

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"> N/R/P-100 filtering facepiece respirator (FFR) OR air purifying respirator (APR) or powered air purifying respirator (PAPR) with HE filters Filters used once and replaced between patients 	<ul style="list-style-type: none"> N/R/P-95 filtering facepiece respirator APR or PAPR with chemical adsorption canister using a P100 pre-filter Interchange of filters and masks that are not certified together is not approved. 	Not Applicable
Phase 2 When Respirator Supplies are Low	<ul style="list-style-type: none"> Use a medical mask OVER the N95 to extend its use. Replace the medical mask between patients. Utilize emergency rule to allow for APR/PAPR canister interchangeability Use masks beyond their “expiration date” 	<ul style="list-style-type: none"> Consider reusing your FFR (store in non-plastic bag between uses) <ul style="list-style-type: none"> Static charge in plastic bags can remove the electret capability responsible for the small aerosol filtration Consider reusing your APR/PAPR canisters (wipe (not spray) down with disinfectant and store in humidity-free environment) <p>DO NOT SPRAY FILTER MEDIA</p>	<ul style="list-style-type: none"> Prioritize protection by exposure risk: <ul style="list-style-type: none"> > 6’ from patient = no mask 3’-6’ = medical mask < 3’ = N95 or greater
Phase 3 When Respirator Supplies are Depleted	<ul style="list-style-type: none"> Decontaminate FFRs and reuse (attempt to not share FFRs and APR/PAPR filters between people – maintain individual issue) <ul style="list-style-type: none"> Microwave Generated Steam for 1 minute on each side at 1100-1250W (2 min total) <ul style="list-style-type: none"> Consider placing a paper towel between FFR and glass plate to prevent melting Consider placing FFR on container containing 50 mL of water to generate steam Ultraviolet Germicidal Irradiation (UGVI) for 15 minutes on each side using a device fitted with a 40W UV-C bulb. 	<ul style="list-style-type: none"> 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) Consider adding reusable and cleanable faceshield to minimize direct exposure with droplets 	<ul style="list-style-type: none"> Consider homemade respiratory products using common fabric materials (note that the protection level will be minimal, at best) Requires the use of a reusable and cleanable faceshield to minimize direct exposure with droplets

*For details on each approach, see: <https://emergencyresponsetips.com/papers>.