UWTASP

tele-antimicrobial stewardship program

August 4th, 2020

Announcements

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Agenda

- Didactic: *Accreditation, Inspection and AS*
- Case Discussions
- Open Discussion

Regulatory Authorities

- Departments of Health
- The Joint Commission
- DNV GL
- Flex Program

citations

Framework- ISO 9001

SR.3 The organization will initiate and continue implementation of the ISO 9001 methodology to achieve compliance or certification as stated in QM.1 SR.1. At a minimum, the organization must be able to demonstrate at the time of the NIAHO® Accreditation survey, evidence of the following:

- SR.3a Control of Documents: the organization's documents (i.e. policies, procedures, forms) are structured in a manner to ensure that only the proper revisions are available for use;
- SR.3b Control of Records: the organization ensures that suitable records are maintained for the CoP and NIAHO® requirements;
- SR.3c Internal Surveys (Internal Audits): the organization conducts internal reviews of its processes and resultant corrective/preventive action measures have been implemented and verified to be effective;
- SR.3d Corrective and Preventive Action: the organization will have a mechanism in place to document and monitor corrective and preventive action implemented in some manner to address improvement and changes, where appropriate;
- SR.3e The organization has established measurable quality objectives, the results are analyzed, addressed, and;
- SR.3f Appropriate information has been submitted to the oversight group for quality management as required in QM.6 SR.1 as well as senior management for review and analysis during a management review process.

https://cha.com/wp-content/uploads/2018/05/2018-DNV-NIAHO-Guidelines.pdf

Framework- Simplified

Program and policies exist

Policies reviewed and updated

Policies are enacted and followed

Metrics and goals

Program, policies, metrics and goals reported up

https://cha.com/wp-content/uploads/2018/05/2018-DNV-NIAHO-Guidelines.pdf

Implementation of

Antibiotic Stewardship Core Elements at Small and Critical Access Hospitals

citations

Program and policies exist

Core Elements 1 and 2: Leadership Commitment/Accountability

Leadership commitment by hospital executives and board trustees in small and critical access hospitals is important to ensuring allocation of the necessary resources to support antibiotic stewardship programs. Obtaining leadership commitment from the chief medical officer (CMO), pharmacy director, and nursing leaders can facilitate physician, pharmacist, infection preventionist, and nurse engagement to implement stewardship initiatives to create a strong and sustainable program.

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

Examples of implementation strategies:

- Designate a physician (e.g.,CMO) in the C-suite or individual that reports to C-suite to be accountable for the outcomes of the antibiotic stewardship program.
- Approve a policy for the creation and/or expansion of the antibiotic stewardship program to include all core elements.
- Integrate stewardship activities into ongoing quality improvement and/or patient safety efforts in the hospital (e.g., efforts to improve sepsis management)
- Create a reporting structure for the stewardship program to ensure that information on stewardship activities and outcomes is shared with facility leadership and the hospital board (e.g., semi-annual stewardship update at the board meeting).
- Issue a formal board-approved statement on the importance of the antibiotic stewardship program and include in the hospital's annual report.
- Issue a statement from the hospital leadership (e.g., medical, pharmacy and nursing) to all providers and patients highlighting the hospital's commitment to improving antibiotic use.
- Support training for hospital stewardship leaders on antibiotic stewardship through on-line or in-person courses.

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

Some small and critical access hospitals have found it helpful to seek off-site support for their antibiotic stewardship efforts. Some examples include:

- Enrolling in multi-hospital, collaborative efforts to improve antibiotic use. Consider contacting state hospital associations, state or local public health agencies, and/or large academic medical centers to identity existing antibiotic stewardship collaboratives.
- Funding remote consultation or telemedicine with experts in antibiotic stewardship (e.g., infectious diseases physicians and pharmacists).
  - Even when remote expertise is used, it is important to have a leader of the program who is on staff at the hospital.
- Placing stewardship requirements into the contractual responsibilities of any external pharmacy services including a requirement that pharmacy contractors have formal stewardship training.

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

Program and policies exist

Core Element 3: Drug Expertise

In most critical access hospitals, a pharmacist, usually one who is on-site, provides the leadership and expertise for the antibiotic stewardship program. When possible, having a physician leader is helpful to support the pharmacist. Leaders of stewardship programs can expand their knowledge and experience through a variety of educational programs and through participation in multi-hospital stewardship collaboratives. External expertise via remote or on-site consultation has also been helpful in some critical access hospitals.

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Program and policies exist

Pharmacy

Core Element 3: Drug Expertise

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Examples of implementation strategies:

- Appoint a pharmacist leader, ideally someone who is on-site either full- or part-time. Consider having stewardship as part of the job description or service contract of the pharmacist leader and ensure that leaders have dedicated time to spend on developing and maintaining a stewardship program.
- Appoint a physician leader to provide physician support to the antibiotic stewardship program, ideally someone who is on-site either full- or part-time.
- Offer access to training courses on antibiotic stewardship to help develop local expertise.
- Seek additional expertise by joining multi-hospital improvement collaboratives or through remote consultation (e.g. telemedicine).

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

Policies are enacted and followed

Core Element 4: Action

There are a number of evidenced-based interventions that can improve antibiotic use. Decisions on which one(s) to implement should be based on local needs, which are best determined through discussions with providers and review of local information on antibiotic use.

The majority of all antibiotic use in hospitals is driven by just three conditions: community-acquired pneumonia (CAP), urinary tract infections (UTIs) and skin and soft tissue infections (SSTIs). Studies have demonstrated a number of interventions to improve antibiotic use for each of these and hence these are often high-yield targets for improvement.

