

## Recommendations for COVID-19 preparedness within the surgical, obstetric, and anesthetic ecosystem in Sub-Saharan Africa

|   |  |  |
|---|--|--|
| 1 | Develop a clear plan for essential operations during pandemic                        | <ul style="list-style-type: none"> <li>• Preserve hospital capacity to care for surgical and obstetric emergencies.</li> <li>• Postpone truly elective operations to preserve PPE, staff and facility capacity.</li> <li>• Adapt algorithms to categorize cases as elective, urgent or emergent, and enforce them.</li> <li>• Trial nonoperative management of patient conditions when safe for patients.</li> <li>• Keep COVID+ patients geographically separate from other surgical patients.</li> <li>• Consider dedicating one OR cleared of all nonessential equipment for COVID+ patient use if case burden is high.</li> <li>• Operating rooms used for COVID+ patients should be kept at neutral or negative pressure.</li> </ul>  |
| 2 | Limit exposure of health care staff and prevent hospital transmission of SARS-CoV-19 | <ul style="list-style-type: none"> <li>• Train staff on appropriate donning and doffing of PPE.</li> <li>• Encourage simulation and use of two providers for donning/doffing procedures.</li> <li>• Limit unnecessary patient and physician movement through the hospital, limit visitors.</li> <li>• Avoid involving students and trainees in patient care of COVID+ patients when possible.</li> <li>• Minimize the staff required in the hospital to preserve human resources.</li> <li>• All staff including cleaners, laundry personnel and others should be provided with appropriate PPE.</li> <li>• Use surgical masks when caring for COVID-19 suspected or infected patients.</li> <li>• Launder all contaminated linens with detergent regularly.</li> <li>• Disinfect all hard surface areas regularly with 0.5% chlorine or 70% alcohol solution.</li> <li>• Enforce frequent and proper handwashing practices – Alcohol based hand rub can be locally manufactured easily and inexpensively.</li> <li>• Develop care protocols and teams specifically for COVID response.</li> <li>• Minimize aerosols during anesthesia: use regional anesthesia when possible, most senior provider should attempt intubation, only absolutely essential personnel in OR during intubation, recover patients in OR.</li> <li>• Limit case duration, limit aerosolization during laparoscopy.</li> <li>• Consider use of COVID checklist for suspected/known COVID patients undergoing surgery.</li> <li>• If reprocessing single use plastic materials, achieve high-level disinfection or sterilization.</li> </ul> |

Table continued from overleaf



|          |   |  |
|----------|---|--|
| <p>3</p> | <p>Conserve PPE and consumables</p>   | <ul style="list-style-type: none"> <li>• Develop a clear understanding of current stocks and supply chains</li> <li>• Airborne precautions (N95 or PAPR) only required during aerosolizing procedures (intubation, bronchoscopy, NIPPV, high flow nasal cannula oxygen, nebulized medication administration)</li> <li>• Use droplet &amp; contact precautions (surgical mask, eye protection, gown, gloves) for other patient encounters with suspected or known COVID patient.</li> <li>• Extended use of N95 masks is preferred to reuse of the same mask</li> <li>• N95 mask contamination may be reduced by covering with plastic face shield or surgical mask</li> <li>• Do not decontaminate N95 respirators with chlorine or alcohol solution</li> <li>• If severe shortage, consider reprocessing N95 masks (see <a href="http://www.n95decon.org">www.n95decon.org</a> for up-to-date information)</li> <li>• Launder reusable PPE (cloth hats, gowns, etc) between each use.</li> <li>• Cloth masks should be used as a last option only as they provide less protection against droplet or airborne particles.</li> </ul> |
| <p>4</p> | <p>Plan to expand critical care and repurpose staff</p>                             | <ul style="list-style-type: none"> <li>• Carefully consider if/how many ORs or PACUs could be repurposed for critical care needs.</li> <li>• Prepare providers to work outside their usual scope of practice.</li> <li>• Provide refresher trainings on ventilator management, critical care, and COVID-specific care guidelines to providers who may be asked to work in different areas.</li> </ul>  |
| <p>5</p> | <p>Support staff wellness while assisting with difficult ethical considerations</p> | <ul style="list-style-type: none"> <li>• Provide material and psychological resources to staff during this time of crisis</li> <li>• Consider how needs such as HCW home isolation, child care, meal preparation, or general stress management can be supported by hospital leadership</li> <li>• Develop a plan in advance for managing resource shortages and determining scarce resource allocation</li> <li>• Frontline healthcare workers should not have to make resource allocation decisions alone</li> <li>• Provide compassion, empathy and respect for patients, family members, and healthcare workers in this time of crisis</li> </ul>   |