INFECTION CONTROL PRECAUTIONS AND RECOMMENDATIONS FOR ELECTIVE SURGERIES
Infection Control Precautions and Recommendations for Elective Surgeries

JULY, 2020
Purpose: Whilst planning the resumption of elective surgical cases, facilities need to prioritize and ensure that stringent infection control policies and procedures are being implemented. These policies need to be monitored and reported through clinical governance systems. Incident reporting structures need to enable a rapid response mechanism to ensure adherence and compliance. These recommendations should be read with the SCDC elective surgical services guidelines.

Preoperative evaluation:

- Once the decision is made to resume elective surgical cases by regional or national command and control centre, the guidelines to prepare the hospital facilities for an increase in surgical cases should be followed. A pre-operative assessment including age and health factors related to COVID-19 should be conducted before screening patients for COVID-19 to ensure patients are fit for surgery.
- If patients are fit for surgery, the evaluation for risk and symptoms related to COVID-19 will be conducted with confirmatory tests if symptoms are prevalent.
- The surgery should be deferred for any patients attended with fever or respiratory symptoms and further evaluation can be conducted for COVID-19.
- These Infection control precautions and recommendation are focus on patients, staff, facility and surgery.

1. For Patients:
- Patient must be evaluated for covid-19 before surgery using Preoperative COVID-19 checklists for elective surgery form twice:
  - First time during the preoperative evaluation (at 24-72 hours before the surgery)
  - Second time in the day of surgery (or day prior, surgeon’s discretion)
- According to the patient’s risk and availability of the test, using the following recommended action: *(The patient safety must be not impacted)*
### SCENARIO | RECOMMENDED ACTION
---|---
**HIGH RISK PATIENT (INCLUDING CONFIRMED CASES)** | Postpone the surgery for at least two weeks until recovery. Test for COVID-19 if the patients were not tested within the previous 2 weeks.

**LOW RISK PATIENT**
**THERE IS THE ABILITY TO REPORT RESULTS IN 24 HOURS (LIMITED NUMBER according to the lab capacity)** | Patient will be swabbed and instructed for home quarantine till the time of surgery and while waiting for the result.  
**If negative:** Perform surgery  
**If positive:** Postpone surgery for at least two weeks (until recovery)

**NO ABILITY TO REPORT THE RESULT IN 24 HOURS** | Do the test for post-operative evaluation (depend on the capacity) and proceed to perform the surgery.  
If patient is positive post-operative: isolate and manage as confirmed case.  
If negative: discharge (depend on surgical team)

- On the day of surgery, patient will fill again the covid-19 questionnaire during the preoperative evaluation. If no concern, patient will go for surgery, otherwise he will be directed to the related specialty for further workup.
- No accompanying family member should be permitted. If the patient has limited mobility or disabilities requiring help then one family member/care giver can be permitted. This should be confirmed prior to the admission date.
- Must wear surgical mask on the day of surgery.
- Must reassess for symptoms of COVID-19.

2. **For Staff**
- Adherence to WHO five moments and COVID-19 specific recommendation for hand hygiene.
- Staff should keep social distancing (minimum 1.5 m distance when possible) and use personal protective equipment (gloves, gown, surgical mask, and goggles).
- Intubation should be performed with only the necessary staff in the operating room, and staff must wear N95 masks(fitted) and eye protection.
- Delays between room re-entrance by necessary staff and between cases.
• Minimize staffing as much as possible.
• Follow the recommendation regarding the test after exposure according to the updated (Management of Healthcare Workers Exposed to COVID-19 guidelines)
• Staff should be trained in protecting themselves and patients.
• Provide supportive measures to address staff fatigue and emotional distress.

3. **For Facilities:**
- Facilities should implement the following:
  • A dedicated operation rooms (OR) suite is preferred for suspected and confirmed cases
  • A single exit and a single entrance in the OR theatre
  • If Elevator is need to use, minimize crowding of patients and staff with frequent cleaning and disinfection of contact surfaces
  • Immediate cleaning and disinfection of contact surfaces after each procedure
  • Operating/procedural rooms must meet engineering and facility standards for air exchanges.
  • Protocols or flow charts for managing and isolating patients and staff suspected of or confirmed to have COVID-19 infection.

