ECDC TECHNICAL REPORT

COVID-19 infection prevention and control for primary care, including general practitioner practices, dental clinics and pharmacy settings

9 June 2020

Scope of this document

This document provides guidance on infection prevention and control to healthcare providers in the EU/EEA in order to prevent COVID-19 infection.

Target audience

Healthcare workers in general practitioner (GP) offices, primary care clinics, dental offices/clinics, and pharmacies in the EU/EEA and the United Kingdom.

Background

As of 9 June 2020, 1 444 710 cases of COVID-19 were reported by EU/EEA countries and the UK, including 169 207 deaths [1]. Detailed information on the COVID-19 cases reported so far are available on a dedicated ECDC webpage [1].

More up-to-date disease background information is available online (ECDC [1], WHO [2]) and from the latest ECDC Rapid Risk Assessment [3].

Infection prevention and control (IPC) practices are of critical importance in protecting the function of healthcare services at all levels and mitigating the impact on vulnerable populations. Although the management of possible COVID-19 cases is usually guided by national policies for specific healthcare facilities, community transmission is currently widespread in most EU/EEA countries and the UK, therefore primary healthcare providers in the community such as GPs, dentists and pharmacists are at risk of being exposed to COVID-19.

In most instances, coronaviruses, including SARS-CoV-2, are transmitted from person to person through large respiratory droplets produced during normal conversation or when coughing and sneezing, either by inhalation or deposition on mucosal surfaces. Other routes implicated in transmission of coronaviruses include contact with contaminated fomites (e.g. frequently touched surfaces) and inhalation of aerosols produced during aerosol-generating procedures (AGPs). Viral RNA has also been detected in blood specimens, albeit rarely, but there is no evidence of transmission through contact with blood [4]. The relative role of droplet, fomite and aerosol transmission for SARS-CoV-2, and the transmissibility of the virus at different stages of the disease remain partly unclear.

There is increasing evidence that persons with mild or no symptoms contribute to the spread of COVID-19 [5,6]. Asymptomatic infection at time of laboratory confirmation has been reported from many settings [7-10]. During a systematic screening of 143 393 residents and 139 409 healthcare workers in all Belgium long-term care facilities

(as of 19 May 2020), 75% of 8 780 RT-PCR positives were asymptomatic at the time of nasopharyngeal sampling [11]. Some of these cases developed some symptoms at a later stage of infection, however, the proportion of cases that will develop symptoms is not yet fully understood [12,13]. There are also reports of cases remaining asymptomatic but with detectable viral RNA shedding throughout the whole duration of laboratory monitoring. In a recent review, the proportion of positive cases that remained asymptomatic was estimated at 16%, with a range from 6 to 41% [14]. Furthermore, pre-symptomatic transmission has been reported in cases where exposure occurred 1–3 days before the source patient developed symptoms [15]. The proportion of pre-symptomatic transmission out of all transmissions has been inferred through mathematical modelling as being between 48% and 62%, in the presence of control measures [16]. Because of the importance of a- and pre-symptomatic transmission of COVID-19, WHO recommended that in areas with community transmission of COVID-19, all healthcare workers, including community health workers and caregivers, who work in clinical areas should continuously wear a medical mask during their routine activities throughout the entire shift [23].

Furthermore, with the exception of AGPs, it is unclear whether facial filtering piece (FFP) respirators (class 2 or 3) provide better protection than medical face masks against other coronaviruses and other respiratory viruses such as influenza [17,18]. Therefore, a rational approach to the use of PPE in case of widespread community transmission and shortages of PPE, necessitates that FFP2/3 respirators are prioritised for care activities with a higher perceived risk of transmission, such as AGPs.

General infection prevention and control guidance

The following measures should be considered by all healthcare providers working in the community.

Training

- All staff working at general practitioner practices, dental offices/clinics and pharmacy settings should be informed and trained on:
  – hand hygiene practices;
  – respiratory hygiene practices;
  – use of personal protective equipment (PPE);
  – physical distancing guidelines;
  – cleaning and disinfection practices;
  – COVID-19 symptoms (cough, fever, sore throat, myalgia and weakness, difficulty to breath, diarrhoea, nausea and vomiting, loss of taste and/or smell);
  – all internal procedures in place related to COVID-19, including procedures to be followed when a possible case is identified (pathways for confirmed/possible cases to avoid contact with non-possible cases and staff); and
  – guidelines for self-isolation when symptomatic.
- Refresher training for all staff, and especially training for new staff, on the subjects above should be considered.

