Clinical Procedures in Schools

Special considerations for close-contact care and aerosol-generating procedures (AGPs) while COVID-19 is circulating in the community

This guidance is intended for school staff, particularly school nurses, who support students with complex needs. It provides considerations and recommendations for (1) specialized clinical procedures and supportive care; (2) procedures and care that may require close contact; and (3) aerosol-generating procedures (AGPs) including oral/nasal/pharyngeal/tracheostomy suctioning and tracheostomy care, and nebulizers. The recommended practices may reduce the spread of all respiratory illnesses, not only COVID-19.

Students with complex needs include students with underlying conditions that may be regarded as chronically ill, medically complex, medically fragile, or nursing dependent. Students with complex needs are likely to require support from a licensed registered nurse (RN). These recommendations apply even if the school or district does not have access to a school nurse.

1. Specialized clinical procedures and supportive care

Specialized clinical procedures are those necessary for the management of student health conditions so that students may attend school safely, which must either be performed by the RN or assigned or delegated to staff who are supervised or trained by the RN. Examples include management of medical devices (e.g., ostomies, catheters, feeding tubes, and tracheostomies) and complex conditions (e.g., diabetes, seizure disorders, and adrenal insufficiency).

Specialized therapies and related services that enable students to access their education also warrant additional consideration. Examples include services provided or overseen by physical therapists, occupational therapists, speech therapists, mental health specialists, and other licensed providers in the school setting.

Non-specialized care and support services also require additional consideration. Examples of non-specialized care include mobility support and hygiene support.

Recommended practices for specialized clinical procedures and supportive care

All practices listed are strongly recommended. Practices may be legally required in some settings or situations. See section 4 for examples of applicable laws and regulations.

1. **Coordinate care and emphasize collaboration** between school nurse, school health staff, students, families, and outside providers.

- Students should consult with their medical providers regarding risks and benefits of receiving care at school while COVID-19 or other communicable respiratory diseases (e.g., influenza) are circulating.
- Prior to providing medical treatments, obtain and verify provider's orders for medical procedures and ensure updates to individual health care plans.
- To avoid unnecessary exclusion of students due to symptoms of a chronic condition, ensure student medical conditions are assessed and managed by a licensed medical provider. All students with asthma should have updated orders, medication, and asthma action plans per state law and district policies.

2. **Keep well-care separate from sick care**. Ensure the health room or procedure space is separate from isolation spaces used for persons with symptoms of illness.
3. **Apply layered mitigation measures.** Consistently use multiple prevention strategies together. Follow Key Practices outlined in ODE/OHA RSSL Resiliency Framework, not limited to those required by state law or executive orders (e.g., face coverings, vaccination).
4. **Emphasize routine infection control measures** for all students and staff in school.
   - Reinforce education with students, staff, and families to stay out of school if they have symptoms of illness. Uphold school responsibilities related to routine immunization and COVID-19 vaccines. See OHA/ODE Communicable Disease Guidance for Schools, C. PREVENTION, D. EXCLUSIONS, and Appendix II.
   - Perform hand hygiene before and after each procedure or medical treatment.
5. **Adhere to state and federal education laws**. *See section 4 for examples.*
   - Uphold legal requirements for schools to provide services. Seek ways for students to access their education in the least restrictive environment. Follow individual student plans, including IEP, 504, Health Management, Behavior Support, or other student plans.
6. **Adhere to legal scope and standards of practice** for RNs and other licensed providers.
   - Uphold professional practice standards. Consult the school nurse and other health professionals familiar with the school setting to establish standard practices for school health care provision.
   - Nurses and other providers should complete any required training, certification, and preparation to meet qualifications to deliver clinical procedures within their scope of practice and per licensed delegation process.
7. **CPR certification** is required for certain staff at all schools and should be encouraged among staff providing care for students with complex health needs.
8. **Adhere to trauma-informed care principles**. Consider additional trainings for staff providing care for students with complex health needs.

2. Specialized clinical procedures and care which may require close contact

Some specialized clinical procedures and supportive care may need a thoughtful mitigation response when COVID-19 or other communicable respiratory diseases (e.g., influenza) are circulating. This includes procedures which require frequent or prolonged close contact.

