power supply available for performing all IPC practices[26]?		
6. Is reliable electricity available to provide lighting to clinical areas for providing continuous and safe care, at a minimum to high-risk wards (for example, maternity ward, operating room/s, intensive care unit)?		
7. Is functioning environmental ventilation[27] (natural or mechanical) available in patient care areas?		
8. Are there sufficient[23] and appropriate materials available for cleaning and disinfection (for example, various types of disinfectants, detergents, mops, buckets, etc.)?		
Patient placement and personal protective equipment in health care settings		
9. Do you have adequate single isolation rooms or at least one room for the cohorting[28]/physical separation of patients with similar pathogens or syndrome if the number of isolation rooms is insufficient[23] (for example, tuberculosis, measles, cholera, Ebola, severe acute respiratory syndrome)[29]?		
10. Is personal protective equipment[30] available in sufficient[23] quantity for appropriate use for performing all IPC practices for all health and care workers?		

25 Improved sanitation facilities include flush toilets into a managed sewer or septic tank and soak-away pit, VIP latrines, pit latrines with slab and composting toilets. To be considered usable, a toilet/latrine should have a door that is unlocked when not in use (or for which a key is available at any time) and can be locked from the inside during use. There should be no major holes or cracks or leaks in the toilet structure, the hole or pit should not be blocked, water should be available for flush/pour flush toilets. It should be within the grounds of the facility and it should be clean as noted by the absence of waste, visible dirt and excreta, and insects.

26 For example, pumping and boiling water, sterilization and decontamination, incineration or alternative treatment technologies, electronic medical devices, general lighting of areas where health care procedures are performed to ensure safe provision of health care and lighting of toilet facilities and showers.

27 Natural ventilation: outdoor air driven by natural forces (for example, winds) through building purpose-built openings, including windows, doors, solar chimneys, wind towers and trickle ventilators. Mechanical ventilation: air driven by mechanical vans installed directly in windows or walls or in air ducts for supplying air into, or exhausting air from a room. More information at: https://apps.who.int/iris/handle/10665/44167, accessed 17 October 2023.

28 Cohorting strategies should be based on a risk assessment conducted by the IPC team.

29 Negative pressure ventilation conditions in isolation rooms may be necessary to prevention the transmission of some organisms (for example, multidrug-resistant tuberculosis).

30 Personal protective equipment: medical non-sterile and surgical sterile gloves, surgical masks, goggles or face shields and gowns are considered as essential personal protective equipment. Respirators and aprons should also be available in adequate quantities in all facilities for use when necessary.

Medical waste management and sewage		
11. Do you have sufficient[23] functional waste collection containers for non-infectious (general), infectious and sharps waste in close proximity[31] at all waste generation points?		
12. Is waste treated and disposed of safely via autoclaving, incineration (850° to 1100°C), and/or buried in a lined, protected pit?		
Decontamination and sterilization		
13. Does your health facility have a dedicated decontamination area and/or sterile supply department (either present on- or off-site and operated by a licensed decontamination management service) for the decontamination and sterilization of medical devices and other items/equipment?		
14. Do you reliably have sterile and disinfected equipment ready for use?		

31 Appropriately labelled waste containers should be placed within visible, easy-to-reach areas, less than 5 metres from the point of generation.

Interpretation

Count your total "yes" responses overall and for each core component. A total score of 37 (100%) means you have achieved all the minimum requirements for IPC at the secondary care level. If your score is less, this means you have not achieved all the minimum requirements. Review the areas identified by this evaluation as requiring improvement in your facility and develop an action plan to address them. To undertake this task, consult the WHO *Interim practical manual Improving infection prevention and control at the health facility level*[1], which will provide you with guidance, templates, tips and examples from around the world, as well as a list of relevant IPC improvement tools. Keep a copy of this assessment to compare with repeated uses in the future.

Adding up subtotal scores	
Core component	**Total 'yes' responses**
1. IPC programmes	/3
2. IPC guidelines	/4
3. IPC education and training	/3
4. Health care-associated infection surveillance	/1
5. Multimodal strategies	/1
6. Monitoring/audits of IPC practices and feedback	/4
7. Workload, staffing and bed occupancy	/7
8. Built environment, materials and equipment for IPC at the facility level	/14
Final total score	**/37**