

## FAQs and Revisions for the Position Statement: Preventing Nosocomial COVID-19 Infections as Organizations Resume Regular Care Delivery – June 22, 2020

### FREQUENTLY ASKED QUESTIONS

#### ***Will these new recommendations be scored?***

These positions are issued as guidance only unless required by federal or local regulation. There are no plans to score these at this time, and none would become Joint Commission requirements without going through our usual development process.

#### ***What do mean by contingency measures?***

The National Academy of Medicine report “Rapid Expert Consultation on Crisis Standards of Care for the COVID-19 Pandemic” defines three levels of standards on a continuum of care, reflecting the incremental surge in

demand relative to available healthcare resources:

*Conventional care* is everyday healthcare services.

*Contingency care* arises when demand for medical staff, equipment, or pharmaceuticals begins to exceed supply. Contingency care seeks functionally equivalent care, recognizing that some adjustments to usual care are necessary.

*Crisis care* occurs when resources are so depleted that functionally equivalent care is no longer possible.

Similarly, the CDC states that contingency measures “.. may change daily standard practices but may not have any significant impact on the care delivered to the patient or the safety of healthcare personnel (HCP). These practices may be used temporarily during periods of expected shortages.” The CDC defines specific [contingency measures for each type of PPE](#).

#### ***How do you define elective surgery? Many of the patients whose surgery was postponed have had their condition deteriorate and could be harmed by additional delays.***

There is no strict definition of elective surgery. However, if the care team thinks that a delay in a patient’s surgery could cause harm, we would not consider that elective. This is consistent with the position of The American College of Surgeons: “It is not possible to define the medical urgency of a case solely on whether a case is on an elective surgery schedule. While some cases can be postponed indefinitely, the vast majority of the cases performed are associated with progressive disease (such as cancer, vascular disease and organ failure) that will continue to progress at variable, disease-specific rates.”

One strategy for prioritizing resumption of surgical cases is presented in [Joint Statement: Roadmap for Resuming Elective Surgery after COVID-19 Pandemic](#). This collaborative effort between the American College of Surgeons, American Society of Anesthesiologists, Association of periOperative Registered Nurses, and the American Hospital Association recommends a multidisciplinary committee to prioritize the scheduling involving surgery, nursing, and anesthesia.

#### ***Is there an official list of aerosol-generating procedures?***

This is addressed in the [CDC’s Healthcare Infection Prevention and Control FAQs for COVID-19](#), which states “...Some procedures performed on patients are more likely to generate higher concentrations of infectious respiratory aerosols than coughing, sneezing, talking, or breathing. These aerosol generating



procedures (AGPs) potentially put healthcare personnel and others at an increased risk for pathogen exposure and infection.”

There is neither expert consensus nor sufficient supporting data to create a definitive and comprehensive list of AGPs for healthcare settings. Development of a comprehensive list of AGPs for healthcare settings has not been possible due to limitations in available data on which procedures may generate potentially infectious aerosols and the challenges in determining if reported transmissions during AGPs are due to aerosols or other exposures.

Commonly performed medical procedures that are often considered AGPs, or that create uncontrolled respiratory secretions, include: open suctioning of airways, sputum induction, cardiopulmonary resuscitation, endotracheal intubation and extubation, non-invasive ventilation (e.g., BiPAP, CPAP), bronchoscopy, manual ventilation. Based on limited available data, it is uncertain whether aerosols generated from some procedures may be infectious, such as: nebulizer administration, and high flow oxygen delivery.

Organizations should develop their list of AGPs based on the treatment and services that they provide.

***Your position statement recommends “Healthcare organizations should no longer be operating under crisis standards of care and no longer following contingency strategies for use of gowns, eye protection, or facemasks when they resume elective procedures and ambulatory care.” This is not possible for many organizations to not follow these contingency standards due to ongoing shortages. How can we balance this with patients’ need for care?***

We have discussed this with the CDC, and they have confirmed that many organizations continue to have very limited supplies of gowns, eye protection, or facemasks from many customers. The type and severity of shortages vary substantially across institutions.

The CDC states that contingency measures “.. may change daily standard practices but may not have any significant impact on the care delivered to the patient or the safety of healthcare personnel (HCP). These practices may be used temporarily during periods of expected shortages.” The risk of using contingency measures for gowns, eye protection, and facemask is likely low, and this must be weighed against the need to resume regular care delivery to prevent harm from delays in care. Therefore, we have revised our recommendation to say that use of CDC-approved contingency strategies for gowns, eye protection, and facemasks is acceptable practice. Organizations should strive to resume conventional standards of care as soon as possible. The revised recommendation states:

Healthcare organizations should no longer be operating under crisis standards of care when they resume elective procedures and ambulatory care; use of contingency strategies for gowns, eye protection, or facemasks is acceptable practice, as long as the level of personal protective equipment (PPE) used is appropriate for the elective procedures or ambulatory care provided.

***Your position statement recommends “Patients undergoing elective surgery (or other aerosol-generating procedures) whose preoperative test for COVID-19 is negative should still be treated with universal respiratory precautions because of the risk of false-negative COVID-19 tests.” Is this still necessary if the incidence of COVID-19 in the community is very low?***

We agree that if the incidence of COVID-19 is very low, it may no longer be necessary to take the precaution of using an N-95 mask for aerosol-generating procedures (AGPs) if an asymptomatic patient has tested negative for COVID-19 immediately prior to a procedure. The revised position states:

Because of the risk of false-negative COVID-19 tests, clinicians caring for patients undergoing elective surgery (or other aerosol-generating procedures) whose pre-procedure test for COVID-19 is negative should still use a respirator (e.g., N95 mask, PAPR); the use of respirators should continue until the organization determines that the risk of a clinician acquiring COVID-19 from a patient with a false-negative COVID-19 PCR test is very low.