Examples of procedures and care in school settings that may require close contact:

- Cardiac care such as pacemaker interrogation and Holter monitors
- Catheter care
- Diabetic care
- Emergency injections (glucagon, epinephrine, corticosteroids for adrenal crisis, naloxone)
- Cardiopulmonary Resuscitation - CPR
- Gastrostomy tube feedings
- Mobility support
- Protective physical intervention
- Ostomy care
- Seizure care such as vagus nerve stimulation, emergency medications
- Support with personal care needs (not limited to toileting or changing briefs)
- Vision screening, dental screening, and hearing screening

Note: See section 3 for additional considerations for aerosol generating procedures (AGP).

Recommended practices for close-contact procedures and care

All practices listed are strongly recommended. Practices may be legally required in some settings or situations. See section 4 for examples of applicable laws and regulations.

1. **Follow section 1 guidance** to the fullest extent possible.
2. **Reinforce other layered mitigation measures** when any key measure cannot be maintained. Example reinforced measures if physical distance cannot be maintained:
   - **Airflow and ventilation**. Maximize airflow where care is provided. May include designating space with exterior window or door; additional vent fans; HEPA filters.
   - **Cohorts**. Establish cohorts (stable groups that remain together over time with minimal mixing across groups) and keep cohorts as small as feasible to reduce exposures.
   - **Environmental cleaning & disinfection**. Establish process to clean and disinfect daily using EPA-registered products. May include more frequent cleaning, sanitizing, or disinfection for the care space, high-touch surfaces, or shared items, such as cleaning between use by separate individuals. If procedure includes bodily fluid exposure risk, clean and disinfect surfaces as soon as possible.
   - **Hand hygiene**. Establish care space with a sink if possible; ensure access to soap and water or appropriate hand sanitizer. Reinforce frequent hand hygiene with education and support for staff and students, appropriate to developmental level. See page 6 of OHA/ODE Communicable Disease Guidance for Schools.
   - **Personal protective equipment (PPE)**. Ensure school-provided access to PPE appropriate for anticipated care. Ensure staff are trained to use PPE appropriately. May include masks that meet a standard (medical/surgical mask or fitted N95 respirator) for respiratory droplet or airborne risk; face shield or goggles for splash risk; gloves or isolation gown for contact-mediated transmission risk.

- **Isolation**. Strongly emphasize importance of isolation for illness, and keep well care (health room, treatment room, classrooms) separate from sick care (isolation rooms). Strongly emphasize importance of mitigation measures, such as COVID-19 vaccination and COVID-19 testing.
- **Vaccination**. For those required or eligible to receive vaccination, reinforce education and support; provide accessible information about COVID-19 vaccine and routine immunization. For those who cannot be vaccinated, further emphasize measures to reduce risk of contracting or spreading disease, such as optional screening testing for students and staff per OHA COVID-19 Testing for K-12 Schools.

3. Aerosol-generating procedures (AGPs)

AGPs require special considerations in congregate settings such as schools while airborne diseases such as COVID-19 are spreading in the community. COVID-19 is transmitted primarily through infectious respiratory droplets, including both larger respiratory droplets and smaller aerosolized particles. Larger droplets settle out of the air rapidly, within seconds or minutes, and typically do not spread to persons more than 6 feet away from the infected individual. However, smaller fine droplets and aerosol particles can remain suspended in the air for minutes to hours.

Aerosol-generating procedures (AGPs) are likely to generate infectious respiratory aerosols in larger quantities than typical talking or breathing. AGPs include suctioning or direct care of oral/nasal/pharyngeal areas and may include nebulizer treatments and other activities that lead to coughing, sneezing, and forceful breathing.

Because aerosols can persist in the air for minutes to hours, the risk of exposure to the virus from aerosolization is not limited to close contacts, such as the staff performing procedures. Instead, risk extends to those who may share the space during or after procedures, especially if ventilation is insufficient in the space where the procedure was performed. Common mitigation measures of physical distancing, wearing face coverings, hand hygiene, and environmental cleaning are most effective at reducing the spread of larger droplets. However, such measures may not be as effective at reducing the spread of aerosolized particles.

It is important to note that in almost all situations where students require complex care, the benefits of the device or procedure outweigh the risk of stopping it. Students who use nebulizers, have tracheostomy tubes, are on mechanical ventilators, or are suctioned are not at higher risk of contracting COVID-19 merely by using such devices. Instead, these devices may lend to the increased spread of infection due to the increased generation of aerosolized particles. Recommended measures can reduce risk to care providers and school community, while maintaining critical medical support for students with complex needs.

