SASOP Guidelines on In-Patient Management during the COVID-19 pandemic

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Introduction:

The "Severe Acute Respiratory Syndrome Coronavirus type 2" (SARS-CoV-2) is a single-stranded, positive-sense RNA virus, which belongs to a "new evolutionary branch of coronavirus" that includes SARS coronavirus (SARS-CoV) and Middle East Respiratory Syndrome coronavirus (MERS-CoV) [1]. This novel virus bears responsibility for the current COVID-19 pandemic.

Although most COVID-19 cases are mild, some cases are severe and/or fatal[1]. In terms of the pathogenesis of COVID-19 at a cellular level, SARS-CoV-2 binds to angiotensin-converting enzyme 2 (ACE2) receptors on cells triggering a cascade of viral replication activities and inflammatory as well as immune reactions[1]. It is important for psychiatrists to note that ACE2 receptors are present in multiple organs in the human body including the nervous system[2]. So psychiatrists should not regard COVID-19 as a purely respiratory disease but one which may need their attention due to its neuropsychiatric manifestations[3].

There is currently no specific and approved treatment for COVID-19 and some of the treatments that have been touted as promising, are not without severe adverse effects[1,4-5].

Purpose:

As has been experienced by every healthcare worker in the world, COVID-19 has had a significant and disruptive impact on health care systems. At the same time, non-COVID-19 illnesses and disorders have continued to emerge unabated. Some conditions such as psychiatric disorders may even experience higher incidence rates due to the psychological and economic impact of the pandemic. As the general population develops psychiatric disorders and previously stable patients relapse, psychiatrists need to be prepared to deal with increasing numbers of people requiring psychiatric intervention. In addition, frontline healthcare workers may wilt under the pressure of working in this strenuous environment and need psychological support too. Furthermore, psychiatrists may find themselves on the frontline as they attend to psychiatric patients with COVID-19 or COVID-19 patients who developed psychiatric symptoms. Like all healthcare workers, they will often be filled with trepidation as they dutifully attend to these patients.

These guidelines are aimed at alleviating anticipatory anxiety clinicians and facility managers may experience when dealing with COVID-19 related clinical and operational situations. They provide the most reasonable advice on these issues given the available information. No doubt these guidelines may need to be updated as and when pertinent information emerges, but psychiatrists may still find them relevant and useful to their patient and facility management decisions during the pandemic.

Methods:

Pubmed and ScienceDirect electronic databases were searched using several key words including "COVID-19", "psychiatry", mental health", "psychiatric hospitals", psychotropic drugs", "screening", "testing" and "viral load", in various combinations. Forty-seven articles were selected to form the basis of this Guideline document. A further search and review of other articles that were suggested by the Pubmed and ScienceDirect algorithms was done to establish their relevance. Additional

articles were sourced from the primarily obtained articles and used if found pertinent. A review of all the articles sourced was done with full knowledge that information and data on COVID-19 is evolving and some of the data used has not been peer-reviewed or undergone systematic review or meta-analysis. It is hoped that further versions of these Guidelines will endeavour to grade the evidence accordingly.

The search was conducted between April 2020 and July 2020. Only articles in English were perused except for two articles in French with abstracts in English. Additional sources of information such as the WHO website, National Department of Health(NDOH) and National Infectious Disease Centre (NICD) websites were utilized for insights into global/local practices and guidelines. The draft document was made available to both private and public sector psychiatrists for commentary, modifications and additions based on their first hand experiences. It has been revised several times as a result. SASOP members are requested to consider this document as subject to further updates as more relevant information emerges.

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1) Screening Policy

There is clearly a need for every psychiatric facility to have a screening policy for patients, staff and/or any other person visiting the facility given the serious nature of COVID-19. Operationally, such a screening policy will enable early identification of suspected COVID-19 cases, separation of laboratory confirmed cases from COVID-19 negative cases and referral of employees/patients fitting the "case definition" for testing[6,7].

a) General Screening Procedures

Any screening policy should include the following general screening procedures:

- Sanitize the hands of all staff, patients and visitors entering the facility to ensure adequate hand hygiene.
- Take the temperature of all staff, patients and visitors entering the facility to ensure that their body temperatures are below 38°C.
- Enquire if the person entering the facility is having an acute (≤14 days) respiratory tract infection or another clinical illness compatible with COVID-19[6,8].
- Have a broad enough screening questionnaire asking for symptoms such as fever /chills; cough; sore throat; shortness of breath; body aches; redness of the eyes; anosmia and dysgeusia; nausea/vomiting/diarrhoea; fatigue/weakness. This list should not be viewed as exhaustive as it has or may emerge later on that other organ systems can be associated with COVID-19[9].
- Determine if the person has a close contact history.

b) Establishment of Close Contact History

A close contact is defined as follows[6]:

- face-to-face contact (≤1 metre) or being in a closed space with a laboratory confirmed COVID-19 case for at least 15 minutes. This includes, amongst others, all persons living in the same household as a case, and people working closely in the same environment as a case. Healthcare workers or other people providing direct care for a case, while not wearing recommended personal protective equipment or PPE (e.g., gowns, gloves, N95 respirator, eye protection). A contact in an aircraft sitting within two seats (in any direction) of the case, travel companions or persons providing care, and crew members serving in the section of the aircraft where the case was seated.

- The NICD states that "symptomatic cases (of COVID-19) are considered infectious from 2-3 days before symptom onset to 14 days after symptom onset"[6]. Therefore, close contact with a laboratory confirmed COVID-19 case is important to know, "irrespective of clinical signs and symptoms" of the case[6].

At the end of these procedures, the facility should be able to decide or know whether the person entering the facility is:

1) not suspected of having COVID-19 or
2) a suspected COVID-19 case - any person presenting with an acute (≤14 days) respiratory tract infection or another clinical illness compatible with COVID-19, or an asymptomatic person who is a close contact (see above) to a confirmed COVID-19 case[8] or
3) a laboratory confirmed COVID case

c) Psychiatric Facility Admission of COVID-19 Patient Post-Hospitalization or Isolation

Some COVID-19 patients may need further hospitalization in a psychiatric facility after their medical condition has improved or stabilized. Nevertheless, facility managers still need to consider whether it is clinically prudent to admit the patient to their facility or not.

At the beginning of this pandemic, the WHO's initial recommendation to confirm "confirm clearance of the virus, and thus allow discharge from isolation" was that the patient must have "clinically recovered and had two negative RT-PCR results on sequential samples taken at least 24 hours apart" [10]. Recovery still carries this definition but countries may now choose the option of not requiring re-testing to de-isolate a COVID-19 patient from hospital or a quarantine facility[10]. This is because some patients have prolonged viral RNA detection and some countries have limited testing capacity. Additionally, recent data has revealed that COVID-19 patients may be less likely to be infectious (beyond 7-10 days after symptom onset) because the viral load starts dropping after this period and there are "rising levels of neutralizing antibodies" in some patients [6,8,10-13].

