

# Management of a COVID-19 patient in the endoscopy suite

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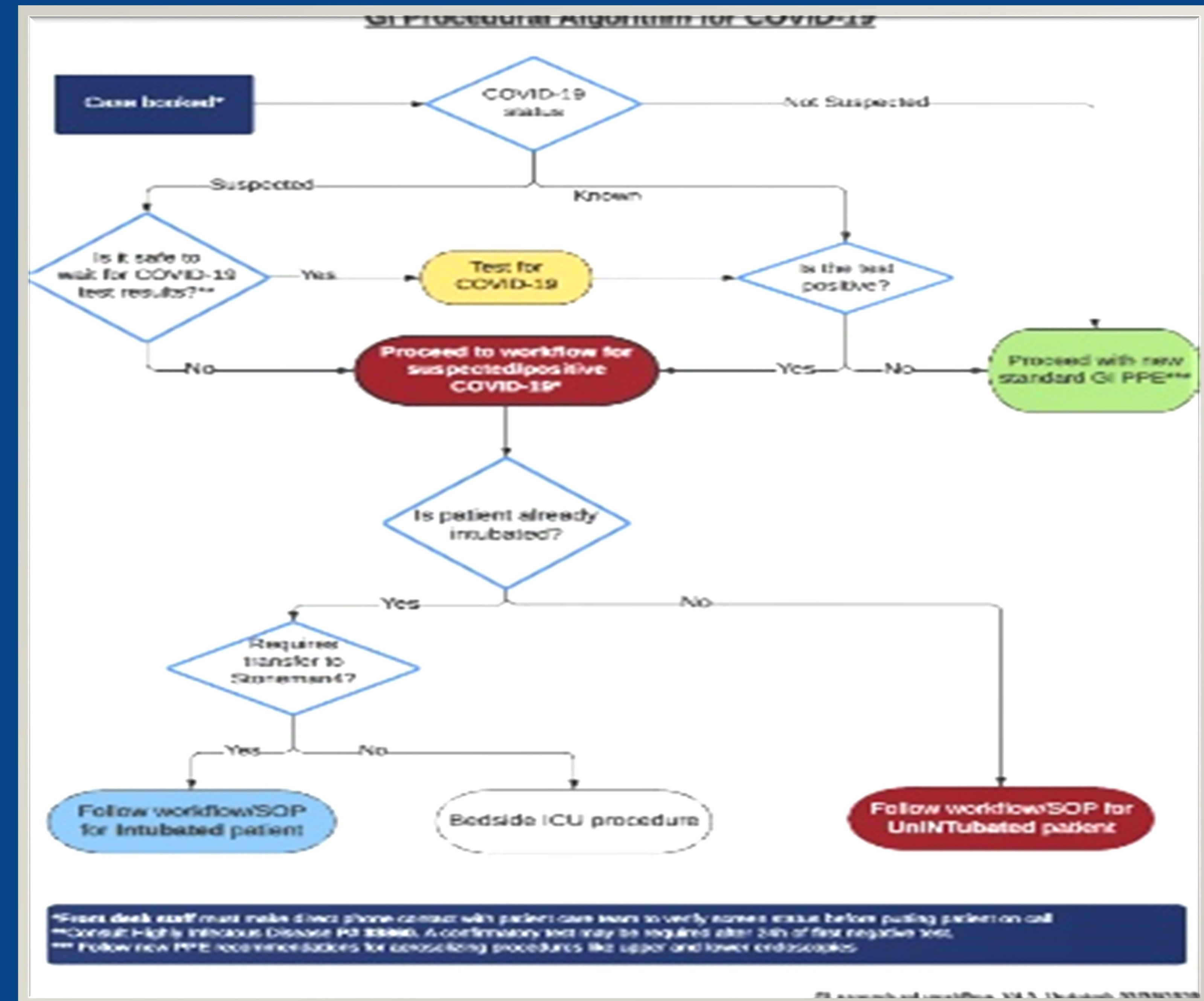
## Introduction

Since the COVID-19 pandemic started in December 2019, gastroenterologists have had to rapidly evolve their endoscopy practice to ensure the safety of endoscopy team members and their patients. Because the virus is transmitted via droplets and potentially via airborne inhalation of aerosolized particles, endoscopic procedures performed on patients with confirmed or suspected COVID-19 increase the risk of transmission to healthcare providers. To minimize the risk of exposure among healthcare workers and patients, protocols and algorithms to reduce inadvertent transmission of the disease is critical. In this article, we review the workflow that was developed by the coordinated efforts of the Department of Anesthesia and the Division of Gastroenterology at Beth Israel Deaconess Medical Center in Boston available.