The risk of using medical masks instead of N95 masks (or other respirators) for AGPs can be significant even when all patients have a negative COVID-19 PCR test prior to the procedure. Although the risk depends on many factors, the incidence of COVID-19 in the community and the rate of false negative COVID-19 PCRs are the primary risk determinants. Table 1 shows the chance of exposure to a patient with COVID-19 whose pre-procedure COVID-19 PCR was falsely negative under two scenarios: 1) an organization in a community with 0.5 cases per 1000 population over two weeks using a COVID-19 PCR test with a false negative rate of 15% to screen patients prior to AGPs, and 2) an organization in a community with 2.0 cases per 1000 population over two weeks using a COVID-19 PCR test with a false negative rate of 30%. Although the risk of exposure from an individual patient with a negative COVID-19 PCR is very low, the risk rises exponentially with the number of patients a clinician sees. In scenario 1, the probability that at least one of 600 patients (all of whom have tested negative) actually has COVID-19 is 19.1%. The probability is much greater in scenario 2 (40.3%).

Table 1 – Chance of exposure to a patient with COVID-19 after a negative pre-procedure COVID-19 test.

SCENARIO	Scenario 1	Scenario 2
Incidence (per 1000 over 2 wks)	0.5	2.0
False negative rate for COVID-19 PCR test	15%	30%
<b>CHANCE OF EXPOSURE TO A PATIENT WITH COVID-19</b>		
Probability that <u>a single patient</u> who has tested negative has COVID-19	0.02%	0.09%
Probability that <u>at least one of 200 patients</u> who have tested negative has COVID-19	3.3%	15.8%
Probability that <u>at least one of 600 patients</u> who have tested negative has COVID-19	19.1%	40.3%

Ideally, we want to go beyond estimating the risk of exposure to a patient with COVID-19 and know the risk of a clinician contracting COVID-19. There is a paucity of data on which to estimate the risk of transmission. Experts we spoke with thought a range of 1% to 10% is possible, although they thought the lower half of this range is more likely. Using this range, the risk of transmission under the different scenarios is shown in Table 2 (see below). The risk that an individual clinician seeing 600 patients will acquire COVID-19 ranges from 0.4 - 4.0% in scenario 1 and 1.9-19.1% in scenario 2. Of course, within a

health care organization, risk is not limited to a single clinician. If we consider the risk to a group of 20 clinicians each seeing 600 patients, the risk that one or more clinicians will acquire COVID-19 ranges from 1.0 – 9.8% scenario 1 and 7.8-56.0% under scenario 2. There is no consensus about what risk is acceptable, but we believe these data emphasize the need for caution and interdisciplinary discussions about when to stop using N95 masks.

Table 2 – Risk of transmission of COVID-19 to a clinician from a patient whose pre-procedure COVID-19 PCR was falsely negative.

SCENARIO	Scenario 1	Scenario 2
Incidence (per 1000 over 2 wks)	0.5	2.0
False negative rate for COVID-19 PCR test	15%	30%
<b>CUMULATIVE RISK OF TRANSMISSION TO A SINGLE CLINICIAN (Risk = 1-10% if patient has COVID-19)*</b>		
Risk for an individual clinician seeing 200 patients	0.02% - 0.2%	0.16 - 1.6%
Risk for an individual clinician seeing 600 patients	0.4 – 4.0%	1.9 - 19.1%
<b>CUMULATIVE RISK OF TRANSMISSION TO ONE OR MORE of 20 CLINICIANS IN A GROUP (Risk = 1-10% if patient has COVID-19)*</b>		
Probability that transmission will occur for one or more clinicians who each see 200 patients who have tested negative for COVID-19	0.4 – 3.4%	3.1 - 27.2%
Probability that transmission will occur for one or more clinicians who each see 600 patients who have tested negative for COVID-19	1.0 – 9.8%	7.8 - 56.0%

\*The estimated range of transmission risk assumes the clinician is wearing a medical mask and not an N95 mask.

The risk of transmission likely varies by the type of AGP performed, the duration of the procedure/encounter and the specific clinical circumstance (e.g., anesthesiologists intubating patients for surgery, respiratory therapists administering nebulizer treatments, nurses caring for patient during or after an AGP), the environment in which the procedure is performed (e.g., air exchanges), and the adequacy of the PPE used instead of a N-95 mask (e.g., Level 3 surgical mask with face shield). We recommend facilities consider how these factors might affect risk for physicians, nurses, respiratory therapists, and others when determining their policy for different AGPs.

Organizations planning to use medical masks instead of N95 masks for AGPs should consider whether there are other possible measures they can implement to further reduce clinicians' risk of acquiring COVID-19, such as requiring patients to quarantine for a period prior to their procedure or performing sequential COVID-19 tests. Higher sensitivity COVID-19 PCR tests may become available, and these could be prioritized for pre-AGP testing to reduce clinicians' risk.

The [risk calculator](#) we developed to make the above estimates is available for others to use; this includes the formulae for the calculations and two examples for anesthesiologists and respiratory therapists. [Data on the number of incident cases in all U.S. counties](#) over the last two weeks (a proxy for the point prevalence of COVID-19 in the community) is needed for calculations; this information is available at our Operations Support Research website. We hope that organizations will use the calculator, generate their own estimates, and share the results openly with stakeholders, including



clinicians, so the group can come to a shared decision on whether the risk is acceptably low for clinicians to wear medical masks instead of N95s when conducting AGPs in asymptomatic patients with a recent negative COVID-19 test.