Introduction

Engaging in face-to-face learning while the virus causing COVID-19 remains in circulation, and while no vaccine is yet available, requires thoughtful considerations and careful and detailed planning. School nurses are critical health care personnel (HCP) in the community working on the front lines of the COVID-19 pandemic in schools. This guidance is directed at school nurses and unlicensed assistive personnel (UAP) who provide care for children in K-12 education systems and is based on what is currently known about the transmission and severity of COVID-19. This document supports the Missouri School Reopening Guidance created by the Missouri Departments of Health and Senior Services (DHSS) and Elementary and Secondary Education (DESE).

While schools are not identified as “health care settings,” school nurses and UAP work in schools to provide health care services. During the performance of those services, there is risk of infection due to contact with students and/or staff members. Because the health care work takes place in a school setting, rather than in a hospital or alternate medical setting, guidance regarding personal protective equipment (PPE) is often unclear.

School nurses should use this guidance to understand appropriate conditions for PPE.

These recommendations are based upon information from the Centers for Disease Control and Prevention (CDC) and DHSS.

This document does NOT substitute nursing judgment and acknowledges that courses of action may be modified on a case-by-case basis.

Use of PPE in School Settings

PPE is designed to protect the wearer and/or those nearby from the spread of illness-causing germs. When used properly, PPE acts as a barrier between infectious materials such as viral contaminants and the wearer’s skin, mouth, nose or eyes (mucous membranes). The barrier has the potential to block transmission of contaminants from blood, bodily fluids, or respiratory secretions.

There are different types of PPE for different situations. PPE is not always required, and it should be used with discretion. It is important to thoughtfully utilize available resources when necessary for protection. PPE should not be used with children who are healthy. This guidance details when different types of PPE (surgical masks, reusable face shields, disposable gowns and gloves) should be used.

In a school setting, PPE should primarily be used by nurses and delegated staff. It is expected that symptomatic students will be released to go home as quickly as possible. This guidance addresses care that must be provided while awaiting transportation when it is necessary to be in close contact (within six feet) for an extended amount of time (15 minutes or longer) as well as respiratory treatments and/or procedures. During this COVID-19 pandemic, asthma treatments using inhalers with spacers (with or without face mask) are preferred over nebulizer treatments whenever possible.
**Medical or Surgical Masks**

Surgical masks are regulated under 21 CFR 878.4040. Surgical masks are not to be shared and may be labeled as surgical, isolation, dental, or medical procedure masks. They may come with or without a face shield. These are often referred to as face masks, although not all face masks are regulated as surgical masks. Surgical masks are made in different thicknesses and with different ability to protect you from contact with liquids.

School nurses and delegated staff should use surgical masks when they are:

- Providing health care procedures or physical assistance for a symptomatic person.
- Providing respiratory-related health care procedures that carry the risk of aerosolization (nebulizer treatments, respiratory suctioning, etc.).
- Monitoring or supervising the room designated for students who either screen positive for COVID-19 symptoms at the school entrance or develop COVID-19 symptoms during the day and are waiting for transportation to go home.
- Caring for COVID-19 symptomatic students when they cannot maintain the recommended distance of six feet.

**Reusable Face Shields**

A face shield provides eye protection and increases protection provided by surgical masks when needed. Face shields are reusable. Reusable face shields should be cleaned after each use following the manufacturer recommended process and products. If manufacturer guidelines are unavailable, follow CDC guidance for cleaning. With proper maintenance, staff may use a face shield for an extended period until damaged, it no longer fastens securely, or until visibility is obscured.

School nurses and delegated staff should use face shields when they are:

- Monitoring or assisting a symptomatic person who is producing heavy respiratory secretions through coughing.
- Providing an ordered respiratory procedure (such as a nebulizer treatment).

**Disposable Gowns**

School nurses or delegated staff should use disposable gowns when they are interacting with a person who is producing respiratory or other body fluids to a degree that is likely to get on the clothing of the caregiver. Gowns are rarely needed and should be single-use items due to soiling.

**Gloves- for Infection Control**

Many activities can be done hygienically with good hand washing and do not require gloves:

- Wearing gloves is not a substitute for cleaning your hands.
- Adherence to hand hygiene protocols will limit the number of gloves staff use.
- Staff wearing gloves should receive a training/refresher on proper removal to prevent contamination and need for hand hygiene after removal of gloves.