In the NICD's *Guideline for clinical management of suspected or confirmed COVID-19 disease (version 4)*, the clinical definition of the term "recovered" is not mentioned[8]. Elaboration on why is this is the case is not offered. But there is a set of criteria to assist a facility manager determine if a COVID-19 case was appropriately de-isolated (see Table 1 below). Facilities or psychiatrists may choose to consider this when the patient comes for an outpatient review but this does not mean there will be zero risk of transmission to staff and patients. The patient's behaviour even at the outpatient review may heighten the risk of transmitting SARS-CoV-2 to others[10]. The practice of telemedicine will probably need to be utilized to assist and review such patients, if hospitalization has been deemed not to be necessary. As far as admission to the facility from isolation is concerned, facilities need to consider these 2 pointers from NICD and WHO. The NICD acknowledges that even with asymptomatic close contacts "testing may be indicated in certain circumstances (e.g. institutions such as care homes)". WHO also acknowledges that there may be situations in which a low risk of transmitting the virus to "vulnerable groups or those in high-risk situations or environment" (after de-isolation using clinical criteria only) is "unacceptable"[10]. WHO advises that "in these situations, and in patients who are symptomatic for prolonged periods of time, a laboratory-based approach can still be useful"[10].

Table 1: NICD and WHO De-isolation Criteria
NICD De-isolation Criteria with Health Minister's update[6,14]
a) **Asymptomatic patients:** 10 days after initial positive test b) **Mild disease**: 10 days after the onset of their symptoms for cases of mild disease (this is defined as SpO2 ≥95% and respiratory rate <25 and heart rate <120 and temperature 36-39°C and no change in mental status) c) **Moderate-severe disease**: 10 days after achieving clinical stability (e.g. after supplemental oxygen was discontinued) for cases with moderate-severe disease d) Patients who are still symptomatic at the end of their isolation period can be de-isolated provided that their fever has resolved and their symptoms have shown improvement.
WHO Criteria for discharging patients from isolation (i.e., discontinuing transmission-based precautions) without requiring retesting[10]
• For symptomatic patients: 10 days after symptom onset, plus at least 3 additional days without symptoms (including without fever and without respiratory symptoms) • For asymptomatic cases: 10 days after positive test for SARS-CoV-2 *Countries may choose to continue to use testing as part of the release criteria. If so, the initial recommendation of two negative PCR tests at least 24 hours apart can be used.

In making decisions on whether to accept admission referrals or not and where to accommodate them in a psychiatric facility, a few clinical scenarios and circumstances may assist psychiatrists make such decisions.

In one specialist psychiatrist hospital in Maryland(US), psychiatrists would still accept a patient with a repeat positive result (if clinically suitable and warranted) but to a COVID-19 ward to prevent the possibility of infecting others[15].

Angelino et al points out that some patients who have had long periods of intubation or ICU admission (i.e. severe COVID-19) may develop protracted delirium[15]. So it may be better to manage these patients in a general hospital or medical unit with a consultant-liaison psychiatrist to assist in the management of these patients[15].

d) Return to Work for Healthcare Workers after testing positive for COVID-19

For healthcare workers returning to work, they ought to have met similar NICD de-isolation criteria[6].

a) 10 days after symptom onset for cases of mild disease

b) 10 days after clinical stability (e.g. after oxygen stopped) for cases of severe disease

Should an asymptomatic employee who was in quarantine, need to return to work on day 8 post-high risk exposure (i.e. to a confirmed case), then a COVID-19 swab test should be done. Otherwise COVID-19 swab testing is not required for return to work.

2) Testing policy

a) Testing Policy Considerations

- As usual, before any test is conducted on a patient, informed consent should be obtained from the patient. Furthermore, information should be provided to the patient on what may happen to them depending on the outcome of the test. The capacity of the patient to give consent should be taken into consideration and if need be, the patient's next of kin may be asked to give informed consent on behalf of a patient with impaired capacity. But in the case of an emergency admission where the next of kin is not available and the patient cannot give consent, reasons for conducting the test should be noted in the clinical notes, e.g. operational policy of the facility, high index of suspicion of a notifiable disease, etc.

- Lower respiratory tract samples would be preferable (as they yield highest viral loads) but these are usually collected from hospitalized or severe cases[6]. In most settings, upper respiratory tract specimens (i.e. a single nasopharyngeal swab) would be acceptable. Alternatively, a single nasal mid-turbinate swab, nasal or oropharyngeal swab can be collected. Clinicians, including psychiatrists, performing this task, should be well trained and protected with the correct level of PPE[6].
- Reverse transcriptase polymerase chain reaction (RT-PCR) assays remain the gold standard testing method and has very good specificity[6,16].
- But this RT-PCR test is only 66-80% sensitive[17]. Possible reasons for the resultant false negatives include: poor specimen quality or inadequate methods of material collection, inappropriate handling during shipment or storage, collection in the late or very early stages of the illness, degradation of RNA, inadequate methods of cryopreservation or quality control of detection reagents[1,6].

b) NICD Testing Policy

Whilst the NICD acknowledges that "some transmission (of SARS-CoV-2) may occur from persons who are asymptomatic or presymptomatic", the testing criteria is still restricted, except under certain circumstances[6].

Table 2: Case definition - who should be tested for SARS-CoV-2?[6]
1) Any person presenting with an acute (≤14 days) respiratory tract infection or other clinical illness compatible with COVID-19. Symptoms to look out for include: cough, sore throat, shortness of breath, anosmia (loss of sense of smell) or dysgeusia (alteration of the sense of taste), with or without other symptoms (which may include fever, weakness, myalgia, or diarrhoea)
2) An asymptomatic person who is a close contact of a confirmed case (see above for definitions)
Note: Asymptomatic close contacts should not be routinely tested despite meeting the suspected case definition. However, testing may be indicated in certain circumstances (e.g. institutions such as care homes)

Being of a similar nature to care homes and given the current community transmission nature of the pandemic, a large number of healthcare facilities in South Africa have elected to test all new admissions for COVID-19. SASOP would like to have state that this pre-admission testing policy should not unfairly discriminate against those who need emergency psychiatric attention/admission, are without resources or opportunity to have the COVID-19 swab test done and/or speedily receive the results. This is because COVID-19 swab test results can take several days to be known and the patient's psychiatric condition may worsen in the interim.

Of course, it is possible to test the patient soon after admission and this should be considered in low-resourced areas, but the patient will still need to be isolated until the results are known. In fact, it will be prudent to isolate all new patients for several days, regardless of their test results, as the pre-admission test may have been performed in the early pre-symptomatic/incubation stages of the disease or been a false negative.

c) Clinical Responsibilities attached to Pre-Admission Testing

SASOP would like to advise that any pre-admission testing policy does not negate the psychiatrist's responsibility to a patient whom they have accepted to assist in obtaining admission. Alternative containment and/or surveillance measures for the patient need to be taken by the psychiatrist whilst awaiting swab test results.

SASOP therefore makes the following recommendations once a clinician has accepted to admit a patient but is awaiting test results:

i) Consider starting treatment (psychological or pharmacological or both) before the patient is admitted. But be mindful that certain psychiatric medication may need pre-initiation bloodwork and patients may be reluctant to go to a healthcare facility for blood tests. There is also the added concern around availability of medication in the community[18].

ii) Refer the patient to a medical facility with consultation liaison services if their physical condition deteriorates whilst waiting at home.

iii) Refer the patient to a general hospital with a PUI (person under investigation) ward for psychiatric patients or a psychiatric facility with an isolation ward for PUIs, if their psychiatric condition deteriorates further and they still have not received their results.

iv) If the patient's condition is fairly stable, frequently follow up on the swab test results so that the admission can take place as soon as possible.

