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APIC response to Presidential Advisory Council on Combating Antibiotic-Resistant Bacteria (PACCARB) Request for Information

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Background: In response to the Antibiotic Resistance threat, the United States Government developed the National Strategy for Combating Antibiotic Resistant Bacteria in 2014. The Strategy takes a One Health Approach. The five goals outlined in the Strategy are:

1. Slow the emergence of resistant bacteria and prevent the spread of resistant infections.
2. Strengthen national One Health surveillance efforts to combat resistance.
3. Advance development and use of rapid and innovative diagnostic tests for identification and characterization of resistant bacteria.
4. Accelerate basic and applied research and development for new antibiotics and other therapeutics, including vaccines.
5. Improve international collaboration and capacities for antibiotic resistance, prevention, surveillance, control and antibiotic research and development.

GOAL 1: Slow the Emergence of Resistant Bacteria and Prevent the Spread of Resistant Infections

1.1 The fundamental goal of any infection prevention program is to avoid patient harm by preventing infections. Healthcare-associated infection (HAI) reporting programs required as part of CMS prospective payment systems for a variety of healthcare settings allow facilities to discover the existence and location of infections so they can both treat them and investigate causes. It also allows facilities to identify cases of antimicrobial resistance, which can result from inappropriate use of antibiotics. The only way to codify programs designed to monitor antimicrobial use is through an antibiotic stewardship program. In order to continue progress in implementing reporting policies that advance antibiotic-resistance prevention and foster antibiotic stewardship in healthcare settings, APIC emphasizes that the 2016 proposed changes to the Medicare Hospital and Critical Access Hospital Condition of Participation (CoP) for Infection Prevention and Control, which would place into regulation the structure and leadership requirements for Antibiotic Stewardship programs, must be finalized and implemented. Failure to require establishment of an antibiotic stewardship program would prevent realization of the overall goal of slowing emergence of these resistant bacteria. To further strengthen these proposed changes, APIC recommends mandatory participation in the Centers for Disease Control and Prevention (CDC) National Healthcare Safety Network's (NHSN) Antimicrobial Use and Resistance (AUR) module to solidify national support for stewardship programs and create a useable national database for antimicrobial resistance. We believe this will help to promote consistent, evidenced-based antibiotic stewardship programs and practices throughout our country.

1.2. Promote quality measures which would help to monitor optimal vaccine administration in all healthcare settings, particularly in the outpatient arena, and reduce the use of antibiotics for viral syndromes such as influenza/influenza like illness. Such quality measures should support the decrease in

inappropriate use of antibiotics often administered to treat patients with influenza like illness by ensuring the appropriate individuals are vaccinated to prevent them getting the illness. Recent regulatory burden reduction rules for upcoming payment years have eliminated the requirement for influenza and pneumococcal vaccine monitoring in many healthcare settings. The elimination of the reporting requirement could serve to reduce emphasis on vaccine administration to patients in these settings. This in turn may contribute to the misuse of antibiotics for individuals with influenza.

Likewise, the importance of seasonal influenza vaccine for healthcare personnel (HCP) has been well documented, yet HCP influenza vaccination rates have risen only minimally over the past 20 years and are far short of HHS Healthy People 2020 goals whose target is a 90 percent vaccination rate. Because HCP work in an environment where frequent contact with infectious patients is routine, they are at risk for exposure to influenza with possible transmission to other patients, their families, and other HCP. The situation calls for a review of attitudes and beliefs toward influenza vaccination with a focus on the successful strategies and regulatory support to increase HCP vaccination rates.

GOAL 2: Strengthen National One-Health Surveillance Efforts to Combat Resistance

2.1. Continue expansion and enhancement of public health laboratory networks:

- Beyond the regional level to help with more timely identification and reporting of antibiotic resistant bacteria. Utilization of the currently existing regional public health laboratories can delay transport, testing, and reporting back to hospitals not immediately adjacent to the regional laboratories. These delays in reporting to hospitals reveal that many patients have already been discharged and implementation of isolation and transmission prevention strategies are not feasible.
- Require a national definition and standard template for antimicrobial testing for all laboratories to follow creating a standard classification of resistance. Currently, there is lack of consistent identification around the country. These templates would become part of the Clinical Laboratory Improvement Amendments (CLIA) that regulate laboratory testing and require clinical laboratories to be certified by their state as well as CMS before they can accept human samples for diagnostic testing.

2.2. Because antibiotic use in both the human and animal domains contribute to the rise in antibiotic resistance, surveillance of antibiotic use at both levels is necessary.

- In the human domain, promote requirements for information technology (IT) vendors working with healthcare organizations and NHSN which are designed to ease the burden of IT implementation and promote participation in the NHSN AUR module in order to create a more robust database. Currently the burden of IT implementation for healthcare organizations trying to electronically report antibiotic use to NHSN can outweigh the benefit of reporting for those organizations. The same is true for organizations trying to accurately report HAIs to NHSN due to lack of communication, understanding and development processes with IT vendors. Without an accurate national database, antimicrobial use is reduced to estimates and a much larger issue may be developing without evidence-based data to support immediate mitigation.
- In the animal domain, create and require use of a database similar to the NHSN AUR module for veterinary use intended to monitor antimicrobial use in animals/livestock. By requiring

mandatory participation in the NHSN AUR module and other such veterinary programs and establishing a national database for antimicrobial resistance, human and animal systems monitoring antimicrobial use can be compared, tracked, and trended.

<u>GOAL 3:</u> Advance Development and Use of Rapid and Innovative Diagnostic Tests for Identification and Characterization of Resistant Bacteria Objectives

3.1. Promote education regarding the availability and appropriate use of diagnostics, along with the implication for overuse of antimicrobials in all healthcare settings, with particular emphasis on outpatient settings, as well as those raising and caring for livestock for food production.

3.2. Promote "culture/testing stewardship" in all healthcare settings. Testing stewardship can be implemented through standard orders and the use of decision algorithms. When used correctly, testing stewardship can not only help to help avoid unnecessary treatment; overtreatment and misrepresentation of true infection versus colonization, but can also support the correct diagnosis. Examples of testing that is inappropriate, but often requested is: testing for cure for *C. difficile* in an asymptomatic individual and culturing the urine from any individual with an indwelling urinary catheter which often results in treating asymptomatic bacteriuria. Appropriate testing during respiratory virus season might include standing orders for respiratory virus testing to prevent treating all infections with antibiotics even if the infection is likely to be viral.