April 15, 2020

Infection Control Assessment and Response for COVID-19 in Long-Term Care

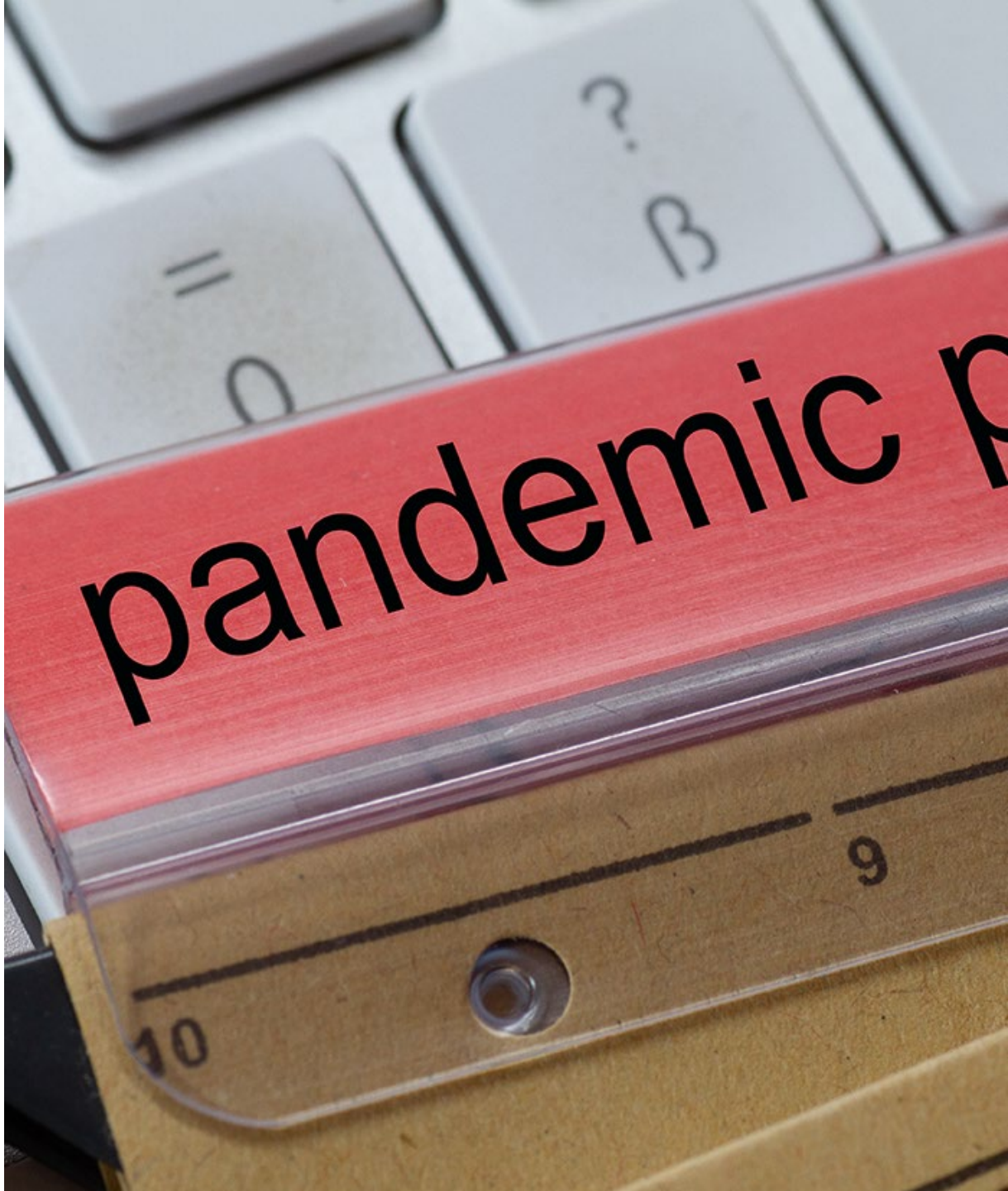
Emergency Preparedness and Response Service with the Healthcare Associated Infections Program

