Infection, Prevention and Control Measures: Covid-19 Era

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BACKGROUND

The World Health Organization (WHO) declared COVID-19 a public health emergency of international concern. COVID-19 is a disease arising from being infected with the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-COV-2). The University of Zimbabwe has heeded calls to be prepared to fight the pandemic. The UZ should educate and train members of the University on the response to the SARS-COV-2 pandemic. The SARS-COV-2 COVID-19 pandemic has reminded us that infection prevention and control (IPC) is everyone’s business. Thus the UZ has come up with an IPC response plan to ensure safety and well-being of the UZ community during the COVID-19 pandemic and any future epidemics. The success of this IPC response should provide a safe environment within the University of Zimbabwe.

Disclaimer: Although the information contained in here is believed to be current, it is envisaged that there will be need for frequent reviews of the document as and when new findings are received given the rapid evolution of our understanding of this new virus. This document is meant to apply to the needs of University of Zimbabwe staff and students only.

This policy document outlines the IPC requirements for the UZ and is based on the Zimbabwean national guidelines on IPC (See April 2020 Addendum to the Zimbabwe IPC guidelines).
1. GOAL

To mobilize the University community in the prevention, treatment, care and support of SARS-COV2/COVID-19 on campus and the greater society.

2. OBJECTIVES

❖ To define the UZ IPC policy framework in the SARS-COV-2 era
❖ To outline strategies on how to effect the IPC measures
❖ To provide acceptable standards for IPC in our UZ communities

3. GUIDING PRINCIPLES

The IPC program at UZ shall be guided by:

❖ Safety
❖ Teamwork
❖ Efficiency
❖ Cost effectiveness
❖ Sustainability

4. SCOPE

The scope of this policy includes:

❖ Raising awareness on COVID-19 and prevention of outbreak at UZ by early identification of cases
❖ Training of focal and link persons within UZ communities on:
  o Standard precautions
  o Transmission-based precautions
  o Environmental cleaning
  o Cough and hand hygiene
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- Personal protective equipment (PPE)
- Waste management
- Outbreak prevention and response
  ❖ Cascading of information on IPC to the UZ and its partners
  ❖ Implementation of IPC measures by UZ staff and students on campuses COVID-19
  ❖ Identifying research priorities in IPC and COVID-19
  ❖ Determining appropriate mitigatory measures to the pandemic
  ❖ Strengthening the UZ’s IPC program using team-based and interprofessional approaches.

5. UZ IPC COMMITTEE

Members of this Committee shall be drawn from Faculties and Departments of the University of Zimbabwe. Student representatives will also be drawn from the same departments. The IPC committee will be responsible for the delivery of IPC programs and strategies for UZ as well as the evaluation of such activities. The IPC committee will report to the UZ Executive.

6. KEY DEFINITIONS

- **Alcohol-based hand rub (ABHR)** - Gel, foam, liquid containing alcohol designed to reduce the number of viable microorganisms on hands.
- **Airborne/Aerosol transmission** - transmission of an infectious agent through the air from a suspected or known patient infected with such an agent. The agent is known to be transmitted from person to person through the airborne route.
- **Body Fluids** - Blood and body secretions.
- **Body substances** - Includes body fluids, solid tissue and faeces.
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❖ **Cleaning**: Removal of inorganic and organic material from surfaces or objects. This is usually accomplished by using soap and water or enzymatic products.

❖ **Contact**: The touching of a patient or their immediate surroundings or performing a procedure on a patient.

❖ **Contact precautions**: The interruption of transmission of infectious agents that are spread by direct or indirect contact with the patient’s surroundings.

❖ **Droplet precautions**: The interruption of transmission of infectious agents through droplets from patients suspected or known to be infected by agents known to be transmitted from person to person via droplets.

❖ **Hand Hygiene**: A general term that refers to general processes that aim to reduce the number of microorganisms on hands.

❖ **Health Care worker**: Staff delivering healthcare or supporting healthcare services.

❖ **Health Care Associated Infection**: Infection acquired in healthcare settings and infections arising from interventions in a healthcare setting.

❖ **Monitor**: Check, observe critically or record progress of an activity, action or system on a regular basis in order to identify change.

❖ **Outbreak**: Increase in incidence of infection greater than what is typically expected. Clustering of cases by microorganisms, time, person and place may indicate an outbreak.

❖ **Personal Protective Equipment**: A variety of protective barriers used alone or in combination to protect one’s mucous membranes, skin or clothes from contact with recognized or unrecognized sources of infectious agent.

