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**Quality Corner Call**  
**May 15, 2019**  
**Noon - 1 p.m.**

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**Antibiotic Stewardship in Critical Access Hospitals**

For Audio, please call the following:

U.S. and Canada Toll Free: (866) 740-1260  
Required Participant Passcode: 2337436

Antibiotic Stewardship  
in Clara Barton Hospital

## Objectives

- Applying CDC Core Elements of Antibiotic Stewardship in small and critical access facilities
- Barriers and advantages to establishing the antibiotic stewardship program in a smaller organization

## Clara Barton Hospital & Clinics

- 23 bed CAH located in Hoisington, KS
- Attached Rural Health Clinic, 2 free standing RHCs, and a surgical clinic
- PT/OT department offer a variety of services including wound therapy
- Surgical services
  - General, orthopedics, GYN
- Medical Staff: 3 physicians, 2 surgeons, 7 PAs, and a compliment of visiting specialists
- Volumes in 2018
  - Total inpatient admissions 611
  - Total inpatient days 3,313
  - ER visits 2,728
  - Total Clinic Visits 26,713



CLARA BARTON  
Hospital & Clinics

## History of our Program

- Antibiotic Stewardship Committee
  - Sub-committee of Infection Prevention
  - Committee members: Physician leader, Pathologist, Pharmacist, Chief Nursing Officer, Quality manager, Lab manger, OR director, Clinic Nursing, Infection Prevention

## History of our Program

- First steps for a formal program were initiated in October 2015
  - Determined ABS practices already in place
  - CDC checklist for antibiotic stewardship programs
  - Established leadership support
    - Mission Statement:
 

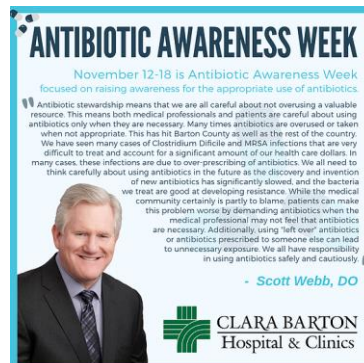
“The mission of the Antimicrobial Stewardship Program at Clara Barton Hospital and Medical Clinics is to optimize the utilization of antimicrobial agents in order to achieve improved patient outcomes, a positive effect on antimicrobial resistance, and an economic benefit. Antimicrobial stewardship is defined as a rational, systematic approach to the use of antimicrobial agents in order to achieve optimal outcomes. Goals of the program include using the right agent, at the correct dose, for the appropriate duration in order to cure or prevent infection, while minimizing toxicity and emergence of resistance.”

## Leadership Commitment

- Leadership/Mission statement made official 2/2016
  - signed by CEO and physician champion
- Active participation on antibiotic stewardship committee
- Antibiotic Stewardship duties in job descriptions 4/2019
- Participation in quality initiatives through KHC, KFMC, and Great Plains QIN
  - C.diff collaborative
  - Outpatient antibiotic stewardship
- Ensures sufficient time is allowed for stewardship duties (development of the program, data collection, research, etc.)
  - Time commitment: 6-10 hours per week
- Financial support: educational needs, time allotted for stewardship activities and data collection,

## Accountability

Single leader who will be responsible for program outcomes



### Physician Champion

- Getting a physician leader on board
- Essential for change!
- Advantages of a physician champion in a CAH

## Drug Expertise

Pharmacist leader

- Cornerstone of ABS program
  - Essential to nurse and physician education
  - Knowledgeable on evidence based practice and current recommendations
- Addition of remote pharmacy (8/16)

## Policy

- Antibiotic Stewardship Policy was finalized 10/2016
  - Key points:
    - Required documentation of dose, duration, and indication in the EMR
    - Defined roles:
      - Physician- prescribe antibiotics only when beneficial to the patient
      - Pharmacy- entering stop dates, ensuring therapeutic drug levels, addressing duplicate antibiotic therapy
      - Nursing- ongoing communication with physician and pharmacy
      - Infection Prevention- data collection
    - Physician feedback
    - Goal: positive outcome on resistance, recognized economic benefit, **optimize antibiotic usage**