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

There are also key stewardship actions that can be implemented by other team members in small and critical access hospitals. Indeed, experts working on stewardship in these hospitals emphasize the value of a team-based approach.

- The following items are daily activities that can also be performed by a pharmacist:
  - Review antibiotics for unnecessary duplicative antibiotic therapy, such as double anaerobic (e.g., piperacillin/tazobactam AND metronidazole) or double anti-MRSA coverage.
  - Review for opportunities for intravenous to oral conversion (e.g. patients taking other oral medications).
  - Monitor for medication safety (e.g., renal dose adjustments) though these represent general pharmacy practices and are not specific to stewardship.
- Nurses play an important role in implementing stewardship actions in critical access hospitals.[13] For example, nurses can:
  - Review culture techniques to ensure that microbiology cultures are collected properly.
  - Review culture results with the treating clinician and pharmacist.
  - Monitor response to antibiotic therapy with feedback to the treating clinician and pharmacist.

Metrics and goals

Core Element 5: Tracking

Data are essential for informing and assessing stewardship actions. A variety of data options are outlined below, and some hospitals might also have more individualized measures. Small and critical access hospitals can review options and make decisions based on local needs and resources. The ultimate key is to have a measure that is useful for stewardship activities, meaningful to providers and that can be tracked over time to assess improvements.

Days of therapy is considered the most useful measure of antibiotic use to inform stewardship efforts. Facilities can electronically capture, analyze and benchmark days of therapy through the **CDC's National Healthcare Safety Network (NHSN) Antimicrobial Use (AU) Option**.[14] Tracking adherence to treatment recommendations and performance of interventions such as antibiotic time-outs can be useful to further guide quality improvement efforts. In addition, small and critical access hospitals are well positioned to monitor antibiotic use at the provider level. This type of individual-level feedback can be very helpful. Stewardship programs can work with infection control programs to track data on *C. difficile* and antibiotic-resistant infections. Finally, antibiotic expenditures should not be used as a way to track the effectiveness of stewardship efforts as antibiotic expenditures do not always correlate with antibiotic use.

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

Examples of implementation strategies:

- Submit antibiotic use and resistance through CDC NHSN AU and Resistance Module.
  - Alternative approach (if NHSN AU Option not feasible): Calculate defined daily dose (DDD) per **WHO ATC DDD Guidelines**[15] for top 5 commonly used antibiotics (e.g., ceftriaxone, azithromycin, vancomycin, piperacillin-tazobactam, and fluoroquinolones).This can be useful in tracking antibiotic use over time at a given hospital. Note that the DDD metric has limitations in **pediatrics.**[16]
- Monitor adherence to facility-specific treatment recommendations (see above in Action) for CAP, UTI and SSTI. If feasible, consider tracking adherence to treatment recommendations per provider.[1]
- Monitor the performance of antibiotic time-outs to see how often these are being done and if opportunities to improve use are being realized during time-outs.
- Perform a medication use evaluation to assess courses of therapy for selected antibiotics (e.g., piperacillin-tazobactam, carbapenems, vancomycin, fluoroquinolones) to see if there are opportunities to improve use.
- Monitor how often patients are converted from intravenous to oral therapy and assess to see if there are missed opportunities to convert.
- Assess how often patients are prescribed unnecessary duplicate therapy (e.g., two antibiotics to treat anaerobes).

Program, policies, metrics and goals reported up

Core Element 6: Reporting

The reporting for critical access hospitals should be consistent with the action and tracking components of the antibiotic stewardship program (e.g., optimizing diagnosis and treatment for the commonly encountered infections, reducing unnecessary duplicate therapy, etc). As mentioned above, data on stewardship efforts should be reported not just to providers, but also to the hospital leadership and board. A key to success is to discuss reporting options with stakeholders to determine optimal timing, format and delivery method(s) for the reports.

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

Examples of implementation strategies:

- Prepare regular reports on the measures being tracked related to antibiotic use. Include these data as a standing report to key stakeholders within the facility, e.g., pharmacy and therapeutics, patient safety/quality, medical staff leadership/committees, and hospital board.
- If feasible, share provider-specific reports with individual clinicians confidentially.
- Distribute data and key messaging through staff newsletters and emails.

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

Core Element 7: Education

The limited number of providers, along with the collaborative nature of many small and critical access hospitals, create some unique advantages for providing individualized education compared to larger hospitals. The pharmacist and/or physician leader can provide stewardship education (e.g., optimizing diagnosis and treatment for the commonly encountered infections, reducing unnecessary duplicate therapy, etc.) to individual providers and pharmacists. Specific education for nurses could also be very helpful, for example, criteria for intravenous to oral conversion, optimal technique for culture collection, and criteria for when to obtain a urine culture. Lastly, patient and family education can also help drive improvements in antibiotic use and empower patients and families to help monitor for important adverse events, like *C. difficile* infection. To help with patient and family education, the CDC developed a **fact sheet on antibiotic use for hospitalized patients**.[17]

https://www.cdc.gov/antibiotic-use/healthcare/pdfs/core-elements-small-critical.pdf

Examples of Implementation Strategies:

- Integrate regular (e.g., monthly or at least quarterly) updates on antibiotic stewardship and resistance into communications tools with particular focus on interventions related to CAP, UTI and SSTI (e.g., blogs, website, intranet, and employee newsletters).
- Provide targeted in-person or web-based educational presentations and messages to key provider, pharmacist and nursing groups at least annually (e.g., staff meetings for sections).
- One-on-one provider education/coaching (e.g., academic detailing).
- Incorporate antibiotic stewardship education into orientation for new medical, pharmacist and nursing staff and required annual provider educational programs.
- Incorporate antibiotic stewardship into (re)credentialing education

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Questions/Discussion

citations