

Antibiotic escalation in stewardship

- Good antibiotic stewardship includes optimizing antibiotic regimens and ensuring that patients get the right antibiotic for them. Antibiotic stewardship is not limited to de-escalating and stopping antibiotics, but also ensures that patients receive broader spectrum antibiotics when appropriate.
- Inadequate or inappropriate empiric antibiotic therapy is the main risk factor for mortality in patients with severe infections due to ESBL and CRE organisms.
- In order to identify patients at increased risk for multidrug resistant gram-negative organisms, various prediction tools have been created.

Risk factors for ESBLs

- **Colonization or infection with ESBL within last 6 months** (strongest predictor)
- Healthcare exposure
- Residence in long-term care facility
- Hemodialysis
- Central venous catheter
- Age > 43 years
- Recent exposure to antibiotics (≥ 6 days in past 6 months)
- Increased severity of illness/ more comorbidities
- Percutaneous enteric tube
- Immunosuppression

Risk factors for CREs

- **Colonization or infection with CRE** (strongest predictor)
- Urinary or central venous catheter
- Trauma
- Organ transplantation
- Severity of illness/more comorbidities
- Travel to endemic areas
- Prior exposure to 3rd/4th-generation cephalosporins and/or carbapenems
- Diabetes
- Malignancy
- Mechanical Ventilation