OKLAHOMA
State Department of Health

The items assessed support the key strategies of: keeping COVID-19 out of the facility, identifying infections as early as possible, preventing spread of COVID-19 in the facility, assessing and optimizing personal protective equipment (PPE) supplies, and identifying and managing severe illness in residents with COVID-19. The areas assessed include:

- Visitor restriction
- Education, monitoring, and screening of healthcare personnel (HCP)
- Education, monitoring, and screening of residents
- Ensuring availability of PPE and other supplies
- Ensuring adherence to recommended infection prevention and control (IPC) practices
- Communicating with the health department and other healthcare facilities

Findings from the assessment can be used to target specific IPC preparedness activities that nursing homes can immediately focus on while continuing to keep their residents and HCP safe.



Actions you should be taking:

1. Monitoring for confirmed or suspected cases of COVID-19
   - In the facility (residents/staff)
   - In the community
   - Sustained transmission

2. Documenting timeline and adhering to visitor limitation/restriction
   - family letter, signage, provisions for communication, etc.

Actions you should be taking:

3. Education, monitoring, and screening of healthcare providers
   - (HCP)Training
   - review of COVID-19 S/S, hand hygiene, PPE use (proper donning/doffing), Environmental Cleaning (EPA List N), social distancing, staff illness log.

4. Education, monitoring, and screening of residents.
   - Symptoms (some atypical vs. fever/respiratory symptoms)
   - talking to residents
     - hand hygiene, cough etiquette, social distancing, cancellation of group activities, communal dining, visitor restrictions, use of PPE for transmission-based precautions, isolation to rooms

Actions you should be taking:

5. Communication with County/State Health Departments and other Healthcare Facilities

6. Ensure adherence to recommended infection prevention and control practices.

7. Assess availability
   - PPE (gowns, masks, eye protection, and gloves)
   - Other supplies (ABHR >60% alcohol, EPA List N disinfectants)

8. Assess use (burn rate)

Screening Staff:

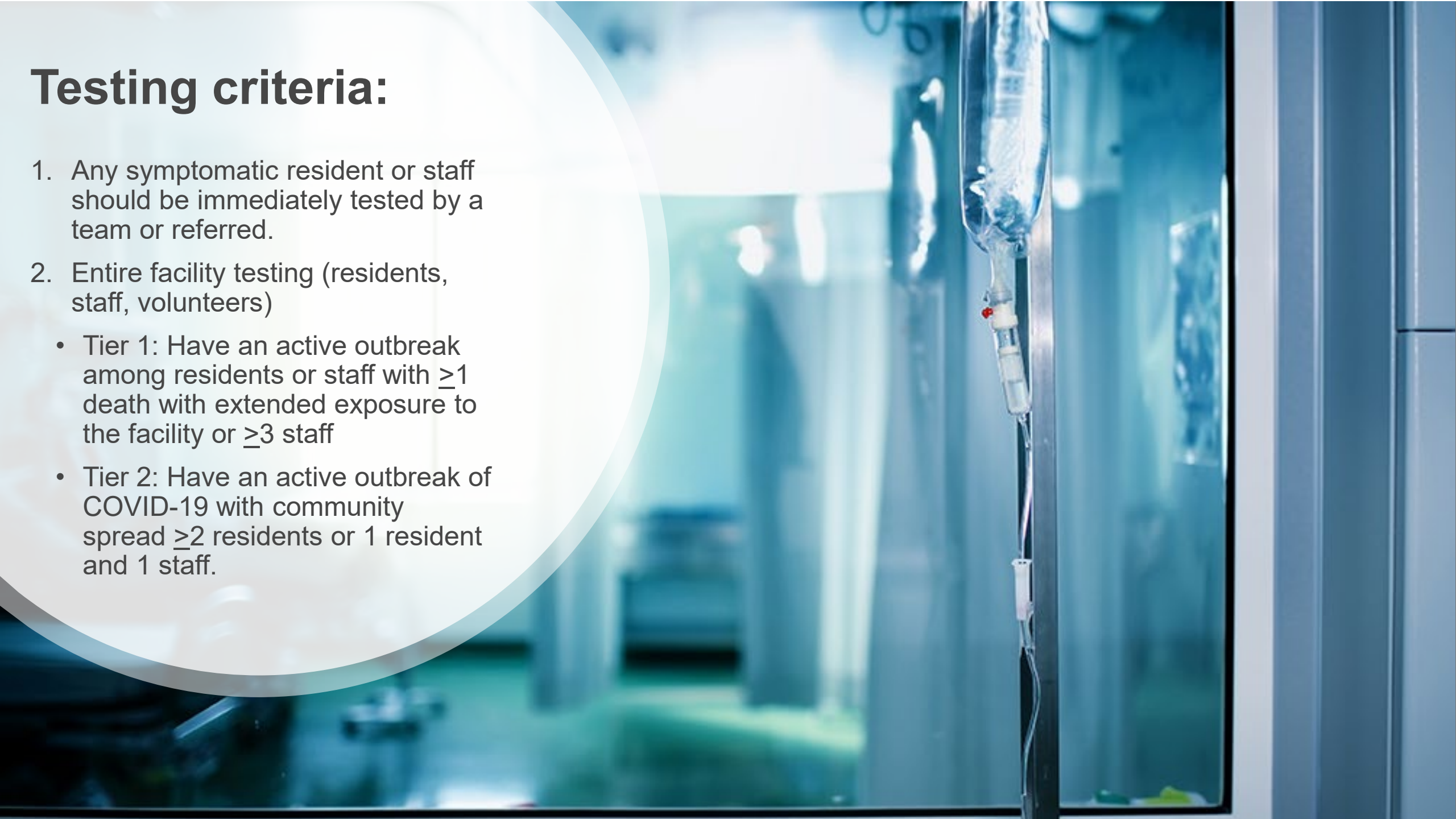
- Before start of shift, mid-shift, end of shift
- Temperature*
- Respiratory symptoms
- Contact with suspected/confirmed COVID-19 cases
- Universal Masking
- Illness log

