Interim Visitor Restriction Guidelines for Portland Area Pediatric Facilities with High-Risk Pediatric Patients During a Measles Outbreak Version February 6, 2019

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Rationale for this Guidance

- Clark County, WA is experiencing an ongoing measles outbreak, with the first confirmed case identified on January 1, 2019. To date (2/6/2019), public health has identified over 50 confirmed cases with additional suspect cases. This outbreak has led to secondary cases in Hawaii, Georgia, and Oregon. Locations of potential exposure in Oregon include Multnomah and Deschutes Counties.[1]
- The majority of confirmed measles cases in this current outbreak are young children who are unimmunized against measles.[1]
- Measles is a highly contagious disease; it can remain airborne for >1 hour, and can lead to ongoing spread to susceptible persons and outbreaks within healthcare facilities.[2]
- Approximately 7% of Oregon kindergarten-aged children have not completed the 2-dose MMR series.[3]
- Several Portland-area schools have extremely high percentages of students with no MMR vaccination on record (some schools as high as 40% opt-out of 2 MMR).[4]
- Specific patient populations are known to be at high risk for severe measles disease. These includes infants and immune compromised children.[5]
    - A 2015 measles outbreak in a Chinese pediatric oncology clinic led to 23 cases, including pneumonia (12 children), respiratory failure (5 children), and liver failure (1 child). Over 68% of these children had received 2 or 3 MMR vaccines in the past. Five children died (21.7%), and all 5 of these fatal cases had been vaccinated against measles.[6]
    - Infants do not have a robust immune response to measles vaccine; thus, MMR vaccine is not reliably protective in children <12 months of age.[7]

Guideline Goals

In the setting of a measles outbreak, our goals are below:

1. To prevent entry to a hospital or clinic by a person who is contagious with measles
2. To decrease our susceptible patients' risk of exposure to measles
3. To decrease our susceptible hospital visitors' and employees' risk of exposure to measles
4. To provide guidance that balances goals #1-3 with the ability for hospital staff to operationalize, without compromising the day-to-day hospital operations.

Recommendations

Recommendations are summarized in Table 1, and may be modified if epidemiologic information changes. Guidance should be based on current knowledge of measles cases and risk of exposure in local area (e.g. Multnomah-Washington-Clackamas counties) and beyond. When secondary cases are identified who are not closely related (household or classroom) to the initial case(s), the general risk of exposure increases. **The ultimate decision to move to a higher or lower level of management should be based on each facility infection prevention team's risk assessment.** Risk assessments should be performed routinely (e.g., once weekly, or more frequently if measles cases and exposures continue to be identified by public health).

Table 1: Recommendations for Visitor Restrictions

Risk Level	Definition	Inpatient Management	Ambulatory Management	Comments
Level I	No cases of lab-confirmed measles in local area.	Follow usual infection prevention operations.	Follow usual infection prevention operations.	During a measles outbreak, Level I operations resume when Oregon Health Authority (OHA) declares outbreak is over.
Level II	One (1) case or small cluster of lab-confirmed measles in local area; minimal exposure risk (e.g. unvaccinated household contacts of the confirmed case, all are being closely monitored by PH).	Screen visitors to high-risk units for symptoms (cough/fever/rash/conjunctivitis) prior to high-risk unit* entry. Ill visitors should be masked immediately and asked to leave unit.	For high-risk clinics#, screen patients and visitors upon clinic check-in for symptoms (cough/fever/rash/conjunctivitis). Ill persons should be masked immediately and placed in an exam room with door closed. If measles is high on differential diagnosis, contact facility infection control dept and local PH.	If facility has resources to verify immunity of visitors (e.g. vaccine records), consider restricting entry of any non-immune visitors to high-risk units* and/or clinics#.
Level III	More than one case or cluster of lab-confirmed measles in local area; minimal-moderate number of exposed individuals (e.g. unvaccinated household and classroom contacts) closely monitored by PH.	Consider restricting all visitors <12 yrs of age (and those ≥12 yrs known to be non-immune to measles) from entry to high-risk units*. Screen visitors to high-risk units for symptoms (cough/fever/rash/conjunctivitis) prior to high-risk unit* entry. Ill visitors should be masked immediately and asked to leave unit.	Consider restricting all visitors <12 yrs of age from high-risk clinic# entry. For all clinics, screen patients and visitors upon clinic check-in for symptoms (cough/fever/rash/conjunctivitis). Ill persons should be masked immediately and placed in an exam room with door closed. If measles is high on differential diagnosis, contact facility infection control dept and local PH.	If facility has resources to verify immunity of visitors (e.g. vaccine records), can allow entry for measles-immune visitors <12 yrs of age. If resources allow, consider verifying measles immunity of all visitors to high-risk units.
Level IV	Several community exposures and locations in tri-county area (and/or beyond); several secondary confirmed cases identified; ongoing spread.	Consider restricting all visitors <12 yrs of age from hospital entry. For all visitors of all ages, verify measles immunity before entry to high-risk units. Screen visitors to high-risk units for symptoms (cough/fever/rash/conjunctivitis) prior to high-risk unit* entry. Ill visitors should be masked immediately and asked to leave unit.	Consider restricting all visitors <12 yrs of age from building entry. For all clinics, screen patients and visitors upon clinic check-in for symptoms (cough/fever/rash/conjunctivitis). Ill persons should be masked immediately and placed in an exam room with door closed. If measles is high on differential diagnosis, contact facility infection control dept and local PH.	If facility verifies immunity of visitor, can allow entry for measles-immune visitors (including those <12 yrs of age) If resources allow, screen visitors to all inpatient units for symptoms (cough/fever/rash/conjunctivitis) prior to high-risk unit* entry. Ill visitors should be masked immediately and asked to leave unit.

PH = public health partners ***High-Risk Units** = Labor & delivery units, post-partum units, newborn nurseries, oncology units, intensive care units. Facilities may identify additional high-risk populations and clinics. **#High-Risk Clinics** = Clinics that provide care to infants, oncology patients, or HIV-infected patients. Facilities may identify additional high-risk populations and clinics. **Note:** For healthcare systems with facilities in multiple regional locations, specific facilities in highly-affected areas (e.g. different county) may follow higher Risk Level than other facilities within same system.

References

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