Antibiotic Stewardship

A Day of Antibiotic Stewardship

From Nevada RNformation, page 10, January 2018

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Over 100 health care professionals participated in the Nevada Antimicrobial Stewardship Program's third annual infection prevention caucus held simultaneously both in Reno and Las Vegas. This year's theme was: "The Evolution of Antibiotics: Misuse Yesterday + Resistance Today = No Choices Tomorrow." The event co-sponsored by the Nevada Office of Public Health Informatics and Epidemiology (OPHIE) and HealthInsight focused on establishing new antibiotic treatment methodologies at the facility level to address the growing problem of Antibiotic Resistance.

The day began with Zuen Qui-Shultz MPH, CPH from the Southern Nevada Health District, who defined an antibiogram as an overall profile of the various pathogens susceptible to a panel of various antibiotics designed to provide prescribers with the best antibiotic options based on resistance patterns in a given geographical area. She then discussed the 2016 Clark County Antibiogram and gave this website to review it in detail: http://www.southernnevadahealthdistrict.org/ stats-reports/antibiogram/#/

Chris Marchand, MPH, reviewed the University of Nevada at Reno, School of Medicine's – "Project ECHO Nevada" – ECHO uses a telehealth linkage to connect university-based medical faculty specialists to primary care providers in rural and underserved urban areas to extend specialty care to patients with chronic, costly, and complex medical illnesses. Information is found at: https://med.unr.edu/echo

It is impossible to summarize the one hour presentation that Diane H. Rhee, Pharm D, MHA gave in one paragraph, but briefly it focused on C-difficile, how the hyper-virulent BI/NAP1/027 strain is in Southern Nevada and how it does not respond well to traditional treatment. She reported the NAP1 strain, which produces more poisonous toxins than prior C-diff strains, does not respond well to Flagyl, and also raised concerns with use of Vancomycin that increases the prevalence of VRE. Use of other, expensive, antibiotic treatments including Fidaxomicin is not effective against the BI/NAP1/027 strain. She reviewed the benefits of, and recommended, fecal transplant over antibiotic therapy which she reports is both more cost effective and has reduced the incidence of recurrent C-diff infection.

The morning session concluded with Dr. Jerry Reeves, MD, HealthInsight Corporate Vice President of Medical Affairs, who discussed Outpatient Stewardship. He cited that sixty-two percent of antibiotic expenditures are in the outpatient setting and 30% to 50% of outpatient antibiotics are inappropriately prescribed, are not needed in the first place, and/or the wrong antibiotic / dose / duration was prescribed. Dr. Reeves highlighted the fact that antibiotics are a multi-billion dollar business and the financial costs continue to expand. Dr. Reeves promoted the CDC's "Get Smart: Preserve the Power of Antibiotics" campaign and the companion CDC initiative "Core Elements of Antibiotic Stewardship." Additional details of the program can be found at: https://www.cdc.gov/getsmart/community/index.html

After lunch Kimberly D. Leuthner, PharmD, FIDSA gave a powerful presentation on the appropriate length of time that antibiotics should be prescribed for. Dr. Leuthner began her presentation by saying, "It Depends" and expanded on that by stating that prescription duration should be disease specific and contingent on individual patient response. Various studies show present prescribing patterns generally are excessive and that 8 days of antibiotic therapy have a cure rate as effective as 15 days of antibiotic treatment for ventilator associated pneumonia (VAP). Other infections including intra-abdominal infections and pyelonephritis also show "no difference in outcomes with short course treatment" and that shorter duration times were just as effective as the current traditional lengthy antibiotic prescribing patterns of physicians, NP's and PA's. The conclusion was shorter courses of antibiotic therapy are not only as effective but the shorter treatment times also reduces antibiotic resistance and preserves the power of antibiotics.

Donna S. Thorson, MS, CPHQ, CPPS from HealthInsight presented "Antibiotic Stewardship in the Nursing Home." New Long Term Care mandates are being initiated including a new F-tag, F-881, which mandates Skilled Nursing Facilities to develop an antibiotic stewardship program that requires the participation of the physician, pharmacist, nursing and administrative leadership. Ms. Thorson reviewed steps to start a stewardship program in the LTC setting. The programs include the CDC Core Elements of Stewardship, antibiotic tracking, use of antibiograms, and other elements. Nursing homes

are required to have an antibiotic stewardship program in place by November 28, 2017. Another new F-tag; F-757 “unnecessary drugs” can also be cited if overuse / abuse of antibiotics persist in the LTC setting. The following Website was provided as a resource tool: http://nhguide. airprojects.org/tool3

Julia A. Kiehibauch, Ph.D. presented Asymptomatic Bacteremia, comparing symptomatic vs. asymptomatic bacteremia treatment options. Essentially Asymptomatic Bacteremia is the presence of bacteria in a lab culture without any symptoms of active infection. Asymptomatic Bacteremia has many causes but the bottom line is treatment with antibiotics is usually inappropriate. Dr. Kiehibauch presented the “5 D’s of optimal antimicrobial therapy which are: 1) The correct Diagnosis, 2) The correct Drug (is the bacteria sensitive to the antibiotic?) 3) What is the correct Dose and 4) Duration of therapy and (5) De-escalation; can the antibiotic be changed from IV to PO or discontinued completely?

The Simon and Garfunkel songs “Bridge over Troubled Water” and “The 59th Street Bridge Song” were used to lead into “Bridging the Gap” presented by Lisa Schaffer, RN, CIC from Mountainview Hospital and Norman Wright, RN, BSN, MS from Kindred Hospital Sahara. The main thrust of their presentation was to break down barriers between our different health care providers and to promote the universal use of the Inter-Facility Infection Control Transfer Form when transferring patients between health care facilities. The goal is to have all Nevada Health Care entities use the form to communicate the MDRO history and antibiotic sensitivity patterns to the receiving health care provider. A computer generated version that can be modified to facility specific needs can be found at:

Inter-Facility Infection Control Transfer Form (editable) http://dpbh.nv.gov/uploadedFiles/dpbh.nv.gov/content/Programs/HAI/dta/Training/InterFacility%20Infection%20Control%20Transfer%20 Form(6).pdf

For additional details on the topics, to communicate with the presenters, or to obtain information on how to implement the Infection Control Transfer Form please contact Kimisha Causey or Adrian Forero at the Nevada Department of Epidemiology (OPHIE) at: kcausey@health.nv.gov or aforero@health.nv.gov.