Screening Residents:

- At least ONCE per shift
- Temperature*
- Respiratory symptoms
- Atypical symptoms
  - New/worsening malaise, new dizziness or headache, nausea or diarrhea, red eyes, confusion, muscle aches, chills.

Testing criteria:

1. Any symptomatic resident or staff should be immediately tested by a team or referred.
2. Entire facility testing (residents, staff, volunteers)
   - Tier 1: Have an active outbreak among residents or staff with ≥1 death with extended exposure to the facility or ≥3 staff
   - Tier 2: Have an active outbreak of COVID-19 with community spread ≥2 residents or 1 resident and 1 staff.



Testing Criteria:

- Tier 3: Have an active outbreak of COVID-19 among staff only without any deaths.
- Tier 4: Have resolved outbreaks of COVID-19 (defined as no ongoing transmission during the past 7 days) OR do not have any fulltime infection prevention staff
- Tier 5: Do not have any outbreaks of COVID-19 and have infection prevention staff who have initiated prevention policies and practices

Cohorting

- Cohort residents- group them together based upon status/diagnosis (i.e. all confirmed positive COVID-19, symptomatic, Negative/No symptoms, etc.)
- Cohort staff- dedicate teams to each resident group as able. If this is not an option, insure the resident cohorts are clear.
- If your facility has instituted universal isolation precautions due to cases of COVID-19, and PPE is worn for all care activities, determination will need to be made on how to carry out the process to maximize use that will preserve PPE.

What does cohorting look like?

Optimize Your PPE Supply

You MUST understand the following items help define your surge capacity

- What you have on hand.
- What your supply chain looks like.
- What is your rate of use?

Use of the burn rate calculator is advised to assist in reporting to your regional MERC daily.

https://www.cdc.gov/coronavirus/2019-ncov/downloads/hcp/PPE-Burn-Rate-Calculator.xlsx

Three General Levels

The following strategies have been used to describe surge capacity and can be used to prioritize measures to conserve PPE supplies along the continuum of care.

