SAMBA WEBINAR: Ambulatory Anesthesia in the COVID-19 era

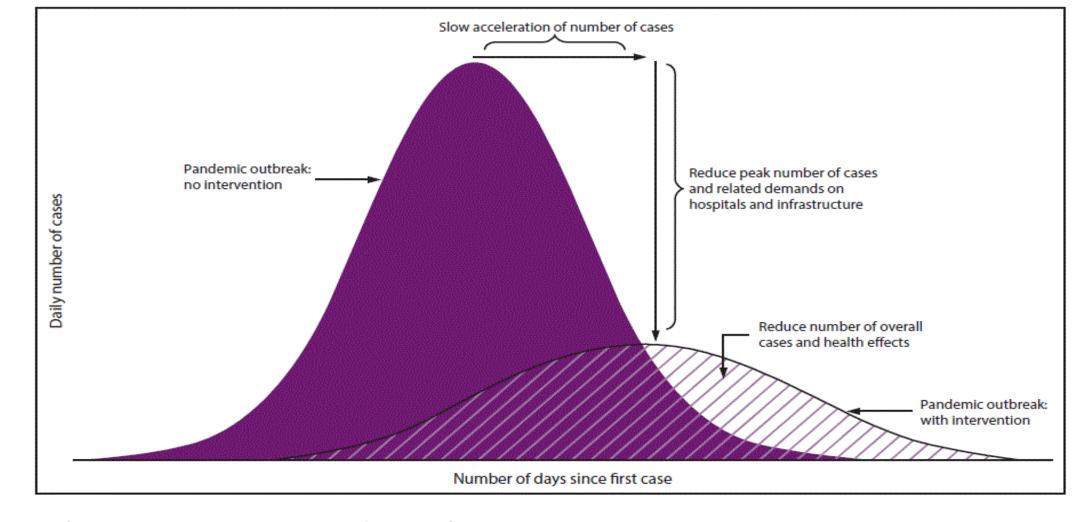
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Assistant National Medical Director, Envision Physician Services
Ambulatory Anesthesiology



Why Nationwide Elective Surgery Restriction?

- Up to 20% of patients infected with COVID-19 require Hospital care.
- U.S.A. has 2.8 Hospital Beds/1,000 people = ~1,000,000 hospital beds.
- U.S.A. has about 3.6 ICU beds per 10,000 people aged 16 and older
- Social distancing will prevent bed shortage by spreading Hospitalizations
- Lack of elective surgeries will preserve shortage of PPE.
- Medical Director is the leader of an ASC, they have to look out for patient safety & quality, but also for staff safety.





Why Nationwide Elective Surgery Restriction?

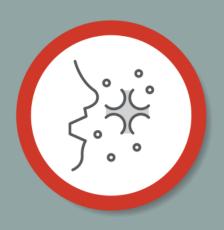


Health Alert



Did you get sick after recently traveling outside of the United States?

Have you been in close contact with a person diagnosed with COVID-19 (Coronavirus)?



Do you have a fever or symptoms of lower respiratory illness (e.g. cough, general aches, difficulty breathing)?

If you said "YES" to any of the above, please call our office at:

XXX-XXXX-XXXX

Do NOT come in until you have spoken with a member of our staff. This measure is in place to protect you and our other patients.











SIGN IN



ABOUT ASA | NEWSROOM

PRESS RELEASES

COVID-19-RELATED SURGICAL TRIAGE DECISION MAKING

NEWS

https://www.asahq.org/about-asa/newsroom/news-releases/2020/03/joint-statement-recommending-a-surgical-review-committee-for-covid-19-related-surgical-triage-decision-making

March 24, 2020

Joint Statement Recommending a Surgical Review Committee for COVID-19-Related Surgical Triage Decision Making

Developed by the American College of Surgeons, American Society of Anesthesiologists and the Association of periOperative Registered Nurses

The COVID-19 crisis is requiring hospitals and ambulatory surgery centers throughout the country to defer non-essential surgery to preserve personal protective equipment (PPE), protect the safety of health care professionals and allocate potentially scarce resources for the care of the COVID-19 patient. In the last week, the American College of Surgeons (ACS) and the United States Department of Health and Human Services have promulgated guidance for postponement of elective, non-essential surgery. Implementation has varied from community to community based on health care resources, disease spread in the community, and patient need. National guidance is needed.

To serve as a resource for decision making, ACS, in conjunction with the surgical specialty societies has prepared triage criteria . ACS and the American Society of Anesthesiologists (ASA) recommend that decisions on surgery cases be made on a daily basis, no later than the lay before surgery, by a leadership team representing surgery, anesthesiology, and nursing.