Examples of procedures and care that may be considered AGPs or that create uncontrolled respiratory secretions:

- airway suctioning (using an open system)
- sputum induction
- non-invasive ventilation (e.g., BiPAP, CPAP)
- cardiopulmonary resuscitation (CPR) and manual ventilation
- nebulizer administration
- high flow oxygen delivery
- dental sealant application (see guidance for Oregon School-Based Oral Health Programs)

Note: Nebulizers and high-flow oxygen delivery have been associated with increased risk of infection among care providers; source of risk may be the procedure or associated coughing. Oregon schools should treat nebulizers and high-flow oxygen as AGPs until further notice. (sources: Heinzerling et al., 2020; Goldstein et al., 2021; Khai et al., 2012; Klompas et al. 2020; Shen et al., 2021; Strand-Amundsen et al., 2021; Swarnakar et al. 2021)

Recommended practices for aerosol generating procedures (AGPs)

All practices listed are strongly recommended. Practices may be legally required in some settings or situations. See section 4 for examples of applicable laws and regulations.

1. **Follow section 1 and 2 guidance** to the fullest extent possible.
2. **Isolate and exclude for illness** with additional considerations when AGPs are anticipated.
   - Consider options in collaboration with families and medical providers. Students with complex health needs should not be excluded based on disability.
   - Consider routine symptom screening options appropriate for age and developmental ability. May include parent participation. May require implicit bias training for staff participating in visual screening.
   - Consider routine COVID-19 screening test options, particularly for those who are unable to be vaccinated, may have symptoms of concern as part of complex health needs, may lack ability to express symptoms of illness, or are unable to follow other mitigation measures. See OHA COVID-19 Testing for K-12 Schools.
3. **Establish treatment space** that considers risks associated with AGPs.
   - Establish a designated treatment room with maximized ventilation that is neither the sick-care isolation space nor the well-care health room. AGPs should be performed for one individual at a time, in a separate room located in a low-traffic setting within the school building.
   - Following AGP, the treatment space should remain well-ventilated but closed to other procedures for as long as possible (2 hours or more preferred).
   - *NOTE: If AGP must be conducted in shared space, such as for emergent trach suctioning, ensure layered mitigation measures are in place to the greatest extent possible. This may include maximizing ventilation and air filtration, use of facial*

coverings, smaller cohorts, testing options, vaccination options, and other measures specific to the setting.

4. **Establish cleaning and sanitation processes** that considers risks associated with AGPs.
   - Clean treatment space immediately and again after adequate time has passed to allow aerosols to disperse or settle (2 hours or more preferred). Provide appropriate PPE for persons performing cleaning. *See NOTE above if AGP must be conducted in shared space.*
5. **Provide personal protective equipment (PPE)** per guidance for health procedures and OR-OSHA regulations.
   - Avoid performing AGPs where individuals without adequate PPE could potentially inhale particles. *See NOTE above if AGP must be conducted in shared space.*
   - Schools should ensure staff have access to recommended PPE. Staff providing AGPs, or present while AGPs are provided, should wear a fit-tested N95 respirator as part of a respiratory protection program and eye protection (face shield or goggles) at a minimum. If feasible, gown and gloves should be worn as well; CDC recommends full PPE to minimize exposure risks. Staff should receive training regarding appropriate use of PPE. PPE should be doffed and discarded after a procedure and should not be reused. Reusable eye protection should be disinfected prior to reuse. See OHA/ODE Communicable Disease Guidance for Schools.
6. **Assess for risk factors present in staff** providing AGPs. Consider alternative assignments if assessment indicates unacceptable risk to student or staff.

3a. Nebulizers

Nebulizer use is strongly discouraged in the school setting while COVID-19 is circulating when medically appropriate alternatives (e.g., metered-dose inhalers) are available.

Special considerations for nebulizers

1. **If alternative treatment is medically appropriate, use alternative treatment**. In collaboration with parents or guardians, the school nurse should consult the student's healthcare provider to switch to a metered-dose inhaler (MDI) with or without a space chamber, a dry powder inhaler (DPI), or a hydrofluoroalkane (HFA).
2. **If no medically appropriate alternative exists, establish AGP protocols for nebulizer use**. The school nurse or other qualified school staff should establish AGP treatment areas and protocols aligned with guidance throughout this document.

