Administrative controls to guarantee implementation of infection prevention and control measures in the context of COVID-19

(Interim recommendations, 18 June 2020)

Objective

- Present a summary of the administrative measures that serve as the basis for implementation of infection prevention and control (IPC) measures in the context of COVID-19.

Key considerations

- The main objectives of IPC in the response to an infectious event or outbreak in health facilities include:
  - Guaranteeing the safety of staff, visitors, and patients
  - Increasing health service capacity to respond to the outbreak
  - Reducing the risk of the health facility becoming an amplifier of the infectious event or outbreak) (1, 2).
- The hierarchy of IPC measures includes those whose objective is **to reduce or mitigate the risk of infectious disease transmission in health facilities**. These measures have proven effective in reducing the tuberculosis burden in health services, for example (3).
- The measures include:
  - **Administrative controls:** administrative measures aimed at reducing the risk of exposing people to infectious agents.
  - **Environmental controls:** measures aimed at reducing the spread of the pathogen and its concentration in the environment.
  - **Rational use of personal protective equipment (PPE):** PPE use based on risk assessment, considering (i) the disease transmission mechanism, (ii) the type of procedure to be performed, and (iii) the amount of fluid likely to be generated (4).
- This document focuses on administrative controls. **Administrative controls in IPC** are part of a series of measures that need to be implemented in the health services to guarantee worker and patient safety during health care. These measures further the use of other IPC measures and make the results of their use measurable (1, 2).
- For these objectives to be met, health facilities must adopt and implement a series of actions with regard to human resources, the provision of supplies, care capacity, the organization of work flows and work areas, monitoring of the measures' implementation, and feedback.

Planning and management of administrative controls

Human resources

Hospital infection prevention and control team

- It is essential that the hospital, isolation area, or quarantine area have an IPC program staffed with trained professionals assigned exclusively to the program.
- The WHO recommendation on the ratio of IPC professionals required to handle the workload in an acute care health facility is one full-time IPC professional (nurse or physician) for every 100-250 beds or fraction thereof, depending on the demand (2);
- However, a higher ratio should be considered for areas devoted to the care of suspected or confirmed COVID-19 cases, given the severity of the disease and the importance of strict compliance with IPC recommendations;
- The infection control team or focal point should work daily and be dedicated exclusively to this activity. This team must have formal training in IPC and hospital epidemiology, including clinical and microbiological aspects and the prevention of hospital transmission of COVID-19. It must also have the authority to perform the necessary IPC tasks beyond routine programmed activities and have a budget that is balanced with other health priorities.

Clinical team

- Ensure an adequate patient-staff ratio (5);
- Whenever possible, assign a team of health workers to the exclusive care of suspected or confirmed COVID-19 cases to reduce the risk of transmission;
- Limit the number of people present in the room to the absolute minimum required for patient care and support;

Health workers

- Have guidelines in place for the care of health workers exposed to COVID-19 in health facilities and for the **management of occupational exposure to the virus** (6);
- Conduct active surveillance for cases of acute respiratory infection* potentially caused by SARS-CoV-2 among health workers;
- Ensure that health workers understand the importance of seeking immediate medical attention if they note signs or symptoms suggestive of COVID-19;
- Monitor health worker compliance with standard precautions based on the transmission mechanisms of the disease†;
- Maintain a roster of all workers and their duties and work shifts;
- Provide workers who have contact with the patients' environment with thermometers and log books to record their temperature;
- Follow up with employees who have unexplained absences in order to ascertain their health status;
- Keep a record of any unprotected occupational exposure;

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* For more information on the surveillance of COVID-19 and other respiratory viruses, visit https://www.paho.org/en/technical-documents-coronavirus-disease-covid-19.

† For more information on COVID-19 transmission mechanisms, visit World Health Organization. (2020). Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations: scientific brief, 29 March 2020. World Health Organization. https://apps.who.int/iris/handle/10665/331616. License: CC BY-NC-SA 3.0 IGO. Cited 15 June 2020.

Triage

- Set up a well-equipped **triage station** with trained support staff at the entrance to the health facility (7);
- Train health workers to have a high degree of clinical suspicion;
- Institute the use of screening questionnaires based on the current case definition;
- Display signs with information on COVID-19 in public areas[‡];
- Prioritize the **care of symptomatic patients** and create a separate waiting area (8).