Table 2. ACS ESAS Tool. The ESAS tool should be considered a recommendation and will be superseded by facility, local, state, and federal rules and regulations.

Electice Surgery Acuity Scale (ESAS)

Reprinted with permission: Sameer Siddiqui MD, St. Louis University

Tiers/ Description	Definition	Locations	Examples	Actions
Tier 1a	Low acuity surgery/	HOPD	Carpal Tunnel release	Postpone surgery or
	healthy patient	ASC	Penile prosthesis	Perform at ASC
	Outpatient Surgery	Hospital with low/no	EGD	
	Not life-threatening illness	COVID-19 census	Colonoscopy	
Tier 1b	Low acuity surgery/	HOPD		Postpone surgery or
	unhealthy patient	ASC		Perform at ASC
		Hospital with low/no		
		COVID-19 census		
Tier 2a	Intermediate acuity	HOPD	Low risk cancer	Postpone surgery if
	surgery/healthy patient	ASC	Non urgent spine	possible or consider ASC
	Not life threatening but	Hospital with low/no	Ureteral colic	
	potential for future morbidity	COVID-19 census		
	and mortality.			
	Requires in hospital stay			
Tier 2b	Intermediate acuity	HOPD		Postpone surgery if
	surgery/unhealthy patient	ASC		possible or consider ASC
		Hospital with low/no		
		COVID-19 census		
Tier 3a	High acuity surgery/	Hospital	Most cancers	Do not postpone
	healthy patient		Highly symptomatic	
			patients	
Tier 3b	High acuity surgery/	Hospital		Do not postpone
	unhealthy patient			



HOPD - Hospital Outpatient Department

ASC - Ambulatory Surgery Center



https://www.facs.org/-/media/files/covid19/guidance_for_triage_of_nonemergent_surgical_procedures.ashx

COVID 19: Elective Case Triage Guidelines for Surgical Care





COVID 19: Elective Case Triage Guidelines for Surgical Care

Breast Cancer Surgery

Developed by the COVID 19 Pandemic Breast Cancer Consortium (this consortium is made up of representatives from the NAPBC, CoC, ASBrS, and NCCN)

Phase I. Semi-Urgent Setting (Preparation Phase)

Few COVID 19 patients, hospital resources not exhausted, institution still has ICU vent capacity, and COVID trajectory not in rapid escalation phase

Surgery restricted to patients likely to have survivorship compromised if surgery not performed within next 3 months

Cases that need to be done as soon as feasible (recognizing status of hospital likely to progress over next few weeks):

- Neoadjuvant patients finishing treatment
- Clinical Stage T2 or N1 ERpos/PRpos/HER2 negative tumors*&
- Triple negative or HER2 positive patients*&
- Discordant biopsies likely to be malignant
- Excision of malignant recurrence

*In some cases institutions may decide to proceed with surgery versus subjecting a patient to an immunocompromised state with neoadjuvant chemotherapy, these decisions will depend on institutional resources

&Encourage use of breast conserving surgery whenever possible, defer definitive mastectomy and/or reconstruction until after the COVID 19 pandemic resolves provided radiation oncology services are available

&Autologous reconstruction should be deferred

Cases that should be deferred

- Excision of benign lesions-fibroadenomas, nodules, etc...
- Duct excisions
- Discordant biopsies likely to be benign
- High risk lesions-atypia, papillomas, etc...

Justify the Medical necessity of doing a procedure on a semi-urgent or urgent manner at the ASC.



SURGICAL OR MEDICAL JUSTIFICATION FOR PROCEDURE FORM

, Dr	MD / DO / DPM, need to
perform on/ the follo	owing procedure:
On patient	
D.O.B/	
The URGENT / SEMI-URGENT (circle one) rea	ason why I need to perform this
procedure is	
f this procedure does not happen the Medic	cal / Surgical condition of the patien
will deteriorate (explain reason)	
When the patient was consented for this pro	ocedure, I informed the patient that
by being present in a Healthcare facility the	risk of acquiring COVID19 increases
Signature	Date

TABLE 1. Potential SARS-CoV-2 infection risk in endoscopy patients

Classification of potential SARS-CoV-2 infection risk in patients undergoing endoscopic examination

Low risk

- No symptoms (eg, cough, fever, breathlessness, diarrhea)
- No contact with SARS-CoV-2-positive person
- Nonstay in high-risk area during the previous 14 days

Intermediate Presence of symptoms with

risk

- No medical history for contact with SARS-CoV-2-positive person
- Nonstay in high-risk area during the previous 14 days
 - No symptoms but
- Contact with SARS-CoV-2-positive person
- Stay in high-risk area during the previous 14 days

High risk*

- \blacksquare At least 1 symptom + 1 of the following:
- Contact with SARS-CoV-2-positive person
- Stay in high-risk area during the previous 14 days

SARS-CoV, Severe acute respiratory syndrome coronavirus.