❖ **Standard Precautions**: refers to minimum infection prevention measures applicable to patient care regardless of suspected or confirmed infection status in any place where healthcare is delivered. Practices are evidence based and are designed to protect and prevent spread of infections among patients and healthcare workers.
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❖ Transmission based precautions- e.g. prevention of droplet, contact and aerosol transmission or combination of these. These are precautions taken over and above standard precautions which may be insufficient to prevent infection.

❖ Risk Identification Requirements- In anticipation of staff and students of the UZ returning to their workspaces amid the COVID-19 pandemic, it will be important to assess the individual infection risk i.e. risk assessment determining whether each individual is a potential source of infection to others or they are susceptible to infection.

❖ Case Definition of COVID -19 (Use latest MOHCC COVID-19 Guidelines)
  o Suspect case: Severe acute respiratory illness and appropriate symptoms such as fever, cough, shortness of breath, i.e. flu-like illness
  o Probable case: A suspect case for whom testing for COVID-19 is inconclusive - inconclusive being the result of the test reported by the laboratory or a suspect case for whom testing could not be performed for any reason.
  o Confirmed case: A person with PCR laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

❖ Contact Case: A contact is a person who experienced any one of the following exposures during the 2 days before and the 14 days after the onset of symptoms of a probable or confirmed case:
  1. Face-to-face contact with a probable or confirmed case within 1 meter and for more than 15 minutes.
  2. Direct physical contact with a probable or confirmed case;
  3. Direct care for a patient with probable or confirmed COVID-19 disease without using proper personal protective equipment.

7. RISK MITIGATION REQUIREMENTS

7.1 EDUCATION AND TRAINING
❖ To develop/strengthen knowledge of the core components of an IPC programme to the UZ community by offering workshops to staff and students
7.2 STANDARD PRECAUTIONS

These are the minimum infection prevention measures that apply to patient care settings irrespective of confirmed or suspected infection status of the patient. These standard precautions also form the basic elements of the IPC strategy for COVID-19.

8. HIGH RISK AREAS AT THE UNIVERSITY OF ZIMBABWE

For example:

- Entry to the University campuses
- Health facilities
- Halls of residence
- Food outlets
- Sports facilities
- Teaching and learning venues
- Libraries
- Laboratories and Workshops
- Vehicles, i.e. both institutional, staff, students, suppliers and visitors', ambulances, buses.
- Chapel
- Workstations and other places (e.g., offices, Cash Office, Admissions, Student Accounts, Student Records, Accommodation Office, etc.)
- Hospital wards
8.1 RECOMMENDATIONS FOR HIGH RISK AREAS

8.1.1 Procedure at entry points
❖ There is need to restrict the number of people visiting the UZ premises by way of thorough screening at the entry points
❖ Physical distancing to be practised
❖ Compulsory use/wearing of face masks
❖ Washing of hands thoroughly with soap and running water for at least 20 seconds
❖ Proper sanitization of both hands with alcohol-based hand rub solution (at least with 70% alcohol)
❖ Compulsory temperature checks
❖ Routine on-spot interviewing of visitors on current or recent presence of symptoms related to COVID-19 (fever, cough, shortness of breath, chills, muscle pain, loss of test or smell, vomiting, diarrhoea and sore throat), and
❖ If any of the above is to be confirmed, the individual should be referred to a health facility for further management

8.1.2 Health Delivery Services Department’s Requirements:
❖ Training of staff on COVID-19
❖ Personal Protective Equipment (see attached list)
❖ Procurement of essential medication and sundries
❖ Screening checklist to be used for anyone who visits the Clinic
❖ Establish separate donning and doffing areas
❖ Creation of Reporting and Surveillance Forms
❖ Reception Hatch
❖ Disinfection of the Clinics twice a day
❖ Dispensary: Only one service provider to enter the dispensary, all other staff and customers to get commodities through the hatch
❖ Regular cleaning of the hatch with disinfectants after serving a client
❖ Heavy duty gloves, pedal bins, bin liners should be provided and bins should be regularly emptied
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❖ Continuous supply of running clean water
❖ Computerization, to promote e-health and accurate data collection
❖ Ensure strict adherence to IPC measures

8.1.3 Halls of Residence
❖ Ensure that all the returning students have been screened upon checking into student residences
❖ Ensure that students from Quarantine Centres have been officially discharged
❖ Ensure proper bed spacing
❖ Ensure and monitor ventilation of rooms
❖ Ensure regular changing of bed linen. Its recommended that students bring their own linen
❖ Regular disinfection of public areas in student residences and sanitization of study bedrooms upon student check out
❖ Inter-hostel visits must be prohibited until further notice
❖ Intra-hostel visits are discouraged
❖ External visitors are prohibited from entering university halls of residence
❖ Public gatherings in car parks and open spaces within proximity of student residences are discouraged