3) Systematic Prevention of Infections or Outbreaks

The *Guidelines for Mental Health intervention during the COVID 19 disaster (March 2020)* speaks about the need to establish COVID-19 committees and have Infection Prevention Control (IPC) Coordinator appointed at each psychiatric facility[7]. SASOP supports this advice and notes that such persons or committees will be responsible for risk assessments and surveillance, sharing of information including protocols and formulating a coordinated response to the COVID 19 pandemic.

a) Community-Hospital Transmission

Apart from the screening procedures and pre-admission testing mentioned above, another way of preventing the introduction of SARS-CoV-2 into a facility, is to encourage the practice of good hygiene in every healthcare worker's home and community. The residences and living circumstances of any healthcare worker can often overlooked as another reservoir of infection[19]. Practices such as frequent disinfecting of the healthcare worker's homes, education of the healthcare worker's family or housemates about good hygiene practices, continuation of good hand hygiene practices by the healthcare worker at home or in-transit are critically important. They may prevent the healthcare worker acquiring SARS-CoV-2 in the community and unwittingly spreading it to colleagues and patients.

Further recognizing the possibility of community-hospital transmission, facilities are discouraged from permitting visitation by family/non-essential visitors[20]. However, a caregiver of an admitted child and a close family member of a patient who is extremely ill, may be allowed to visit but all "visitors should wear a surgical mask and be instructed on hand and cough hygiene, as well as social distancing", according to the NICD guidelines[20]. Under any circumstances where family visits are not allowed, psychiatrists should still try to facilitate phone or video calls between patients and their families to ease the sense of loneliness or total isolation[21].

b) Protection of Healthcare Workers

Practical steps aimed at protecting healthcare workers from contracting COVID-19 within the facility may include the following [17,19, 20,22-25].

a) There should be constant reminders of good hygiene and social distancing requirements for **both staff and patients**.

b) A limited number of healthcare professionals should be in contact with confirmed or suspected cases of COVID-19. These staff members should self-monitor for the appearance of COVID-19 symptoms on a daily basis.

c) Discussions may be need to be held on which healthcare worker can be on the front-line or not, depending on their medical risk profile.

d) Psychiatric Patient's use of Personal Protective Equipment (PPE): Whilst the use of masks may compromise non-verbal communication and affect speech intelligibility of the patient, it is important that patients are encouraged to wear masks all times.

e) **Staff, like patients, are expected to practice these good hygiene measures:** frequent hand washing and use of alcohol-based hand sanitizer, correct cough etiquette and respiratory hygiene, physical distancing by keeping a distance of 2 m when in contact with other people, avoid touching the face with unclean hands, perform hand hygiene before and after touching notes, not writing on clinical notes while wearing gloves, covering the clinical notes with a plastic folder which can be easily cleaned and disinfected with alcohol and never spraying gloves with alcohol unless doffing.

f) Medical devices (stethoscope, sphygmomanometer and thermometers) should be disposable if possible. Otherwise they must be washed and disinfected after being used on each patient (using 70% ethyl alcohol).

g) Fomite transmission may be a "potential medium of transmission" of SARS-CoV-2 to healthcare workers and patients in a hospital environment. Therefore, frequently touched surfaces (including those in the clinician's rooms) should be disinfected AND the facility should encourage the habit of healthcare workers washing their hands as frequently as possible because they may have inevitably touched a surface contaminated with SARS-CoV-2.

h) Cleaners in sections with patients with respiratory symptoms should wear the PPE according to the NICD guidelines: surgical mask, apron, long rubber utility cleaning gloves (ideally up to elbow) that can be washed, eye protection (goggles or visor) and closed work shoes.

i) Ambulance or transfer vehicle personnel transporting suspected COVID-19 patients should wear the following PPE: FFP2 mask/N95 masks, double non-sterile gloves, long-sleeved water-resistant gown, hair cover and goggles or face shield. They should also inform a psychiatric facility ahead of transporting a laboratory confirmed COVID-19 patient to the facility so that appropriate precautionary measures can be taken by management and staff.

j) SASOP encourages all healthcare workers to adopt a "herd protection" attitude which is aimed at protecting their colleagues and patients in case there may have COVID-19. So should staff members develop any of COVID 19-like symptoms, they should call ahead to their facility or supervisor and declare these so that appropriate action can be advised which may include: not going to work, self-quarantine in a separate room (home or designated hotels) with a separate bathroom for at least 10 days and immediate contact with the NICD through the hotline and/or their GP or nearest clinic. Healthcare workers should also declare themselves as possible contacts based on the criteria outlined above and report this to the facility so that appropriate steps can be taken by management, patients and colleagues.

c) Personal Protective Equipment Guidance

SASOP would like to re-emphasize that "cotton masks are not indicated for clinical healthcare work because of limited filtration and protection against droplets or splashes' as per the NICD guidelines [20]. But when in public or using public transport, patients, clinical and non-clinical staff may wear cloth masks. Non-clinical staff may also wear cloth masks when interacting with the public with health facilities[20].

From the NICD guidelines, it is stated that for the majority of direct COVID-19 patient interactions, appropriate healthcare worker personal protective equipment consists of gloves, a gown or apron, a

surgical mask and a face shield/visor/goggles. When performing aerosol-generating procedures (e.g. taking nasopharyngeal swabs, performing CPR, or intubating a patient), an N95 respirator should be used instead of a surgical mask[8].

Training in the **"meticulous compliance with donning and doffing procedures"** is critical to avoid contamination and infection[8]. Below is guidance on the appropriate use of surgical masks and tests to perform to reassure the clinician that he/she is wearing a good quality N95 mask for their protection and that of others.

Table 3: Appropriate Use of Surgical Masks
• Masks should tightly cover the nose and mouth[22]. • Staff should avoid touching the masks with their hands. If the mask is touched with unwashed hands, gets wet, gets soiled, or is removed from the face, it will "become contaminated and will no longer provide effective protection. (it) should then be discarded"[20]. • The mask should be removed from behind[22]. • After removal or if one inadvertently touched a used mask, hands should be cleaned using an alcohol-based sanitizer or washed with soap and water[22]. • The disposable masks should be immediately disposed into a red or medical waste plastic or bin[20]. • When going on break, the surgical mask must be discarded and a fresh one worn when returning to the clinical area[20].
Seal tests that should be performed each time a N95 respirator is used[20]
Negative seal check: • Coned shape respirator: Cup hands over respirator without excessive pressure. Breathe in sharply. A light collapse of the respirator should be felt with no air leaking in around the face to-face piece seal. • Duck- bill and V-flex type respirator: Breathe in sharply. The respirator should collapse inwards. **Positive seal check:** • Coned shape respirator: Cup hands over respirator. Blow out. A build-up of air should be felt with no air leaking out around the face-to-face piece seal edges of the device. • Duck-bill and V-flex type respirator: Breathe out forcefully; the respirator should expand on the exhale.

NICD regards the contents in the Table 4 below as "detailed recommendations for use of PPE" in inpatient settings such as hospital wards, ICU, overnight/holding wards and step-down facilities.

