



## COVID-19 UPDATE

### INFECTION PREVENTION & CONTROL IN PHARMACY

The purpose of this document is to provide guidelines to prevent the transmission of known and / or unknown pathogens, including SARS-CoV-2, to susceptible patients and other healthcare workers in the pharmacy setting.

#### ELIMINATION AND SUBSTITUTION

The hierarchy of Infection Prevention and Control (IPC) measures to prevent and reduce the risk of transmission of pathogens include the following in order of priority:

- Engineering Controls
- Administrative Controls
- Environmental Controls

**These are the most effective measures to reduce risk and include Standard Precautions, which have to be implemented first. It has however to be done in conjunction with consistent practices at home, while off duty to be effective and to prevent that staff are infected in the community. Always perform hand hygiene after touching surfaces, avoid touching your face, eyes, nose and mouth, social distancing, open windows to ensure adequate ventilation, avoid crowds and wear a cloth mask when off-duty.**

#### ENGINEERING CONTROLS

Engineering controls are enduring physical changes which can be made to the environment to reduce transmission.

- **Cough screens** provide a physical barrier between the pharmacist and the patient/nurse and must be in place at dispensing counters.
- **Similar screens can provide a barrier between two pharmacists** standing at the reception counter to reduce the risk of transmission to colleagues.
- **Ventilation should be adequate** in the pharmacy to increase the air changes and to ensure a continuous flow of fresh air either by opening windows or installing an extraction fan or similar technology to ensure a supply of fresh air and removal of contaminated air, while still ensuring the adequate room temperature to ensure compliance with pharmacy legislation.

#### ADMINISTRATIVE CONTROLS

Administrative controls refer to the following:

- A set of well-designed policies and procedures guiding IPC practices.
- Access control procedures.
- Work from home and shift rotation protocols if possible and where applicable.

- Telephonic and Take Home Medication prescriptions:
  - **Retail telephonic orders:** Patients should phone or send an e-mail 2 days in advance to collect scripts for chronic medication to reduce waiting times.
  - **Take Home Medication:** In-patients that are discharged have to receive their take-home-prescriptions in the ward to reduce the number of patients entering the pharmacy.
  - Nursing staff has to send the prescriptions to the pharmacy to allow adequate time for processing by pharmacy personnel.
  - When the medication arrives in the ward, telephonic counselling has to be done by pharmacy personnel.

**NOTE: Refer to the following Pharmacy related documents:**

- **Pharmacy Process COVID-19: Patient access to the pharmacy (25 March 2020)**
- **COVID-19 Update - Suspension: Retail pharmacy service: Coronavirus - COVID-19 (1 April 2020)**

## ENVIRONMENTAL CONTROLS

Environmental controls include Standard Precautions, which consist of the following (to mention a few that is relevant to Pharmacy):

- Hand hygiene
- Environmental cleaning
- Personal Protective Equipment (PPE)
- Cough etiquette
- Social distancing
- Universal masking

