



**Strategies for Extending the Use Life of Respiratory Protection During the SARS-CoV-2 Pandemic (Quick Reaction Guide)**

	Recommended Best Practice	Minimum Acceptable Protection	Last Resort
Phase 1 When Respirator Supplies are Available	<ul style="list-style-type: none"> <li>N/R/P-100 filtering facepiece respirator (FFR) OR air purifying respirator (APR) or powered air purifying respirator (PAPR) with P100 canister</li> <li>Filters used once and replaced between patients</li> </ul>	<ul style="list-style-type: none"> <li>N/R/P-95 filtering facepiece respirator</li> <li>APR or PAPR with chemical adsorption canister using a P100 pre-filter</li> <li>Interchange of filters and masks that are not certified together is not approved.</li> </ul>	Not Applicable
Phase 2 When Respirator Supplies are Low	<ul style="list-style-type: none"> <li>Use a medical mask OVER the N95 to extend its use. Replace the medical mask between patients.</li> <li>Utilize emergency rule to allow for APR/PAPR canister interchangeability</li> <li>Use masks beyond their “expiration date”</li> </ul>	<ul style="list-style-type: none"> <li>Consider reusing your FFR (store in non-plastic bag between uses)               <ul style="list-style-type: none"> <li>Static charge in plastic bags can remove the electret capability responsible for the small aerosol filtration</li> </ul> </li> <li>Consider reusing your APR/PAPR canisters (wipe (not spray) down with disinfectant and store in humidity-free environment)</li> </ul> <p><b>DO NOT SPRAY FILTER MEDIA</b></p>	<ul style="list-style-type: none"> <li>Prioritize protection by exposure risk:               <ul style="list-style-type: none"> <li>&gt; 6’ from patient = no mask</li> <li>3’-6’ = medical mask</li> <li>&lt; 3’ = N95 or greater</li> </ul> </li> </ul>
Phase 3 When Respirator Supplies are Depleted	<ul style="list-style-type: none"> <li>Decontaminate FFPs and reuse (attempt to not share FFPs and APR/PAPR filters between people – maintain individual issue)*</li> <li>Field Methods               <ul style="list-style-type: none"> <li>Microwave Generated Steam for 1 minute on each side at 1100-1250W (2 min total)                   <ul style="list-style-type: none"> <li>Place FFP on container containing 50 mL of water to generate steam</li> </ul> </li> <li>Ultraviolet Germicidal Irradiation (UGVI) for 15 minutes on each side using a device fitted with a 40W UV-C bulb.</li> </ul> </li> <li>Hospital or Laboratory Methods               <ul style="list-style-type: none"> <li>Vaporous Hydrogen Peroxide using 30% H2O2. Timing of gassing, dwell time, and aeration following exposure vary depending upon system utilized.</li> <li>Ultraviolet Germicidal Irradiation (UVGI) has also been used across a variety of lamp intensity and treatment times.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Utilize medical/surgical face masks with priority given to those meeting ASTM F2100 Level 3 (then Level 2, Level 1, Surgical molded utility masks, and finally, utility masks)</li> <li>Consider adding reusable and cleanable faceshield to minimize direct exposure with droplets</li> </ul>	<ul style="list-style-type: none"> <li>Consider homemade respiratory products using common fabric materials (note that the protection level will be minimal, at best)</li> <li>Requires the use of a reusable and cleanable faceshield to minimize direct exposure with droplets</li> </ul>

\*For details on each approach, see: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html>.