South African healthcare workers and COVID-19: A shared responsibility to protect a precious and limited resource

To the Editor: Healthcare workers (HCWs) in African countries face high risks of occupational exposure to many pathogens, including tuberculosis, measles, HIV and Ebola.[1,2] The novel coronavirus SARS-CoV-2 poses an arguably greater threat to African HCWs than any other infectious agent to date. Data from countries with established epidemics show that HCWs experience high rates of COVID-19 infection, morbidity and mortality. In the USA, 19% of COVID-19 cases whose occupational status was known were HCWs (9 282/49 000),[3] and >90 000 HCW COVID-19 infections were documented in 30 countries, with 260 deaths in nurses, by early May 2020.[4] In South Africa (SA), on 6 May, Minister Zweli Mkhize reported that 511 HCWs had tested positive for SARS-CoV-2 (7% of the national total), with nurses accounting for 53% of total HCW cases.[5]

The unprecedented risk posed to HCWs by COVID-19 is clearly acknowledged by all levels of the SA government. Nationally there have been commitments, both financially and administratively, to ensure procurement and local production of personal protective equipment (PPE) and transparent reporting of HCW COVID-19 infections. To varying degrees, administrative and engineering interventions to prevent COVID-19 infections and outbreaks have been implemented in SA healthcare facilities (Table 1). Despite the early phase of the pandemic and general availability of PPE, SA is already facing high rates of HCW COVID-19 infections and exposure events. This is a concerning development reflecting both widespread community transmission (with HCW infections) and the need to strengthen 'universal' prevention measures in healthcare facilities, e.g. physical distancing, mask-wearing, hand hygiene, and increased cleaning/disinfection of surfaces and equipment. HCWs should note that PPE is the last line of defence against occupationally acquired infections, and that adherence to universal prevention measures in healthcare

Table 1. Primary infection prevention of COVID-19 in healthcare facilities

Administrative interventions

Visitors and patients

- Limit or restrict healthcare facility visitors and persons escorting patients
- Screen all patients for COVID-19 symptoms before entering the facility
- Triage patients with possible COVID-19 symptoms to a separate assessment area

Staff

- All staff to attend repeated training regarding COVID-19 risk reduction
- Ensure that agency staff or locums are familiar with the facility's COVID-19 policies
- Encourage all staff to receive influenza vaccination to reduce frequency of flu-like illnesses and absences
- All staff to do daily self-monitoring for COVID-19 symptoms using a form, an app or a buddy symptom check system
- Communicate the plan for staff to report possible COVID-19 symptoms to their line manager

In hospitals

- Restrict hospital admissions to essential stays only and de-escalate non-urgent admissions and elective procedures
- Admit PUIs and COVID-19-infected patients to dedicated isolation wards
- Implement a standardised COVID-19 symptom/exposure checklist for admissions
- Screen all hospital inpatients daily for COVID-19 signs and symptoms
- Avoid movement and transfers of patients and staff between wards
- Have a low threshold to isolate, reassess and test for SARS-CoV-2 if inpatients develop fever or respiratory symptoms
- Consider testing all new ICU admissions for SARS-CoV-2, or if capacity allows, consider testing all patients on admission

Engineering interventions

- Ensure adequate natural or mechanical ventilation, especially in areas performing aerosol-generating procedures
- Create greater physical separation (spacing) between beds to reduce droplet contamination of adjacent surfaces
- Increase availability of alcohol hand rub at the point of care and ensure access to soap, water and hand towels
- Increase the frequency of surface and equipment cleaning and disinfection in the facility
- Provide dedicated areas for cleaning and disinfection of re-usable PPE, e.g. visors and goggles
- Implement strict physical distancing in the workplace, i.e. on ward rounds and in tea rooms, the cafeteria and staff meetings
- Keep medical notes outside the patient cubicle, paper notes in a plastic file, and prescription charts in plastic sleeves that can be wiped over with disinfectant

PPE

Universal masking

- Require all outpatients and visitors to wear a non-medical (cloth) mask while inside the facility
- Require all inpatients with or without symptoms of acute respiratory infection to wear a medical mask
- Require all HCWs to wear medical masks in clinical areas and cloth masks in communal areas, e.g. tea rooms, cafeterias
- Require all administrative staff and support staff with limited patient contact to wear non-medical (cloth) masks

PPE policies and training

- Ensure that all staff are familiar with the facility's PPE policies
- Ensure a stable supply of adequate-quality PPE
- Provide ongoing training, PPE buddies to observe donning/doffing and visible reminders of how to use PPE safely

PUIs = persons under investigation; ICU = intensive care unit; PPE = personal protective equipment; HCW = healthcare worker.

facilities is critical, particularly in the light of presymptomatic COVID-19 transmission.[6]

From a workforce preservation perspective, all HCWs should practise physical distancing, universal masking and appropriate PPE use. These actions will not only prevent infection but also reduce the occurrence of high-risk COVID-19 exposure events that necessitate self-quarantine for 7 - 14 days. A reliable supply of PPE and HCW adherence to guidance for its safe use is just one aspect of the plan to safeguard HCWs during this pandemic. Implementing a comprehensive set of infection prevention measures in all SA healthcare settings is a shared responsibility, and is critical to protect the health and lives of our precious and limited national healthcare workforce.

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Angela Dramowski
Division of Paediatric Infectious Diseases, Department of Paediatrics and Child Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa
dramowski@sun.ac.za

Moleen Zunza
Division of Epidemiology and Biostatistics, Department of Global Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa

Kopano Dube
Ukwanda Centre for Rural Health, Department of Global Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Worcester, South Africa

Mohammed Parker
Ukwanda Centre for Rural Health, Department of Global Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Worcester, South Africa

Amy Slogrove
Ukwanda Centre for Rural Health, Department of Global Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Worcester, South Africa; and Department of Paediatrics and Child Health, Faculty of Medicine and Health Sciences, Stellenbosch University, Worcester, South Africa

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