

**GUIDELINES OF THE TEAM OF NURSING CONSULTANTS
EPIDEMIOLOGICAL IN THE SCOPE OF ACTIONS AIMED AT
PREVENTING THE SPREAD OF SARS-CoV-2 INFECTIONS
IN THE HOSPITAL ENVIRONMENT**

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The guidelines developed by the consultants do not cover all aspects of the management of a patient suspected and/or infected with SARS CoV-2 in a healthcare facility; they only supplement the recommendations that have been published so far in Poland. Their goal is to standardize hospital activities that are undertaken to effectively prevent SARS CoV-2 infections among patients and staff.

**1 CONDITIONS FOR ISOLATION OF A SUSPECTED OR INFECTED PATIENT
AT THE MEDICAL ENTITY**

- 1.1 Patients with suspected or confirmed COVID-19 should be air-isolated droplet and contact.
- 1.2 Patients should be isolated in single rooms with full sanitary facilities (toilet + bathroom). A room with an airlock, equipped with forced ventilation operating on the principle of negative pressure, is recommended.
- 1.3 The patient's activity should be limited to the minimum necessary (e.g. moving around tests).
- 1.4 Reusable equipment in the isolated room (e.g. thermometer, blood pressure monitor, pulse oximeter etc.) should be separated for an individual patient.
- 1.5 Suspected and confirmed patients should be placed in separate areas of the ward.
- 1.6 Visits to the sick are prohibited. The patient should have access to electronic devices enabling remote contact with his family.
- 1.7 The activities of medical staff in the patient's isolation zone should be cumulative and limited to those necessary (up to a maximum of 4 hours per duty).
- 1.8 Patients with symptoms of respiratory infection (cough, fever, shortness of breath) are required to wear a surgical mask during their stay in hospital when in contact with staff.
- 1.9 Personnel in the isolated zone (isolation room or separate zone of the ward) strictly use personal protective equipment.
- 1.10 The duration of contact and droplet isolation should be extended due to the longer period of shedding of the coronavirus by patients. After performing PCR tests 24 hours apart and obtaining two negative results, the patient can leave the isolation room.

2 RULES FOR KEEPING CLEAN DURING INSULATION.

- 2.1 Cleaning and disinfection in the isolation room should be carried out once a day and always in the event of biological contamination. Preferably after completing all activities in the department's clean zones.
- 2.2 All surfaces in the room should be washed with a cleaning agent using disposable cloths. For disinfection, use a chlorine-based preparation with a concentration of 1000 ppm. active chlorine. If the patient has respiratory intolerance to a chlorine preparation, a preparation with proven virucidal effectiveness can be used.
- 2.3 The cleaning process should start with removing medical waste and washing and disinfecting the so-called surfaces. clean, i.e. from window sills, table tops, bed frames, door handles, switches and buttons, telephone handsets, to the floor and the bathroom or toilet. Large surfaces should be washed and disinfected using mopping pads using the "one mop for one room" principle. Used mops should be washed using a standard procedure.
- 2.4 A service cart should be allocated for the isolation room or isolation zone of the ward. After the cleaning process, all elements of the stroller should be disinfected with a chlorine preparation with a concentration of 1000 ppm and left to dry on their own.
- 2.5 To deactivate biological contaminants (blood, secretions and excretions), a chlorine-based preparation with a concentration of 10,000 ppm should be used. according to a two-step principle, i.e. collect biological material with a cloth soaked in a chlorine preparation (e.g. ready-made wipe with chlorine encrusted) and dispose of it in hazardous medical waste. Then disinfect the surface with another cloth soaked in chlorine
with a concentration of 10,000 ppm.
- 2.6 Disinfectants should absolutely not be used during the cleaning process
in the form of aerosols and atomizers.
- 2.7 The isolation room or isolated area should always be cleaned and disinfected at the end of the ward cleaning process, as the last element of the cleaning process.
- 2.8 When working in the patient area, cleaning staff use personal protective equipment, with particular emphasis on respiratory protection (FPP-2 mask).
- 2.9 If chlorine cannot be used (allergic patient), standard disinfectants with documented biocidal effectiveness against bacteria, fungi and viruses confirmed by European standards are allowed.

3 RULES FOR HANDLING THE PATIENT'S UNDERWEAR

- 3.1 Suspected or infected patients should wear disposable underwear. If such underwear is not available, reusable underwear may be used.
- 3.2 All items of underwear of suspected or infected patients should be removed carefully, without unduly disturbing the air, and packed into two types of bags: outer - foil, inner - soluble, in accordance with the colors applicable in a given medical entity. The bags should be sealed with cable ties and sent to the laundry in accordance with the rules for handling contaminated linen.
- 3.3 Bed linen and personal linen should be changed once a day and always
in case of contamination.