8.1.4 Food Outlets
❖ PPEs for food handlers
❖ Ensure food safety during preparation and serving
❖ Daily disinfection of the kitchen and dining halls
❖ Regular screening of food handlers for COVID-19
❖ Students to bring their own cutlery and crockery
❖ Physical distancing to be enforced in queues and inside the dining halls
8.1.5 Sports Departments
❖ There is need to engage in low risk sports e.g. tennis and jogging. The gym, swimming pool and ball games are banned until further notice
❖ Each activity to have less than 50 people and physical distancing will be mandatory
❖ Adhere to the documented infection prevention and control measures

8.1.6 Chapel and Chapel Yard
❖ Gatherings in and around the Chapel are suspended until further notice

8.1.7 Disability Support Services
❖ Training of Disability Support Services (DSS) Department helpers on safe handling of students with disabilities and their utilities
❖ Ensure that alcohol-based hand rub is placed in places that are accessible and reachable to student with disabilities
❖ DSS customized ablution facilities to be more constantly checked for disinfection and cleaning
❖ Facilitate PPEs for helpers
❖ Ensure that DSS students’ assistive devices are sanitized and safe for use
❖ Teaching and Learning Venues - All venues must have alcohol-based hand rub at the entrances
❖ Toilets at lecture venues must always have running water, liquid soap and/or alcohol-based hand rub
❖ Where ablution facilities are far, water bowsers must be provided
❖ Staff and students must undergo screening processes at entrances into large venues
❖ CHS and Veterinary students must have appropriate PPEs (to suite their risk assessment contexts)
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❖ Ensure adherence to the documented IPC measures including physical distancing
❖ Ensure proper ventilation
❖ Disinfection of venues twice a day, and/or whenever necessary
❖ Health personnel to take routine inspections to ensure that learning conditions are not prone to COVID-19
❖ Central Services and Works and Estates Department Staff to undergo training on disinfection and other procedures

8.1.8 Library
❖ Alcohol-based hand rub at the entrances
❖ Temperature checks at the entrance
❖ Physical distancing to be adhered to
❖ Ablution facilities must have clean running water, liquid soap and/or alcohol-based hand rub
❖ Library and all its ancillary facilities to be disinfected regularly
❖ Use of electronic resources is highly recommended and use of hard copies highly discouraged
❖ All facilities, including computers and furniture must be sanitized regularly
❖ Library computers or electronic resources shared by students need to have disinfectants next to them

8.1.9 University Business Meetings
❖ Only critical face-to-face meetings to be conducted with strict adherence to physical distancing measures and all members must put on face masks
❖ Invitations to meetings and all necessary documents must be sent electronically
❖ Where possible, meetings can be held online via Skype or ZOOM or other virtual platforms
❖ Adherence to the documented IPC measures
8.1.10 Offices Spaces
❖ Use alcohol-based hand rub and masks at all times
❖ Shared offices must be well ventilated and office bearers well-spaced (1-2m apart)
❖ Minimise visitors/customers
❖ Adhere to the recommended IPC measures,
❖ Where there are queues, security or office bearers must always be available to ensure physical distancing
❖ Discourage loitering/unnecessary movement across campus (without excessive infringement on students’ rights)

8.1.11 Transport Services
❖ All vehicle interiors must be disinfected
❖ Maintain physical distancing and adherence to the recommended IPC measures
❖ Passengers must be well spaced
❖ Buses should not have standing passengers

8.1.12 Examination Processes and Venues
❖ Examination takers to adhere to physical distancing
❖ Examination scripts to be collected from examination venues
❖ Candidates to be temperature-checked at entry
❖ Disinfection of exam venues to be done twice per day
❖ Examination administration process to be predominantly online
❖ Those that collect scripts to put on adequate PPE
❖ Exam papers and answers scripts to be handled with appropriate PPE including gloves and sanitized hands.
❖ Requests for transcripts and verification to be done online

8.1.13 Central Services
❖ Cleaning staff to be trained on decontamination of teaching venues and offices
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- Staff to be adequately resourced to offer services in line with COVID-19 prevention protocols
- Booking of venues for meetings to be made well in advance to allow disinfection to take place
- Set up of meeting venues to be made in line with physical distancing guidelines
- All meeting venues to be adequately ventilated during meetings
- Where refreshments are to be provided, running water and/or hand sanitizers to be provided
- Meeting residue e.g. paper, food left-overs, serviettes to be properly discarded soon after the meeting
- Surfaces e.g. desks and chairs; to be sanitized soon after the meeting
- All meeting venues to be kept locked when not in use

