Interim Recommendations to Reduce Transmission of SARS-CoV-2 in Congregate Living Facilities: Universal Masking and Enhanced Environmental Disinfection

I. Background
SARS-CoV-2 is clearly highly transmissible in congregate living facilities such as prisons and jails. In addition to droplet transmission, contact transmission (e.g. fomites) may play an important role in SARS-CoV-2 spread. Evidence suggests that SARS-CoV-2 may remain viable for hours to days on surfaces.

II. Purpose
This guidance provides universal masking and environmental disinfection recommendations for congregate living facilities.

III. Recommendation for Universal Masking Policy in Residential Congregate Living Facilities
Until further notice, IDPH recommends that congregate living facilities serving vulnerable populations\(^1\) implement a universal-masking policy requiring all staff to wear a mask when working. This includes staff responsible for direct interaction or care involving residents as well as staff who do not normally interact directly with patients and residents, such as administrative, dietary, environmental services, and facility maintenance staff. Universal masking will reduce the risk of transmission from staff who may be carrying SARS-CoV2 but are asymptomatic. In addition, face masks are widely used as an important part of droplet precautions when caring for patients with respiratory infections.


Hand hygiene should be performed before putting on a mask, and after touching, adjusting, or removing a mask. Facemasks should be removed and discarded if soiled, damaged, or hard to breathe through. Facemasks with elastic ear hooks may be more suitable for re-use.

In the context of severe personal protective equipment (PPE) shortages, and only if surgical masks or respirators are not available, home-made cloth masks have been proposed as a last-resort

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\(^1\) Congregate setting that serves vulnerable populations: a skilled nursing facility, an assisted living facility, a group home, a homeless shelter, or a correctional setting.
solution by the CDC until availability of standard PPE is restored. Homemade masks are not considered PPE: health care staff should continue to wear N-95 respirators as appropriate, based on the type of patient care involved (aerosolizing procedures), per CDC guidance.

Additional information and resources about alternative facemasks and universal masking are available from the Minnesota Department of Public Health and University of Nebraska (See attached; links to this guidance are below, as updates to these documents may occur.)

Guidance from the Minnesota Department of Health on alternative facemasks:  

The University of Nebraska Policy on Universal Masking:  

**IV. Recommendation for Enhanced Environmental Disinfection**

Until further notice, in order to assist with efforts to interrupt transmission of SARS-CoV-2 via contaminated surfaces in residential congregate living facilities, IDPH recommends frequent environmental disinfection of surfaces frequently touched by occupants – at least three times per day or once per shift. When feasible, **IDPH recommends use of a spray (no-wipe) product to facilitate application.**

Common touchpoints include: door knobs and door handles, door push bars, light switches and cover plates, telephones, reception desks and reception area furniture, elevator call buttons and cover plates, refrigerator door handles, TV remote controls, microwave buttons, breakroom tables and countertops, filing cabinet handles, stair and ramp hand railings, vending machine buttons, paper towel dispensers, soap dispensers, toilet seat and urinal flush handles, restroom door partition door handles, workstation and office desktops, drawer pulls, keyboards and mice, and office equipment. Health care facilities will require cleaning of additional surfaces, including but not limited to wheelchair handles, IV poles, bed rails, nightstands, and nurse call buttons.

IDPH recommends selecting a disinfectant from U.S. EPA’s list of disinfectants for use against SARS-CoV-2, known as the N-List, available from the EPA website at [https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2](https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2). Follow manufacturers’ instructions for application and proper ventilation when using disinfectants. Dilutions should be performed according to written guidance from the manufacturer.

Ease of use, contact times, and safety (staff/patient/resident) concerns must be taken into account when selecting and using a disinfection agent. N-List products that can be sprayed, with a short contact time, (e.g. between 30 seconds and one minute as indicated on the label) and do not require wiping have potential advantages. Application of disinfectant may be facilitated by use of an industrial-style sprayer with the nozzle of the spray wand held close – 6 to 8 inches – to the
surface to which disinfectant is being applied. Some products (e.g. sodium hypochlorite or household bleach, and peracetic acid) pose increased inhalational risks, but a diluted solution of household bleach may be useful in some settings. Depending on the disinfectant, it may be appropriate for residents to leave the room for a brief period where disinfectants are being used. Pre-cleaning may be required if surfaces are visibly dirty.