Table 4: Inpatient Services (hospital wards, ICU, overnight/holding wards, step-down facilities)[20]			
Setting	**Personnel or Patients**	**Activity**	**Type of PPE or Procedure**
Isolation cubicles, rooms, or wards where COVID-19 patients are being cared for.	Patients with COVID-19	Any	Surgical mask
	Clinical staff	Providing direct care to COVID-19 patients	Surgical mask; apron; non-sterile gloves; eye protection (goggles or visor)
	Clinical staff	Aerosol-generating procedures performed on COVID-19 patients (such as **nasopharyngeal and oropharyngeal swabbing** for testing for coronavirus infections) **N95 respirators** are only worn when performing aerosol producing procedures	N95 respirator; apron or gown; non-sterile gloves; eye protection (goggles or visor)
	Porters and nurses	Transport of COVID-19 patients	Surgical mask; non-sterile gloves
	Administrative personnel	Administrative staff supporting COVID-19 ward services, who are not usually in direct contact with patients, but would enter the isolation ward.	Surgical mask ; non-sterile gloves; maintain spatial distance of at least 1 metre, where possible
	Security Personnel	Any	Surgical mask
All types of wards where Non-COVID-19 Patients (i.e. patients who do NOT have COVID-19) are being cared for	Patients without COVID-19	Any	Cloth mask
	Clinical staff	Aerosol-generating procedures* performed on Non-COVID-19 patients*	Surgical mask; apron; non-sterile gloves; eye protection (goggles or visor)
	All staff	Any other activity besides Aerosol generating procedures performed for Non-COVID-19 patients	Cloth mask
	Visitors	Visiting patients without COVID-19	Cloth mask

Other areas of the hospital where COVID-19 patients transit (e.g. corridors) but are not directly attended to.	All staff	Any activity that does not involve contact with COVID-19 patients	Cloth mask

According to the NICD, there is "no evidence that foot or head gear is indicated for protection against droplet and contact precautions and should be avoided". However, in some hospitals, physicians would still advise clinical staff to wear hair and shoe covers. In other hospitals, there have been PPE supply constraints and adjustments to the guidelines have had to be made. Furthermore, some facilities like psychiatric hospitals or units, have unique clinical scenarios which force adjustments to be made to the type of PPE worn in those scenarios. So a system that one specialized psychiatric hospital has been using due to the above considerations, is noted in Table 5 below. It goes without stating that SASOP would still encourage members to always endeavour to have adequate supplies of PPE in order to fully comply with the NICD guidelines[#].

Table 5: Use of PPE in a psychiatric facility where supplies are limited and/or the clinical scenario warrants adjustments [#]	
Clinical scenario	**Level of PPE for clinician**
COVID-19 negative patient	
Interviewing patient and administering depot medication	3 ply medical mask and face shield (if they do not have spectacles or googles) plus gloves when administering the depot. Physical distancing of 2 meters should be maintained throughout the face-to-face consultation
COVID-19 positive or PUI patient	Ideally full PPE whilst keeping a 2-meter physical distance, should be worn. But at some centres with limited supplies of PPE, the following may apply
Interviewing COVID-19 positive or PUI patients	Surgical mask, face shield and shoe protection. Physical distancing of 2 meters should be maintained throughout the face-to-face consultation
Physical examination, administration of depot medication or any encounter where restraint may occur	N95 preferably, surgical mask, gloves, gown or apron and face shield
Swabbing (cooperative patients)	Full PPE - N95 mask, face shield, gloves and gown or apron
Swabbing (resistant patients)	Full PPE and team approach required. Sedation may be considered but as a last resort(**see management of high-risk patients below)**

To note: Several facilities have adopted a zoning strategy to designate high and low risk areas. This will guide the healthcare worker as to the appropriate level PPE that needs to be utilised.

d) Prevention and Control of Outbreaks in Facilities

Psychiatric facilities: With regards to the facilities themselves, Poremski et al states that additional measures, above and beyond standard infection prevention practices, will be necessary in a psychiatric facility setting[26]. Some of these measures include: reducing the volume of outpatient services; temperature surveillance of inpatients twice daily; sanitizing patient's hands every 2 h in the wards; personal hygiene education for inpatients; patient vaccination program (flu and pneumococcal) and delivering medication out to outpatients by courier[26].

For long term facilities like Life Esidimeni centres and residential NGOs, reference can be made to the "Infection Prevention and Control guidance for Long-Term Care Facilities in the context of COVID-19" issued by WHO[27]. The NICD also has its own "COVID-19 Disease: Infection Prevention and Control Guidelines" which can be adapted to psychiatric facilities especially those with PUIs or COVID positive patients[20].

Critical to the aforementioned NICD's guidelines is that "confirmed or suspected patients with COVID-19 not requiring ICU care should be accommodated either in a single room or in cohort isolation"[20]. SASOP equally insists that there should be no intermixing of COVID positive/ PUIs and COVID 19 negative in one ward, unless they can be managed in separate cubicles or isolation rooms. **If the latter is not feasible, then such patients should be managed in a designated medical ward and be managed as part of consultation liaison services or transferred to another psychiatric unit where separation is possible.**

An example of such an ideal separation plan would be: 1) COVID-19 negative ward 2) COVID-19 positive ward 3) PUI ward 4) COVID-19 positive ward with severely disordered patients. While the establishment of a COVID-19 ward may take time, creation of a COVID-19 ward needs to be guided by Infection Prevention Control officers as well as the Provincial Mental Health Authorities for certification.

4) Management of Human Interactions within a Psychiatric Facility

The main aim of managing human interactions within a healthcare facility is to stop nosocomial transmission of SARS-Co-V2.

SASOP recommends that fewer physical meetings should be held and online technology/ platforms should be used as far as possible to conduct meetings. Should the need to have face to face interactions with another staff member arise, physical distancing should be practised and physical barriers like glasses, plastic windows, face shields used. Of course, masks should be worn at all times during these interactions. Lunch/tea rooms should be closed, especially if they are in small tight quarters with poor ventilation. Should the physical dimensions of the lunch/tea room be more generously proportioned, physical distance of 2 meters should still be maintained with staggered tea/lunch breaks to reduce occupancy.

a) Patient-patient interactions

Certain measures such as limiting access to communal areas will help reduce patient-patient interactions, but where these interactions cannot be avoided (e.g. mealtimes) the 2-meter physical distancing rule should apply and/or two sittings for each mealtime be held instead. Meals may need to be served on trays especially in COVID-19 or PUI wards[15]. Strict physical distancing during group activities should also be practiced or group activities should be cancelled. Should group activities take place, they should be limited to 10 patients per session (especially in dementia-care settings) or as determined by the facility[28].

While the above may seem sensible given the circumstances, there is a risk that the therapeutic milieu of the hospital may be lost in the process. Patient may feel isolated from other human beings leading to enhanced or continuous distress or agitation[18,29]. They may also not be able to obtain the clinical and social benefit of group activities[18]. Colleagues from the Oxford Healthcare Trust suggest that some activities that can be performed with the recommended 2-meter distancing should continue as a shared decision taken by both staff and patients[29]. Examples of such activities include mindfulness/relaxation groups and dancing/exercise groups[29].

If all patients in a particular ward have tested negative for COVID-19 and are cooperative, then group activities with restricted numbers can take place. Simple self-propelled activities such as games and puzzles could take place in a COVID-19 ward. But for PUI wards, SASOP contends that the loss of the ideal therapeutic milieu may have to be reluctantly accepted by both clinicians and patients due to the risk of nosocomial transmission.

b) Staff-patient interactions

The facility should preferably request its clinicians/allied professionals to use as much telemedicine as possible to consult with patients even if patients are admitted. Indeed, the one advantage of virtual consultations is that they make it possible to have engagements with a patient without wearing masks, which will allow both the patient and psychiatrist to see each other's full facial expressions[15]. Still, there are technical and accessibility issues to contend with when it comes to telemedicine. Additionally, under certain clinical scenarios and/or if preferred by the patient, **face-to-face interaction with patients will still be necessary for assessment and treatment purposes.** Ward rounds can be adjusted so that face-to-face interaction is restricted to the patient and psychiatrist whilst the rest of the team joins via a video link[15]

SASOP therefore reminds psychiatrists that face-to-face consultations may still be required under certain circumstances and perhaps the duration and manner of the consultations can be adjusted in lieu of its total absence.

