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Infection Prevention and Control in Perioperative Patients during the COVID-19 Pandemic: Protocol from a Tertiary General Hospital



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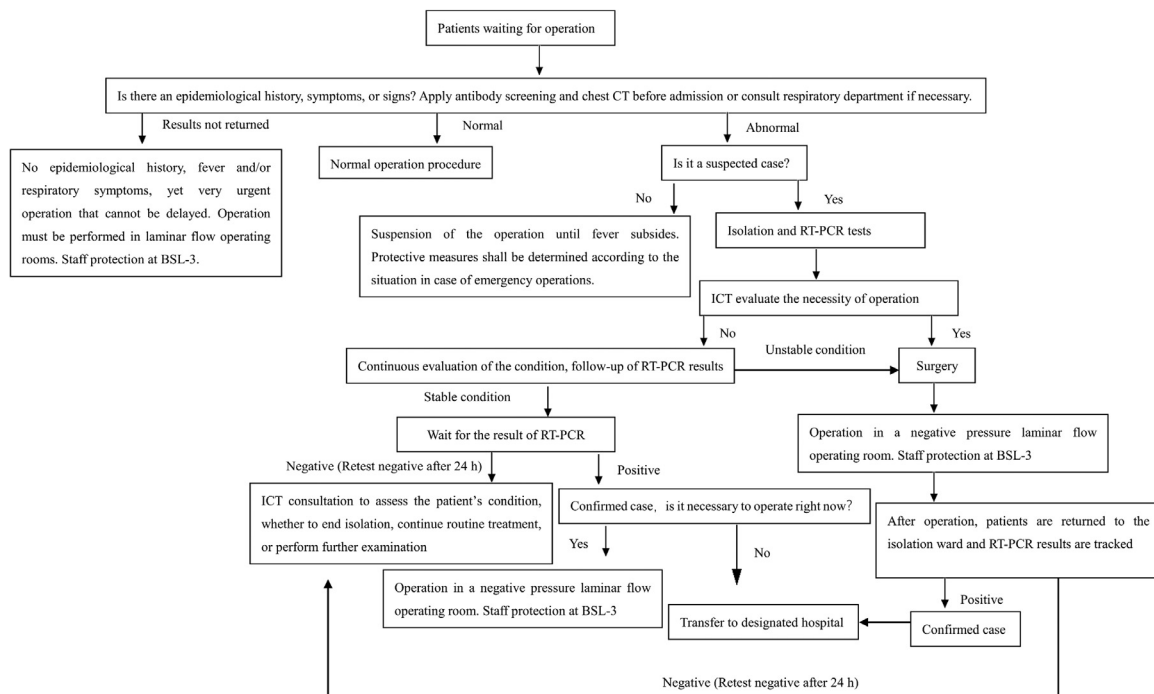
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To the Editor:

“Even though we are in the midst of a crisis, essential health services must continue,” said Dr. Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization, on March 30, 2020 [1]. In the current coronavirus disease 2019 pandemic situation, most Chinese hospitals are cautious in screening patients for admission. The severe acute respiratory syndrome coronavirus 2 is transmitted by

Fig 1

Algorithm for screening patients awaiting operation. ICT = infection control team; BSL-3 = biosafety level 3.



not only patients with symptoms but also by asymptomatic individuals [2], which undoubtedly increases the difficulty in preventing and controlling hospital transmission. For patients requiring surgery, especially emergency patients, on the one hand, strict screening can reduce the incidence of nosocomial infection and medical staff infection; on the other hand, tedious screening methods may delay the operation. Thus, finding a balance is the challenge. We offer the following protocol (Fig. 1) and recommendations for infection prevention and control in patients awaiting emergency operations.

Adopt the principle of saving people first and ensuring maximum protection [3]. We recommend computed tomography and antibody testing as the preferred screening methods, which are faster and more effective than an etiologic examination. The hospital must establish a control team, which includes experts from the infection, respiratory, surgery, and anesthesiology departments. In case of any difficulty in decision-making, one must report to the infection control team to confirm the results. A negative-pressure operating room must be established to meet the operation requirements of suspected or confirmed cases. A negative-pressure isolation transfer cabin can be used by staff wearing biosafety level 3 protective medical equipment to transport patients. Biosafety level 3 protective gear, including N95 masks, goggles, protective suits, face shields, caps, shoe covers, and gloves, is required while performing operations on patients confirmed with coronavirus disease 2019 or patients suspected with severe acute respiratory syndrome coronavirus 2 infection. For the care of patients receiving general anesthesia and endotracheal intubation, the anesthesiologist should use a powered air-purifying respirator [4]. All protective gear should be disposed of properly. The next operation must be performed 2 hours after the disinfection of the operation theater (a chlorine-containing detergent and ultraviolet irradiation are recommended).

In general, we believe that correct triage and mindful practice of protection measures can effectively resolve the contradiction between high operation demand and the threat of hospital infections.

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Point of View of the Dutch Society for Gynaecological Endoscopy on Surgery during the Coronavirus 2019 Crisis



To the Editor:

We are still in the middle of the coronavirus disease (COVID-19) pandemic with almost 2 million confirmed cases and 123 000 deaths worldwide [1,2]. As a result, a second crisis has become visible: a reservoir of delayed elective surgeries and the consequences of postponed treatment of less urgent complaints. Currently, in the Netherlands, elective gynecologic surgery has been put on hold because anesthesiologists and operating room personnel are needed in intensive care units, limiting available resources. As acute surgery is still being performed, the debate regarding safe procedures and prevention of unnecessary risks is a hot topic. Despite numerous international safety statements and 2 Dutch guidelines [3,4], a discussion is ongoing regarding the following 2 important questions: “How can we accurately screen for COVID-19 before surgery, and is this even needed?” and “What are the contamination agents during surgery, and what precautions should be taken to protect healthcare providers (HCPs)?” [3,5–10]

Though based on limited evidence [11,12], the guidelines suggest performing polymerase chain reaction tests and computed tomography scans for asymptomatic patients, preferably 48 hours before surgery. We fear that the suggested preference for computed tomography scan—testing with significantly higher sensitivity [11,13,14] might become a bottleneck in the future for preoperative screening owing to limited capacity [15,16].

The second question concerns the contaminating agents. These can be divided into 3 groups: proven contagious; possible presence of RNA; and undefined but possibly not contagious. The first group, comprising droplets and aerosols produced during the surgical procedures, especially during intubation and extubation [17–19], is taken care of by using additional protective measures. The second group, for example, surgical smoke, blood, and removed tissue [20,21], is surrounded by multi-interpret-able arguments and ambiguous considerations such as excessive protection and the threat of lack of resources or unnecessary costs. And, finally, the unknown instances, for example, carbon dioxide from the pneumoperitoneum during laparoscopy.

The Dutch Society for Gynaecological Endoscopy supports the international and national statements, and recommends the