## STANDARD PRECAUTIONS

TOPIC	ACTIONS
Hand hygiene	<p>Perform hand hygiene according to the Five Moments of Hand Hygiene:</p> <ul style="list-style-type: none"> <li>• Before patient contact</li> <li>• Before dispensing a prescription</li> <li>• After dispensing a prescription</li> <li>• After patient contact</li> <li>• After contact with the patient surroundings</li> <li>• Before the mixing of medication</li> <li>• Before putting on and removing PPE</li> </ul> <p><b>NOTE:</b> Hand hygiene can be performed by rubbing the hands for 20 – 30 seconds with 2-3 ml 70% alcohol based handrub or until dry. The hands have to be covered with the alcohol based handrub.</p> <p>Alternatively, hands can be washed with soap and running water for 20 – 30 seconds and dried properly with a single use paper towel when hands are visibly soiled. Alcohol based handrub has to be available in waiting areas.</p> <p>Posters informing patients about hand hygiene should be displayed in waiting areas.</p>
Maintenance of a clean environment	<p>Ensure adherence to routine cleaning and disinfection of all surfaces, furniture and equipment.</p> <ul style="list-style-type: none"> <li>• <b>First clean the area with a detergent (soap) and water</b> to remove dirt and organic material.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Disinfect all areas after cleaning</b>, using 70% alcohol surface disinfectant or hypochlorite 1:1000 ppm solution or equivalent, alternatively use disinfectant wipes.</li> <li>• The pharmacy has to be cleaned and disinfected <b>at least twice a day</b></li> <li>• <b>Surfaces have to be cleaned regularly</b> to reduce the bioburden and the risk of contamination. Disinfectant wipes are a useful alternative to use for the regular cleaning of frequently touched areas and equipment.</li> <li>• <b>Frequently touched areas that have to be cleaned more frequently are:</b> <ul style="list-style-type: none"> <li>○ Counters</li> <li>○ Door handles</li> <li>○ Telephones</li> <li>○ Credit card machines</li> <li>○ Keyboard, mouse and surfaces around each computer station</li> <li>○ Access control keypads</li> <li>○ Photostat machines and other shared equipment</li> </ul> </li> </ul> <p><b>NOTE: Please use Addendum 1 to record the cleaning process.</b></p>
<p>Deep-cleaning (An exceptional cleaning and disinfection process of the environment or an area, usually related to an outbreak or increase in incidence of an infectious disease)</p>	<p>Deep-cleaning has to be done when there is an increase in COVID-19 cases amongst pharmacy personnel or when there is a concern of transmission in the pharmacy.</p> <ul style="list-style-type: none"> <li>• <b>Surfaces and equipment</b> have to be cleaned with detergent and water, followed by disinfectant such as hypochlorite 1:1000 ppm or 70% alcohol surface disinfectant (<b>specific equipment, areas and objects are listed below</b>), depending on the manufacturer's guidelines.</li> <li>• <b>All non-porous containers and objects</b> (e.g. lin-bins, plastic containers and trolleys) in the pharmacy have to be cleaned and disinfected and surfaces allowed to dry, ensure that medication packaging is not compromised (disinfectant wipes can be used to clean plastic containers of medication (but is not preferred for deep cleaning) that is exposed in 'high-traffic' areas of the pharmacy.</li> <li>• <b>Floors</b> of the entire pharmacy have to be thoroughly cleaned with a detergent and water (following removal of any gross spillage as necessary beforehand), followed by disinfection with hypochlorite 1:1000 ppm and allowed to dry.</li> <li>• <b>Hydrogen peroxide fogging</b> has to be added to the cleaning process (deep cleaning) whenever there is an increase of positive cases in the pharmacy in addition to routine cleaning and disinfection.</li> </ul> <p><b>NOTE:</b> Please ensure that a certificate/proof of fogging is received from the company doing the fogging.</p>
<p>Personal Protective Equipment (PPE)</p>	<p><b>Gloves</b></p> <ul style="list-style-type: none"> <li>• <b>It is not appropriate to wear gloves in the pharmacy and it should not be allowed.</b></li> <li>• Hand hygiene has to be performed frequently.</li> </ul> <p><b>Aprons</b></p> <ul style="list-style-type: none"> <li>• Aprons are not indicated for use in the pharmacy.</li> </ul> <p><b>Masks</b></p> <ul style="list-style-type: none"> <li>• Wear a surgical mask to protect the respiratory tract from infectious agents and to prevent infected droplets from an asymptomatic/pre-symptomatic healthcare worker from being transmitted to colleagues and patients.</li> <li>• The mask has to fully cover the nose and mouth to prevent fluid penetration.</li> <li>• Discard in Healthcare Risk Waste (HCRW) container after removal.</li> </ul>

	<ul style="list-style-type: none"> <li>• Perform hand hygiene before application and after the removal.</li> <li>• Masks have to be worn whenever the pharmacist, runner or relevant personnel enter a clinical area.</li> <li>• Cloth masks have to be worn while travelling, coming on duty, entering the hospital.</li> </ul> <p><b>NOTE: Never let a mask hang around your neck.</b></p> <p><b>Goggles or face shield/visor</b>  <b>To protect mucous membranes of the eyes, nose and mouth.</b></p> <ul style="list-style-type: none"> <li>• Goggles have to fit snugly over and around eyes.</li> <li>• Face shield/visor has to be worn in pharmacies where social distancing (one meter) is difficult. Face shield/visor has to cover forehead, extend below chin and wrap around sides of the face.</li> <li>• Perform hand hygiene before application and after removal.</li> <li>• <b>Avoid touching the face, eyes, nose and mouth.</b></li> </ul> <p><b>NOTE:</b> Always clean the goggles or face shield after use with soap and water and disinfect with 70% alcohol surface disinfectant or hypochlorite 1:1000 ppm.</p>
Decontamination of equipment	<ul style="list-style-type: none"> <li>• All pharmaceutical equipment must be cleaned and disinfected before they are used again.</li> <li>• <b>Specific equipment, areas and objects</b> to be cleaned and disinfected: <ul style="list-style-type: none"> <li>○ Scales</li> <li>○ Utensils and measuring cylinders in compounding area</li> <li>○ Pill counting trays</li> </ul> </li> </ul>
Healthcare Risk Waste (HCRW) Management	<ul style="list-style-type: none"> <li>• Handle pharmaceutical waste according to the Corporate policy: Waste Management.</li> </ul>
Cough etiquette/ respiratory hygiene	<p>Promote respiratory hygiene/ cough etiquette:</p> <ul style="list-style-type: none"> <li>• Cover mouth and nose with a tissue when coughing or sneezing. Make use of a disposable tissue or your flexed elbow.</li> <li>• Dispose the used tissue immediately in a healthcare risk waste container.</li> <li>• Perform hand hygiene after coughing or sneezing.</li> <li>• Ensure that an alcohol based handrub is available in waiting areas and the dispensary.</li> <li>• Ensure that a bin is available in waiting areas.</li> </ul>
Social distancing	<ul style="list-style-type: none"> <li>• Maintain a distance of <b>at least one meter</b> from other people.</li> <li>• If that is not possible in the working environment, add a face shield.</li> </ul>
Kitchen and tea room	<ul style="list-style-type: none"> <li>• Kitchens have to be cleaned according to the cleaning schedule, after preparation of food and at the beginning and the end of the day.</li> <li>• Additionally the area has to be cleaned after each break.</li> <li>• No eating utensils, plates or cups must be shared.</li> <li>• Staff must not share food.</li> <li>• The fridge, microwave, kettle and surfaces in the kitchen have to be thoroughly cleaned with detergent and water, and wiped down with disinfectant.</li> </ul>
Toilets	<ul style="list-style-type: none"> <li>• Pharmacies with their own toilet facilities have to be cleaned thoroughly and disinfected at least three times a day according to the procedures from the contracted cleaning company.</li> </ul>