Infection prevention and control measures

- In group practices and community health centres, consider appointing a person responsible for infection prevention and control measures (IPC) measures. Procedures for the prevention and management of COVID-19 should be developed and made accessible to the staff.
- A mechanism to update procedures in accordance with the latest recommendations/evidence should be in place, as well as a communication procedure to keep all staff updated.
- Consider installing glass or plastic panels, e.g. at pharmacy counters, at reception desks, or in consultation rooms. If not available or possible, consider using face shields/visors as additional droplet precaution.
- When possible, physical distance (at least 1.5 metres, ideally 2 metres) should be maintained between healthcare providers and patients/customers (e.g. in pharmacies or at the reception of GP offices/clinics and dental offices/clinics). Markings on the ground or on surfaces to indicate the distance can be considered.
- Hand hygiene should be practiced frequently and meticulously by staff, patients and customers. Easy access to hand-washing facilities, single-use paper towels and alcohol-based hand rub solutions should be made available and visible in various areas. Signs/posters reminding about hand hygiene and on how to perform it correctly should be displayed (e.g. at arrival, in the waiting room, in the toilets).
- Respiratory hygiene, including suitable cough etiquette, should be followed scrupulously. This entails coughing or sneezing in a tissue or into the elbow. If a tissue is used, it should be disposed of carefully after a single use.
- The use of face masks by patients/customers and by healthcare staff should be considered as a means of source control at all times. Face masks for personal protection should be used by individuals belonging to vulnerable groups (e.g. old age or underlying medical conditions) [23].

- When applicable, PPE should be available in sufficient quantity and sizes.
- Frequently touched surfaces should be regularly cleaned with a neutral detergent.
- Increasing the number of air exchanges per hour will decrease the risk of transmission in closed spaces. This may be achieved by natural or mechanical ventilation, depending on the setting.

Staffing and workplace considerations

- Perform a needs assessment based on the IPC measures described above; if necessary, consider increasing the staff to cope with the current patient load. Shortages of staff can affect compliance with IPC measures. Therefore, a plan should be made to deal with work overload, anticipating possible sick leaves.
- Staff presenting with symptoms that are compatible with COVID-19 should not report to work, self-isolate at home, and be advised to contact health authorities, e.g. for testing or if symptoms worsen, all in accordance with national practices.
- Where possible, a mechanism to organise and assign teleworking should be considered, along with a mechanism to provide staff with the necessary equipment to carry out their normal workload remotely.
- Staff whose presence is not absolutely indispensable for running the clinic/practice and staff members in quarantine but otherwise healthy and able to work, could be assigned to strengthen telemedicine services – if already offered.
- Staff with underlying health conditions (e.g. immunodeficiency, diabetes, etc.) should preferably be assigned to activities with little or no clinical contact with the patients/customers (e.g. phone, email or online consultation), as feasible.
- The use of electronic devices (computerisation of procedures, telemedicine, etc.), touchless devices, a paperless office, and the introduction or revision of procedures to reduce physical contact with patients/customers – without compromising the quality of the offered services – should be considered. Data gathered and stored must be compliant with the General Data Protection Regulation 2016/679 [19] of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data.
- A plan to keep track and custody of key supplies (e.g. PPE, cleaning and disinfection material, alcohol solution, etc.) should be in place to avoid misuse and/or overuse of limited resources.
- If possible, materials, objects, and devices should be stored in a manner that facilitates additional environmental cleaning, for example in a clean storeroom. Staff should be informed and reminded accordingly.

General practitioner and other specialty primary care clinics and practices

The following advice provides an outline of principles for developing more individualised guidance or operating procedures to reduce the risk of transmission of COVID-19 in GP offices/clinics and other primary care providers in the community (e.g. internists, paediatricians, etc.). The organisation of general practices varies considerably across Europe, from solo practices through group practices with 2–3 general practitioners to larger community health centres with multidisciplinary teams [20,21]. In addition, several countries have implemented a triaging system which refers patients with symptoms compatible with COVID-19 to centralised COVID-19 treatment centres run by medical teams that also include GPs.