*In an emergency setting, all procedures must be considered high risk if adequate patient history cannot be assessed.

Coronavirus (COVID-19) outbreak: what the department of endoscopy should know

Gastrointest Endosc 2020;-:1-6.

https://www.giejournal.org/article/S0016-5107(20)30245-5/pdf

PATIENT SCHEDULED FOR URGENT OR SEMI-URGENT PROCEDURE AT ASC **NO ELECTIVE CASES!** IS THE PATIENT CANDIDATE FOR A.S.C.? Yes No SCREEN PATIENTS FOR RISK OF COVID-19 IF YES TO ANY HOSPITAL EXPOSURE: TRAVEL, CONTACT, SYMPTOMS, FEVER **High Risk PROCEDURE** NO: Low Risk WEAR STANDARD PPE. STANDARD OR MASK No Aerosolized **Routine intubation and extubation** for any asymptomatic ADULT patient Procedure? undergoing general endotracheal anesthesia is currently NOT classified as an "open airway case". Yes Surgical face masks protect against COVID-19 droplet transmission but do

Low Risk: WEAR STANDARD PPE, Standard Mask If Moderate risk:

PPE with N95 MASK or equivalent

not protect against aerosolized small particles. The **CDC has developed a** detailed table that describes surgical facemask, N95 mask, and PAPR use,

based upon distance from a patient with suspected or known COVID-19 and the use of source control (i.e., masking of symptomatic patients).

OCIETY FOR

https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html

What are societies saying?

- American Academy of Ophthalmologists
- American Academy of Orthopaedic Surgeons
- American Academy of Otolaryngology
- American Academy of Pain Medicine
- American Academy of Physical Medicine and Rehabilitation references CMS
- American College of Foot and Ankle Surgeons
- American College of Surgeons COVID-19
- Anesthesia Patient Safety Organization
- American Society of Anesthesiologists
- American Society of Plastic Surgeons
- GI Joint Society Message on COVID-19
- Gyn Joint Statement
- Society for Ambulatory Anesthesia
- Medical Board Orders

American Academy of Ophthalmology

Elective surgical procedures

- The American Academy of Ophthalmology supports the <u>recommendation from American College</u> of <u>Surgeons</u> and <u>guidelines from the CDC</u> regarding canceling elective surgeries. Specifically, the CDC recommends that health care providers:
- Delay all elective ambulatory provider visits
- Reschedule elective and nonurgent admissions
- Delay inpatient and outpatient elective surgical and procedural cases
- Postpone routine dental and eye care visits
- Even outpatient ASC-based procedures may expose other patients and health care workers to virus shed from asymptomatic patients or even asymptomatic physicians. Elective surgical procedures also deplete scarce personal protective equipment, including but not limited to masks, gowns, gloves, and face shields.
- The Academy recommends **postponing all elective visits and surgery indefinitely**, to be reinstated only upon recommendation of public health authorities