## Aim

To keep providers safe during endoscopic procedures during the COVID-19 pandemic, it is critical that protocols are developed to maintain proper PPE and limit the risk of exposures. Simulations and flow diagrams are important tools to train staff on how to perform endoscopy safely.

GI procedural algorithm for COVID-19. PPE, Personal protective equipment; ICU, intensive care unit; SOP, standard operating procedures.





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## ***Pre-procedure Considerations***

To reduce the risk and time of exposure of healthcare personnel to patients with COVID-19, consider obtaining all procedure consent verbally.

all nonessential equipment should be removed from the room

Any equipment essential to the procedure or nonessential equipment that cannot be moved should be covered in clear plastic drapes to minimize potential contamination of the equipment.

Once equipment is brought into the endoscopy room, it should be discarded, even if unopened.

Alternatively, equipment can be kept in a double bag; then, if the equipment is not used, one can discard the outer bag only.

One should consider intubation for all endoscopic procedures (especially upper endoscopic procedures) to reduce the risk of droplet exposure

A safety officer should be identified; the safety officer will be responsible for ensuring proper donning and doffing of PPE and monitoring the outside door to the endoscopy room to make sure no one enters the room without proper PPE.

Discussions during the huddle should include the following: which personnel will be in the room versus outside the room, what procedure is planned and what equipment will be needed in the room or prepared outside the room, patient disposition, and whether any additional resources are needed (eg, environment services).

## ***Donning PPE***

Remove all nonessential/personal equipment.

Perform hand hygiene: wash your hands with soap and water or hospital-approved hand sanitizer.

Apply head cover.

Apply N95 respirator and ensure adequate seal.

Apply eye protection (or a secondary facemask with eye shield over the N95 respirator).

Perform hand hygiene.

Apply shoe covers (option to apply leg covers, if available).

Don and secure impermeable gown.

Don 2 sets of gloves on each hand, ensuring wrists are covered

Confirm with safety officer that all PPE is donned correctly.

## ***Patient arrival***

COVID-19 patients should be brought directly into the procedure room while wearing a surgical facemask. Shared spaces should be avoided

Procedure

1: A timeout should be performed, and all nonessential personnel should exit the room during intubation to limit the number of people exposed during intubation

2: Once intubation is complete, the nurse in the room can open the door, allowing re-entrance to the room

3: During the procedure using gauze to cover the instrument channel on removal may be helpful. Once the procedure is nearing completion, the endoscopist should advise the team that the scope is being withdrawn. Using gauze to cover the endoscope, suctioning secretions on withdrawal, and having the nurse cover the mouth with gauze are all advisable

## ***Doffing of PPE***

- Remove shoe covers (and/or leg covers if present).
- Remove gown and gloves and then perform hand hygiene.
- If wearing an eye shield, remove eye shield and perform hand hygiene.
- Remove outer facemask and perform hand hygiene.
- Remove N95 while leaning slightly forward, discard N95, and perform hand hygiene.
- Remove bouffant and perform hand hygiene.
- Apply a clean facemask and perform hand hygiene.
- Ensure the safety officer is supervising the doffing sequence.

## ***Post Procedural Consideration and Special Events***

- After the procedure, the room should be left closed for 30 minutes to reduce any exposure to procedure-related droplets that might remain aerosolized. The room and endoscope can then be disinfected using routine hospital/institutional protocols for cleaning rooms and endoscopes

In case of adverse event the provider's safety is the priority. Making sure that responders to CODE call do not enter the room if PPE is not appropriate.