Consult the manufacturer’s instructions for cleaning and disinfection products used. Products should be used per manufacturer labelling, and the Safety Data Sheet for any product being used should be reviewed and readily available to employees. Wear disposable gloves when cleaning and disinfecting surfaces. Gloves should be discarded after each cleaning. If reusable gloves are used, those gloves should be dedicated for cleaning and disinfection of surfaces for COVID-19 and should not be used for other purposes. Clean hands immediately after gloves are removed.

IDPH does not recommend applying disinfection products using methods other than those described on the product labeling.

V. Resources
CDC Strategies for Optimizing the Supply of N95 Respirators: Crisis/Alternate Strategies
CDC Cleaning and Disinfection for Community Facilities
USEPA List N: Disinfectants for Use Against SARS-CoV-2

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2 Diluted household bleach solutions (e.g. 1000 parts per million (ppm) sodium hypochlorite) may be used if appropriate for the surface. Check to ensure the bleach product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser. Do not premix the water and bleach solution, as it loses potency over time. Additional guidance regarding dilution and storage of bleach is available at: https://www.canr.msu.edu/news/covid-19-disinfecting-with-bleach. A bleach dilution calculator is available at https://www.publichealthontario.ca/en/health-topics/environmental-occupational-health/water-quality/chlorine-dilution-calculator
Interim Guidance on Alternative Facemasks

CURRENT AS OF MARCH 27, 2020

Alternative facemasks can be homemade facemasks, or manufactured facemasks that are not regulated by the U.S. Food and Drug Administration (FDA). There are many versions of non-FDA regulated facemasks, and facilities should evaluate each product before use.

Every effort should be made to obtain FDA regulated facemasks and to comply with CDC’s Strategies for Optimizing the Supply of PPE and Equipment (www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html) for the purpose of protecting the health care worker from exposure to infectious particles. Alternative facemasks can serve as source control for an individual who may be infected (transmission may occur prior to the development of overt symptoms) as an approach to limit transmission of the virus. MDH recommends the use of source control at this time for all health care workers.

When is it appropriate to wear an alternative facemask:

1. FDA regulated PPE supply has been exhausted and all efforts to extend PPE use has been exhausted.
2. A worker in a health care facility does not have direct patient care responsibility (e.g. dietary staff, environmental services staff, administrative staff)
3. Use by patients who do not have respiratory symptoms.
4. Use by visitors or contract staff who are providing services to a healthcare facility.
5. Asymptomatic staff who have not had exposures to known or suspect COVID-19 cases.

Design principles:

1. Build a mask that tightly encloses the area around the nose and mouth, from the bridge of the nose down to the chin, and extending onto the cheek beyond the corners of the mouth, so no gaps occur when talking or moving.
2. Use mask material that is tightly woven but breathable. Possibly double-layer the fabric.
   ▪ Masks must be made from washable material such as fabric. Choose a fabric that can handle high temperatures and bleach without shrinking or otherwise deforming.
3. The mask should be tolerant of expected amounts of moisture from breathing.
4. Other Considerations
   ▪ Suggested materials- outer layer tea cloth, inner layer of a microfleece to wick away moisture, and an inner tea cloth layer. Use an accordion fold to mimic a hospital mask as much as possible and use a fat woven shoelace type material to bind the sides (such as quilt binding). For straps, use elastic straps that loop behind the ears.

Use of alternate facemasks:

1. Alternative facemasks should be donned and doffed per usual CDC protocol.
2. Alternative facemasks should be changed when saturated from condensation build up from breathing, or after a gross contamination event.

3. Dirty and clean facemasks must be housed in separate, clearly labeled containers to prevent cross contamination.

**Washing masks:**

Wash dirty masks between each use. Wash in hot water with regular detergent. Dry completely on hot setting.

