COVID-19-Related

Surgical Mask Supply Shortages

Even though the CDC has not recommended public use of face masks in the face of COVID-19 concerns, many people around the world have purchased surgical face masks. This surge in demand has placed pressure on supply availability to some health care organizations in the US, and perioperative leaders are concerned about how to mitigate the risk of depleting a limited supply of surgical masks. There is no clear guidance from the CDC regarding extended use of surgical masks. However, the CDC has provided detailed strategies for optimizing the supply of N95 respirators. Using the logic in this CDC guidance, health care organizations can use the same combination of approaches to conserve supply of surgical masks such as minimizing the number of personnel who need to use surgical masks through the preferential use of engineering and administrative controls (i.e., limiting traffic in and out of operating and procedure rooms and using essential personnel only).

Each organization will likely face different circumstances and supply availability. For this reason, it is essential that organizations assemble an interdisciplinary team including infection prevention professional(s), the perioperative team, materials management personnel, and other interested stakeholders to evaluate their unique situation and create a mitigation strategy and pandemic plan. The resources provided in this toolkit are intended to provide the interdisciplinary team with sound guidance upon which to base decisions.

It is also important that supply shortages are reported to the FDA and State Health Departments to inform allocation of needed supplies from the Strategic National Stockpile.

Table 2
Medical Face Mask Barrier Levels[1]

Barrier Level[1]	Anticipated Risk of Exposure	Fluid Resistance*	Filtration**	Air Exchange†	Flammability‡
Level 1	Low	80 mmHg	≥ 95%	< 4.0	Class 1
Level 2	Moderate	120 mmHg	≥ 98%	< 5.0	Class 1
Level 3	High	160 mmHg	≥ 98%	< 5.0	Class 1

*Resistance to penetration by synthetic blood as tested by ASTM F1862 minimum pressure for pass result.

**Bacterial filtration efficiency to the wearer and sub-micron particulate filtration efficiency at 0.1 pm.

†Differential pressure in mm H_2O/cm^2

‡Flame spread

Reference

1. ASTM F2100-11(2018): Standard Specification for Performance of Materials Used in Medical Face Masks. *West Conshohocken, PA: ASTM International; 2018.*

Resources:

CDC

Healthcare Supply of Personal Protective Equipment

Strategies for Optimizing the Supply of N95 Respirators

FDA Statement:

COVID-19 Supply Chain Update

National Academies Press:

Reusability of Facemasks During an Influenza Pandemic

AORN Guidelines:

Guideline for Transmission-Based Precautions

Guideline for Sterile Technique

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