- Conventional Capacity
- Contingency Capacity
- Crisis Capacity
- https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html

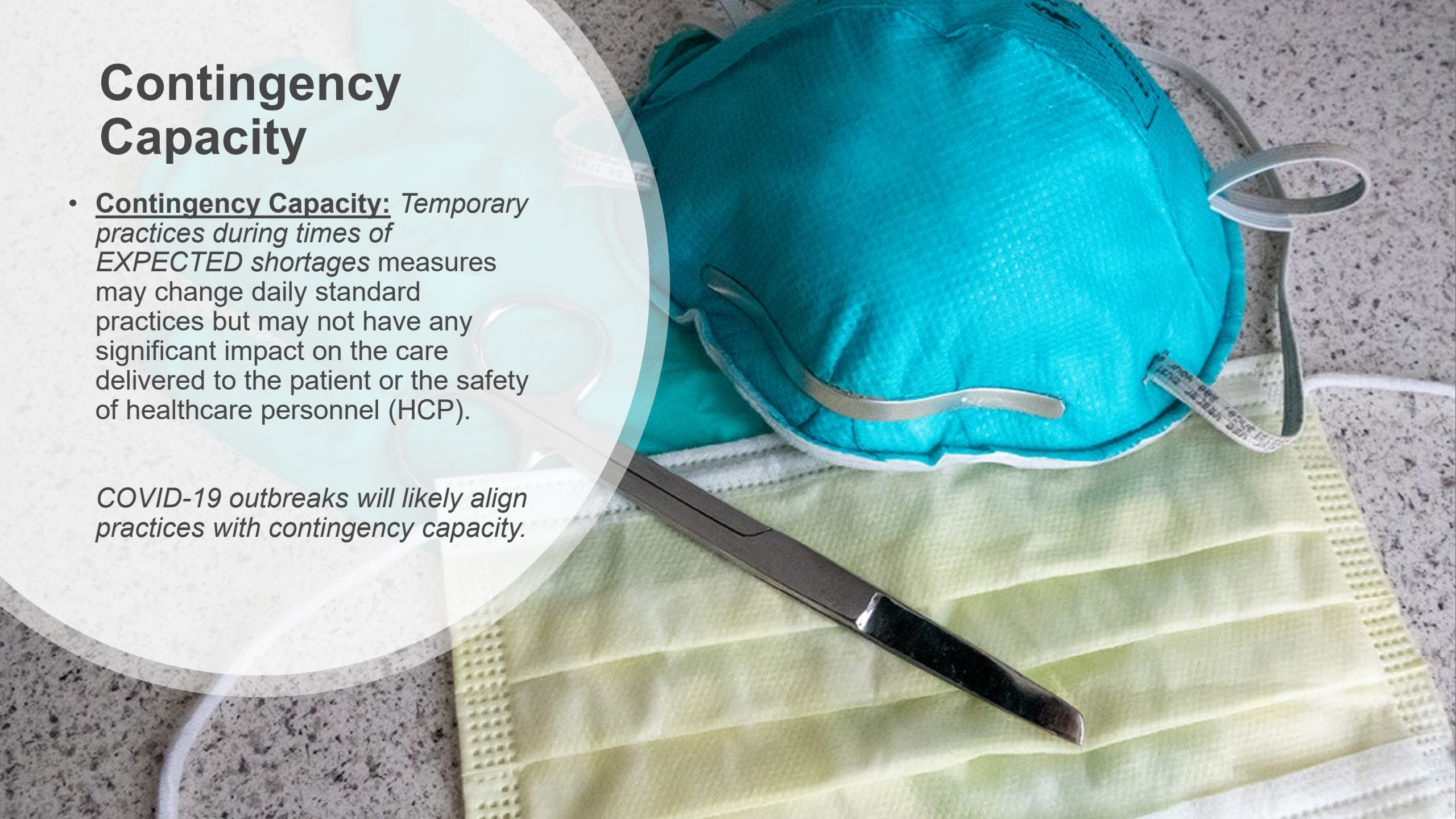
Conventional Capacity

- **<u>Conventional Capacity</u>:** *Every day, general practice* measures consist of providing patient care without any change in daily practice, and should already be implemented in general infection prevention and control plans in healthcare settings.

