Nightmare on Chestnut St: Monkeypox in a HCP

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SHEA Town Hall

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9pm Phone Call

- Received a call from a supervisor that a HCP (in training) with direct patient contact had monkeypox
- Had worked with patients and was in close quarters with multiple other types of HCP daily while symptomatic for 2 weeks
- Had also sought care as a patient multiple times in two of our ED’s and our employee health department while symptomatic

Decision point #1: Launch exposure investigation in the middle of the night or wait until morning?

Decision 1: Both

- Immediate 3-way call with the HCP and training program supervisor
  - Obtained thorough history from HCP: exactly where was he and what did he do at work since symptom onset?
- Immediately notified Chief Physician Executive, Hospital President and Medical Director of Employee Health
- Put infrastructure in place for emergency work group using modified incident command structure to perform massive exposure work up with plans to launch at 6 am

Details….Where was he? What did he do?

- 6/28-HCP is notified that swab of skin lesion is positive for orthopox

----------→going backward in time:

- 6/12: MSM Sexual exposure (receptive) while on a weekend away
- 6/14: Back to work
  - Worked with patients, care teams, nurses, physicians, other people in training program daily for subsequent two weeks
  - Always wore a mask (mandatory), ate alone
  - Has one roommate who is also a HCP in training
- 6/14 -6/23 sore throat minimal with peritonsillar erythema and no cervical lymphadenopathy
- 6/16 –fever and chills: employee health visit, testing for COVID-19 (-), cleared to RTW
- 6/16 – 1st lesion, lower abdomen
- 6/17 – Sought care in our ED for testicular swelling: underwent ultrasound and physical examination
- 6/19- Returned to ED: assessed by triage nurse, underwent vitals and COVID testing (negative)left due to long wait time
- 6/20 - Sought care in another of our ED's: underwent ultrasound and physical examination
- 6/23 – 2nd & 3rd lesions noted at Left thigh and Left infra-areolar region; covered by clothing. Developed Rectal pain
- 6/24 – Rash/lesions progressed: more lesions at abdomen/trunk; covered by clothing; Proctitis worsened with mucous per rectum.
- 6/25 –Walked through ED , decided wait was too long so left without being seen and went to sleep on a couch in a breakroom-no use of blankets or pillows. Lesions all covered by clothing
- 6/26 –Developed hand and forearm lesions. Day off from work. Received text from sex partner notifying him of monkeypox exposure
- 6/27 --Covered exposed lesions on hands with Band-Aids, came to work, left at noon to get testing for Monkeypox
- 6/28-received positive result

How bad is this?

- HCP in training who had direct contact with patients & coworkers, and was a patient himself
- Two weeks of potential exposures
- Three separate considerations:
  - Were patients exposed?
  - Were coworkers exposed?
  - Were HCP who cared for him in the ED and EHS exposed?
- Need to protect privacy of HCP
  - Vulnerable position
  - Stigmatizing disease

Next Steps: Establish Modified incident command response team

- Get the right people in the room:
  - EHS, Hospital Epi, Infection Prevention, supervisor, DPH by conf call
  - Determine tasks, assign duties
- Get the right people on the phone:
  - Hospital leadership
  - Public Affairs/communications
  - IT to help pull data and activate employee symptom monitoring app
  - Pharmacy for vaccine management
  - EVS-clean common areas