https://www.aao.org/headline/alert-important-coronavirus-context

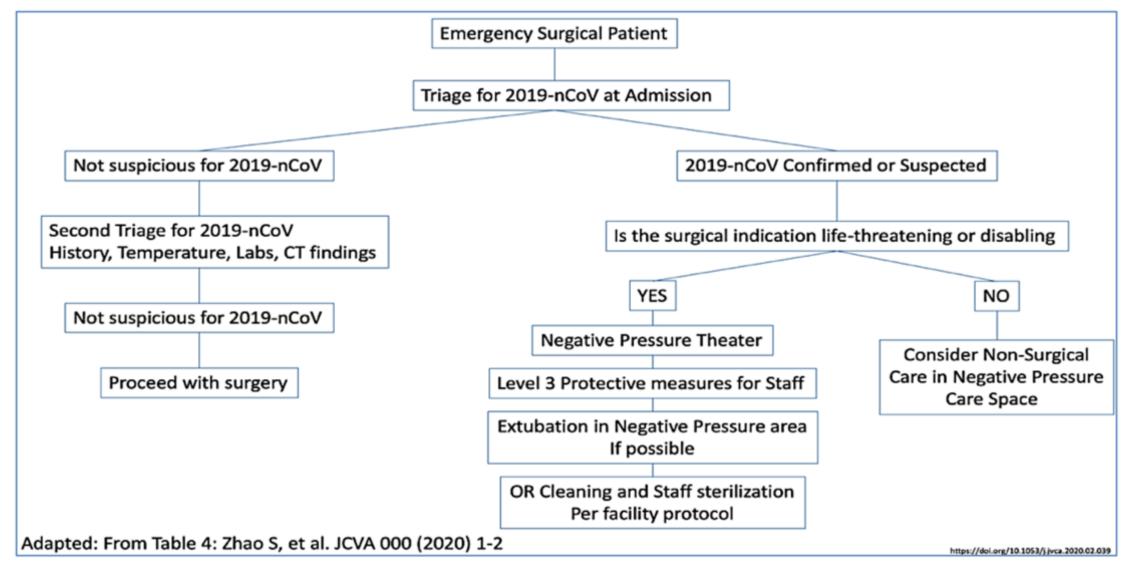
American Academy of Orthopedic Surgeons

- Recommendations for Elective Surgery
- The AAOS supports the recommendations on delaying elective surgeries advocated by the Centers for Medicare and Medicaid Services (CMS), the American College of Surgeons (ACS), and the U.S. Surgeon General.
- CMS Adult Elective Surgery and Procedures Recommendations
- ACS Recommendations for Management of Elective Surgical Procedures
- In addition, the ACS is publishing a twice-weekly newsletter to keep surgeons informed and updated on best practices: <u>ACS COVID-19</u> <u>Update - March 20, 2020</u>

https://www.aaos.org/about/covid-19-information-for-our-members/



 Triage of Surgical with COVID-19 or Under Investigation for COVID-19 Who Require Urgent or Emergent Surgery [Figure 1]
 Figure 1.