Contingency Capacity

- **<u>Contingency Capacity:</u>** *Temporary practices during times of EXPECTED shortages* measures may change daily standard practices but may not have any significant impact on the care delivered to the patient or the safety of healthcare personnel (HCP).

COVID-19 outbreaks will likely align practices with contingency capacity.



Crisis Capacity

- **Crisis Capacity:** strategies that are not in proportion with U.S. standards of care. These measures, or a combination of these measures, may need to be considered during periods of known PPE shortages.

COVID-19 outbreaks could possibly align practices with crisis capacity.

Implement Extended Use

Extending the Use of Gowns, Masks/N95 respirator, and Eye Protection

This means you wear the same PPE for repeated close contact encounters with several different residents, ***without removing*** the PPE between patient encounters. This practice can be used with disposable and reusable PPE.

ALWAYS REMOVE GLOVES AND PERFORM HAND HYGIENE BETWEEN EACH RESIDENT

**Extended wear guidelines for gowns should be evaluated if any resident has a diagnosis (C. diff) requiring isolation precautions outside of a designated cohort to insure it is not worn to care for another resident.*

Re-Use of PPE

This practice is best suited to N95 respirators and procedure/surgical masks.

It is a better option to use washable gowns or to substitute alternative gowns (patient gowns, aprons with long sleeves, lab coats) than to reuse.

Implement re-use of N95 respirators

- This means you will use the same N95 respirator for multiple encounters with different residents but remove it (i.e. doffing) after each encounter. This practice is often referred to as **“limited reuse”** because restrictions are in place to limit the number of times the same respirator is reused. Always review the respirator manufacturer regarding the maximum number of uses they recommend for the specific model used. If no manufacturer guidance is available, data suggest limiting the number of reuses to no more than five uses per device to ensure an adequate safety margin. N95 and other disposable respirators should not be shared by multiple HCP.
- HCP reusing an N95 respirator should use a clean pair of gloves when donning or adjusting a previously worn N95 respirator. It is important to discard gloves and perform hand hygiene after the N95 respirator is donned or adjusted.

Implementing re-use of face masks

- Same process as N95. It is unknown what the potential contribution of contact transmission is for SARS-CoV-2, care should be taken to ensure that HCP do not touch outer surfaces of the mask during care, and that mask removal and replacement be done in a careful and deliberate manner.
- The facemask should be removed and discarded if soiled, damaged, or hard to breathe through.
  - Not all facemasks can be re-used. Those that fasten to the provider via ties may not be able to be undone without tearing and should be considered only for extended use, rather than re-use. Masks with elastic ear hooks may be more suitable for re-use.
- HCP should leave patient care area if they need to remove the facemask. Facemasks should be carefully folded so that the outer surface is held inward and against itself to reduce contact with the outer surface during storage. The folded mask can be stored between uses in a clean sealable paper bag or breathable container.