Decision Point # 2:Determine exact exposure definition

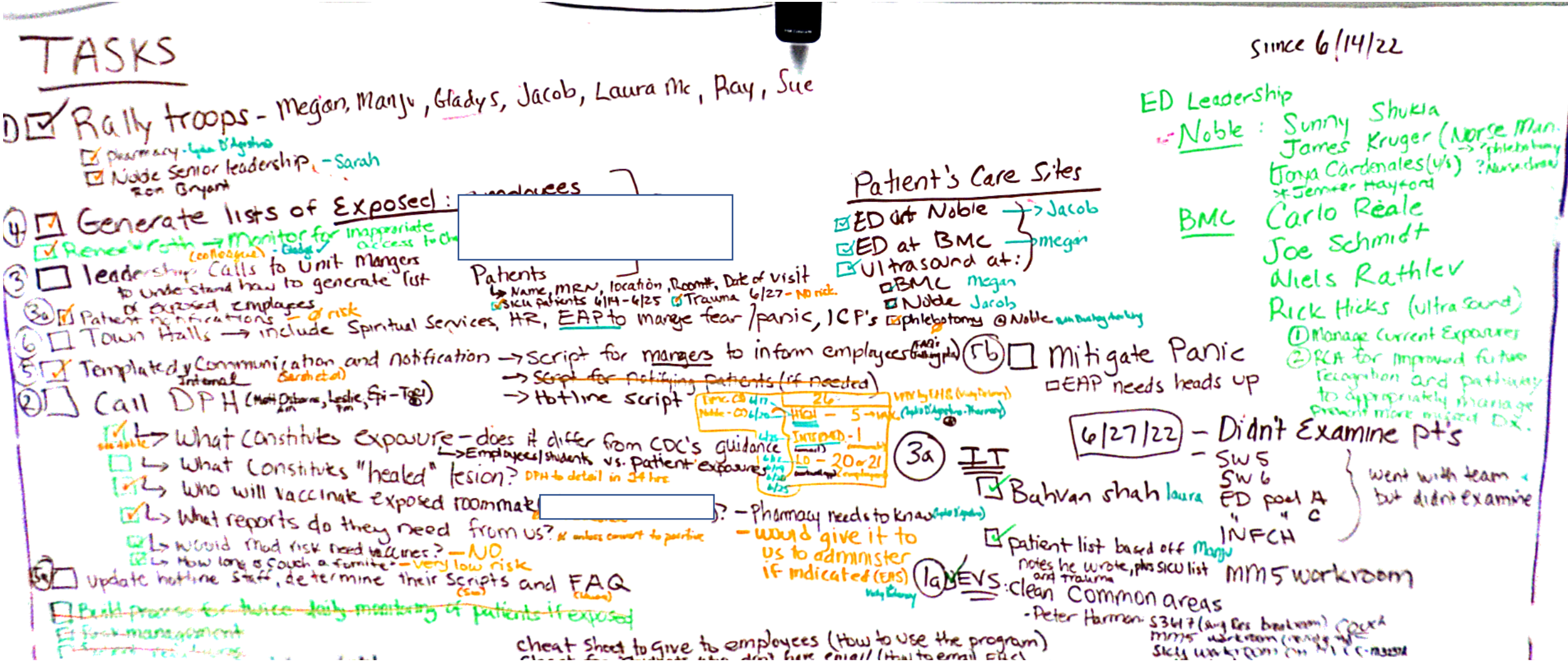
- Define what constitutes an exposure
  - CDC Definition: “Direct contact with lesion material or from exposure to respiratory secretions“[1]
    - Exactly what does that mean?
      - Patients, coworkers, HCP’s, the couch and other workspaces, the roommate?
      - Droplet, contact, fomites?
  - CDC definition: Lesions are contagious “until all lesions have crusted, those crusts have separated, and a fresh layer of healthy skin has formed”[1]
    - Exactly what does that mean?
      - If the skin under the separated scabs is still pink, is it still contagious?
      - Does contact with a HCP whose lesions are covered count towards exposures?

1. https://www.cdc.gov/poxvirus/monkeypox/clinicians/infection-control-healthcare.html

Next Steps continued

- Prepare to generate lists of exposed people
- There could be hundreds…Where do you find that information?
  - Patient lists: Patient assignment lists, notes in EHR vs. all patients on a unit
  - Employee schedules: coworkers who worked with the source
  - ED and EHS HCP who cared for him: EHR notes
- Prepare scripts for exposure notifications
- Prepare talking points for managers
- Prepare to mitigate fallout/panic

White board to track process



Decision point #3: Who is considered exposed?

