Best Practices for CRE and other MDROs in Acute and Long-Term Care Settings

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Review of Key CRE (MDRO) Interventions

- Contact Precautions
- Patient and staff cohorting
- Laboratory notification
- CRE screening and surveillance
- Inter-facility communications
Who Should be Placed on Contact Precautions?

- **In acute care:** CP for patients colonized or infected with CRE

- **In long-term care:**
  - Apply CP to residents with CRE who are at higher risk for transmission
    - Dependent upon HCP for their activities of daily living
    - Ventilator-dependent
    - Incontinent of stool that cannot be contained
    - Wounds with drainage that is difficult to control
  - For other residents (more functional), requirement for Contact Precautions might be relaxed
    - Emphasize hand hygiene, keep wounds covered especially if going to common areas
  - Standard Precautions should still be observed
## Transport of Patients on Contact Precautions

- **Suggested steps:**
  - Place barrier (e.g., sheet) between patient and stretcher/wheelchair
  - Fully cover patient prior to transport (i.e., by a sheet)
  - Remove PPE (i.e., gowns/gloves) and perform hand hygiene prior to exiting patient room
  - If contact with patient during transport anticipated, don new gloves to transport the patient
  - Don new PPE at destination to move patient
  - Clean/disinfect stretcher/wheelchair after transport
PPE Use During Physical Therapy

- Use of PPE during physical therapy for patient on Contact Precautions presents a number of challenges
  - No definitive answer
- Some options include:
  - Do most physical therapy activities in patient’s room if possible
  - If doing physical therapy in hallways: HCP can wear gloves and be proactive about hand hygiene for themselves and the patient
  - Designate a room for all physical therapy activities: transport patients on CP to the room, then don PPE to perform physical therapy in the room
Patient and Staff Cohorting

- **Cohort CRE patients to specific areas (e.g., units or wards) with dedicated staff**
  - Does **not** mean 1:1 nurse-to-patient staffing ratio

- **Use of medical equipment**
  - Use disposable equipment for patients whenever possible
    - Stethoscope, blood pressure cuff
  - Dedicate reusable equipment to the ward/unit if possible
  - Any shared equipment should be cleaned/disinfected between patient use according to manufacturer’s instructions
    - Includes pulse oximeters, glucometers, X-ray and ultrasound machines
    - Keep contaminated equipment in designated area if cannot be cleaned right away (e.g., dirty utility room)
Identifying CRE Patients on Readmission

- CRE carriers can be colonized for long periods
  - Source of transmission to others

- **Possible approaches:**
  - Work with IT to create an alert or pop-up window when patient’s name is entered in the computer system
  - Flag the cover of the paper chart
Laboratory Notification of Positive CRE Cultures

- **Challenges:**
  - In most long-term care and some acute-care: testing may be done off-site, no clear protocol for communicating positive results
  - Delay in communicating positive results to appropriate staff
  - Delay in testing of CRE isolate to see if carbapenemase-producing

- **Suggestions:**
  - Establish protocol for lab personnel to immediately notify staff (e.g., call nursing station, notify IP)
  - Any Enterobacteriaceae nonsusceptible to carbapenem should be considered CRE and placed on CP (as appropriate)
CRE Screening and Surveillance

- **Important for detecting unrecognized colonization**
  - Clinical cultures identify only a fraction of patients with CRE

- **Screening epi-linked contacts**
  - Mainly outbreak situations: look for unrecognized transmission
  - Primarily roommates but may include patients who shared same HCW

- **Active surveillance cultures**
  - Systematic screening of patients not known to be epi-linked to CRE patients
    - Target “high-risk” patients based on where they are being admitted to, or what risk factors they have
When and Whom to Screen for CRE?

- Several challenges and factors to consider:
  - Delay in availability of positive test result
  - Index patient transferred to many units/wards prior to positive test result
  - Acuity of care of index patient may impact how much screening is needed
  - No one approach fits every facility
    - Mechanism of carbapenem resistance
    - Low vs high prevalence facility/region
    - Acute vs long-term care settings
      - Acuity of patient varies
      - Finding laboratories to do screening cultures
Active Surveillance Cultures

- **Which patients to target?**
  - Patients admitted to high-risk units (e.g., ICU)?
  - Patients with certain risk factors?
    - Admitted from certain LTC settings or facilities with a CRE outbreak?
    - Presence of invasive devices and/or draining wounds?

- **When and how frequently to perform active surveillance cultures?**
  - Only at admission?
  - Periodically throughout patient’s stay?
  - At discharge?
Inter-Facility Communications

- **Challenges of communicating patient’s CRE status**
  - Facilities afraid to disclose status because of fear that patient transfer may be denied
  - Emergent transfer – not enough time to communicate information
  - No identified contact at accepting facility to relay information
  - How to communicate positive lab results after patient has been transferred

- **Possible approaches**
  - Develop standardized patient transfer form among all facilities
  - Establish facility policy for a communications protocol as part of patient transfer process
  - Develop regional / state CRE registry
Any Questions?