8.1.14 Security Department Protocols

- Access into campus will be strictly limited to members of staff and students upon production of a valid university identity card
- Unavoidable visitors, such as suppliers, will be screened and booked down and their particulars booked down as well as their intended destination
- Security will check that all occupants of vehicles are wearing face masks
- Departments must advise the Security Control Room of any high profile visitors well in advance
- Suppliers and service providers will be screened at the gates and ensure that they adhere to general IPC guidelines
- Temperature screening and sanitization will be carried out on staff, students and visitors. This will be done by security personnel at entrances into the University and by Janitors at entrances into student residences
- Security will also enforce physical distancing protocols at examination venues
8.1.15 Hygiene and Sanitation Measures

❖ Hand hygiene, sanitisation, cough etiquette and physical distancing (1-2 m) must be mandatory at entrances, offices, venues and all public places
❖ Re-organisation of workplace to ensure a physical distance of 1-2m between staff and customers in offices and public places
❖ Improving ventilation (windows to be kept open during office hours)
❖ Regular disinfection of building surfaces and equipment must be mandatory as and when it is necessary
❖ Compulsory use of face masks in offices and public places
❖ Continuous COVID-19 Health education, messaging and peer support to encourage adherence (on all university notice boards and electronic platforms)

8.1.16 Staff Protocols:

❖ Suspect COVID-19 cases must stay at home and minimise risk of infecting other employees
❖ Contact tracing modalities to be worked out by the Rapid Response Team (RRT)
❖ Security, Wardens and Janitors, campus clinics’ staff to be trained in handling suspect cases

8.1.17 Student Protocols

❖ Suspect COVID-19 cases must stay at home/halls of residence and minimise risk of infecting other students
❖ Those suspecting they have COVID-19 symptoms should also communicate their symptoms to their warden/janitor and/or Student Health Services Centres
❖ Contact tracing modalities to be worked out
❖ Security, Wardens and Janitors, campus clinics’ staff to be trained in handling suspect cases
9. TESTING AND MANAGEMENT OF SUSPECT COVID-19 STAFF AND STUDENTS

❖ (Use latest MOHCC COVID-19 Case Management Guidelines)
❖ If an individual tests positive on PCR test, he/she must be isolated (at home or in a designated Isolation Centre) and managed according to COVID-19 Ministry of Health and Child Care guidelines.
❖ Staff members who have been working in close contact with an individual who tested positive for COVID-19 must be sent home on self-quarantine for at least 14 days.
❖ Staff members who test PCR positive for COVID-19 should be sent home for self-isolation if asymptomatic or having mild disease and only return after at least 10 days of isolation (See national COVID-19 MoHCC guidelines and latest discharge guidelines).
❖ The working environment should be temporarily closed until fumigation has been done through (Rapid Response Team) RRT.
❖ For asymptomatic cases, the individual can return to campus after 10 days of isolation. For symptomatic cases, de-isolation will occur after at least 10 days post symptom occurrence plus 3 days of no symptoms e.g no fever, cough, breathlessness. No need for repeat PCR testing for de-isolation.

10. WASTE MANAGEMENT

Waste management involves generation, segregation, containment, transportation, treatment, and disposal of waste. Waste management at the UZ will be overseen by a Waste Management Committee responsible for the following:

❖ Formulating strategies for waste management
❖ Setting up and monitoring waste management structures, waste generation, segregation, containment, transportation, treatment, and disposal at the UZ
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❖ Educating the UZ community about proper waste management
❖ Updating IPC strategy at the UZ
❖ Guiding research on waste management for the benefit of the UZ community and the country

The Committee shall comprise representatives from the following Departments:
❖ Registrar
❖ Department of Nursing Sciences
❖ Department of Medical Microbiology
❖ School of Pharmacy
❖ Student Affairs Division
❖ UZ Works and Estates Department
❖ DACS
❖ Security Department
❖ Faculty Representatives

Important items to be considered by the Committee:
❖ Activate the use of the incinerator at Animal House
❖ Regular emptying of bins
❖ Procurement of the appropriate type of refuse bins

11. AWARENESS CAMPAIGNS

❖ Awareness campaigns and Health Education to be continuously provided. This will be conducted through social media, in class and by way of fliers and banners
❖ A campus campaign team comprising University Health Services staff and Student Representative Council members and student volunteers from halls of residence to be established and adequately resourced to carry out awareness campaigns on campus and surrounding environs
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❖ Sustained and concerted multi-media information blitz to be conducted on campus constantly
❖ Provision of Information, Education and Communication (IEC) materials
❖ Mounting of information billboards at strategic places around campus

12. MONITORING AND EVALUATION

There will be need to document the various activities being conducted using this framework.