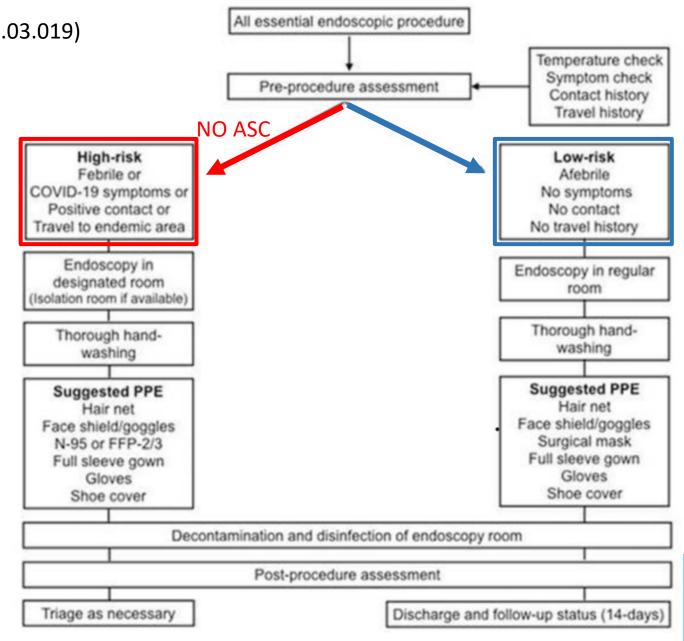


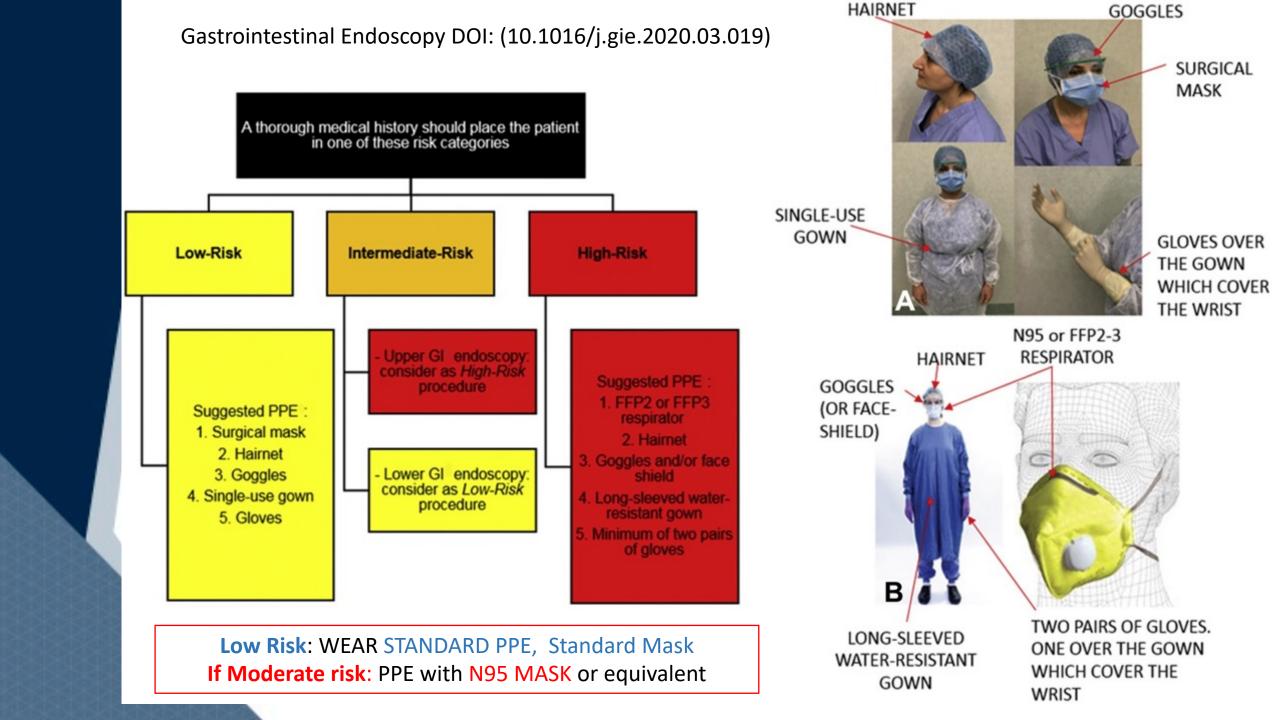


Gastrointestinal Endoscopy DOI: (10.1016/j.gie.2020.03.019)

GI Procedures







Recommendations for Airway Management in a Patient with Suspected Coronavirus (2019-nCoV) Infection

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General

Your personal protection is **the** priority. Personal protective equipment (PPE) should be available for all providers to ensure droplet/contact isolation precautions can be achieved. Providers and organizations should review protocols for donning and doffing PPE. Careful attention is required to avoid self-contamination.

Patients with confirmed or suspected 2019-nCoV infected cases:

- Should NOT be brought to holding or PACU areas
- o Should be managed in a designated OR, with signs posted on the doors to minimize staff exposure.
- Should be recovered in the OR or transferred to ICU into a negative pressure room. Ensure a high quality HMEF (Heat and Moisture Exchanging Filter) rated to remove at least 99.97% of airborne particles 0.3 microns or greater is placed between the ETT and reservoir bag during transfers to avoid contaminating the atmosphere.

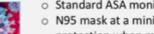
Plan ahead:

- o For time to allow all staff to apply PPE and barrier precautions
- Consider intubation early to avoid the risk of a crash intubation when PPE cannot be applied safely.

During Airway Manipulation

Apply:

 Disposable mask, goggles, footwear, gown and gloves. Consider adopting the double glove technique.



- Standard ASA monitoring should be applied before induction of anesthesia.
- N95 mask at a minimum should be utilized. PAPR devices may offer superior protection when manipulating an airway of an infected patient.

Assign:



 Designate the most experienced anesthesia professionals available to perform intubation, if possible. Avoid trainee intubation for sick patients.

Avoid:



 Awake fiberoptic intubation, unless specifically indicated. Atomized local anesthetic can aerosolize the virus.



- Preoxygenate for 5 minutes with 100% FiO2
- Perform a rapid sequence induction (RSI) to avoid manual ventilation of patient's lungs and potential aerosolization of virus from airways.
- Consider using a video-laryngoscope.



RSI:

 Depending on the clinical condition, the RSI may need to be modified. If manual ventilation is required, apply small tidal volumes.

Use:

 Ensure there is a high quality HMEF (Heat and Moisture Exchanging Filter) rated to remove at least 99.97% of airborne particles 0.3 microns or greater placed in between the facemask and breathing circuit or between facemask and reservoir bag.

Dispose:



- o Re-sheath the laryngoscope immediately post intubation (double glove technique)
- Seal all used airway equipment in a double zip-locked plastic bag. It must then be removed for decontamination and disinfection.