**Design examples:**

There is no standard design for a homemade facemask therefore, consider innovation using the design principle above. Below are example designs for consideration:

**Videos:**

- Face Mask Kit (https://vimeo.com/399324367/13cd93f150), Providence St. Joseph Health
- How to sew a simple Fabric Face Mask (https://www.youtube.com/watch?v=sOJ_sm137fQ), YouTube

**Written instructions:**

- How to make a facemask (www.allinahealth.org/-/media/allina-health/files/mask-sewing-how-to.pdf), Allina Health
- Facemask: A picture tutorial (https://buttoncounter.com/2018/01/14/facemask-a-picture-tutorial/)
- Taiwanese Doctor Teaches How to DIY Cloth Face Mask (https://mustsharenews.com/cloth-face-mask/)
- DIY Cloth Face Mask (www.instructables.com/id/DIY-Cloth-Face-Mask/)

**Articles:**


Other Resources:


Minnesota Department of Health
PO Box 64975
St. Paul, MN 55164-0975
651-201-5414
www.health.state.mn.us

03/27/20

To obtain this information in a different format, call: 651-201-5414.
Effective Saturday, March 28th, all employees working in inpatient units, ambulatory clinic spaces, and procedural areas will be expected to wear procedural/surgical face masks, at all times, while in their respective clinical care settings. The exception to this would include those health care professional wearing N95 respirators while providing care for presumed COVID-19 (rule out) or known COVID-19 positive patients. We recognize this is a departure from standard infection prevention; however, we find ourselves in extraordinary times and given current circumstances, we believe this deviation from standard policy is warranted. This practice will be continually monitored and re-evaluated for extension with a tentative end date of April 17, 2020.

Additionally, we will require all employees to self-monitor for symptoms concerning COVID-19 infection at the beginning of every shift. If you feel you are displaying symptoms related to the virus, we ask that you notify your manager and contact Employee Health at 888-OUCH.

COVID-19 symptoms are defined below and may be mild. They include new onset of any one of the following:
1. Fever (≥100.0 F)
2. Cough
3. Shortness of Breath

**Process to Obtain and Discard Procedure/Surgical Mask**

A procedural face mask will be issued at the start of each shift, for those individuals working in one of the clinical care settings outlined above. Masks will be available at each entrance to the hospital, and will be used throughout the shift. In the event that the mask becomes visibly soiled, saturated or damaged, a new mask must be obtained. Stock will be securely stored in each clinical setting. Should you need a replacement mask, you must request one from supervisory personnel in the clinical area you are working. For personnel who do not enter via a main hospital entrance, an initial mask may be obtained upon first presence on a clinical area from nursing personnel.

We ask all personnel to make every effort to help preserve the supply of PPE and reduce the need for replacement masks whenever possible. Infection Prevention guidelines should be followed on the use and re-use of procedure/surgical masks. More information can be found at the end of this document.
At the end of shift, personnel will be asked to doff their face mask as they exit the building. Receptacles will be placed at each exit so that masks may be collected for potential decontamination and reuse should this become necessary. Please do not place visibly soiled, saturated, or torn procedure/surgical masks in these receptacles. Damaged procedure/surgical masks should be discarded in the trash.

Infection Prevention Guidance on Procedure/Surgical Mask Use and Re-Use

To Doff facemask with intent to reuse
1. **Perform hand hygiene**
2. Remove mask
   - Remove procedure mask by holding the ear loops. The front is contaminated, so remove slowly and carefully.
   - Remove surgical mask by untying lower ties FIRST. Untie upper ties last. The front is contaminated, so remove slowly and carefully. Ensure ties do not fall into clean interior side of mask.
3. After removing facemask, visually inspect for contamination, distortion in shape/form. If soiled, torn, or saturated the mask should be discarded.
4. If the facemask is NOT visibly soiled, torn, or saturated, carefully store on a paper towel exterior side down.
5. Perform hand hygiene.

To Re-Don Mask
1. **Perform hand hygiene**
2. Grasp mask
   - Pinch procedure mask at the ear loops or
   - Grasp upper ties on surgical mask
3. Place over face
   - For procedure mask: Secure ear loops behind the ears. Secure mask.
   - For surgical mask: Secure upper ties first, behind head. End by securing lower ties behind head.
4. **Perform hand hygiene**

A disposable facemask can be worn throughout your shift if not visibly soiled, torn or saturated, and NOT touched while delivering patient care.

