State Health Department Success Stories in Antibiotic Stewardship

Alaska Links Rural Facilities to Promote Antibiotic Stewardship Best Practices

Background

In Alaska, limited access to infectious disease consultation and large geographic distances between providers poses a challenge for hospitals and long-term care facilities. The Alaska Antimicrobial Stewardship Collaborative (A2SC), originally a subcommittee of the State Healthcare-associated Infections (HAI) Advisory Council, was formed with the following goal: all patients in Alaska will receive the right antibiotic at the right time and only when necessary. The A2SC is made up of interested pharmacists, physicians, and representatives of acute and long-term care organizations.

A2SC works to support stewardship programs across the state by providing educational and collaborative opportunities. A2SC partners, including the Alaska Division of Public Health (ADPH), Alaska State Hospital and Nursing Home Association (ASHNHA), Mountain-Pacific Quality Health Foundation (MPQHF), and participating health care facilities, are focused on innovative ways to promote and ensure appropriate antibiotic use in acute care hospitals and long-term care facilities. A2SC meets quarterly and conducts yearly surveys regarding the state of antibiotic stewardship programs. Results from these surveys and discussions with collaborative members identified a need for access to an Infectious Disease Specialist for training and consultation since the majority of the small, rural acute care facilities did not have access to an infectious disease specialist within their facility.

What Was Done

One of A2SC's innovations is the Infectious Disease Specialist Access Pilot Project, which aims to enhance case management and optimize antibiotic treatment by providing rural facilities with access to infectious disease consultation. In February 2016, participating facilities began working with the project lead, an infectious disease physician, to conduct case reviews and webinars. Facilities were recruited based on participation in the survey, A2SC meetings, and through partner agencies. Nine facilities, most with less than 25 beds, chose to participate in the case reviews. The case review/audit calls were held twice a week by phone/webinar. Between April and August 2016, a total of 98 cases were presented and discussed by the ID physician from eight facilities. This project benefits mid-size hospitals that have a regular need to consult with an ID physician, but not enough volume to justify having one on staff, as well as small facilities who are able to listen and learn from other case reports and occasionally have their own cases to present for review.

Webinars have focused on topics related to stewardship and specific medical diagnoses (e.g., respiratory tract infections, urinary tract infections (UTIs), and skin infections). Participating facilities assemble an antibiotic stewardship program team with a pharmacist and/or physician leader, collect basic antibiotic utilization data, participate in case reviews, and document administrative support via a letter of commitment. Finally, participating facilities are required to sponsor one team member to attend "Making a Difference" in Infectious Disease Pharmacotherapy (MAD-ID) training. Some scholarships are available from A2SC.

Additional collaborative activities are coordinated through email lists and collaborative leaders volunteer to facilitate. A2SC convened a two-day educational summit focused on bringing together pharmacists, ID physicians, and infection preventionists on antibiotic stewardship. It is the plan for this summit to be an annual event. In addition, A2SC has conducted surveys on hospital stewardship practices and provided additional webinars on stewardship topics.

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How It Was Accomplished

A2SC's purpose statement guides the collaboratives' efforts: to provide a platform for peer learning, education, and problem solving to develop comprehensive antibiotic stewardship programs at the facility level and in the development of a statewide stewardship plan. The collaborative and its activities are supported by several partners, including ADPH. Currently, ADPH supports A2SC engagement, promotes education of best practices, and strengthens internal resources to optimize the use of antibiotic treatment statewide. They also work on independent projects that support A2SC, such as creating regional antibiograms. ASHNHA, through the Collaborative, pays for the Infectious Disease Specialist Access Pilot Project and hosts the webinar/conference call lines, and maintains the data on the calls. The Alaska Section of Epidemiology does some data-related activities, such as running the yearly stewardship survey. For the conference, a planning group of A2SC members worked together to identify and recruit speakers and handle logistics. Partners were initially identified during an HAI Advisory Council meeting and have evolved as new members choose to participate.

Impact

Approximately 70 people attended the A2SC Summit. Evaluation results indicate high satisfaction with the educational content among pharmacist, nurse, and physician attendees, and indicate support of an annual conference. A2SC will undergo some changes to include a more formal advisory council and membership under the guidance of MPQHF. In addition, MPQHF wishes to expand the current work of A2SC to include outpatient medical services. The role of public health staff is to continue to support education/training, to maintain the annual AK Antibiogram, to provide survey and analysis functions upon request, and to participate in the A2SC meetings.

As a result of the Infectious Disease Specialist Access Pilot Project, hospitals report the following outcomes on individual cases: dose optimization, discontinuation of antibiotics, laboratory samples or cultures recommended, de-escalation or escalation of therapy, and drug information provided. One hospital has shared program metrics indicating that between January and June 2016, the number of antibiotic interventions increased by 32% and antibiotic cost savings per inpatient day increased by 44%. They report that one focus has been on minimizing the use of fluoroquinolones in the hospital environment with use dropping by 60% over the previous year and no identified hospital-acquired Clostridium difficile or extended spectrum beta-lactamase producers (ESBL) this year. Due to an overwhelmingly positive response to the program, A2SC partners will continue to fund the Project and any healthcare facility will be allowed to participate.

Thus far, the work completed by A2SC has led to some important lessons learned, including the need to find champions across disciplines and in different organizations with whom to share antibiotic stewardship implementation. The task is often too large to undertake alone. They found that education, sharing policies/procedures, and identifying key partners (leadership/CEO, pharmacist, infection preventionist, microbiologist, physicians, and providers) to assist with a few of the core elements can help get a program started. With the Infectious Disease Specialist Access Pilot Project, Alaska hopes to find ways to bridge the geographic gaps, and increase opportunities for smaller facilities to implement stewardship.