



# Health care associated fungal infection

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# Risk factors

- Immunocompromised
- ICU
- NICU
- IMV
- Parenteral nutrition
- Broad spectrum infection

# Site of HAI fungal infection

- Blood stream(CVC)
- CNS
- EYE
- GI
- Skin
- Sinuses
- lung

# yeast

- Candida :the most reported HAI
- high mortality and morbidity
- In immunocompromised and hospitalized patients

- Abdominal surgery
- SOT
- HSCT
- TPN
- Hematologic malignancy
- Hemodialysis
- Mechanical ventilation
- Neutropenia
- LBW neonate

# Outbreak

- The majority are endogenous
- Outbreak exogenous
- Transmission from one patient to another
- Especially auri
- Can survive on environment prolong period
- Medical fluid, infusates ,biomedical devices

# Prevention and control

- Insertion and maintenance bundle
- Avoidance of femoral site
- Maximal sterile barrier precaution
- Chlorhexidine for skin and dressing
- Removal of unnecessary lines
- Antiseptic impregnated if high rate of infection
- CHG bath no effect in fungal BSI but meta analysis CHG bath decrease all BSI even candida BSI

# Candida auris

- Suspected or confirmed
- Single room
- Hand hygiene
- Contact tracing and testing
- Prospective laboratory surveillance to identify other potential colonized or infected patient for at least 1 month until there is no evidence of ongoing transmission



# Preventing cross transmission of yeast

- Standard precaution
- Hand hygiene
- Contact isolation for auris
- Alcohol against candida :concentration ,time ,product
- Visibly soiled: water and soap
- CHG limited activity
- Iodine, idophors,phenol

# aspergillus

- 65% of outbreak in HSCT or hematologic malignancy and 10% in SOT
- Outbreak to construction or renovation or to compromised air quality
- Less than 5 m
- Suspended for extended periods
- Isolated from water supplies and plumbing system source OF HAI
- Direct inoculation from adhesive band
- Food such as pepper and dried soup in hematology unit
- Plant and flower

# Hospital versus community

- Incubation period :3-100 days
- More than 7 days after hospitalization :HAI

# SUSPECTED HAI

- Patient hospitalized for more 2 weeks
- Discharged less than 2 weeks after prolong hospitalization
- Frequent hospitalization in 6 month ago
- 4 weeks interval between 2 patient
- 2 suspected patient in the same area

# Prevention and control

- For HSCT
- Unresolved for autologous or SOT
- Well sealed more than 12 air change /hour
- HEPA with 99.97% efficacy for particle more 0/3 mm
- Directed air flow
- Positive pressure

