Vaccine Preventable Illnesses in the Office Setting

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Learning Objectives

At the conclusion of this presentation, learners will be able to:

▪ Identify infection prevention procedures needed for vaccine preventable illnesses

▪ Understand the importance of testing for vaccine preventable illnesses

▪ Explain how to report a vaccine preventable illness to the public health department
Decline in Routine Vaccinations

- SC Vaccination Rates School Children
  - 2014-2015 98.1%
  - 2021-2022 95.7%

- SC Varicella Outbreaks 2022
  - Upstate & Low Country

- Ohio Measles Outbreak 2023
  - 85 locally confirmed cases
  - 42% hospitalized

Source: CDC/PHIL

https://www.cdc.gov/mmwr/volumes/72/wr/mm7231a3.htm#F1_down
VPIs in the Office

- Transmission of VPI
- Personal protective equipment
- Staff vaccination status
- Air exchanges in the office
# Transmission/PPE

<table>
<thead>
<tr>
<th>Transmission</th>
<th>PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mumps</td>
<td>Droplet</td>
</tr>
<tr>
<td>Measles</td>
<td>Airborne</td>
</tr>
<tr>
<td>Varicella</td>
<td>Airborne/Contact</td>
</tr>
<tr>
<td>Pertussis</td>
<td>Droplet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mask/eye protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N95/eye protection</td>
</tr>
<tr>
<td></td>
<td>N95/gown/gloves/eye protection</td>
</tr>
<tr>
<td></td>
<td>Mask/eye protection</td>
</tr>
</tbody>
</table>

**AAP Redbook**
1. Mask patient for source control (if patient is safely able to mask)

2. Promptly place patient in airborne infection isolation room (AIIR)
   - If no AIIR, place masked patient in private room with the door closed
   - OR evaluate patient outside

3. Restrict susceptible healthcare personnel
   - From entering the room of patients known or suspected to have airborne disease (e.g., measles, chickenpox, disseminated zoster, or smallpox) if other immune healthcare personnel are available.

4. Don fit-tested NIOSH-approved N95 or higher-level respirator
   - Prior to room entry

5. Limit transport and movement of patients
   - Medically-necessary purposes only
   - If transport is necessary, instruct patient to wear a surgical mask, if possible, and follow respiratory hygiene/cough etiquette

6. Immunize susceptible persons
   - As soon as possible following unprotected contact with vaccine-preventable infections (e.g., measles, varicella or smallpox)

Adapted from [https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html](https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html)
1. Mask patient for source control (if patient is safely able to mask)

2. Promptly place patient in an exam room or cubicle
   • Instruct patient on respiratory hygiene/cough etiquette recommendations

3. Don mask upon entry into the patient room or patient space

4. Limit transport and movement of patients
   • Medically-necessary purposes only
   • If transport is necessary, instruct patient to wear a mask and follow respiratory hygiene/cough etiquette.

5. Clean and disinfect surfaces and equipment prior to reuse

Adapted from https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html
Staff Vaccination Status

If possible...

- Restrict unvaccinated staff from interacting with VPI patients
- Immunize anyone who is unprotected and exposed to a VPI
- If staff are unable to receive vaccine, ensure they have follow-up with a healthcare provider for other forms of post-exposure prophylaxis
Air Exchange in the Office

- Used to determine how long a room should remain unoccupied after an infectious patient has been in a room
- Close at least 2 hours after measles/airborne illnesses
- Try to schedule patients at the end of the day if possible

https://www.cdc.gov/infectioncontrol/guidelines/measles/index.html
## Diagnosing VPIs

<table>
<thead>
<tr>
<th>Disease</th>
<th>Confirmatory Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mumps</td>
<td>Buccal PCR</td>
</tr>
<tr>
<td>Measles</td>
<td>Nasopharyngeal/throat PCR</td>
</tr>
<tr>
<td>Varicella</td>
<td>Lesion PCR</td>
</tr>
<tr>
<td>Pertussis</td>
<td>Nasopharyngeal PCR</td>
</tr>
</tbody>
</table>

https://www.cdc.gov/vaccines/pubs/surv-manual/chpt22-lab-support.html#lab-test
Where can I get a Viral Transport Media Swab?

- Free from the lab you already use
- Establish a relationship with a "PCR Lab"
- Call your local public health department
## Isolation/Exclusion

- Exclusion of the patient
- Exclusion of the contacts who are not vaccinated

### Isolation

<table>
<thead>
<tr>
<th>Disease</th>
<th>Isolation</th>
<th>Unvaccinated Contact Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mumps</td>
<td>5 days after onset parotitis</td>
<td>25 days after onset of parotitis in last person dx</td>
</tr>
<tr>
<td>Measles</td>
<td>4 days after the rash onset</td>
<td>21 days after the last case of measles</td>
</tr>
<tr>
<td>Varicella</td>
<td>Until the rash has crusted over</td>
<td>21 days after the last case of varicella</td>
</tr>
<tr>
<td>Pertussis</td>
<td>5 days after antibiotics</td>
<td>*Symptomatic: 5 days after antibiotics or 21 days after the last case</td>
</tr>
</tbody>
</table>

*Discussions with the Public Health Department will determine these dates*
Reporting VPIs

- SC List of Reportable Conditions
- Disease Reporting by Laboratories, Health Care Providers, Hospitals, Clinics, Other Health Care Facilities

- Diseases do not have to be confirmed to be reported - actions to prevent further spread of disease may be necessary while confirmatory tests are pending.

# How to Report

## How to Report Other Conditions

Report Immediate conditions by phone and Urgent conditions within 24 hours by phone or by electronic notification. Report all other conditions electronically or by mail within 3 days to the appropriate public health office in the region in which the patient resides. *Email SCIONHelp@dhec.sc.gov for details on electronic notification. The SCIONHelp email may not be used for case reporting.

### Immediate and Urgent Reporting (TELEPHONE)

<table>
<thead>
<tr>
<th>Lowcountry</th>
<th>Midlands</th>
<th>Pee Dee</th>
<th>Upstate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3685 Rivers Avenue, Suite 201 North Charleston, SC 29405</td>
<td>2000 Hampton Street Columbia, SC 29204</td>
<td>1931 Industrial Park Road Conway, SC 29526</td>
<td>352 Halton Road Greenville, SC 29607</td>
</tr>
<tr>
<td>Office: (843) 441-1091 Fax: (843) 953-0051 Nights/Weekends: (843) 441-1091</td>
<td>Office: (888) 801-1046 Fax: (803) 251-3170 Nights/Weekends: (888) 801-1046</td>
<td>Office: (843) 915-8886 Fax: (843) 915-6506 Nights/Weekends: (843) 409-0695</td>
<td>Office: (864) 372-3133 Fax: (864) 282-4373 Nights/Weekends: (864) 423-6648</td>
</tr>
</tbody>
</table>
Summary

- Wear the appropriate PPE based on transmission

- Send the appropriate test to diagnose a VPI
  - Call DHEC if needed

- Report per the LORC to DHEC
Resources for Reporting & Exclusion

- SC LORC: https://scdhec.gov/health-professionals/south-carolina-list-reportable-conditions
- SC HAN: https://scdhec.gov/health-professionals/south-carolina-health-alert-network-han
Q & A

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THANK YOU!