



**Safety precautions regarding coronavirus during surgery**

**Nermin Abd Elfattah**

Lecturer of medical surgical nursing ,Kafrelsheikh University,Egypt

**Corresponding author:** [nermenabdelftah@yahoo.com](mailto:nermenabdelftah@yahoo.com)

**Abstract**

The front lines of the coronavirus pandemic are nurses and health care teams as they provide care and save lives. Nurses should meet CDC guidelines. And show expertise in performing effective activities and procedures for infection control. The operating room is a very critical environment that can cause death for patients and health workers due to the spread of infection. Take ultimate responsibility for ensuring that all preventive and security steps required to mitigate workplace safety and health hazards are taken. Contingency planning is expected by hospitals. Preparation for an unforeseen patient procedure should be included in this preparation. This measure evolves concurrently with the implementation of the necessary rules on infection control. Thus, during this global pandemic, present the experience of contingency planning in hospitals, focusing on dealing with COVID-19 patients who need to undergo surgery. The preparation involves the reaction measures needed in the operating room and supporting departments, including the administrative department, the intensive care unit, and various parts of the surgical department with an appropriate safe space for the medical team and clients without. It affects the organization's efficiency. All team members are notified, well-trained on duties and tasks keep documents updated, and the core team's contact details are collected and backups are told by staff. The phase by which the patient was directed by the operating theatre nurses started with the arrival of the patient for surgery and continued until the completion of the operation and until the patient was given to the next point of treatment, including varied supervision

**Keywords:.** Safety precautions , coronavirus , surgery

**1.Introduction**

Safety is preventing harm to persons, health workers and the public.

And Protection avoids injury to people, health workers, and the public. The establishment of operating processes and procedures that mitigate the risk of errors and infection

Includes ensuring protection for health workers. The front lines of the coronavirus

Pandemic are nurses and health care professionals as they provide care and save lives.

Due to the involvement of a multidisciplinary team, The operating rooms

are extremely powerful. Potential risk areas for airborne infection transmission. And the need for high risk activities of transmission, such as airway intubation, muscle

sedation and low patients, resistant to additional challenges posed

by COVID19 as global resource demand, staff burnout, increased risk of transmission, causing load on health care systems (*Michie et al 2019*).

**Preparation of room**

Negative pressure air circulation used in operating rooms to mitigate infection risk, it would be perfect. A high cycle rate of air exchange (approximately 25 cycles/h). Contributes to reducing the viral load effectively. Equipment kept in each OR must be reduced, on a case-by-case basis, to what is strictly required. When the operation begins, minimize the transition of workers in and out of the OR to minimize the risk of infection. All doors (including accessory rooms, sterilization spaces) must be kept locked, and any equipment not required for action must be moved

back and forth away from COVID .Transit Path for Patients. A sufficient amount of PPE for protection against touch, droplets, and airborne transmission must be available in various sizes, and the need for PPE has been met. All operators (surgeons, anesthetists, nurses, technicians) should join the OR promptly on time to reduce the time spent in the OR itself. Once in the OR, until the process is over, they cannot leave. Any surgical material needed must be prepared preemptively (**Martin, Buggy 2009**).

### **Selection of operation**

Once the new Covid, at the time of check-in, visual triage was performed at admission for the detection, stable COVID-19. Patients with respiratory problems were isolated by at least 2 m from other patients and required to wear a face mask. In a negative pressure operating room with high-efficiency particulate particles, patients who needed aerosol-generating procedures were put in air (HEPA) filtration. Once the new Covid, at the time of check-in, visual triage was performed at admission for the detection, stable COVID-19. Patients with respiratory problems were isolated by at least 2 m from other patients and required to wear a face mask. In a negative pressure operating room with high-efficiency particulate particles, patients who needed aerosol-generating procedures were put in from (CDC). Minimizing virus transmission. With a dedicated on-call move, operations for COVID patients could be streamlined. As tasks overnight or out of hours to maximize the use of resources (**Swearingen, 2016**). The team must constantly be present with PPEs and inventory needed for hand hygiene. A clearly reserved philter area designed for COVID patients to reach the corona area must be fitted with PPEs, a hand hygiene station, and the handling of potentially contaminated linen should be properly handled using machinery. The technique to make moving easier (**Al Harbi& Gupta, 2019**) .