3.4 The patient's private clothing should be packed in a plastic bag and delivered to the patient's clothing store or given to the family. In the warehouse, it should be stored in a separate, designated place.

3.5 There are no indications for the use of single-use bed linen.

4. HANDLING OF MEDICAL WASTE

4.1 Waste should be managed in accordance with the procedures for infectious medical waste category B (UN3291);

4.2 It is recommended to use red double bags. Waste in the isolation zone are collected in a single bag, and when the bag is 2/3 full, they are taken away and secured in another red bag.

5. PROCEDURE AFTER THE PATIENT'S DISCHARGE

5.1 After the patient leaves the isolation room, the room should be aired for approximately 1 hour.

5.2 Cleaning should begin by removing waste and then removing linen from the bed. If screens were used, the fabric should be washed.

5.3. Reusable equipment should be disinfected using standard preparations including virucidal activity. It is advisable to use chlorine-based preparations, if possible.

5.4 If equipment is to be transported to another location outside the isolation room, it must be transported in advance disinfect;

5.5 The cleaning and disinfection process should be performed in accordance with maintenance procedures cleanliness developed by the Infection Control Team;

5.6 The room should be thoroughly disinfected in accordance with the guidelines contained in point 2.

5.7. After washing and disinfecting the room, it should be aired again.

5.8 In special cases, it is advisable to carry out fumigation after consultation with the local Hospital Infection Control Team.

6. HANDLING OF BODIES

6.1. The procedure should be in accordance with the locally developed procedure Regulation of the Minister of Health of April 3, 2020 amending the regulation on the management of human bodies and remains (Journal of Laws of 2020, item 585, regulating the method of handling the bodies of persons who died of the disease caused by SARS CoV-2 (COVID 19- 19).

6.2 To prepare dignity of the deceased person, to disinfect the body of a deceased person, an alcohol preparation should be used, intended for skin disinfection with a virucidal spectrum 6.3 The body should be transported within the medical facility in such a way as to shorten the transport route

outdoor communication routes;

6.4 If the body was transported in a non-separated elevator (so-called dirty), it should be immediately disinfect after transport.

6.5. After transport, means of transport should be disinfected with a spectrum preparation B,V,F

7. NUTRITION PRINCIPLES

- 7.1 Meals for suspected or infected patients should be served using disposable meals dishes and cutlery that should be disposed of as infectious waste.
- 7.2 Meals should preferably be served into the airlock with the isolation room door closed at the same time.
- 7.3 Treat post-consumer leftovers as infectious waste, segregate them into a red bag and hand them over for disposal.

8. PATIENT EDUCATION

- 8.1 During the patient's stay (if the patient's condition allows it) in the isolation room, the patient should be educated by providing information via information leaflets on the correct coughing technique, proper hand washing technique and general principles of contact and droplet isolation.
- 8.2 In the case of pediatric wards where parents accompany a minor patient, parents should also be educated. The scope of education should include, among others: the use of personal protective equipment and hand washing techniques.

9. PERSONAL PROTECTIVE EQUIPMENT IN PATIENT CARE

9.1 RESIDENTIAL CARE FACILITIES

Medical workers – patient room

- 9.1.1 Direct care for a COVID-19 patient: mask with FFP2 filter, waterproof long-sleeved apron, long-cuffed gloves (2 pairs of gloves recommended), surgical hat, eye protection (goggles or visor),
- 9.1.2 Aerosol-generating procedures performed in patients with COVID-19 (e.g. endotracheal intubation, non-invasive ventilation, tracheostomy, cardiopulmonary resuscitation, manual ventilation before intubation, bronchoscopy - mask with filter, FFP3, N95, waterproof long-sleeved apron, sleeveless front foil apron (waterproof), surgical cap or protective suit to consider biological care, gloves with extended cuffs (2 pairs of gloves recommended), eye protection (goggles or visor) - especially recommended in the ICU.