3b. Tracheostomy care and suctioning (Trach/Oral/Nasal/Pharyngeal)

When care and suctioning of the respiratory tract is required, there may not be medically appropriate alternatives. Protocols that reduce the spread of aerosols and decrease the student's need for frequent suctioning may reduce associated disease transmission risks.

Special considerations for tracheostomy care and suctioning

In collaboration with parents/guardians, the school nurse or appropriate health staff should consider the following items. *Asterisks indicate actions by school leadership.

1. **Underlying conditions** that cause the student to require a tracheostomy, ventilator, oxygen, or other respiratory equipment may place that student in a high-risk group. Note that poor secretion management or having a tracheostomy alone does not predispose a student to having complications associated with COVID-19.
    - Consult the student's healthcare provider about individual health risks related to care provided in the school setting.
2. **Skilled care** may reduce the need for suctioning in some cases, such as positioning and feeding techniques that reduce oral secretions collecting in respiratory passages.
    - Consult the student's healthcare provider about skilled care techniques appropriate for the student. Suctioning should still be provided as needed.
    - **Support school nurses and other care providers to access continuing education and skill practice to ensure care is provided using current best practices.*
3. **Suctioning technique** can cause irritation of mucous membranes, leading to increased production of secretions, which in turn increases need for suctioning.
    - **Support school nurses and other care providers to access continuing education and skill practice to ensure suctioning is performed with as little irritation as possible.*
4. **Humidified air** treatment options may reduce the need for additional suctioning by helping to keep secretions thin. This may be an option for students using oxygen, or students with ventilators compatible with a humidifier system such as a Heat Moisture Exchanger (HME). HMEs may also help to prevent small particles from entering a trach tube, further reducing risk of irritation.
    - Consult the student's healthcare provider about appropriate use of humidified oxygen, HME, or other options to thin respiratory secretions and reduce the need for suctioning.
5. **Options that thin or reduce secretions** (in addition to humidified air) may reduce the need for additional suctioning. Options may include medications, hydration, or dietary modifications.
    - Consult the student's healthcare provider about methods to thin secretions and reduce the need for suctioning.
6. **Closed suctioning systems** keep most aerosols contained and are generally not considered AGPs. Closed suctioning systems, such as sterile Ballard suction catheters, may be an option for individuals on mechanical ventilation. The risk of infection to the individual being suctioned is not significantly impacted by the use of a closed system versus an open suctioning system. However, risk of spreading infectious particles to the provider and community is lower if a non-AGP option is used.
    - Consult the student's healthcare provider about the type of suctioning system in place, and whether a closed system is an option appropriate for the student.
    - If an open suctioning system is used, or if a closed suctioning system is opened for any reason, refer to above AGP guidance. Providing care legally and ethically**.**

Schools have legal and ethical responsibilities to provide support such that students with complex needs may access their education. Schools must also consider how to mitigate additional risks for all students and staff during times of elevated disease transmission within the community.

Consider applicable laws and regulations and consult legal counsel as needed regarding specific settings or situations.

Examples of applicable laws and regulations may include:

1. Federal laws
    - Individuals with Disabilities Education Act [IDEA 2004-PL 108-446]
    - Section 504 of the Rehabilitation Act of 1973 (Section 504)
    - Title II of the Americans with Disabilities Act of 1990 (ADA)
    - ADA Amendments Act of 2008 (ADAAA)
    - Every Student Succeeds Act (ESSA)
2. Oregon education laws
    - Special education [OAR 581 division 15]
    - Requirements for the least restrictive environment [OAR 881-015-2240]
    - Health Services [OAR 581-022-2220]
    - Medication Administration [OAR 581-021-0037]
    - Self-administration of medication, asthma and severe allergy [ORS 339.866]
    - Nursing services provided by district [ORS 336.201]
3. Oregon public health laws
    - Immunization of school children [ORS 433.267-273]
    - Disease related school …restrictions [OAR 333, division 19]
4. Oregon Nurse Practice Act laws
    - Scope and standards (RN, LPN) [OAR 851, division 45]
    - Standards for community based care RN delegation process [OAR 851, division 47]
5. OR-OSHA regulations, OR-OSHA COVID-19 updates
6. Oregon School Board Association policy guidance, district policies