**Special Circumstance - Respiratory Treatments**

The School Health Program has estimated that approximately 1% of the school population typically has medical orders for respiratory procedures (nebulizer treatments, inhalers for asthma, respiratory suctioning, etc.) which have potential to aerosolize infectious particles if that child were to have novel coronavirus. During such respiratory procedures, school nurses and delegated staff should wear surgical masks and face shields to protect themselves in accordance with CDC recommendations.
Recommended PPE by Task Classification

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<th>PPE Types</th>
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<td>School personnel and students must interact, and physical distancing cannot always be maintained.</td>
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<td>Tasks include physical assessment of any individual suspected of having COVID-19 or during aerosol-generating procedures.</td>
<td>PPE should be used as a “last resort” when administrative or engineering controls are not able to eliminate the hazard. PPE is only effective if worn properly. Training on the types of PPE, how to properly put on/take off, the limitations and care instructions must be provided to employees who wear PPE.</td>
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| Cloth Face Covering | X | | | Provides source control, i.e. control that prevents transmission of potentially infectious respiratory droplets. These are not PPE. |
| Gloves | X – Situation dependent | X – Situation dependent | | Wearing gloves is not a substitute for hand washing with soap and running water. Washing hands between patients/students will prevent cross contamination. |
| Face Shield | X – Situation dependent | | X | Provides source control and protection from fluid entry into the nose and mouth. As soon as possible and as tolerated, sick individuals should wear a surgical mask until they are picked up from school or leave to go to a health care facility. |
| Surgical Facemask | | X | X | Best practices prior to the COVID-19 pandemic was for health care workers to use N95 or greater protection respirators when in contact with patients who may spread infectious diseases via airborne secretions. If respirator is determined not essential, or is unavailable due to shortage, wear facemask and face shield. |
| Respirator (N95) | | | X | |
| Gowns/Coveralls | | | X | Depending on product, may be resistant or impermeable to fluids. Needs to be changed between care for presumptive cases to prevent cross contamination. |

Moderate Risk

Tasks include those that require close contact with (i.e., within six feet of) people who are not known or suspected to have COVID-19. These precautions are recommended since some people with the disease may be asymptomatic or in the pre-symptomatic phase of illness at the time of contact. Although there is risk with these tasks, not all PPE listed may be needed for all situations. These tasks include, but are not limited to first aid, oral medication administration, vision screening, hearing screening, consultation, blood glucose checks (diabetes care), and metered-dose inhalers (MDIs) for students/staff with asthma.
School Setting Notes

To use N-95s schools must have a fit test program in place. If this is not in place or there is a shortage, a surgical facemask together with a face shield should be used. Some schools may have access to N95 respirators that have been declassified and not suitable for highest risk tasks without a full-face shield.

High Risk

Tasks that require close contact with (i.e. within six feet of) people who are not known or suspected COVID-19 patients but are undergoing procedures with potential for aerosol generation or body fluid contact, such as open suctioning of airways. It would be advisable to do this assessment and any other airway procedures in a well-ventilated room isolated from others. Due to limited availability of data, it is uncertain whether aerosols generated by nebulizer treatments are potentially infectious. Families should contact a primary care provider for education on use of MDI prior to school. During this COVID-19 pandemic, nebulizer treatments at school should be reserved for students who cannot use or do not have access to an inhaler (with or without spacer or facemask). Since some people can be asymptomatic with COVID-19, reasonable attempts should be made to reduce possible aerosol and respiratory droplet induction during care or treatment. Proper ventilation and cleaning of the room must be completed before using again.

How Schools Can Purchase PPE Items

Each school district is responsible for acquiring the PPE items needed to safely and responsibly re-open their school buildings consistent with the recommendations outlined in this guidance.

As Missouri continues its Show Me Strong Recovery Plan, access to PPE continues to be recognized as a critical need. The State of Missouri has been actively engaged in outreach to medical equipment manufacturers and distributors in an effort to expand public and private supply chains, utilizing Missouri businesses in that effort. The creation of the Missouri PPE Marketplace is one result of that effort.

In the event school districts are unable to secure PPE from their normal vendor, the Missouri PPE Marketplace can match those districts to PPE suppliers. To participate, districts must register as a buyer. Complete information is available on the Missouri PPE Marketplace page.

Several Missouri businesses have re-tooled to provide made-in-Missouri PPE. For an up-to-date list of these businesses email Michelle.Hataway@ded.mo.gov or Ann.Pardalos@ded.mo.gov. School districts can contact these vendors directly.

Federal funding has been made available to state and local governments for COVID-19 related expenses, as provided for by the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Purchase of PPE for school districts is an allowable expenditure under the funding guidelines. School districts should work with their local county commissioners to request this funding.

Should all these procurement options fail, school districts can make a request to the Missouri Department of Health and Senior Services for assistance in filling a critical need for PPE for district nursing personnel only. Missouri has limited PPE reserves and will prioritize health care providers providing direct care to confirmed or suspected COVID patients. A request should only be submitted after all options have been exhausted and you have a supply of fourteen days or less on hand. Complete information can be found on the Personal Protective Equipment (PPE) page of the Missouri Department of Health and Senior Services website.
Resources

**PPE Optimization Strategies**

- CDC Guidance for Laundering Reusable Gowns
- CDC Guidance for Optimizing PPE
- CDC Guidance for Using PPE

- FDA Emergency Use Authorization for Respiratory Protection
- Use of Respirators and Surgical Masks for Protection Against Health Care Hazards
- CDC Printable Resources including printable posters on a variety of COVID-19 related topics and safety tips
- CDC Considerations for Schools
- PPE Burn Rate Calculator
- Certified Equipment List
- Protective Clothing and Ensembles
- Emergency Use Authorizations for PPE