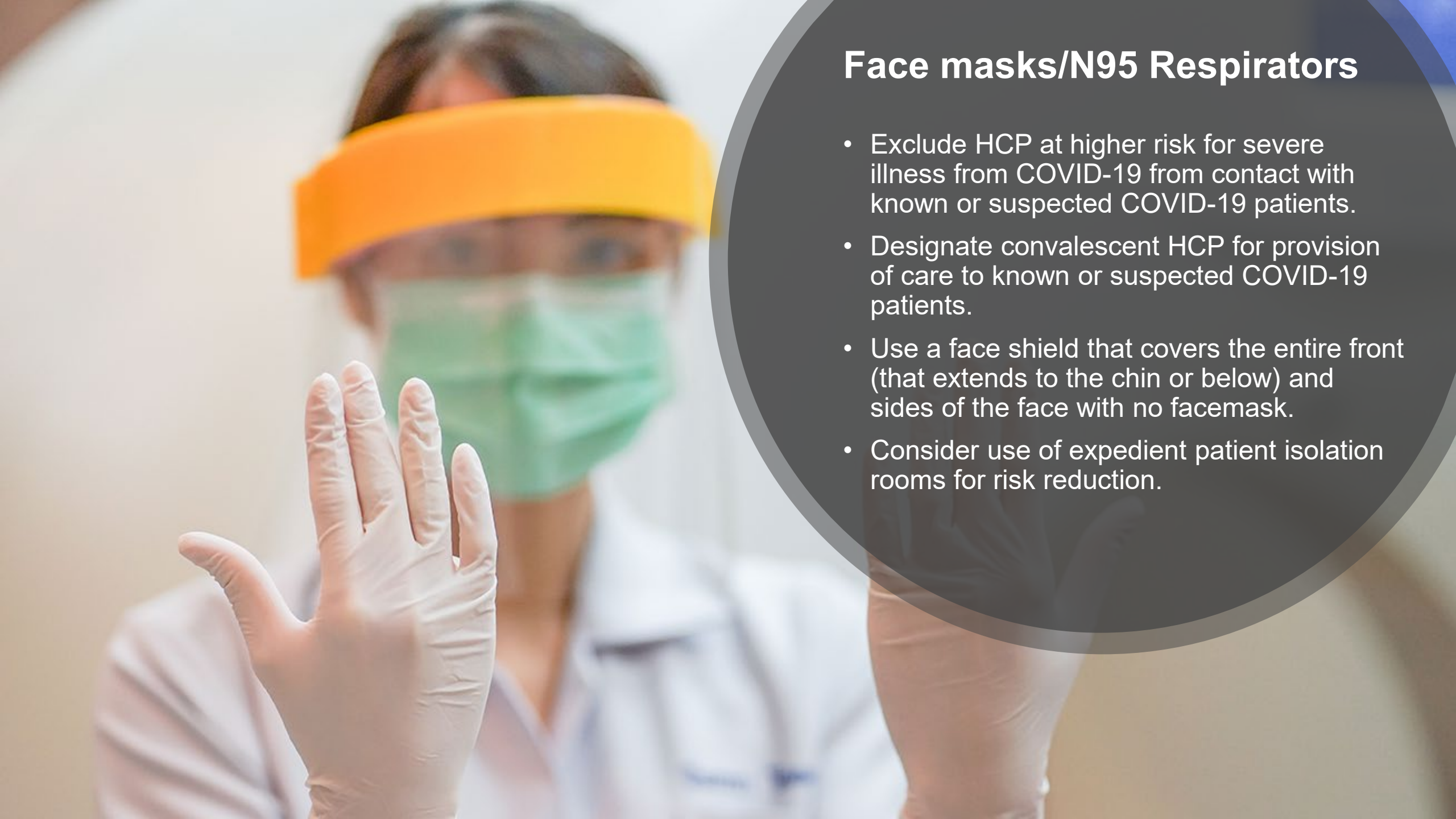
Donning & Doffing PPE

CRISIS STRATEGY NO PPE…

- Gowns
- Face masks/N95 Respirators
- Cloth masks

Gowns

- **Consider using gown alternatives that have not been evaluated as effective.**
  - Disposable or Reusable (washable) laboratory coats
  - Reusable (washable) patient gowns
  - Disposable aprons
  - Combinations of clothing: Combinations considered for activities that may involve body fluids and when there are no gowns available:
    - Long sleeve aprons in combination with long sleeve patient gowns or laboratory coats
    - Open back gowns with long sleeve patient gowns or laboratory coats
    - Sleeve covers in combination with aprons and long sleeve patient gowns or laboratory coats