Remember:

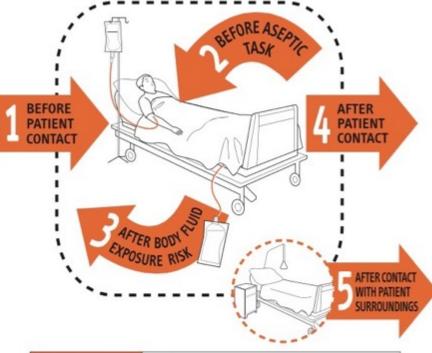
 After removing protective equipment, avoid touching your hair or face before washing hands.



Adapted from Kamming D, Gardam M, Chung F. I. Anaesthesia and SARS. Br J Anaesth 2003;90:715-18

Handwashing

Your 5 moments for HAND HYGIENE



BEFORE PATIENT CONTACT	WHEN? Clean your hands before touching a patient when approaching him or her WNY? To protect the patient against harmful germs carried on your hands
2 BEFORE AN ASEPTIC TASK	WHEN? Clean your hands immediately before any aseptic task WHY? To protect the patient against harmful germs, including the patient's own germs, entering his or her body
3 AFTER BODY FLUID EXPOSURE RISK	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal) WHY? To protect yourself and the health-care environment from harmful patient germs
4 AFTER PATIENT CONTACT	WHEN? Clean your hands after touching a patient and his or her immediate surroundings when leaving WHY? To protect yourself and the health-care environment from harmful patient germs
5 AFTER CONTACT WITH PATIENT SURROUNDINGS	WHEN? Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving - even without touching the patient. WHY? To protect yourself and the health-care environment from harmful patient germs







Search

MAKING YOUR OWN REUSABLE ELASTOMERIC RESPIRATOR FOR USE DURING COVID-19 VIRAL PANDEMIC N95 SHORTAGE

Surgical Innovation Fellowship, Boston Children's Hospital



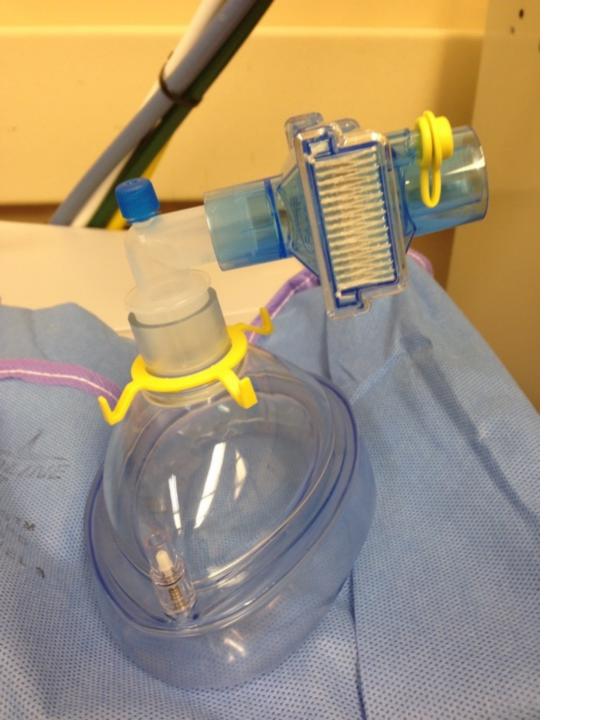




Coronavirus disease (COVID-19)

Get the latest information from the CDC about COVID-19.

CDC 🗵



Off-Label use





Off- label use



N95 Reuse:

- The CDC supports the practice of allowing extended use of N95 when acceptable.
- A N95 respirator classified as disposable can be reused by the same worker as long as it remains intact. (wear mask over N95 to prevent soiling)
- The same N95 respirator is to be use for multiple encounters with patients but removing it ('doffing') after each encounter.
- N95 should be re-inspected prior to donning for next patient encounter.



Dr. Peter Tsai, the INVENTOR of the filtration fabric in the N95 mask.

Polypropylene material, designed to tightly fit over your face with little leakage around the edge of the mask.

MASK REUSE METHOD #1

- When reusing N95 masks, leave a used respirator in dry, atmosphere air for 3-4 days to dry it out.
- Polypropylene in N95 masks is hydrophobic and contains zero moisture.
- **COVID-19 needs a host to survive:** metal surface for up to 48 hours; plastic for 72 hours, and cardboard for 24 hours.
- When the respirator is dry in 3-4 days, the virus will not survive.
- Take four N95 masks, and number them (#1-4).
- On day 1, use mask #1, then let it dry it out for 3-4 days.