## **INFECTION PREVENTION AND CONTROL IN DIFFERENT AREAS OF THE PHARMACY**

The following **Standard Precautions** apply in all areas of the pharmacy:

- Hand hygiene before and after contact.
- Environmental cleaning: Regular cleaning and disinfection of surfaces and frequently touched equipment or objects in the pharmacy, at least twice a day.
- Wearing of appropriate PPE:
  - Surgical masks at all times.
  - Add visors in crowded spaces where social distancing is problematic.

### **Additional IPC precautions applicable to specific areas in the pharmacy**

#### **Front End:**

- Cough screens have to be in place on all counters.
- Safe social (and professional) distancing of at least 1.5 - 2 metres between queueing patients, and between pharmacy personnel and patients across the counter, the use of floor markings is recommended.
- Applicable Mediclinic COVID-19 posters on hand hygiene, cough etiquette and social distancing information could be displayed as reminders, in addition to counselling patients at the front.
- Ventilation: open windows if possible.
- Whenever possible, allocate one employee per station or location at the counter and avoid using somebody else's workspace without cleaning the environment and electronic equipment.
- All pharmacy staff must wear a facial mask at the counter to protect both themselves and the public.
- Keep only essential objects at the counter.
- Wipe and disinfect the counter with a disinfectant wipe after each customer/patient.
- Ensure that a 70% alcohol based handrub is available for hand hygiene after attending to each patient or customer.
- Where possible, encourage patients to order their chronic medicines in advance and collect.
- Wipe pill counting trays with disinfectant wipes every few hours.

#### **Dispensing area:**

- Clean and disinfect surface areas as well as pill counting trays.
- Safe social distancing where possible.

#### **Mixing of medication:**

- Hand hygiene before and after mixing medication.
- Clean and disinfecting surfaces in mixing area before and after mixing took place.
- Clean and disinfect utensils and measuring cylinders before use and wash them with soap and water after use.
- Disinfect scales before and after use.

#### **Store room:**

- Hand hygiene
- Social distancing
- Regular cleaning of surfaces
- Ventilation: open windows if possible

**Stock delivery area:**

- Hand hygiene.
- Social distancing from delivery person.
- The delivery company staff may NOT enter the pharmacy through the stock room.
- Place items at door, ring door bell, step back 2 meters.
- Strict hand hygiene to be followed before and after receipt and after handling the packages.
- A dedicated person, wearing a mask as a minimum, has to manage deliveries.
- A visor in addition can be considered which will be cleaned daily.
- The delivery company staff must wear a mask.
- Ensure the delivery person spends minimum time on the premises during this process.

**IMPORTANT: All staff must report flu-like symptoms (e.g. fever, cough, sore throat, body aches, loss of smell and/or taste and difficulty in breathing) to their Pharmacy Manager and appropriate steps must be followed.**

**REFERENCES**

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3. Schellack N., Coetzee M., Schellack G., Gijzelaar M., Hassim Z., Milne M., Bronkhorst E., Padayachee N., Singh N., Kolman S. & Gray A.L. 2020. COVID-19: Guidelines for pharmacists in South Africa. *Southern African Journal of Infectious Diseases*, 35(1), a206. Available from: <https://doi.org/10.4102/sajid.v35i1.206> (Accessed 2020 06 12).
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