- Key definitions needed to determine who to consider exposed
  - Thank you to MA DPH for the following definitions:

1) Respiratory exposure=
   - >3 hrs unmasked <6 feet apart
2) Contact exposure=
   - Direct contact with lesion fluid or mucous membranes while not wearing full PPE
     - Defined as eye protection, N95, gown & gloves
   - Lesions covered by clothing, bandages or gloves= no exposures
3) Fomites= couch, workspaces/computers are not exposures

Were patients exposed?

- The HCP wore a mask consistently with patients
- All lesions were covered by clothing
- The day that lesions were present on hands, he did not examine patients

- THEREFORE: NO PATIENTS WERE EXPOSED

- whew

Were coworkers exposed?

- The HCP wore a mask consistently while in the hospital and with colleagues in shared work spaces
- The HCP ate alone
- Fomites such as the couch, computers and phones were not considered to be sources of exposures
- All lesions were covered at all times

THEREFORE: NO COLLEAGUES WERE CONSIDERED EXPOSURES

Whew…

Were HCP who cared for him exposed?

- 3 ED visits, 2 EHS visits

Degree of Exposure: High	Monitoring PEP – Recommended
Degree of Exposure: Intermediate	Monitoring PEP– Informed clinical decision making recommended on an individual basis to determine whether benefits of PEP outweigh risks
Degree of Exposure: Low/Uncertain	Monitoring PEP– None
Degree of Exposure: No Risk	Monitoring– None PEP – None

https://www.cdc.gov/poxvirus/monkeypox/clinicians/monitoring.html

Were HCP who cared for him exposed?

- HCP who examined or performed and ultrasound on his genitals while not wearing appropriate PPE were classified as **High risk exposures**
- HCP who did not examine or perform an ultrasound on his genitals while not wearing appropriate PPE were classified as **low risk exposures**
- All other people in the ED or EHS (patients, HCP not involved in his care) were classified as **no risk**

- Total exposures:
  - 5 High risk
  - 19 low risk

Management of exposed HCP

- 5 high risk HCP plus roommate were offered Jynneos vaccine if within 14 days of exposure
  - 4 HCP plus roommate accepted vaccine
  - Shipped from DPH to our pharmacy (both doses in the series)
- All: Twice daily symptom check
  - Repurposed our employee COVID-19 app to enable Monkeypox symptom self-attestation through day 21 after exposure
- Tracked by EHS
- Defined non-compliant as missing two attestations
  - Employee contacted by EHS
  - Taken off schedule until compliant

- Worried well during follow up period: examined HCP with pimples and poison ivy
- Exposure period is over: no HCP or roommate Monkeypox transmissions

Communications & messaging

- Tough decision: Communication to the whole organization or only to involved departments?
  - Worked with senior leadership to determine that sensitive case required targeted communication to ED staff only
  - Communication also included education on clinical presentation and to increase index of suspicion
- RCA-missed diagnosis, learning opportunity
  - ID now fielding many calls to evaluate rashes in ED

Return to work

- What exactly does “crusts have separated, and a fresh layer of healthy skin has formed” mean?
  - Worked with DPH for more precise definition
    - This means that all scabs have fallen off and no open skin remains. Pink skin underneath is OK/not contagious
  - EHS and an Associate Hospital Epi Assessed HCP in controlled setting last week
    - All lesions completely healed
    - Returned to work

Lessons Learned

- We were guarding the front door, but our first case was already in the house:
  - Ensure EHS is prepared with tools to manage HCP exposures, follow up, ability to vaccinate, messaging about presenteeism
- Monkeypox symptoms are non-specific until rash appears. Presenting as STI in current outbreak. EPIDEMIOLOGIC RISK is very important.
- Educate, Educate, Educate: ED, Urgent Care, Primary Care, Sexual health clinics. What to look for, what to do
- COVID-19 mandatory mask policy saved us from a massive monkeypox exposure!!
- DPH-key partner for determining exposures and management