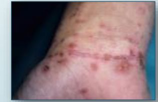
Scabies Outbreak in an Acute Care Hospital

Ocean County

Scabies

- Parasitic mite that burrows and lays eggs under the skin
- Primarily transmitted by prolonged skin-to-skin contact
- Incubation period of 4-6 weeks
- Treatable with topical or oral scabicide



Scabies Outbreaks

- Often found in group living situations where close body and skin-to-skin contact is frequent
- Rapid spread may result from:
  - Misdiagnosis
  - Delayed or inadequate treatment
  - Improper or lack of PPE

Background

- **Day 1**: OCHD received anonymous call reporting scabies "going around hospital"
  - IP reported no known cases, but aware of a few employees c/o rash
- **Day 4**: 2nd anonymous call reporting "outbreak of scabies at hospital"
  - IP reported seven cases: 6 employees on Unit A; 1 employee on Unit B (who floated to Unit A)

LHD Response

- NJDOH Regional Epi Program contacted
  - OCHD established as lead agency
  - Developed response strategy & team
  - Commenced formal outbreak investigation
- Hospital asked to convene response team and determine availability for conference call

Response Teams

Public Health

- OCHD
  - PH Epi
  - Comm. Disease Staff
- NJDOH
  - Regional Epi
  - SME

Hospital

- Infection Prevention
- Occupational Health
- Administration
- Nursing
- Pharmacy
- Risk Management

Collaborative Efforts

- Daily calls between OCHD & NJDOH
- Review guidelines and tailor to hospital setting
- Establish modified recommendations based on evolving situation
- Sharing line lists, updates between teams via email
- Scheduling conference calls between PH, hospital
- Conduct site visit

Public Health Communication

- Management of contacts
  - Anyone exposed in the 6 weeks prior to first symptom onset until treatment of the last case
- Surveillance recommendations
- Potential treatment failure
  - Improper application
  - Misdiagnosis
  - Topical steroids
  - Contact with other infested individuals
- Risk of reintroduction
  - 24 hour time frame for treatment/prophylaxis

Hospital Response

All Hospital Staff

- Notified and educated on transmission and presentation
- Asked to self-assess and report suspicious rashes
- **All** staff members offered prophylaxis
  - 900 doses distributed
  - Exceeded public health recommendations

Hospital Response

Staff- Affected Units

- **Symptomatic staff members**
  - Excluded until first round of treatment
  - Treated twice, one week apart; reevaluated at 14 & 21 days
  - Household contacts offered treatment
- **Units A & B staff required to receive prophylaxis**
  - Letters notified of outbreak and mandatory prophylaxis
  - Must be picked up from pharmacy within four days
  - Must use PPE during all interaction until prophylaxed
  - Excluded for six weeks without pay if non-compliant

Hospital Response

Unit A Patients

- All given **daily** skin assessments until discharge
- 524 notification letters to all those discharged since November
  - LTC/rehab, home care agencies, primary care physicians, private residences
- Offered prophy to patients admitted prior to staff prophylaxis (n=8)

Hospital Response

Environmental

- Rooms terminally cleaned, linens isolated or laundered on high heat.
- Many of the medical equipment devices used are disposable.

All control measures continue for 12 weeks, or two incubation periods.

New Cases

- Unit C worker who had floated to Unit A presented with rash
  - Directly following mandatory staff prophylaxis
  - Unit C workers offered but **not** required to received prophylaxis
- Two rashes reported on Unit B in mid-February
  - Both prophylaxed previously
  - Improper application and hypersensitivity reaction suspected
  - The hospital chose to re-prophylax all Unit B staff, including floaters.
- Skin checks performed on patients

Identifying Outbreak Source

- OCHD provided a list of all scabies outbreaks over the past 6 months
- ED records since November assessed to identify those admitted with rash
- Pharmacy records- prescriptions for permethrin filled in Oct. 2016 and Dec. 2016
  - PH requested the units the staff member(s) worked six weeks pre- and post- Rx
  - Unable to fulfill this request due to privacy issues

Long Term Care

- April 2017: Employees at LTC facility diagnosed with scabies
  - Resident with ongoing rash had several in-patient visits from Oct. 2016- Mar. 2017
    - Had been on Units A & B
    - Treated 3x for "**crusted**" rash
- LTC outbreak vs. source?

Challenges in Acute Care

- Identifying potentially exposed individuals
  - Auxiliary staff, in-patients, floaters, household contacts
  - Length of stay
  - Nature of care
  - Medical equipment
- Coordinating distribution
  - Notification prior to distribution
  - Pharmacy pick-up within four days
  - Anticipating demand for voluntary prophylaxis
  - Verifying compliance and proper use
  - Exclusions for non-compliance

Challenges in Acute Care

- Discharges to other facilities
- Misdiagnoses following mass prophylaxis
  - Treatment followed by dermatology consultation
  - Identifying those truly at risk
  - Number of treatments appropriate

Lessons Learned

- Relationship building starts before outbreak begins
- Need timely identification of barriers to outbreak management
- Establishing points of contact is essential for streamlined information sharing

Lessons Learned

- Scabies control is time sensitive
- Diagnosis is often inconclusive
- Be inclusive when identifying contacts
- Control measures should be maintained for 12 weeks
- New patients and employees should be screened for skin conditions compatible with scabies

Questions?

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