5) Management of a Person Under Investigation (PUI) in a COVID-19 negative area

a) Post-COVID-19 Test Management of PUI

<table>
<tr><th colspan="4">Table 6: Management of a Psychiatric PUI</th></tr>
<tr><th>Clinical scenario</th><th>Location</th><th>Primary clinical attendant and focus of management</th><th>Conduct of patient's management</th></tr>
<tr><td rowspan="2">A PUI is a patient who has had contact with a confirmed COVID-19 patient or is displaying signs and symptoms of probable COVID-19.</td><td rowspan="2">Assuming that psychiatric care is still required based on risk factors, the patient needs to remain in a psychiatric facility but needs to be moved to an COVID 19 PUI isolation ward within a psychiatric hospital.</td><td rowspan="2">MDT including psychiatrists AND
General Practitioner or Medical Officer
Main focus of management – mental health care and monitoring for COVID-19 symptoms/physical deterioration plus following up on swab test results on a daily basis if a COVID-19 test was done.</td><td>Telemedicine and/or physical consultation depending on the daily risk profile of the patient.</td></tr>
<tr><td rowspan="3">The isolation ward should have the appropriate level of PPE available for when the need for a face-to-face interview arises.</td></tr>
<tr><td>Prior to this taking place, the facility management should have informed all staff what to do should such a scenario arise - essentially what is the policy of the facility in this regard.</td><td rowspan="2">They should remain in a psychiatric facility only if the psychiatric risk outweighs the medical risk at the time of assessment. It should be noted that this risk assessment should be done daily or twice a day until the patient is discharged.
* Should the patient physically deteriorate, then they should be transferred to a medical facility where the practice of consultation liaison would come into play.</td><td rowspan="2">It will be wise to have an arrangement with the local laboratory to have swab tests from psychiatric inpatients prioritized so that results can be obtained within 24 hours ideally!</td></tr>
<tr><td>There should be a greater reliance on effective communication with the patient who may need to be isolated instead of immediately relying on coercive methods.</td></tr>
</table>

b) Post-COVID-19 Positive Test Result Management

Should the PUI turn out to have COVID-19, the following course of action needs to be taken:

1) Inform the patient first and counsel him/her about COVID-19 and what steps are to follow now that they have COVID-19.

2) Inform the patient that COVID-19 is a notifiable disease and that a contact tracing exercise of their close and recent contacts (including staff) will be followed[6].

3) Close the patient's room and/or ward for deep cleaning.

4) Move the COVID-19 patient to a COVID-19 ward OR designated isolation section within the hospital, if the COVID-19 condition is mild, asymptomatic or pre-symptomatic[17]. SASOP recommends that every newly diagnosed COVID-19 patient should be discussed with internists/infection disease specialists/suitably COVID-19 experienced GP on the best treatment location for the patient (see below under Section 6)[18]. The medical ward in a general hospital has to be "psychiatrically safe" with no ligature points[15] and in turn, SASOP advises colleagues that the COVID-19 ward in a psychiatric facility, has to be medically safe with skilled medical staff.

5) Should the patient remain at the psychiatric facility; he/she should be placed in a room with a dedicated bathroom. There must be negative pressure (at least 6 air changes per hour) in these rooms. If negative pressure rooms are not available, rooms with natural ventilation with sufficient airflow of at least air exchange of 60L/sec /patient can be utilized. If single rooms are not available, patients with confirmed COVID-19 infection should be placed in the same area but beds separated according to NDOH guidelines[20]. Any shared toilet facilities should be cleaned regularly (2- 4 hourly)[20].

6) If cohort isolation is not possible, then COVID-19 patients should be managed in a designated medical ward and be managed as part of consultation liaison services or transferred to another psychiatric facility where separation is possible.

7) The clinicians should frequently follow up on test results of the close contacts so that appropriate placement of these contacts can take place as soon as possible.

8) Those who tested COVID-19 negative should still be closely monitored so that emerging COVID-19 symptoms can be detected and the patients re-tested.

c) Medical Monitoring of COVID-19 patient

Even more stringent monitoring is needed for identified COVID-19 patient/s as their physical condition can quickly change for the worse[30]. In addition, it has not "yet been determined what proportion of mild to moderate cases ultimately become severely or critically ill"[18,31].

Table 7: Examples of criteria that should trigger transfer to a general hospital setting

"Guidance for the Treatment and Management of COVID-19 Among People with Intellectual Disabilities" (Alexander et al,2020)[30]	**"Ensuring mental health care during the SARS-CoV-2 epidemic in France: A narrative review (Chevance et al, 2020)[24]**
• Severe shortness of breath at rest; onset of new confusion or worsening of challenging behaviour; becoming difficult to rouse; little or no urine output; cold clammy or pale mottled skin; heart rate >100 with new confusion/challenging behaviour; respiratory rate >20/min; Oxygen SATS ≤94%; Temperature >38°	• Respiratory rate > 24/min; SpO2 < 95% in ambient air or patient requiring oxygen; dyspnoea progressively or rapidly inflating; tachycardia above basic level; faintness/dizziness; marked alteration of a general condition; somatic decompensation of an underlying somatic disorder
"Design and implementation of a regional inpatient psychiatry unit for asymptomatic SARS-CoV-2 positive patients" (Angelino et al, 2020)[15]	
• Transfer to a medical bed when the oxygen requirement is beyond 2 liters by nasal cannula.	

1) Discussion with the receiving facility/internist should occur prior to transfer to ensure availability of the required level of support. ICU beds may be in high demand or in short supply.

2) EMS should be readily available to quickly transport COVID-19 patients to a general hospital should the patient's condition deteriorate.

3) The psychiatrist should be prepared to offer ongoing care and support to the patient in the general hospital as well as offer advice on maintenance or adjustments of medication if need be[15].

Taking the above into consideration, SASOP would recommend that psychiatrists proactively develop a working clinical plan with their local internists or infection disease specialists on how to manage asymptomatic or pre-symptomatic COVID 19 patients in their psychiatric facility. Furthermore, there should be no hesitation to transfer the patient to a general hospital should psychiatrists feel either uncomfortable to manage the patient or feel/observe that the patient is deteriorating to any degree.

6) Care Pathways for Psychiatric Patients with COVID-19

Table 8: Psychiatric triage of COVID-19 patients

	Mild Mental illness	Moderate to Severe Mental Illness
Mild COVID-19	*Home if self-isolation possible (after the mental illness has ameliorated enough for discharge) OR at a non-healthcare designated facility for psychiatric patients with COVID-19 (after mental illness has ameliorated enough for discharge) OR at a psychiatric facility in a quarantine ward/cubicle/isolation room (if further psychiatric treatment is necessary despite lowering of risk factors)	Psychiatric facility in a quarantine ward/cubicle /isolation room OR at a general hospital in a psychiatric ward unit that has a quarantine ward /cubicle/isolation room depending on the level of psychiatric care required.
Severe COVID-19	General hospital in a quarantine ward/cubicle/isolation room with consultation liaison services being available for any psychiatric matters	General hospital in a quarantine ward/cubicle/isolation room with frequent consultation liaison services being available for any psychiatric matters.