Appropriate use of personal protective equipment

- Guarantee an adequate supply of PPE in the health services, with the recommended specifications for each activity for which it is recommended (9, 10);
- Display signs in the isolation area indicating how don and doff PPE;
- Train health workers in the proper use of PPE (10).

Environment

- Make sure that environmental cleaning and disinfection procedures are consistently and correctly followed;
- Guarantee at least 1 meter of separation between all patients. Spatial separation and adequate ventilation can help reduce the spread of many pathogens in a health care setting;
- Do not exceed the health facility's standard bed occupancy capacity;
- Develop standards for adequate sanitation services and a hygienic environment in health facilities and recommend their application;
- Guarantee the availability of products for hand hygiene at points of care;
- Apply WHO standards for drinking water quality, sanitation, and environmental health in health facilities (11);
- Guarantee the availability of safe drinking water at least 8 hours per day;
- Ensure that there are working sinks with supplies for hand washing and drying at the entrance to care and drug preparation areas.

[‡] For communication materials on COVID-19, visit https://www.paho.org/en/covid-19-communication-materials.

Implementation and monitoring of practice

- Health and medical facilities should tailor national or international recommendations to their particular context and have specific supervision instruments (12).
- Adherence to IPC standards in medical practice should be regularly monitored/audited and timely feedback should be provided to prevent and control the transmission of COVID-19 and other diseases in health care settings.

Management indicators for COVID-19 infection prevention and control

Outcome indicators

Indicator	Frequency	Verification document	Objective	Calculation method
Number of health professionals with COVID-19 infection acquired in the health facility	weekly	epidemiological investigation forms; epidemiological reports	100% of cases identified and investigated	*Numerator:* Number of health professionals with COVID-19 infection acquired in health facility X on day Y *Denominator:* Number of health professionals in health facility X on day Y Unit: professionals/day
Number of patients infected with COVID-19 during their stay in the health facility	weekly	epidemiological investigation forms; epidemiological reports	100% of cases identified and investigated	*Numerator:* Number of patients with COVID-19 acquired during their stay in the health facility *Denominator:* Number of patients admitted to the health facility on day Y for any cause other than COVID-19 Unit: patients/day

Process indicators

Indicator	Frequency	Verification document	Objective	Calculation method
IPC Operational Plan for the COVID-19 response, with defined and measurable goals and targets	annual	IPC operational plan with a COVID-19 focus	present	Not applicable. Plan should be annual, with semi-annual review and targets
% isolation procedures based on national or local recommendations for COVID-19	daily	checklist and monitoring of the use of isolation measures	100% compliance	*Numerator:* Number of patients in isolation for COVID-19 with whom precautionary contact and droplet protection measures were used on day X. *Denominator:* Number of patients in isolation for COVID-19 on day X
% compliance with admission and discharge recommendations in the COVID-19 patient cohort	daily	monitoring of compliance with admission and discharge indications in the COVID- 19 cohort	100% compliance	*Numerator:* Number of suspected COVID-19 cases requiring hospital admission and isolation, in keeping with national or local recommendations for COVID-19 *Denominator:* Number of suspected COVID-19 cases requiring hospital admission

Organizational indicators

Indicator	Frequency	Verification document	Objective	Calculation method
Existence of a COVID-19 infection prevention and control team or focal point	annual	official document regulating the IPC team or focal point	present	not applicable
Existence of an isolation area for COVID-19 patients that complies with local, national, or international recommendations	weekly	visual; inspection of the health facility; monitoring and evaluation visit	present	not applicable
Existence of a triage area for patients with respiratory symptoms	weekly	visual; inspection of the health facility; monitoring and evaluation visit	present	not applicable

Structural indicators

Indicator	Frequency	Verification document	Objective	Calculation method
Ventilation control in the isolation area	daily	natural ventilation or air conditioning system with filter and air exchange with the environment	Natural ventilation – presence of window that can be opened or an air conditioning system with a filter that permits air exchange with the outside	Not applicable
1 meter of separation between the beds of patients admitted for COVID-19	daily	visual: measurement of the distance between beds	100% of beds with 1 meter of separation between them	*Numerator:* Number of areas in the health facility with 1 meter of separation between beds *Denominator:* Number of areas in the health facility observed on day X

References

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