Now that many countries are lifting or adjusting containment measures, the role of GPs in controlling the spread of COVID-19 in the community is becoming increasingly important because they have a pivotal role in testing and contact tracing: GPs decide whether possible cases get tested and can initiate contact tracing through the local public health authorities [22]. With increasing testing capacity across the EU/EEA, testing in the community/primary care should be expanded to include all, or the majority of, patients who show symptoms of acute respiratory infections compatible with mild COVID-19.

Staffing considerations

- If possible and supported by the national legal framework, conducting clinical consultations over the phone or internet (e.g. consultations, prescription refills, follow ups, etc.) should be considered. Patients should be discouraged from visiting the practice if not necessary. Self-swabbing and secure shipment of samples from possible cases should be supported.
- If possible and supported by the national legal framework, the assessment of possible COVID-19 patients requiring medical attention in primary care can be performed in dedicated, mainly centralised assessment centres, staffed with one GP per area. This helps to optimise IPC practices and preserve resources.
- If the assessment of patients in primary care follows a decentralised approach, staff in group practices and community health centres can be allocated to two different teams: one taking care of symptomatic COVID-19 patients, and one taking care of all other patients.

- All GPs need to be familiar with IPC practice protocols outlining COVID-19 diagnostic methods, treatment, follow-ups, notification of cases, and contact tracing.

Before the patient arrives

- Patients should be informed about signs and symptoms of COVID-19 before the visit (e.g. in the media, by email or text messages, etc.) and should avoid visiting a GP office/clinic if they are experiencing symptoms compatible with COVID-19 disease, unless agreed otherwise over the phone.
- Remote assessment of patients should be considered: patients who need a face-to-face consultation, should visit a GP office/clinic only by appointment in order to keep waiting times and the number of patients in the waiting room low (only one appointment at a time with enough time for the consultation to minimise possible delays).
- A service for the prescription of medication without the presence of the patient should be in place, especially for prescription refills.
- Due to the increasing importance of early detection of mild COVID-19 cases and contact tracing, patients with mild symptoms may need to be tested, depending on national policies. Patients can be referred to centralised assessment centres for testing, or get tested directly in a GP office/clinic. If available, samples taken by self-swabbing are an alternative when combined with safe shipment to a designated microbiological testing facility.
- Patients living in the same household with someone who displays symptoms of COVID-19, even if their symptoms are not COVID-19 compatible, should follow the same procedures as symptomatic COVID-19 patients if they require a face-to-face consultation.
- Dedicated home visiting services should be considered for fragile patients.
- If national policies do not require testing for patients who experience mild symptoms compatible with COVID-19 disease, face-to-face consultations may not be required, and patients should be advised about further measures:
  - Patients with mild symptoms compatible with COVID-19 should be advised to self-isolate at home, self-monitor for symptoms, and contact health authorities if symptoms worsen.
  - Patients with severe symptoms compatible with COVID-19 should be informed on how to access appropriate hospital care.
- Patients should not be accompanied to the GP office/clinic unless necessary, for example if they have reduced activities of daily living scores. They should be informed about this before arrival or upon entry.
- A record of all staff members that have been in contact with possible or confirmed COVID-19 cases should be kept.

