

## Disease of the Day

### Smallpox

## Smallpox

- ✓ Caused by virus
  - Genus *Orthopoxvirus*
    - Variola virus
      - ✦ Variola major - serious disease with 30% fatality
      - ✦ Variola minor - less serious with 1% fatality
    - dsDNA virus

## Smallpox transmission

- ✓ Humans is its strict host range
- ✓ Aerosol and contact
- ✓ 12 day incubation

## Signs/symptoms

- ✓ Vesicles in the mouth and throat
- ✓ Skin rash
  - Vesicles
  - Pustules
- ✓ Fever
- ✓ Backache
- ✓ headache

## Last known case

- ✓ US - 1949 in the Rio Grande Valley
- ✓ Natural occurring infection
  - 1977
    - Somalia
- ✓ Laboratory associated infection
  - 1978
    - Birmingham, England
      - ✦ Medical photographer died

## Control and elimination

- ✓ Vaccination
  - Cowpox or vaccinia virus
- ✓ Isolation
- ✓ Humans as the only known host

Variola virus - Orthopoxviridae



Vesicles or pox



Crusted vesicles or pox



Edward Jenner - cowpox vaccine