**Before, During and After Surgery**

1. **Pre-operative:**
   • Patient must be evaluated for covid-19 before surgery using Preoperative COVID-19 (Mentioned above).
   • Same-day preoperative admissions are preferred (rather than a day before) except if waiting for COVID-19 result, for on-admission suspected cases.
   • Schedule suspected cases or patient without result of COVID-19 test at the end of the list.
   • Surgical durations should be kept short.
   • Limited number of operations per operation room block
   • Disinfect the operating room strictly between cases with the MOH approved disinfectant, and document cleaning between cases.
   • Health Care Workers who are under training or attending OR for training purpose such as interns or medical students are not recommended to attend the OR
2. During operation:
   • Health staff must wear N95 for all aerosol generating procedures (AGP’s) even if the patients were asymptomatic and COVID-19 test were negative.
   • During the surgical procedure, if splash is expected and/or patient is suspected or confirmed COVID-19, all the attending staff including anesthesiologists should wear fitted tested respirator masks or PAPR (for bearded staff) throughout the procedure.
   • Minimize the amount of equipment, supplies and personnel in the room to the most needed.
   • When the patient is inside the operating room minimize traffic into and out of the room; only open the door, if necessary and the theatre door should be closed with warning sign outside the door to notify other OR staff with “no entry without permission”.
   • For suspected or confirmed COVID19 cases, a pressure-controlled operating room is recommended to prevent viral dissemination beyond the theatre. This consists of four interconnected rooms, in which two anterooms (induction and scrub), with a lower atmospheric pressure than the operating room, are sealed by interlocking doors with air drop seals.
   • If not available, the anteroom should have a positive pressure compared to the corridor and the operation room or a negative pressure compared to the corridor and the operation room.
   • If the operation room doesn’t have an anteroom, the doors should be locked with air seal and limited movement outside the corridor while operating.
   • During intubating or extubating a patient allow only the in-charge anesthesiologist and two assistant nurses at max.
   • If the patient is suspected or confirmed, place portable HEPA filters near the head of the patient and the patient’s breathing zone, Turn on during intubation and extubation. The HEPA filter should be switched off during the surgical procedure.

3. Post-operative:
   • Before extubating, turn on the portable HEPA filter.
   • Allow the patient to recover in the Theatre Room.
   • When the patient is ready for discharge, the route to the isolation ward or ICU should be cleared again by security.
   • Thoroughly clean and decontaminate all surfaces, screens, keyboard, cables, monitors, and anesthesia machine according to the manufacturer recommendation.
   • Attending OR staff should remove all PPE inside the theatre except the respirator or surgical mask removed outside then hand hygiene is essential.
• Discard all unused items on the drug tray and airway trolley after each patient.
• Apply terminal cleaning and disinfection of the operating theater according to the housekeeping policy of the healthcare facility.
• It is recommended to use a H2O2 fumigation machine or UV germicidal irradiation equipment after transfer of the patient.
**Form 1: Preoperative COVID-19 checklists for Elective Surgery**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time</th>
<th>MRN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>ID#:</td>
<td>Hospital:</td>
</tr>
</tbody>
</table>

Circle the number reflecting the patient’s condition (exposure and clinical picture) and calculate the final score:

<table>
<thead>
<tr>
<th>Risks for COVID-19</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Exposure Risks</strong></td>
<td></td>
</tr>
<tr>
<td>Close physical contact with suspected case* of COVID-19 in the past 14 days.</td>
<td>5</td>
</tr>
<tr>
<td>Close physical contact with a confirmed case* of COVID-19 in the past 14 days.</td>
<td>10</td>
</tr>
<tr>
<td>Working or visiting a healthcare facility.</td>
<td>5</td>
</tr>
<tr>
<td><strong>B. Clinical Signs and Symptoms</strong></td>
<td></td>
</tr>
<tr>
<td>1. Fever or resent history of fever.</td>
<td>10</td>
</tr>
<tr>
<td>2. Cough (new or worsening).</td>
<td>10</td>
</tr>
<tr>
<td>3. Shortness of breath (new or worsening).</td>
<td>10</td>
</tr>
<tr>
<td>4. Nausea, vomiting, and/or diarrhea.</td>
<td>5</td>
</tr>
<tr>
<td>5. Positive lab result of COVID-19 within 2 weeks</td>
<td>10</td>
</tr>
<tr>
<td>6. Positive lab result of COVID-19 more than 2 weeks</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Score**

* Patient or household

| High risk | ≥10 |
| Low risk | <10 |

Staff name: _________________________ ID number: __________________

Note:

The patient must be evaluated twice:

- (a) With preoperative assessment.
- (b) Day of surgery (or day prior, surgeon’s discretion)
Elective surgery during Covid-19 Pandemic

Pre-operative evaluation (surgical team)

- **Fit for surgery**
  - Yes
  - High Risk
    - First Covid-19 evaluation (form No. 1)
      - Test result can be reported within 24 hours
        - Yes
          - Negative PCR
            - 1-Second Covid-19 evaluation at the surgery day (follow risk track)
              - 2- if the risk still low: proceed to perform the surgery
        - No
          - Positive PCR
            - 1-Swabed
            - 2-Instructed for home quarantine
            - Postponed the surgery for at least two weeks until recovery
              - But patient safety must be not impacted
      - Low risk
        - 1-Do the test for post-operative evaluation
            - 2- Second Covid-19 evaluation at surgery day (follow risk track)
            - 3- if the risk still low: proceed to perform the surgery
For more information, please visit our website

COVID19.CDC.GOV.SA