Cleaning staff – patient room

- 9.1.3 Direct provision of the service - entry into the room of a COVID-19 patient: mask with FFP2 filter, long-sleeved waterproof apron, rubber gloves with long cuffs, eye protection goggles or visor, full rubber work shoes to ensure washability.
- 9.1.4 Other places in the hospital or ward through which transport takes place, not related to contact with COVID-19 patients - **personal protective equipment not required.**

9.1.5 Patient triage (triage):

- 9.1.5.1 Patients with respiratory symptoms - maintain distance ≥1, provide the patient should wear a surgical mask, if he tolerates it,

9.1.5.2 Medical staff - mask with FFP2 filter, long-sleeved apron, gloves, eye protection (goggles or face shield),

9.1.5.3 Patients without respiratory symptoms - no personal protective equipment is required.

9.1.6 Administrative premises:

9.1.6.1 All staff, including medical workers - work in administrative rooms (medical and nursing stations, social rooms, secretariats) not related to contact with COVID-19 patients - **personal protective equipment not required.**

9.2 AMBULATORY CARE FACILITIES

9.2.1 Medical workers - consultation room:

9.2.1.1 Physical examination of a patient with respiratory symptoms - mask with FFP2 filter, waterproof long-sleeved apron, long-cuffed gloves (recommended 2 pairs of gloves), surgical hat, eye protection (goggles or visor),

9.2.1.2 Physical examination of a patient without respiratory symptoms - personal protective equipment in accordance with standard precautions and risk assessment.

9.2.2 Patients – consultation room:

9.2.2.1 With respiratory symptoms - provide the patient with a surgical mask, if he tolerates her,

9.2.2.2 No respiratory symptoms - no personal protective equipment required.

9.2.3 Housekeeping staff - consultation room:

9.2.3.1 After consultation with a patient with respiratory symptoms and between consultations mask with FFP2 filter, waterproof long-sleeved apron, rubber gloves with long cuffs, eye protection goggles or visor, full rubber work shoes to ensure washability.

9.2.4 Patient – waiting room:

9.2.4.1 Patients with respiratory symptoms - provide the patient with a surgical mask, if he tolerates it, immediately move the patient to a separate room or separate room, away from other people,

9.2.4.2 Patients without respiratory symptoms - personal protective equipment not required.

9.2.5 Patient triage (triage):

9.2.5.1 Patients with respiratory symptoms - arrange patients, keep a distance of 1m, provide the patient with a surgical mask if he tolerates it, 9.2.5.2 Patients without respiratory symptoms - personal protective equipment not required

9.2.5.3 Medical staff - mask with FFP2 filter, long-sleeved apron, gloves, eye protection (goggles or face shield),

9.2.6 Administrative premises:

9.2.6.1 All staff, including medical workers - administrative work not related to contact with COVID-19 patients - personal protective equipment not required

9.2.7 When using protective measures, remember about the correct technique and frequency of hand hygiene and respiratory hygiene when coughing. After use, personal protective equipment should be placed in an appropriate container for infectious medical waste (double red bag).

9.3 RATIONAL AND APPROPRIATE USE OF PROTECTION MEANS INDIVIDUAL

9.3.1 The choice of PPE should be adjusted to the risk of contact with the pathogen (e.g. type of activities performed) and the route of its transmission (e.g. contact, droplet or aerosol).

9.3.2 The type of PPE used when caring for a COVID-19 patient depends on the location and staff and activities performed.

9.3.3 Extended use of filter masks (e.g. N95, FFP2 or equivalent). This means that a healthcare worker wears the same mask while caring for multiple patients with the same diagnosis without removing it. Available data indicate that masks used in this way retain their protective function, although wearing them for >4 hours may lead to discomfort and should therefore be avoided.

9.3.4 It is not recommended to wear any masks for people without symptoms of illness. Can produce this a false sense of security, resulting in neglect of other necessary preventive actions.

Literature:

1. ECDC "ECDC TECHNICAL REPORT. Infection prevention and control for COVID-19 in healthcare settings. March 2020
2. Regulation of the Minister of Health of April 3, 2020 amending the regulation on the management of corpses and human remains (Journal of Laws of 2020, item 585)
3. Guidance from the World Health Organization on the use of masks in home care, in health care settings and beyond during the COVID-19 epidemic World Health Organization (2020).) crowd. Magdalena Rot, Piotr Filberek Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19): interim guidance, March 19, 2020 (<https://apps.who.int/iris/handle/10665/331498>);
4. Prevention and control of infections with the virus causing COVID-19 in facilities health care. ECDC Technical Report March 2020 M.Rot. Med. Practical <https://www.ecdc.europa.eu/en/publications-data/infection-prevention-and-control-covid-19-healthcare-settings>
5. Recommendations for the treatment of SARS CoV-2 infections of the Polish Society of Epidemiologists Infectious Diseases Doctors - version 24/03/2020