It is important for patient transit to and from the COA to be as fast as possible. To reduce the chances of infection, a pre-defined direct route must be held as short as possible and away from other patients inside the hospital. A dedicated vehicle should be used when the patient transfer is needed from other buildings within the hospital. Before meeting the infected patient, all operators must wear the appropriate PPE. The patient's receiving staff must carry out hand hygiene and hand

hygiene inside the Corona area philter area wear full personal protective equipment. Gloves should be changed immediately after contact with contaminated material (objects, surfaces, etc.) or if any harm occurs while taking care of infected patients. The beard operator should pay careful attention to the fit of the mask, ensuring sufficient protection. The FFP3 mask should also be worn during these procedures by operators who operate closer to the patient. Given the susceptibility of the conjunctiva to viral infection transmission, wearing visors to shield the eyes from possible exposure to viral particles is essential. (**World Health Organization2020**).

A double pair of gloves must be worn by all staff in close contact with the patient at all times, including when working. After the patient has left the OR, logistics should provide as much time as possible to minimize possible air pollution before the next operation takes place. The health care professional responsible for getting the patient away from the operating theater. Separate access routes must be followed and PPEs distinct from the ones worn in the OR must be worn. Medical N95 masks; disposable surgical hat, scrubs, and disposable impermeable surgical robe, protective goggles and head shield, disposable latex double-layer gloves; (**Hark , Hogan 2017**)

### **Patient intubation**

More liberal intubation usage in ORA operating rooms may be justified in patients with acute respiratory failure to potentially reduce any infection, bypassing non-invasive ventilation procedures (e.g., CPAP or BIPAP) to minimize the risk of transmission. Disposable airway equipment should be preferred. It is important to equip medical and nursing workers with FFP3 Filters during laryngoscopy and intubation .To prevent repetitive airway instrumentation, intubation procedures with the highest probability of first-time success should be chosen. Techniques for Awake Intubation should be avoided. When faced with a difficult airway, the difficult airway cart should be requested as well as the assistance of colleagues who have interest and knowledge in airway management. It is essential to preoxygenate and control during awake intubation. Under general anesthesia without muscle relaxants, nervous patients with complicated airways can need to be intubated (**Wang, Xu, Deng, 2019**)

### **References**

Al Harbi, I.& Gupta,S (2019) Use of Visual Triage in the Early Identification and Isolation of Acute Respiratory

Infection.International Journal of Medicine and Public Health,  
Vol 9, Issue1 [www.journalonweb.com/ijmedp](http://www.journalonweb.com/ijmedp)

**Al-Balas M. Ibrahim,H** (2020) Surgery during the COVID-19 pandemic: A comprehensive overview and perioperative care. The American Journal of Surgery

**Gillespie BM, Gwinner K, Chaboyer W, Fairweather N.** Team communications in surgery: creating a culture of safety. J Interprof Care 2013; 27:387–93.

**Hark reader H, Hogan Ma, (2017):** Fundamental of Nursing, 3rd Edition, Saunders com. P.P. 196 – 200.

**Ingvarsdottir,E and Halldorsdottir,S. (2018)** Enhancing patient safety in the operating theatre: from the perspective of experienced operating theatre nurses

**Martin, D. Buggy, (2009), New airway equipment: opportunities for enhanced safety** *British Journal of Anaesthesia*, Volume 102, Issue 6, <https://doi.org/10.1093/bja/>

**Swearingen, P.L., (2016):** Medical Surgical Nursing, 2nd ed., Mosby, New York, P.P. 526.

**Wang,L Xu,W Deng,X(2019)** Intubation in Operating Room versus Intensive Care: Comment. *Anesthesiology* Vol. 130 <https://pubs.asahq.org/anesthesiology/article>.

**World Health Organization. (2019).** Coronavirus Disease. Available at <https://www.who.int/emergencies/diseases/novel-coronavirus->