MASK REUSE METHOD #2

- You can also sterilize the N95 mask by hanging it in the oven (without contacting metal) at 70°C (158°F) for 30 minutes
- COVID-19 cannot survive at 65C (149F) for 30 minutes.
- Use a wood clip to hang the respirator in the kitchen oven to do the sterilization.
- When sterilizing N95 masks, be wary of using UV light--keep N95 masks away from UV light / sunlight.
- N95 masks are degraded by UV light because it damages the electrostatic charges in the polypropylene material.





Technical Bulletin

March 20, 2020

Disinfection of Filtering Facepiece Respirators

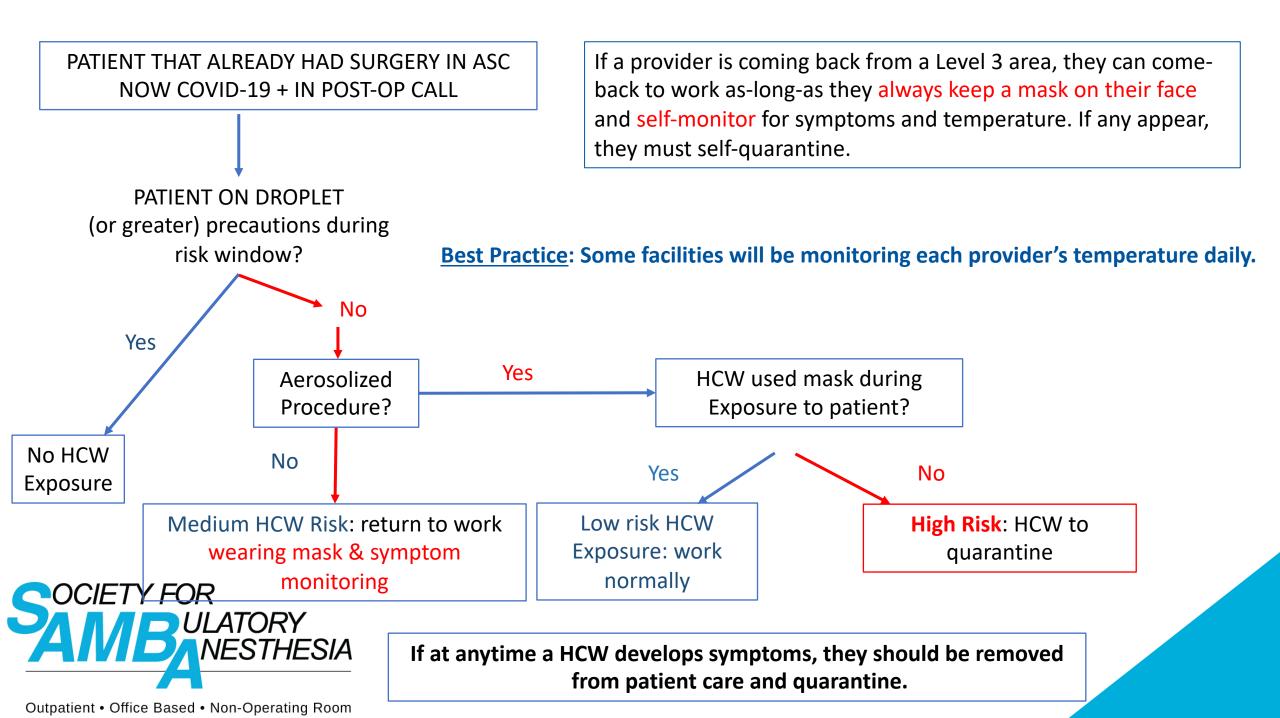
Description

Filtering facepiece respirators (FFRs) such as N95, FFP2, KN95, and similar are commonly used to help provide respiratory protection in a variety of workplaces, including healthcare settings. A common infection prevention practice employed by healthcare organizations is to utilize FFRs as one-time-use items when worn in the presence of infected patients. In the face of a global pandemic and associated FFR shortage, 3M has received numerous questions concerning potential methods to disinfect FFRs, including questions relating to studies that have evaluated the effectiveness of various disinfection methods on FFRs. ^{2,3}

Based on currently available data, 3M does not recommend or support attempts to sanitize, disinfect, or sterilize 3M FFRs.

Sanitization, disinfection, or sterilization of FFRs utilizing these specific methods is, therefore, NOT RECOMMENDED OR SUPPORTED BY 3M





SEQUENCE FOR DONNING PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required; e.g., Standard and Contact, Droplet or Airborne Infection Isolation.