Conservation of PPE

Nebraska Medicine is well-positioned and has an adequate, but not inexhaustible, stock of masks for staff utilization. In an effort to maintain the supply, conservation of
masks is essential. We have no way to predict how long this pandemic will affect us. In an effort to ensure masks continue to be available to healthcare workers, we must make all efforts to conserve our supply. In the event the supply of procedure/surgical masks prohibits this strategy, distribution of masks will be prioritized based on the highest risk clinical activities. Supply chain is working diligently to secure additional stocks of procedural masks.

Used procedural masks that are not visibly soiled, saturated, or torn will be collected as a potential safeguard for the future. Soiled, saturated, or torn masks should be disposed of as routine trash.

We are evaluating a plan to potentially reprocess procedural masks that will ensure safety, sanitation and sterilization. Reprocessed procedure/surgical masks will not be put into circulation until we have evaluated that plan. However, if it is needed, reprocessing will help ensure we maintain a healthy stock of PPE.

Rationale to Universal Mask Policy

Our knowledge regarding COVID-19 is rapidly expanding. This allows us the opportunity to update PPE policies to incorporate the best evidence about issues like mask and respirator reuse and viral transmission. Due to continually evolving evidence, we expect these policies will be further refined and revised.

Given what we have learned about COVID-19, this universal mask approach will serve to:

1. Protect our patients and other staff members should the healthcare worker have presymptomatic or asymptomatic COVID-19 infection or develop symptoms at work (a mask achieves source control and decreases the risk of spreading infection)

2. Protect our healthcare workers should they come in close contact with an individual with either presymptomatic or mild COVID-19 infection or who has symptoms that have not yet been recognized

To be successful, this new approach will require support from all of us across the enterprise and require the following:

- Strict adherence to extended use/reuse of masks
- Meticulous adherence to hand hygiene
- Proper mask use and hygiene including wearing the mask as directed to cover the mouth and nose
- Strict avoidance of manipulation/touching the mask to reduce the risk of contamination and self-inoculation
Frequently Asked Questions

Why are we recommending a procedure/surgical mask and not an N95 respirator?
Similar to influenza and other respiratory viruses, COVID-19 appears to be transmitted primarily through large respiratory droplets. Procedure masks help to provide protection against respiratory droplet spread. In addition, although not thought to be a major route of transmission, there are some data to indicate COVID-19 viral shedding in the presymptomatic stage. Wearing procedure masks in a more generalized manner may help to prevent spread from persons with presymptomatic shedding or persons with very mild disease. Finally, wearing a procedure mask very effectively contains respiratory secretions and may prevent an infected provider from spreading the virus to patients or coworkers. In contrast, N95 respirators provide a higher level of filtration and are important in clinical situations where infectious droplets could become aerosolized. This primarily occurs in specific clinical situations such as when a patient is intubated or undergoes bronchoscopy. N95 respirators are difficult to wear for long periods of time and are impractical for generalized use. Also, the supply of N95 respirators is smaller and our supply would not support universal use. We must reserve N95 use for patients with known or suspected COVID-19 and high risk situations.

Does the universal mask policy apply to every member of the workforce working anywhere in the Nebraska Medicine Enterprise?
The universal mask policy applies to employees working in areas where clinical care is provided. Personnel working in nonclinical offices or in nonclinical settings where persons are reliably separated by more than 6 feet, should not wear masks in order to conserve stock for patient care. However, when walking through common clinical areas where care is delivered, the mask policy applies. Stop at an entry point prior to entering the clinical area to obtain a mask for use. Personnel that work in nonclinical buildings (ECCP, Kiewit Tower) are excluded from this process. These employees should practice principles of social distancing, respiratory etiquette and frequent hand hygiene. If these workers visit areas where clinical care is provided, the mask policy applies as above.

I am involved with research and operate out of the research towers, does the universal mask policy apply to me?
No, not unless you visit any spaces where clinical care is provided. We would encourage you to avoid these locations.
Should visitors be wearing face masks?
Visitors will be limited on campus except for certain circumstances. (See visitor policy for detail). Visitors will not be instructed to wear face masks. If a visitor develops symptoms while on the premises, that person should be provided a face mask and asked to leave.