13. REFERENCE DOCUMENTS

❖ World Health Organization Guidelines, 2020
❖ Ministry of Health and Child Care, 2020 COVID-19 guidelines
❖ National IPC Guidelines (April 2020 Addendum)
❖ Zimbabwe College of Public Health Physicians, 2020
❖ SI on COVID-19
❖ SI on High and Low risk Sport Codes
APPENDIX 1: HAND HYGIENE

The most basic element of the control strategy for COVID-19 prevention is hand washing. Hand washing includes either cleansing hands with soap and water or use of Alcohol-Based Hand Rub (ABHR). Wash hands with soap and water when they are visibly soiled.

For guidelines on how to wash your hands, refer to the seven steps of hand washing below:
Since SARS-CoV-2 is transmitted mainly through respiratory droplets, respiratory hygiene remains a crucial step in preventing infection. All individuals in public places should wear face masks. These minimize transmission of the coronavirus. Surgical masks, FFP2, FFP3 and N95 masks can be used, based on availability, to protect the uninfected or prevent patients from transmitting the virus but such masks should be reserved for healthcare workers.
APPENDIX 3: TRIAGING Processes and Personal Protective Equipment

A designated team of HCWs will be identified within UZ to triage and transfer suspected cases of COVID-19.

HCW should wear a:

Surgical mask, eye protection, cap, gloves and/or gumboots or overshoes as shown below.

If not properly used, gloves will actually spread the virus.
Appendix 4: Donning Procedures for COVID-19

Donning PPE (See Zimbabwe IPC guidelines):

Put on the PPE with your assistant/buddy. Your colleague can touch you or your PPE.

1. Wash hands, remove personal clothes – put on scrub and duty shoes.
2. Wear overshoes on top of your shoes.
3. Wear plastic gloves (first pair of gloves).
4. Wear plastic apron if gown is not water resistant.
5. Wear gown.
6. Wear surgical mask or N95 mask (for aerosol generating procedures).
   i. Put the respirator over your nose, mouth and chin. Ensure the clip is on top.
   ii. Pull the stop strap over the crown of your head.
   iii. Pull the bottom strap over your head until it rests below your ears.
   iv. Mould the metal nose clip with two hands (do not pinch with fingers) until you get a secure seal over your nose.
   v. Check for fit – mould both hands around the mask, exhale sharply. There should be no air leak. If there is an air leak, readjust. Wear the head gear.
7. Wear goggles or face shield.
8. Wear head cap.
9. Lastly, wear the last set of gloves and tuck into gown sleeves.
APPENDIX 5: DOFFING PROCEDURES FOR COVID-19

Doffing PPE:
Take of the PPE with your assistant/buddy. Your colleague should not touch you or your PPE. Remove PPE before leaving the patients’ room or space but not close to the patient.
1. Remove overshoes and place in waste bin
2. Perform hand hygiene with sanitizer
3. Remove outer pair of gloves and discard
4. Perform hand hygiene with sanitizer
5. Remove gown. Lean over as you remove it as the front of the gown will be contaminated
6. Perform hand hygiene with sanitizer
7. Remove apron if used.
8. Perform hand hygiene with sanitizer
9. Remove head cap
10. Perform hand hygiene with sanitizer
11. Remove goggles or face shield
12. Perform hand hygiene with sanitizer
13. Remove remaining pair of gloves
14. Perform hand hygiene with sanitizer
15. Exit patient room or space
16. Perform hand hygiene with sanitizer
17. Remove surgical mask/N95. Avoid touching the front of the mask
18. Wash hands with soap and water

After patient assessment, appropriate donning and doffing of PPE, proper disposal of PPE and hand hygiene should be performed.

HCW should avoid touching eyes, nose and mouth with potentially contaminated gloves or hands

A new set of PPE is required to assess a new patient.

Clean and disinfect equipment (stethoscopes, BP cuffs) between uses.
Appendix 6: CLEANING AND DISINFECTION OF DEVICES AND ENVIRONMENTAL SURFACES (See national IPC Guidelines)

A risk assessment of each work area to be done to determine the level of cleaning required:

❖ Consistent cleaning of environmental surfaces with 0.5% or 0.1% chlorine or 70% alcohol for about one minute is adequate to inactivate SARS-CoV-2. Chlorine can be used for floors, surfaces or disinfecting reusable PPE
❖ Consistent and correct application of disinfectants as appropriate (active against enveloped viruses)
❖ Focus cleaning on frequently touched and frequently contaminated surfaces (door handles, light switches, sinks, bathrooms).