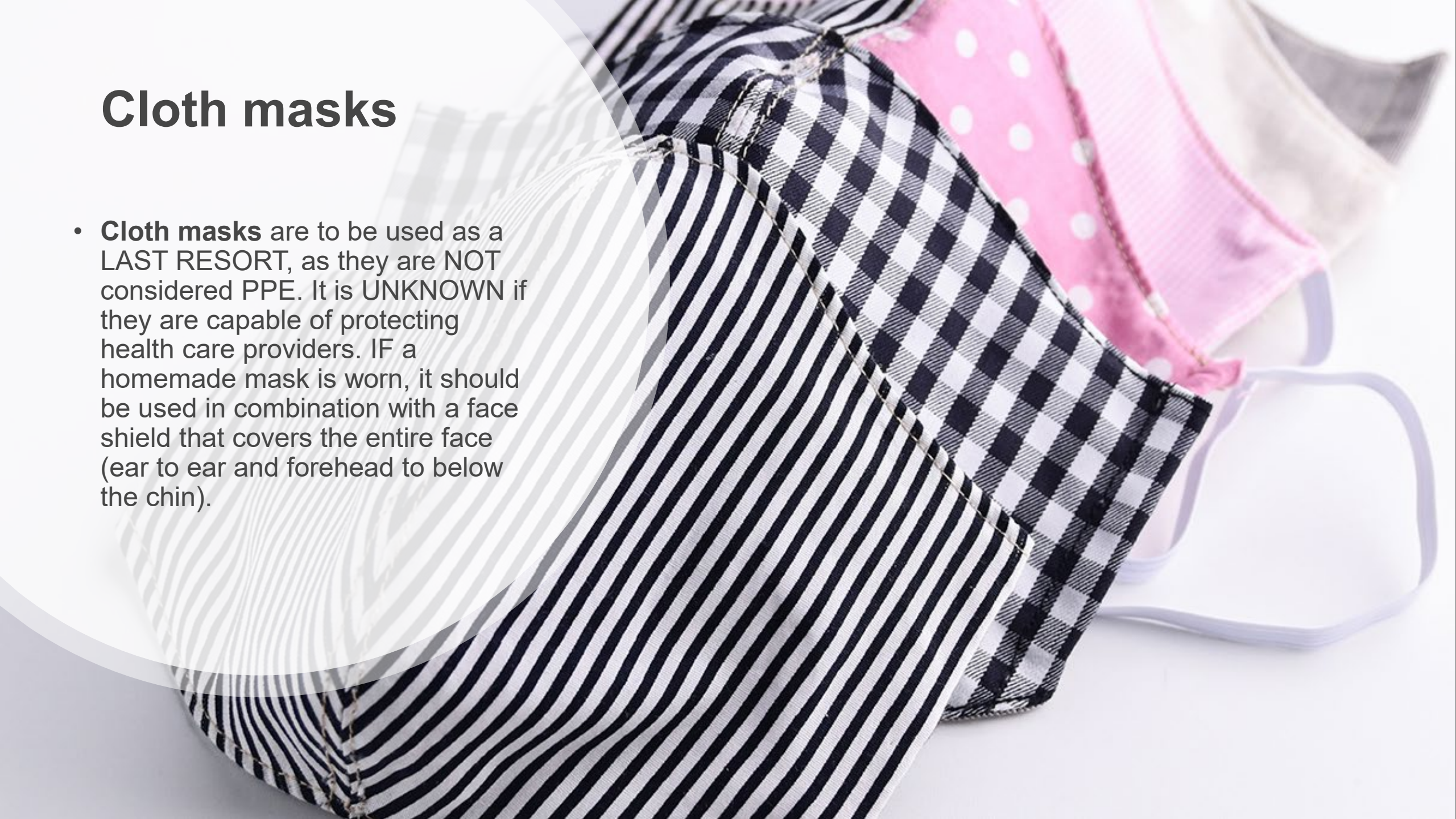


Face masks/N95 Respirators

- Exclude HCP at higher risk for severe illness from COVID-19 from contact with known or suspected COVID-19 patients.
- Designate convalescent HCP for provision of care to known or suspected COVID-19 patients.
- Use a face shield that covers the entire front (that extends to the chin or below) and sides of the face with no facemask.
- Consider use of expedient patient isolation rooms for risk reduction.

Cloth masks

- **Cloth masks** are to be used as a LAST RESORT, as they are NOT considered PPE. It is UNKNOWN if they are capable of protecting health care providers. IF a homemade mask is worn, it should be used in combination with a face shield that covers the entire face (ear to ear and forehead to below the chin).



Common observations/ discussions:

- Pocket gloves
- Lack of hand hygiene
- Straying from task while in PPE
- Constant wear of N95 by EVERYONE
- Lack of understanding regarding cohorting
- Not clear on what re-use of PPE really means
- Not limiting staff who enter COVID-19 positive rooms
- Environmental cleaning – products, mechanisms, high touch surfaces and multi-use equipment (lifts)

Thank You!

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