

# NEBRASKA HEALTH AND HUMAN SERVICES SYSTEM



Antibiotic resistance is an urgent public health problem. In recent years, nearly all disease-causing bacteria have become more resistant to antibiotics. Infections that were once easily curable with antibiotics are becoming more difficult, or impossible, to treat. These infections can occur in anyone – the young and the old, the healthy or the frail. Not only do antibiotic-resistant bacteria cause increased death and suffering, they are very expensive. It is estimated that antibiotic resistance costs the United States 5 billion dollars annually.

“Antibiotic resistant bacteria can spread to family members, classmates, co-workers, and within facilities and is a problem which we all need to be concerned about.” said Dr. Joann Schaefer, Chief Medical Officer, Nebraska Health & Human Services System (NHSS).

Unfortunately, for a variety of reasons, the development pipeline for new antibiotics has slowed to a trickle. Therefore, we need to learn to use the antibiotics that we have as prudently as possible. There are several key issues that everyone should understand.

- First, the key driver behind antibiotic resistance is antibiotic use. The more that antibiotics are used in human medicine, veterinary practice, and agriculture, the more selective pressure is applied to bacteria to develop resistance. Therefore, we should limit the use of antibiotics to situations in which their use is beneficial and necessary. One instance in which antibiotics are clearly misused is in the treatment of upper respiratory tract infections (colds). These infections are almost always caused by viruses. Viruses do not respond to antibiotics. Patients can help by not demanding that their physician prescribe an antibiotic to treat infections that are usually caused by viruses – colds, flu, sinusitis, and bronchitis.
- Second, we can all do a better job in infection prevention. Practice frequent hand hygiene, good respiratory etiquette (cover your cough/sneeze, dispose of used tissues properly), and stay home from school or work when you are sick. Also, keep up to date on appropriate vaccines against pneumonia, influenza, measles, mumps, chicken pox, etc.

NHSS has coordinated a campaign, partnering with the Nebraska Infection Control Network (NICN) and the Nebraska Antibiotic Resistance Awareness & Action Coalition (NARAAC). NARAAC consists of a group of concerned doctors, nurses, pharmacists, and others who are dedicated to preserving the power of antimicrobial drugs so they will be effective in the future. This campaign focuses on reaching the community by

providing educational materials for distribution. These include: brochures, posters, and prescription pads, all available in English and Spanish. Other materials include an activity book for children, temporary tattoos, stickers, and magnet incorporating the Nebraska football and volleyball schedule.

NARAAC has been promoting the proper use of antibiotics at numerous healthcare and child care conferences. Dr. Mark Rupp and Dr. Elizabeth Hermsen, both staff at the University of Nebraska Medical Center (UNMC) and Directors of the Antimicrobial Stewardship Program at The Nebraska Medical Center, members of NARAAC, have been speaking about the importance of using antibiotics wisely to healthcare providers statewide. Everyone can do their part to promote the judicious use of antibiotics. For more information on antimicrobial resistance please contact Dr. Mark Rupp, The Nebraska Medical Center at 402-552-2282 or Robin Williams, NHHSS at 402-471-0935.