To note: Mild mental illness refers to common mental disorders such as depression or anxiety/early relapse in a patient with a chronic severe mental illness/any mental illness without disordered or risky behaviour.
**For patients treated at home, a verified and psycho-educated support network should be available and the patient's condition monitored.*

As can be noted above, the patient's location of treatment can change depending on their medical and/or psychiatric condition. Psychiatrists should be alert to the fact that these changes can happen without much notice. At that point they should be ready to effect the transfer or referral of the patient to the appropriate healthcare facility. Psychiatrists should also be willing to down-refer patients so that beds are made available to those who may need them more urgently.

As a guide to what constitute a mild, moderate or severe form of COVID-19, the following categorization can be considered:

Table 9: Criteria for assessing the severity of COVID-19[31]	
Severity	Criteria
Mild	Minimal symptoms without pulmonary involvement in chest imaging studies
Moderate	Fever and/or respiratory symptoms; multiple limited patchy shadows and interstitial changes in chest imaging
Severe	Dyspnea with a respiratory rate of >30 breaths per minute; resting oxygen saturation below 95% or arterial blood oxygen partial pressure/oxygen concentration ≤300 mmHg (1 mmHg=0.133 kPa); multi-lobular disease or lesion progression of >50% within 48 h; sequential organ failure assessment (SOFA) of ≥2 points; pneumothorax and/or other clinical conditions requiring hospitalization
Critically ill	Respiratory failure requiring mechanical ventilation; septic shock; additional organ failure

***To note**: NICD defines mild COVID-19 as = SpO2 ≥95% and respiratory rate <25 and heart rate <120 and temperature 36-39°C and no change in mental status[8]*

The above psychiatric triage should be kept in mind when trying to decide on where to manage a psychiatric COVID-19 patient with the internists. The psychiatrist should try by all means to avoid thinking in terms of where to manage the patient based on the available financial/human/physical resources lest they find themselves in an ethical and clinical quagmire. SASOP discourages such expedience at the expense of standard clinical judgement because of the clear evidence that COVID-19 can be life-threatening.

7) COVID-19 related Drug Interactions/Adverse Effects

a) General Considerations and Limitations

- The information below was obtained from a search process which does not portend to be a robust systematic review of the evidence and the data. Furthermore, the authors remind clinicians that like with any other clinical scenario, application of literature or research information in making clinical decisions should be done with the prevailing clinical and patient context in mind. Psychiatrists are also encouraged to seek reasonable opinion from experienced colleagues to help them anticipate and prepare for consequences of their clinical actions.
- Ostuzzi et al pointed out that the "clinical relevance of drug–drug interaction is difficult to ascertain, considering both the scarcity of data and the multitude of potential co-occurring factors"[32].
- Still, and perhaps for the abovementioned reason, SASOP would encourage psychiatrists to consult well-known and recently established but cited drug interactions resource platforms like Drugs.com and Liverpool Drug Interactions Group (2020) respectively. The latter drug interactions resource tool specifically looks at currently used COVID-19 "treatments"[33-35].
- Some researchers note that the presence of a problematic drug interaction or cardiac modifying character of a drug does not necessarily mean adverse effects will emerge from the interactions or from the drug. It may depend on the dose of the one or other drug and the clinical condition of the patient[35,36].
- Undoubtedly, many possible drug interactions can have serious health consequences, but patients with COVID-19 or without COVID-19 who develop psychiatric symptoms may still need to be managed with psychotropic medication. Without being prescriptive, psychiatrists could note that certain drugs such as Citalopram, Escitalopram, Olanzapine and Valproate have minimal P450 interactions and therefore are "considered to be safe in combination with antiviral drugs"[37].
- SASOP recommends that, for now, psychiatrists can study the attached referenced articles for more guidance on how to manage these drug-drug interactions. This is by no means an endorsements of the advice offered by the authors of these articles [38-40].
- One article addresses the potentially lethal phenomenon of prolonged QT prolongation which can be caused by both COVID-19 "treatments" and psychotropic medications. Chatterjee et al states that if a drug that has a propensity for this serious cardiac adverse effect needs to be used alone or in combination, precautions need be taken[39]. These include performing a baseline ECG to check for QTc prolongation. They further state that "if QTc is more than 440m Sec in males or 470m Sec in females then there is risk of developing cardiac arrhythmia"[39]. Where there is concern for this potential risk, Olanzapine and Aripiprazole may be used because they have the least risk for QTc prolongation. They also caution against the use of depot antipsychotics under these circumstances[39]. SASOP would like to advise that even after a baseline ECG has been obtained, the patient should still be advised to look

out for the following symptoms which may indicate QT prolongation or torsade de pointes: dizziness, fainting episodes, palpitations, irregular heart rhythm, shortness of breath, or syncope[33].

b) Psychiatric Adverse Effects of COVID-19 "treatments"

Even before they were used for the treatment of COVID-19, some of these drugs had the potential to cause psychiatric symptoms.

Table 10: Psychiatric Adverse Effects of COVID 19 "treatments	
Antiviral Therapies	The lopinavir-ritonavir combination can cause bilateral sensorineural hearing loss and depressive symptoms[38].
Corticosteroids	Depression, mania, agitation, mood lability, anxiety, insomnia, catatonia and psychosis can emerge early on with high doses of steroids[40].
Azithromycin	Delirium has been reported but it is rare[38].

c) The use of COVID-19 "treatments" in Substance Use Disorder patients[41]

The effects of certain legal drugs/substances such as alcohol and Methadone on COVID-19 "treatments" and vice versa need to be kept in mind. Stopping the consumption of alcohol abruptly whilst starting Hydrochloroquine, can lower the patient's seizure threshold. The use of Methadone should be avoided if a patient is on a combination of Hydrochloroquine and Azithromycin due to risk of QTc prolongation and overdose. Lopinavir co-administration with Methadone could result in the lowering of the latter's levels and emergence of opioid withdrawal symptoms. The liquid form of Lopinavor-Ritonovir contains high levels of alcohol, so use of disulfiram needs to be avoided.

8) Management of High Risk Clinical Scenarios in COVID-19/PUI patients

a) Patients with Severe Mental Illnesses who are PUIs or have COVID-19

An occasion could arise when a previously admitted patient with mania or psychosis develops respiratory symptoms or other COVID 19-like symptoms and becomes a patient under investigation. As per protocol, this patient will then be moved to an isolation ward or a COVID-19 ward if positive. These wards are likely to be different to the normal green zone or COVID-19 negative wards that the patient is accustomed to. Apart from some of these patients' fear of having COVID-19, the "change in environment and healthcare workers", can induce stress in a patient with a severe mental illness[42]. One small study in China found increased depression, anxiety and stress scores in a group of schizophrenia patients moved to an isolation ward on suspicion of having COVID-19[42]. **Beyond our clinical duty to quickly treat these distressing symptoms, the clinician should be mindful that failure to timeously intervene, may create opportunities for the patient to truly contract COVID-19 or expose others to it.**

b) Mechanical Restraint and Seclusion

Mechanical restraint and seclusion are important management tools and their use should not be summarily suspended during this pandemic. **Given that these procedures will inevitably lead to the abolition of physical distancing between staff and the patient, proactive planning is necessary**. As noted above, patient "outbursts" in certain cohorts should be anticipated and efficiently managed [15]. Noting that PPE may not be readily available at the time the nurse or security guard needs them, it is recommended that staff in PICUs (psychiatric ICU) or involuntary units wear full PPE at all times especially when there is a newly admitted and unsettled patient. Security guards should be provided

with more tear-resistant jumpsuits. If there are limited supplies of PPE and a nurse needs to be on the ward for a long time, surgical gowns can be worn at all times[15].

c) Management of an Acutely Disturbed Patient[29]

As stated by colleagues from the Oxford Healthcare Trust in the UK, we are still in the midst of a pandemic where the "full effects of COVID 19" are unknown[29]. No systematic reviews or meta-analysis studies have been done as yet on the use of emergency psychotropic medication in COVID-19 patients. But as usual, for any acutely disturbed patient, it is important to first rule out delirium and its common causes like constipation, urinary retention, pain, underlying infections, electrolyte disturbances, hypoxia and medication side effects[29]. These should be swiftly managed if found.

