# SMALLPOX EMERGENCY INFORMATION: TRANSMISSION, PREVENTION, & INFECTION CONTROL

## WHAT IS SMALLPOX?
- Caused by the variola virus
- Initial symptoms include high fever, head and body aches, and sometimes vomiting. A rash follows that spreads and progresses to raised bumps and pus-filled blisters that crust, scab, and fall off after about 3 weeks, leaving a pitted scar.
- One case of smallpox is a public health emergency.

## TRANSMISSION & INCUBATION
- A person with smallpox is sometimes contagious with onset of fever (prodrome phase), but the person becomes most contagious with the onset of rash. The infected person is contagious until the last smallpox scab falls off.
- Person-to-person transmission can occur via:
  - droplets
  - contaminated environment
  - airborne route
- Smallpox can also be spread through direct contact with infected bodily fluids or contaminated objects such as bedding, clothing, or wastes.
- Rarely, the smallpox virus can be transmitted through the air in enclosed buildings.
- Deceased individuals should be considered to be contagious.
- Transmission can take place by breathing in variola virus, which could happen in an aerosol release during a bioterrorism attack.
- Incubation period ranges between 7-17 days; average = 12 to 14 days.
- Death may occur in up to 30% of cases
- People exposed to smallpox but not symptomatic should be isolated for 17 days following exposure

## HOW LONG CAN SMALLPOX VIRUS EXIST IN THE ENVIRONMENT?
- Smallpox virus is fragile but may survive up to 24 hours in the environment.
- If aerosolized release occurred 90% of virus matter would be inactivated/dissipated in ~24 hours; with ultraviolet light exposure, this % would be greater.

## DECONTAMINATION
- Generally not necessary unless gross contamination is evident
- If patient has rash, clothing should be placed in red plastic biohazard bag and sealed.

## POST-EXPOSURE PROPHYLAXIS / IMMUNIZATION
- No effective anti-viral therapy is available.
- Smallpox vaccine is effective if administered with 3-4 days after exposure; disease is attenuated if vaccine is given within 7 days of exposure.

## PRECAUTIONS FOR STAFF WITHOUT PATIENT CONTACT
- Since smallpox can be transmitted by droplets, contaminated environment, or airborne route, isolation and prophylaxis will be considered for staff who have no contact with patients or materials and equipment associated with their care.

## PRECAUTIONS FOR STAFF WITH PATIENT CONTACT
- N-95 respirator or PAPR
- Gloves
- Long-sleeved gown
- HCW leaves gown, gloves, & mask in red biohazard bag
- Hand-washing with soap and water or alcohol gel

## PATIENT PRECAUTIONS
- Surgical mask to patient's mouth and nose until placement in private room.
- Cover patient’s body from neck to feet with sheet or blanket until placement in private room
- Isolate in private negative air-pressure room
- If negative air-pressure room is not available, place HEPA filtration unit in room
- Do not send smallpox diagnostic specimens to UCSF Clinical Laboratories

## ENVIRONMENTAL PRECAUTIONS
- Clean room, then disinfect by leaving it wet for 10 min. with a 0.5% hypochlorite or EPA approved disinfectant
- Terminal cleaning wearing long-sleeved gown, gloves, N-95 respirator or PAPR.
- Room door closed
- Place laundry in a biohazard bag and incinerate or autoclave
- Place trash in biohazard bag for disposal
- Dedicate equipment as needed; Discard disposable equipment in biohazard bags; sterilize/high level disinfect non-disposable equipment

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