

# COVID-19 Supply Projections

## Planning for reduction, re-use and reprocessing

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## Overview

Members have a critical window to plan supply use and projections associated with response and sustained preparedness for Covid-19 surge. These discussions and decisions require high levels of coordination and collaboration by supply chain teams with infection prevention, occupational health and clinical leaders. Reference this guide in your preparedness.

## Baseline considerations in projecting surge supply utilization

- # COVID-19 PUI – lab test turnaround times
- # COVID-19+ patient acuity – non-vented & vented
- # of staff interactions & # of shifts
- PPE category specific utilization, i.e. face shields vs. disposable gowns
- Utilization of key conservation strategies, including reprocessing

## Consider key variables impacting supply projections

Surge supply projections are highly-contingent on many factors that vary widely by provider organization. Organize preparations for key product categories through a structured approach, anticipating key variables below as follows:

### Reducing utilization: ++ Impact

Partner in planning clinical protocols and patient cohorting strategies (i.e. Covid/Non-Covid, remote tele-monitoring or phone/two-way intercom, videoconferencing or baby monitors, vent screens/IV tubing extensions/bed monitors outside room, negative pressure rooms)

Plan for patient acuity: low risk, minimum PPE, high risk most protective PPE, etc.

Confirm occupational health protocols (i.e. universal masking, variability in PPE use by unit or role – for instance, EVS workers v. direct patient care)

Limit and centralize access to PPE: Visitor restriction, PPE inventory centralization, elective surgeries & office visits cancellation/telehealth

Anticipate PPE product combinations to support conservation (i.e. mask or face shield over respirator for combined particulate and droplet protections)

**Reuse: +++ Impact**

Pivot utilization assessment toward provider/shift, instead of patient – (i.e. one respirator per shift, instead of one respirator per patient encounter)

Determine policies for either the extended use or limited reuse of PPE (i.e. “one mask” and, perhaps, “one respirator” per shift or use until visibly soiled/failure, multiple healthcare providers sharing one gown)

**Reprocess: ++++ Impact**

Identify the scope and strategy of internal and external reprocessing with a mindfulness that various techniques have a varying impact on product durability and integrity (i.e. H2O2 v. UV light). Recent EUAs from the FDA have created new options for providers in the last several weeks, as well (i.e. Battelle, ASP, Steris).

Develop policies and a plan for equipment collection to optimize implementation of reprocessing strategy (i.e. physical presence on patient care units to collect equipment for reprocessing each shift, no make-up policy) – members estimate that, roughly, 80% of reprocessed product can be reused. No make-up policies are crucial to ensuring product can be reprocessed.

**Framework: Covid-19 supply projections**

The following framework highlights the impact and influence of case mix, PPE conservation strategies and other factors. With consideration of key variables as well as reprocessing strategy, consider this structure for planning discussions. Vizient is developing a PPE utilization modeling tool to help members project the impact of specific conservation strategies on supply use.

Baseline considerations:

- Consider confirmed and PUI COVID 19 patient volumes
- Consider staffing ratios and shift durations
- Consider PPE conservation and reprocessing strategies
- Consider patient acuity of COVID19 population: 30% ICU, 70% Non ICU

PPE SET ICU and Aerosol Generating Procedures: Sets per day per patient across RN, RT, MD, etc. (Before reuses and contingent on reprocessing strategy)

N95 Mask (1)	Extended use per shift or until visibly soiled
Face Shield/Goggle (1)	Extended use of eye protection with an EPA-approved disinfectant
Gown (1)	Extended use across patients
Gloves (1)	CDC guidance on glove selection and practices
Other	Other supplies as applicable

PPE SET NON-ICU: Sets per day per patient across RN, RT, MD, etc. (Before reuses and contingent on reprocessing strategy)

Face Mask (1)	Surgical mask conservation strategies and extended use
Face Shield/Goggle (1)	Extended use of eye protection with an EPA-approved disinfectant
Gown (1)	Extended use across patients
Gloves (1)	CDC guidance on glove selection and practices
Other	Other supplies as applicable

## Other recommendations

- Review the [Vizient Disaster Preparedness site](#) for the latest supplier-specific updates and information from the War Room
- Monitor [Vizient Emerging Practice guidance on “Managing critical supplies”](#) summarizing member insights, regulatory guidance and potential strategies for PPE conservation, supply utilization and planning
- Watch the April 8<sup>th</sup> [Vizient Covid-19 webinar presentation on PPE](#) reduction, re-use and reprocessing from Patrick Kenney, MD, of Yale New Haven Health
- Plan ahead: Think beyond PPE and anticipate other product and equipment categories subject to shortages – develop conservation strategies accordingly