During the patient visit

- For non-triaged patients, triaging patients at reception based on greatest symptom severity can be considered.
- Separate paths for triaged and non-triaged patients can be considered, depending on the set-up, size and resources of the GP office/clinic. Procedures to separate possible COVID-19 cases from other patients should be in place if the clinic's set-up, size and resources allow for it. Such procedures should cover dedicated staff, waiting and examination rooms.
- If the patient has been tele-triaged and only comes in to get tested for COVID-19 and/or oximetry, it should be considered to perform all procedures directly outside the GP office/clinic; testing, for example, could be done with patients waiting in their cars or in a tent outside the building.
- When visiting a GP office/clinic, patients should always practice physical distancing (at least 1.5 metres) when other patients are waiting. An even better alternative is to have only one patient in the waiting room at a time.
- In areas of sustained community transmission of COVID-19, consider requesting all visiting patients to wear a face mask inside the building and in the waiting area. Consider providing face masks to patients.
- Inside the GP office/clinic, patients with symptoms compatible with COVID-19 should follow the COVID-19 paths for symptomatic patients, wearing a medical face mask as source control.
- Patients visiting the office or clinic should be asked to perform hand hygiene; information on how to perform proper hand hygiene should be available. Handwashing facilities and/or sanitisers should also be readily available.
- Consider closing down areas in waiting rooms that have a playground or toys for children; remove the toys. The same applies to magazines, books or other non-essential objects that patients/companions may touch.
- Healthcare professionals should wear PPE:
  - when performing triage, examining or providing care to patients with COVID-19-compatible symptoms, or performing high-risk procedures (e.g. physical examination of the oropharynx or nasopharyngeal swabbing) in patients with or without symptoms. The suggested set of PPE includes: FFP2/3 respirator (or medical face mask if there is a shortage of respirators), goggles or face shield, and gloves. Consider the use of a long-sleeved gown, especially if there is a risk of exposure to body fluids;
  - when seeing patients without COVID-19-compatible symptoms, wear at least a medical face mask.

- Gloves must be changed between patients, and meticulous hand hygiene must be performed before and after examining the patient and removing the PPE.
- In the event of shortage of gloves, the examination can be performed without gloves; hand hygiene should follow.
- The recommendations for the use of PPE indicated above also apply to home consultations.

Patient follow-up and information

- Patients experiencing mild symptoms compatible with COVID-19 should be advised about further measures. If patients show mild symptoms compatible with COVID-19, they should be advised to self-isolate at home and self-monitor for severe symptoms. Patients should be advised on how to contact healthcare providers (e.g. GPs, hospital, dedicated COVID-19 tele-triage) if symptoms worsen. As a possible option, patients that need closer monitoring could be provided with devices for self-monitoring (e.g. oximeters), given training on how to use these devices, and informed about follow-up procedures. Follow-ups can be done by phone, email, videoconference or, if available, through an electronic platform that allows patients to enter data into an electronic system that automatically alerts healthcare workers.
- People with risk factors who could have severe outcomes from a COVID-19 infection should be offered information on the disease and the measures they should take to reduce the risk of infection according to public health authorities.
- Information on COVID-19 should be available for all types of patients/companions and in different formats (e.g. posters, infographics and leaflets). Attention should be given to individuals with sensory impairments and different linguistic needs.
- It is important that confirmed or possible cases whose clinical situation allows them to stay at home are well informed on the symptoms that trigger the need of medical attention in order to avoid severe outcomes or unnecessary visits to the healthcare centre. Patients/companions should be informed on how to self-monitor for symptoms.

After the patient leaves

- All rooms (e.g. waiting and consultation rooms) visited by a possible or confirmed case of COVID-19 should be mechanically or naturally ventilated, depending on the type of room.
- Rooms where AGPs were performed (e.g. sputum induction or nasopharyngeal sampling that caused the patient to cough) need to be mechanically or naturally ventilated before cleaning and admitting new patients.
- Examination rooms that were visited by a possible or confirmed case of COVID-19 should be carefully cleaned with a neutral detergent, followed by decontamination of surfaces with a disinfectant effective against viruses. Several products with viricidal activity are licensed in the national markets and can be used following the manufacturer's instructions. Alternatively, 0.05%–0.1% sodium hypochlorite (NaClO) (dilution 1:50, if household bleach is used, which is usually at an initial concentration of 2.5–5%) is suggested. For surfaces that can be damaged by sodium hypochlorite, products based on ethanol (at least 70%) can be used for decontamination after cleaning with a neutral detergent.
- Cleaning of toilets, bathroom sinks and sanitary facilities needs to be carefully performed, avoiding splashes. Disinfection should take place after normal cleaning by applying a disinfectant effective against viruses, or 0.1% sodium hypochlorite.
- The use of single-use disposable cleaning equipment (e.g. disposable towels) is recommended. If disposable cleaning equipment is not available, the cleaning materials (cloth, sponge, etc.) should be placed in a disinfectant solution effective against viruses, or 0.1% sodium hypochlorite. If neither solution is available, the material should be discarded.
- If there is a shortage of cleaning equipment, the cleaning process should proceed from the cleaner to the less clean areas (e.g. an area where AGP have been performed).
- Staff engaged in environmental cleaning in healthcare settings should wear PPE. The minimal PPE set listed below is suggested when cleaning healthcare facilities that are likely to be contaminated by SARS-CoV-2:
  - medical face mask,
  - disposable long-sleeved water-resistant gown, and
  - gloves.
- Hand hygiene should be performed every time PPE (gloves, face masks, etc.) is removed.
- Staff engaged in waste management should wear PPE. They should be informed and trained in the correct use of PPE, all relevant procedures, and the involved risks. Infectious clinical waste should be treated in accordance with healthcare facility policies and local regulations.

