



Nevada State Health Division TECHNICAL BULLETIN



TOPIC:

Multi-Drug Resistant Gram-Negative Bacteria Detected in a Healthcare-Associated Infection Outbreak in Nevada

TO: HEALTHCARE FACILITIES/PROVIDERS

In response to recent reports of healthcare-associated infections (HAI) involving unusual multi-drug resistant organisms (MDRO) and the general observation that HAIs and MDROs are on the rise both nationally and in Nevada, the State Health Division is reminding you that any significant, unusual, or rare occurrence of disease should be reported to your local health authority and to the Health Division *promptly*. Further, an isolate of any multi-drug resistant biological agents should be forwarded to the Nevada State Public Health Laboratory *without delay*.

According to the National Centers for Disease Control and Prevention (CDC), HAIs are among the top ten leading causes of death in the United States. They are also a significant and often needless cause of increasing days of hospitalization, suffering and expense. Recently, the Nevada State Health Division observed an increasing frequency of reports related to multi-drug resistant biological agents; specifically gram-negative bacteria. The rapid emergence of antibiotic resistance among gram-negative bacteria in a manner comparable to that previously observed among gram-positive bacteria, prompted the Health Division to recommend similar, if not more stringent, infection control measures to curb this possibility.

When biological agents associated with HAIs develop resistance to multiple classes of antibiotics, they are of particular concern, not only regarding the treatment of the individual but also from a public health perspective. Ongoing national and state biological surveillance and data reports continue to show that quinolone and broad-spectrum β -lactam resistance are increasing in members of the family Enterobacteriaceae and Acinetobacter species. Additionally, the treatment regimes for Pseudomonas aeruginosa infections are becoming increasingly challenging and limited. Pseudomonas aeruginosa is a leading cause of nosocomial infections. It is a significant pathogen among hospitalized patients with impaired body defenses, cancer patients and those who require prolonged inpatient care. The identification of carbapenem-resistant strain or any multi-drug resistant strain is always a cause of major concern. The increase in antibiotic resistance among gram-negative bacteria is a notable example of how quickly resistance can spread within a species and how other organisms may procure and express new, protective genetic traits. The timely identification of multi-drug resistant strains is, therefore, essential to allow healthcare facilities and providers to select the appropriate treatment for patients and limit the propagation of multi-drug resistant pathogens before they become a major problem in clinical settings.

Approved by: Dr. Tracey Green, State Health Officer:

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Approved by: Richard Whitley, Administrator:

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The Bureau of Health Care Quality and Compliance (BHCQC) is currently collaborating with healthcare facilities to reduce the medical, social, and financial burdens of HAIs, and the Health Division has recently joined the National Healthcare Safety Network (NHSN) which will serve as an increasingly important tool for tracking and combating the spread of HAIs and MDROs.

Again, the Health Division urges all healthcare facilities and providers in Nevada to report any unusual occurrence of disease to both the Health Division and local health authority and refer all MDRO isolates to the State Public Health Laboratory for confirmation and further characterization.

Approved by: Dr. Tracey Green, State Health Officer:

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