If the level of disturbance is a risk to the patient and/or others and there are "no signs of respiratory compromise (decreased or increased respiratory rate) cardiovascular disease or decreased level of consciousness, then medication, such as benzodiazepines, can be used with caution"[29]. Oral medication should be offered as first line sedatives as parenteral medication is more likely to cause dose related side effects including respiratory depression, postural drop, QTc prolongation and extra-pyramidal side effects. The prescriber should ensure immediate availability of flumazenil if benzodiazepines are given. The sedated patient should be regularly monitored for rapid deterioration in respiratory function and level of consciousness[29].

Lorazepam would be the preferred benzodiazepine as it has a shorter half-life. Simultaneous injections of olanzapine and benzodiazepines should be avoided because of the risk of excessive sedation and cardiorespiratory depression[29].

SASOP agrees with Luykx et al that "high doses of sedatives are unwanted" and doses of sedatives or hypnotics should be kept as low as possible while the psychiatric and physical condition of a COVID-19 patient is closely monitored[35].

d) Management of Insomnia in a COVID-19 patient

This management should start with a non-pharmacological approach. The psychiatrist can begin by addressing any psychological distress that may have caused the insomnia through counselling or supportive therapy. Then CBT techniques for insomnia can be considered if experienced with them[29]. Advice on sleep hygiene techniques for the patient will then follow. If a hypnotic is still required (i.e. severe, disabling or extremely distressing insomnia), and there is no evidence of compromised respiratory function, the psychiatrist can consider using a benzodiazepine or Z-drug (zopiclone and zolpidem) at a low does for no more than necessary i.e. days to 2 weeks. These drugs should be avoided in the elderly[29].

e) Use of Clozapine in COVID-19 patients

Clozapine like COVID-19 can cause fever, sore throat and flu-like symptoms if agranulocytosis develops. If these symptoms are present, an urgent White Cell Count (WCC) is required. Review of the WCC result should specifically look at neutrophil count as "(COVID-19) infection may depress lymphocyte count but does not reduce neutrophils"[29]. Some authors recommend an additional test for COVID-19 antibodies to further differentiate between the two possible causes[43]. Furthermore, Gee et al state that should agranulocytosis occur after the first 18 weeks of treatment, then it unlikely to be due to the Clozapine[43]. Whilst the concern over agranulocytosis is justified, there is a serious risk to discontinuing Clozapine. Nevertheless, if Clozapine toxicity is present or Clozapine levels are increased, the dose of Clozapine can be lowered by as much as half until 3 days after the fever has subsided. Thereafter Clozapine can be increased in a stepwise manner[44].

The heart is also a target for both COVID-19 and Clozapine as they have both been associated with myocarditis. Therefore, it will be advisable to serially check (weekly for the first month) for serial troponins and CRP during the first month or two of initiating Clozapine in a patient during this pandemic[43,45].

f) Catatonia

Given the severity and acuity of COVID-19, there is a risk of catatonia developing[46]. This risk is also mediated positively and negatively by supportive treatment and COVID 19 experimental treatment, respectively. Apart from investigating for the cause of the patient's catatonic state, psychiatrists also need to rule out other serious conditions that can appear like catatonia. Such conditions include hypoactive delirium, neuroleptic malignant syndrome and serotonin syndrome[46].

g) Delirium

Delirium has unsurprisingly emerged in high percentages of COVID-19 patients (20-30%), especially those with the severe form of COVID-19 (60-70%)[3]. As delirium is a syndrome, the absence of an obvious or pre-selected cause, does not mean its absence[47]. Furthermore, even if one finds a common cause of delirium, it does not mean another important contributing cause or factor is not present[47]. Table 7 below lists a wide range of contributory factors and causes of Delirium that should be ruled out and managed. There are also factors that are specifically related to COVID-19 listed.

Table 11: Broad differential diagnosis for Delirium – Modified from Burns et al [47]	
Predisposing factors in delirium ***the presence of these pre-admission factors should immediately trigger a closer watch of the patient as they are at higher risk of developing Delirium	Older age ; visual impairment ; presence of dementia ; functional dependence ; immobility ; hip fracture ; dehydration ; alcoholism ; severity of physical illness ; stroke ; metabolic abnormalities
Precipitating factors in delirium	Presence of narcotics (as discovered on a drug screen test) ; severe acute illness ; urinary tract infection ; hyponatraemia ; hypoxia ; shock ; anaemia ; pain ; physical restraint ; bladder catheter use ; post-surgery
Drugs that may cause delirium *this list is not exhaustive	Cimetidine ; benzodiazepines ; diphenhydramine (e.g., Benylin) ; prednisolone ; opioid analgesics ; theophylline ; tricyclic antidepressants ; NSAIDS ; promethazine ; laxatives ; belladonna containing OTC ; antipsychotics ; buscopan ; furosemide ; isosorbide dinitrate ; warfarin ; codeine ; captopril
Delirium risk factors associated with COVID-19 [48,49].	Viral infection; fever; hypoxia; co-morbidities; neuro-inflammatory effects (cerebral hypoxia); secondary effect of other organ system failure (metabolic dysregulation); adverse effects of sedatives (especially benzodiazepines and anticholinergic agents); prolonged mechanical ventilation time; immobilization; social isolation and quarantine (contributing to disorientation and lack of awareness in the patient - older adults); older age

SASOP reminds psychiatrists that eliciting delirium in a patient should immediately trigger transfer to a medical facility for further management.

9) Electroconvulsive Treatment during the Pandemic

ECT is an essential treatment modality for patients with severe forms of schizophrenia, depression and bipolar disorder. Often when it is prescribed, it means that a patient is at high risk of physical harm, harm to others and harm to self. **Therefore, SASOP recommends that as an essential psychiatric service, it should be continued during a pandemic and/or lockdown.**

Tor et al (2020) decided to continue the service in Singapore with some modifications to the service [50]. As always good infection prevention measures were taken including disinfecting the suite in-between patients from different wards and between each patient. There was a dedicated cleaner to

assist with the disinfection procedures. They even adapted anaesthetic equipment to minimize infection risk to patients. Adequate PPE was made available and staff trained in the use of these PPE. Other ECT practitioners pointedly reduced the numbers of persons in the ECT room during sessions[51].

SASOP similarly advises that psychiatrists should consider the manner and frequency in which they conduct ECT so that it does not heighten the risk of the patient contracting COVID-19 from ECT sessions. At the same time, withdrawal of the service for some patients may be equally risky from a psychiatric point of view. For these high-risk patients, a holistic discussion needs to be held with the patient including how their condition will be monitored in the absence of their ECT treatment[51].