Dental offices and clinics

The following advice intends to provide an outline of principles for developing more individualised guidance or operating procedures to reduce the risk of transmission of COVID-19 in dental offices/clinics.

Before the patient arrives

- Routine care should be deferred in countries where stay-at-home orders are in place. In countries where only physical distancing is recommended, the possibility for postponing routine care should be strongly considered. When possible, patients should avoid visiting a dental office/clinic if they are experiencing symptoms compatible with COVID-19 disease.
- Patients should be informed about signs and symptoms of COVID-19 in advance (e.g. through advertising, by email, text messages, etc.). They should also receive information about measures to reduce the risk of infection. Special communication strategies should be considered for patients with risk factors for severe outcome of COVID-19 infection.
- All patients should be triaged remotely before visiting a dental office/clinic. A procedure should be in place if a patient visits a dental office/clinic without previous appointment or triage (triage of symptoms, urgency of the consultation, patient placement, etc.).
- Patients showing symptoms compatible with COVID-19 in need for emergency or urgent dental care should be referred to designated dental care facility. These facilities usually have a dedicated COVID-19 path and dedicated well-ventilated rooms.
- A dedicated path for patients showing symptoms compatible with COVID-19 in need for emergency or urgent dental care should be in place, including appropriate protocols and procedures.
- Patients should access the dental office/clinic only by appointment; visits should be scheduled with adequate time between appointments in order to minimise contact with other patients in the waiting room.
- Patients should not be accompanied unless necessary; they should be informed about this rule before their arrival or at the reception.

During dental care

- When visiting a dental office/clinic, patients should always practice physical distancing (at least 1.5 metres) when other patients are waiting. An even better alternative is to have only one patient in the waiting room at a time.
- In areas of sustained community transmission of COVID-19, consider requesting all visiting patients to wear a face mask inside the building and in the waiting area (as a means of source control). Consider providing face masks to patients.
- The suggested set of PPE for staff when caring for all patients includes an FFP2/3 respirator[1] (or a medical face mask if there is a shortage of respirators), goggles or face shield, gloves and a long-sleeve, water-resistant gown. FFPs should be prioritised for:
  - aerosol-generating procedures (AGPs)
  - when caring for patients showing COVID-19-compatible symptoms whose treatment cannot be deferred
  - when caring for patients living in the same household with a possible or confirmed COVID-19 patient

- AGPs (e.g. high-speed dental drilling) should be avoided as much as possible (e.g. by using alternative non-aerosol-producing techniques, if available). When not deferrable, the risk can be minimised by applying, for example, rubber dam isolation, the use of high-vacuum aspirators/suction, and scheduling AGPs in a way that allows for adequate time and proper cleaning protocols.
- If COVID-19-compatible symptoms are identified during dental care, the patient must follow the national COVID-19 guidelines.

After the patient leaves

- PPE should be carefully removed by the staff following the correct sequence and procedure.
- Strict hand hygiene should be performed immediately after the removal of PPE.
- Non-disposable equipment should be disinfected in accordance with the manufacturer's instructions.
- If AGPs were performed, the room needs to be aired out before admitting new patients; details depend on the procedure, available anti-aerosol devices, the room size, and the presence of windows.
- Similarly, frequently touched surfaces or objects in the room should be carefully cleaned and disinfected before a new patient is admitted.

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[1] The use of a facial filtering piece (FFP) respirator class 2 or 3 should be considered also when caring for patients without COVID-19-compatible symptoms during the COVID-19 epidemic due to the risk posed by asymptomatic and pre-symptomatic patients.