Should all patients be wearing face masks?
No. Patients with symptoms concerning for COVID-19, or other respiratory illness, will be provided a face mask and isolated per our existing policies. Once roomed, it is recommended that symptomatic patients continue to wear their face mask to mitigate exposure risk. This is an evolving situation and will be reevaluated as needed.

In procedural areas, can a single procedural mask be worn continuously, including across different cases?
Yes, a single mask can be worn across different cases and between cares of different patients. Masks must be changed if they become wet or contaminated during a case. The routine use of face shields will decrease the likelihood of this occurring and is encouraged.

I work in a clinical setting. How can I eat when I am supposed to wear a procedural mask?
Eating is not permitted in clinical areas. If you are working in a clinical setting, follow the removal and reuse instructions as is outlined in the Extended Use and Limited Reuse of Disposable Facemasks, Respirators and Protective Eyewear document.

I work in a clinical setting. How can I drink when I am supposed to wear a procedural mask?
Drinking is permitted in designated locations in clinical areas. If you need to drink, ensure you are 6 feet away from others, perform hand hygiene, remove the mask, drink, and then replace your procedure/surgical mask. Please follow the guidelines on appropriate doffing found at the end of this document.

Are staff allowed to take off their masks to eat while on hospital or clinic premises?
Staff can take off their masks to eat and drink when they are on premises in a location where they can maintain a distance of 6 feet. It is preferable to minimize going outside to prevent the need to discard masks and to help the hospital preserve mask supplies. Please follow guidelines on appropriate doffing found at the end of this document.

If I need to leave the facility and come back later in my shift, what should I do?
Every effort should be made to preserve supplies of face masks. You may remove your mask and store it for short periods of time as noted at the end of this document and then reuse the mask.

**Can I use my procedure/surgical mask between patients, including those with confirmed COVID-19, suspect COVID-19, other respiratory viruses or patients in whom none of these apply?**

Yes. Your procedure/surgical mask should be used according to the [Extended Use and Reuse guidelines](#), which ensures careful and deliberate handling of the mask to prevent both self-contamination and cross contamination. Under conditions of extended use or reuse, a face shield is preferentially worn over the procedure/surgical mask as the form of eye protection. However, direct care of patients with known or suspected COVID-19 requires use of N95 respirators or PAPRs.

**Should employees be wearing the mask at home and should their families wear masks?**

Employees should discard their masks when leaving the hospital. They should not wear them home. There is generally no reason for employees and their families to wear masks at home. Social distancing and taking precautions like washing your hands, using hand sanitizer, and cleaning surfaces frequently should be appropriate for home.

**Can staff gather in break rooms and other places to eat and relax, and if so should they leave their procedure/surgical masks on?**

Staff should adhere to the same principles of social distancing when together in break rooms, conference rooms or other spaces. They should allow 6 feet distance from others and should take the appropriate precautions involving hand hygiene and not touching their faces. Masks can be taken off in such areas for eating and drinking. To limit the number of people in a break room, staff should considering staggering their break times.
Visual Guidance
The following images are intended to provide clarification to avoid potential errors in the proper use and re-use of face masks.

Figure 1 – This image demonstrates approved wear of face mask. Facemask is shown secured over nose and mouth.

Figure 2 – This image shows the correct way to store mask when not in use. Notice the exterior of the mask is facing DOWN.
Figure 3 - This image shows the correct way to store a surgical mask when not in use. Notice the exterior of the mask is facing DOWN and ties are placed carefully away from the inside of the mask.

Figure 4 – This image demonstrates inappropriate wear of the procedure mask. Procedure mask should not be pulled under mouth.
Figure 5 – This image demonstrates inappropriate wear of the procedure mask. Procedure mask should not be pulled under chin.

Figure 6 - This image demonstrates inappropriate use of procedure mask. Procedure mask should not be kept on the elbow when not in use.

Figure 7 - This image demonstrates inappropriate wear of the surgical mask. Surgical mask should not hang from lower ties.
Figure 8 – This image demonstrates the wrong way to place mask when not in use. Notice the exterior of the mask if facing up. This is not correct.

Figure 9 – This image demonstrates the wrong way to store surgical mask when not in use. Notice the exterior of the mask if facing up and ties are touching the interior of the mask. This is not correct.