Antibiogram Use in Wisconsin Nursing Homes
A Mixed Methods Study

Background

An antibiogram is a clinical tool that guides empiric antimicrobial choices and supports tracking and reporting of antimicrobial resistance. A 2014 survey demonstrated that less than 10% of WI NHs used an antibiogram. Newly released regulations require NHs to track and report antibiotic outcomes. It is unknown whether these guidelines will result in greater antibiogram use.

Mixed Methods Approach

Surveys of Antibiogram Use
- Two-statewide electronic surveys were conducted in 2014 and 2018.
- Semi-structured telephone interviews with key NH personnel were conducted that focused on antibiogram development and dissemination.

Survey of Antibiogram Awareness
- An electronic survey was distributed to prescribers at WI NHs.
- Questions targeted their awareness of a facility antibiogram and the extent it influenced their prescribing decisions.

Antibiogram assessment
- Copies of current antibiograms were obtained from WI NHs.
- Antibiograms were reviewed for consistency with Clinical and Laboratory Standards Institute (CLSI) recommendations.

Antibiogram Use in WI NHs

- Antibiogram use significantly increased following 2017 CMS mandate.

Survey of Antibiogram Awareness

- Awareness of facility antibiogram (%) Impact on prescriber choices (%)

Antibiogram compliance with CLSI recommendations

Key Findings:

- Antibiogram use in WI NHs has increased significantly over the last four years.
- The majority of antibiograms used in WI NHs are not based on facility-specific data.
- One-third of providers are unaware of the existence of an antibiogram in their facility, and only half felt that it impacted their prescribing decision making.
- None of the reviewed antibiograms were fully adherent to CLSI recommendations.
- More research is needed on how to make antibiograms a useful tool in NHs.

Key characteristics of antibiograms (n=9)

- Uses facility-specific culture data
- Uses pooled culture data
- Updated yearly
- Disseminated to prescribers

Prescriber opinions of antibiograms

- “The antibiogram is not easily available.”
- “The antibiogram is not specific to the nursing home residents - it is created from culture data from the hospital, outpatient clinics, and other local nursing homes.”
- “I forget to check the antibiogram.”