1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist

2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator

3. GOGGLES OR FACE SHIELD

Place over face and eyes and adjust to fit

4. GLOVES

Extend to cover wrist of isolation gown

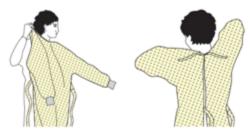


USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene

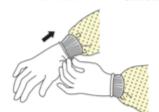
SECUENCIA PARA PONERSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)

El tipo de PPE que se debe utilizar depende del nivel de precaución que sea necesario; por ejemplo, equipo Estándar y de Contacto o de Aislamiento de infecciones transportadas por gotas o por aire.









BATA

- Cubra con la bata todo el torso desde el cuello hasta las rodillas, los brazos hasta la muñeca y dóblela alrededor de la espalda
- Átesela por detrás a la altura del cuello y la cintura

2. MÁSCARA O RESPIRADOR

- Asegúrese los cordones o la banda elástica en la mitad de la cabeza y en el cuello
- Ajústese la banda flexible en el puente de la nariz
- Acomódesela en la cara y por debajo del mentón
- Verifique el ajuste del respirador

3. GAFAS PROTECTORAS O CARETAS

Colóquesela sobre la cara y los ojos y ajústela

4. GUANTES

Extienda los guantes para que cubran la parte del puño en la bata de aislamiento

UTILICE PRÁCTICAS DE TRABAJO SEGURAS PARA PROTEGERSE USTED MISMO Y LIMITAR LA PROPAGACIÓN DE LA CONTAMINACIÓN

- Mantenga las manos alejadas de la cara
- Limite el contacto con superficies
- Cambie los guantes si se rompen o están demasiado contaminados
- Realice la higiene de las manos



SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Except for respirator, remove PPE at doorway or in anteroom. Remove respirator after leaving patient room and closing door.

1. GLOVES

- Outside of gloves is contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glovet
- Discard gloves in waste container

2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield is contaminated!
- To remove, handle by head band or ear pieces
- Place in designated receptacle for reprocessing or in waste container

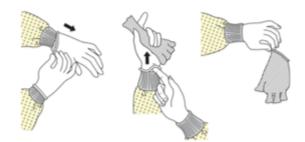
3. GOWN

- Gown front and sleeves are contaminated!
- Unfasten ties
- Pull away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard

4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated DO NOT TOUCH!
- Grasp bottom, then top ties or elastics and remove
- Discard in waste container











SECUENCIA PARA QUITARSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)

Con la excepción del respirador, quítese el PPE en la entrada de la puerta o en la antesala. Quítese el respirador después de salir de la habitación del paciente y de cerrar la puerta.

1. GUANTES

- ¡El exterior de los guantes está contaminado!
- Agarre la parte exterior del guante con la mano opuesta en la que todavia tiene puesto el guante y quiteselo
- Sostenga el guante que se quitó con la mano enguantada
- Deslice los dedos de la mano sin guante por debajo del otro guante que no se ha quitado todavía a la altura de la muñeca
- Quitese el guante de manera que acabe cubriendo el primer guante
- Arroje los guantes en el recipiente de deshechos

2. GAFAS PROTECTORAS O CARETA

- ¡El exterior de las gafas protectoras o de la careta está contaminado!
- Para quitárselas, tómelas por la parte de la banda de la cabeza o de las piezas de las orejas
- Colóquelas en el recipiente designado para reprocesar materiales o de materiales de deshecho

3. BATA

- ¡La parte delantera de la bata y las mangas están contaminadas!
- Desate los cordones
- Tocando solamente el interior de la bata, pásela por encima del cuello y de los hombros
- Voltee la bata al revés
- Dóblela o enróllela y deséchela

4. MÁSCARA O RESPIRADOR

- La parte delantera de la máscara o respirador está contaminada — ¡NO LA TOQUE!
- Primero agarre la parte de abajo, luego los cordones o banda elástica de arriba y por último quítese la máscara o respirador
- Arrójela en el recipiente de deshechos



https://youtu.be/OF6dMhRvD8M Anesthesia Intubation / Extubation with COVID-19



https://www.apsf.org/faq-on-anesthesia-machine-use-protection-and-decontamination-during-the-covid-19-pandemic/#pediatric

FAQ ON ANESTHESIA MACHINE USE, PROTECTION, AND DECONTAMINATION DURING THE COVID-19 PANDEMIC



Last updated: March 23, 2020



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Questions?