- Examination rooms that were visited by a possible or confirmed case of COVID-19 should be carefully cleaned with a neutral detergent, followed by decontamination of surfaces with a disinfectant effective against viruses. Several products with viricidal activity are licensed in the national markets and can be used following the manufacturer's instructions. Alternatively, 0.05%–0.1% sodium hypochlorite (NaClO) (dilution 1:50, if household bleach is used, which is usually at an initial concentration of 2.5–5%) is suggested. For surfaces that can be damaged by sodium hypochlorite, products based on ethanol (at least 70%) can be used for decontamination after cleaning with a neutral detergent.
- Cleaning of toilets, bathroom sinks and sanitary facilities needs to be carefully performed, avoiding splashes. Disinfection should take place after normal cleaning by applying a disinfectant effective against viruses, or 0.1% sodium hypochlorite.
- The use of single-use disposable cleaning equipment (e.g. disposable towels) is recommended. If disposable cleaning equipment is not available, the cleaning materials (cloth, sponge, etc.) should be placed in a disinfectant solution effective against viruses, or 0.1% sodium hypochlorite. If neither solution is available, the material should be discarded.
- The use of different equipment for cleaning different areas of a dental office/clinic is recommended.
- If there is a shortage of cleaning equipment, the cleaning process should proceed from the cleaner to the less clean areas (e.g. an area where AGPs have been performed).
- Staff engaged in environmental cleaning in healthcare settings should wear PPE. The minimal PPE set listed below is suggested when cleaning healthcare facilities that are likely to be contaminated by SARS-CoV-2:
    - medical face mask,
    - disposable long-sleeved water-resistant gown, and
    - gloves.
- Hand hygiene should be performed every time PPE (gloves, face masks, etc.) is removed.
- Waste should be handled in accordance with healthcare facility policies and local regulations.

Pharmacies

The following advice provides an outline of principles for developing more individualised guidance or operating procedures to reduce the risk of transmission of COVID-19 in pharmacies.

In the pharmacy

- Consider installing glass or plastic panels at the counters to protect the staff from respiratory droplets and enhance physical distancing.
- Signs at the entrance of the pharmacy should be considered, informing customers about the symptoms of COVID-19 and instructing them what to do if they experience symptoms (e.g. 'do not enter the pharmacy', 'call by phone instead and wait outside or in your vehicle', etc.).

For the customers

- Customers should avoid visiting the pharmacy if they are experiencing symptoms compatible with COVID-19.
- Physical distance (at least 1.5 metres) between the customer and the other people in the pharmacy (both staff and customers) should be guaranteed. To this end, the total number of customers in the pharmacy at any time may have to be restricted. When the maximum number of customers in the pharmacy is reached, further customers should queue outside respecting physical distancing until the number of customers in the pharmacy allows entry. Floor markings indicating safe distancing can be considered, both in and out of the pharmacy.
- In areas of sustained community transmission of COVID-19, consider requesting all visiting customers to wear a face mask inside the pharmacy and in queues (as a means of source control to prevent spread).
- Customers should be advised about further measures:
    - If they show mild symptoms compatible with COVID-19 disease, they should be advised to self-isolate at home and self-monitor for symptoms. Customers should be advised to contact healthcare if symptoms worsen.
    - If they show severe symptoms compatible with COVID-19 disease, they should be advised to contact healthcare promptly; alternatively, the pharmacist could contact healthcare.

Home delivery of medicines

- A simplified process for ordering drugs which require prescription (e.g. direct communication with the prescriber, digital transfer of prescriptions, etc.) should be considered where allowed.
- Home delivery of medicines should be considered in order to reduce the number of patients visiting the pharmacy.

- Before delivering medicines, pharmacists should always check with customers whether they are experiencing symptoms compatible with COVID-19 disease (such as fever and cough) or if they are self-isolating or in quarantine.
- Physical distance should be maintained when medicines are delivered to a person's home.

Contributing ECDC experts (in alphabetical order)

ECDC Public Health Emergency COVID-19 Infection Prevention and Control (IPC) group: Agoritsa Baka, Orlando Cenciarelli, Bruno Ciancio, Margot Einöder-Moreno, Pete Kinross, Diamantis Plachouras, Carl Suetens, Klaus Weist

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