Present State of CRE Prevention: What are U.S. Hospitals Doing?

Dana Russell, M.P.H.¹, Susan E. Beekmann, R.N., M.P.H.², Philip M. Polgreen, M.D.², Zachary Rubin, M.D.³, Daniel Uslan, M.D., FIDSA³

¹ UCLA Health Clinical Epidemiology and Infection Prevention, Los Angeles, CA, ²University of Iowa Carver College of Medicine, Iowa City, IA, ³Infectious Diseases, David Geffen School of Medicine at UCLA, Los Angeles, CA

BACKGROUND:
• The CDC recommends Contact Precautions (CP), CHG bathing, and active surveillance testing (AST) for prevention of CRE transmission in healthcare settings.
• CRE-specific recommendations for duration of CP & environmental disinfection do not exist.

OBJECTIVE: assess present state interventions used for CRE in U.S. hospitals.

DESIGN: Cross-sectional survey

METHODS: electronic survey, 8 questions, open 3 weeks

STUDY POPULATION:
• 362 physician members of the EIN
• interest or involvement in infection prevention

BACKGROUND:
97% use routine Contact Precautions for CRE.

Trigger
Clinical culture 97%
Surveillance culture 53%
Alert in EHR 75%
Suspect infection 23%

18% perform active surveillance testing for CRE.

Duration
Indefinitely once positive 38%
Until cleared or decolonized 43%
No formal policy/case by case 4%
Encounter only 13%

Duration of CP* n
3 months 6
6 months 3
12 months 34
18 months 1
24 months 3

*data from discrete fields and comments

COMMENTS REVEAL:
• Need for clear guidance from CDC
• Institutional policies regarding CRE prevention are evolving as:
  - evidence is published
  - CRE prevalence increases

LIMITATIONS:
• Sampling/nonresponse bias
• More than 1 respondent per facility possible
• Answers to questions not required

RESULTS:
• 751 surveyed, 429 responded, 67 excluded
• 97% use routine CP for CRE.
• Practices for duration of CP is heterogeneous.
• 18% perform AST for CRE.
• 85% perform CHG bathing on one or more subsets of inpatients.
• 23% use H2O2 vapor or UVC light for room disinfection at discharge.
• The most common method for monitoring performance for environmental cleaning is a combination of visual inspection plus ATP bioluminescence.

CONCLUSIONS:
• CDC recommended strategies CP and CHG bathing are widely used.
• Triggers for isolation as well as practices for discontinuation are highly variable.
• Measures to decrease environmental bio burden are in use, even though they are not recommended by CDC specifically for CRE.
• Evidence-based guidelines from professional organizations regarding the use CP plus horizontal interventions are needed.