10) Consultation Liaison Aspects during the Pandemic

As has been noted above, psychiatric patients can contract COVID-19. This is in part due to their inability to physically distance, wear masks appropriately and sanitise their hands adequately. Furthermore, if a psychiatric patient has co-morbidities like hypertension, cardiovascular and cerebrovascular disease, diabetes mellitus, COPD and hepatitis/liver cirrhosis, then they may be at risk of developing a severe form of COVID-19. Therefore, psychiatrists may need to offer consultation liaison services to their physician colleagues if the former's patient presents to a general hospital or casualty department. The psychiatric condition of the patient will need to be determined and managed. Along with the physician, side effects of psychotropic medication, psychiatric side effects of physical medication and drug interactions will need to be monitored[40].

Psychotropic medication can also cause physical adverse effects in the body such as drug-induced hepatic injuries and gastrointestinal adverse effects. Psychotropic drugs that have a greater potential for drug-induced hepatic injuries include the following: antidepressants (Amitriptyline, Venlafaxine, Duloxetine, Sertraline, Bupropion, Trazodone, and Agomelatine), mood stabilizers (Sodium valproate and Carbamazepine) and antipsychotics (Chlorpromazine and Clozapine)[52]. Drugs like SSRIs (fluoxetine and citalopram, etc.) can cause gastrointestinal(GI) symptoms like diarrhoea, dyspepsia, nausea, vomiting and abdominal pain[53]. So psychiatrists may be called upon to have discussions with physicians regarding the continued use of psychotropic medication in a COVID-19 patient, especially if the patient has a poor biochemical liver profile or unbearable gastrointestinal symptoms. But it should be noted that such discussions need to be tempered with the awareness that the act of stopping efficacious psychotropic drugs, may not be based on "evidence-based" data[54].

Like Clozapine, SSRIs and Valproate can cause lymphopenia, thrombocytopenia and disseminated intravascular coagulation, which may be present in a COVID-19 patient as well. The use of lithium, duloxetine and paliperidone may need to be reviewed in the presence of moderate to severe renal impairment[40].

11) Leave of Absence and Length of Hospitalization

a) Leave of Absence

Some facilities may elect not to allow LOA but instead keep the patient admitted continuously until they are fit to be discharged. SASOP would recommend this approach. This is due to the risk of the patient acquiring SARS-CoV-2 whilst in the community and possibly transmitting it to others during LOA check-ups. If a patient had to be discharged prematurely for sound reason, check-ups should take place frequently and/or using telemedicine.

b) Length of Hospitalization

Psychiatrists may be inclined to keep in-patient hospitalizations as short as possible but this should not be on the erroneous basis that the risk of contracting COVID-19 is higher in hospital than at home. The psychiatrist should also be aware that premature discharge can lead to dangerous relapses.

c) Discharge of a COVID-19 positive patient[15]

Depending on where the patient is discharged to after being in a COVID-19 ward, certain additional actions may need to take place.

i) Medical ward – psychiatrists are advised to develop a clear and implementable plan on how to action this transfer at a moment's notice.
ii) COVID-19 negative psychiatric ward – screening for COVID-19 should continue in this ward as well as good hygiene practices and physical distancing.
iii) Home for self-isolation or Quarantine facility– the patient should be discharged home with instructions on how to maintain quarantine restrictions if they have not recovered nor met the de-isolation criteria; the psychiatrist should provide as much support via telemedicine and ensure a 1-month prescription is provided to the patient upon discharge.

12) Addressing the Mental Health of Healthcare Workers

As noted above, mental healthcare professionals may also find themselves on the frontline of this pandemic. Therefore, they are as vulnerable to developing emotional distress as their medical colleagues. Some studies have even found psychological distress in a form of burnout in ward staff away from the frontline[55]. This psychological distress can manifest as insomnia, fear, denial, anger, anxiety, depression and post-traumatic stress disorder[56-58]. There are several factors that could lead to this incidence of distress (see Table 8 below). Managers or senior clinicians should be aware of these factors and try to mitigate against them.

Table 12: Mental Health Risks faced by Health Professionals. El-Hage et al 2020[59]
• Anxiety and uncertainty brought on by the rapid spread of COVID-19 • Severity of symptoms it can cause in some patients • The lack of knowledge about the disease and rapidly changing information • Deaths among colleagues • Concerns about one's own health and fear of infecting family members • Inadequate supplies and poor quality of personal protection equipment • Lack of adequate communication from authorities • Lack of specific treatment for COVID-19 and shortage of intensive care beds • Significant change in one's daily social and family life • Feelings of not being adequately supported • Feelings of social stigmatization due to being health professionals • Overwhelming workload

Even without psychological distress evolving into a diagnosable psychiatric condition, it can still affect the healthcare worker's social and occupational functioning. Impairment can present in various forms including: excitability, irritability, poor clinical decision-making ability, impaired judgement or impaired attention[58,60,61]. Such impairments can clearly not be afforded by any facility during this time of crisis.

Proactive steps to prevent development of psychological distress, can start off with basic measures such as providing enough PPE, offering resting or quite places for staff and organizing stress-reducing leisure activities[60,62]. Recognizing staff member's unique home circumstances is important

as these circumstances may place heavy demands on them[23]. Regular and frequent meetings not only facilitate communication (which builds trust) but also provide feedback on the performance of the facility as a whole[23]. Announcement of good performance measures or achievement points (e.g. no new COVID-19 cases amongst staff for a week) can help staff feel in control and confident in themselves, each other and the facility[23]. Communication should also include drawn up protocols, guidelines and infection control plans. These creates further comfort in the minds of healthcare workers as it indicates the facility's preparedness[61].

The above-mentioned activities can be complemented with work-embedded psychological support for staff using the Kubler-Ross framework. This framework uses Kubler-Ross Grief Cycle to recognize the emotions that staff may go through as they experience a disruptive event such as this pandemic. A pandemic that requires individual and organizational changes, just like grieving a loss[63]. Below is an example of how one specialist psychiatrist hospital in the Western Cape has adapted their psychological support for staff using this framework.

- Allow time and space for teams which will have to deal with potentially infectious patients, to adjust to the new reality and their fear or anxiety.

- Recognise explicitly that such fears are a reality and are not a source of shame but can be useful in enhancing vigilance and energising staff to respond as best they can.

- Healthcare workers should not shy away from the enormity of the crisis and use this opportunity to remind one another that this calls on professionals to respond with the gifts, skills and knowledge that they have as health care workers.

- Managers should continually ensure that team members feel recognised, supported and trusted to do the right thing by take time to check in individually with team members and to allow them to express their fears at the same time reassuring them.

- Recognise that all the mechanisms and defences against grief are likely to arise in all staff members – denial, anger, bargaining and depression.

- Managers should show leadership by leading by example in performing what would be expected of staff members.

- Actively demonstrate support for team members when they show initiative or go beyond their mandate, in their efforts to do good, even when this has unintended consequences.

Should clinical staff be unable to adequately provide this intensive and constant psychological support, the services of registered counsellors could be co-opted where they are available or the Healthcare Workers Care Network can be utilized [60,64].

If despite the facility's best efforts, a healthcare worker becomes severely distressed, SASOP wishes to stress that colleagues should be managed like any other mental health care user. As such, they should be urgently seen, psychiatrically triaged, be booked to see a psychologist or psychiatrist, be prescribed psychotherapy/psychiatric treatment and supported until recovery[65]. Application of a full bouquet of psychiatric interventions for colleagues can prevent unpleasant and harmful outcomes of untreated distress and disorder.

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