## Nurse's Role

- Initiating 48-hour antibiotic timeout
- Knowing indication of prescribed antibiotics
- Ensuring cultures have been drawn prior to antibiotic initiation
- Recognizing colonization vs. infection
- Timely administration of antibiotics
- Educating patients
- Reviewing culture results
- Accurate allergy history

## Action

### Interventions to Improve Antibiotic Use

- 1<sup>st</sup> action step:
  - Documentation of duration and indication entered for all antibiotic orders
  - "Soft stop" placed on all antibiotic orders for 7 days
- Specific treatment recommendations
  - Order sets
  - Antibigram
- Antibiotic time out
  - Collaboration between nursing/pharmacy/providers
  - Workflow

## 48 hour antibiotic timeout

- 4 moments of antibiotic decision making:
  - 1) Does the patient have an infection that requires antibiotics?
  - 2) Have appropriate cultures been ordered?
  - 3) Can antibiotics be discontinued 24-48 hours after initiation? Can therapy be narrowed or switched from IV to oral?
  - 4) What duration of therapy is needed?

## Action Pharmacy driven interventions

- Changes from IV to oral therapy
  - Workflow
  - Patient population
- Dose adjustments
  - Pharmacy may order necessary labs to monitor organ function
- Alerts for duplicate therapy
  - EMR is helpful in recognizing duplicate antibiotic
  - Communication via message center in case of duplicate therapy
- Time-sensitive stop orders
  - Importance of medication list
  - SCIP protocol
- Potential drug-drug interactions
- Recognizes need for allergy history updates
  - Questionnaire developed for nursing staff

## Data Collection

- Antibiotic Stewardship Log
  - Diagnosis/Indication
  - Antibiotic
  - Route
  - Culture
  - Soft Stop
  - Provider
  - Order sets
  - Antibiotic Appropriateness

## Tracking

- Have stewardship efforts improved antibiotic use and patient outcomes?
  - The goal is improved care, not reduced use or cost savings
- Finding what is meaningful for your facility
- Trial and Error
  - Defined Daily Dose
  - Days of Therapy
  - Order set utilization
- Monitoring adherence to stewardship policy
- Tracking C. diff infections
- Antibigram information



## Tracking

- Current order sets:
  - Pneumonia
  - C. diff
  - Sepsis
  - SCIP
- In the works:
  - Skin/soft tissue
  - MRSA
  - UTI

## Reporting

- Information reported quarterly
  - Questionable antibiotic orders (indications, cultures)
  - Soft stop entry
  - Adherence to facility recommended antibiotics (order sets)
  - C. diff infections
- Clinic/Outpatient setting
  - Adherence to URI treatment recommendations

## Education

- Provider
  - Up-to-date
  - Hippocrates
  - Quarterly reporting on antibiotic stewardship
- Nursing
  - Antibiotic Resistance Module
    - CDC train: [www.train.org](http://www.train.org)
- Patients
  - Community events
  - Social media
  - Outpatient opportunities
  - Hospital Website

## Outpatient ABS

- Formal program began in 2017
  - Physician leader
  - Policy changes
    - Antibiotic prescription via phone
    - Viral prescriptions
  - Tracking & Reporting
    - Antibiotic prescribing for URI
  - Education
    - CMEs for antibiotic prescribing
    - Patient education

## Additional strategies

- Verigene Nanosphere
  - POC testing
- Hand Hygiene
- Immunization Program
- Outpatient ABS Program
  - Policy changes
  - Viral prescriptions
  - Tracking/Reporting
- EMR system
- Marketing/Social media

## Timeline

- 2015
  - Implementation of antibiotic stewardship program
    - Identified practices in place
    - Developed ABS committee
    - Mission statement signed by CEO and physician leader
    - Began work on C. diff collaborative
- 2016
  - Antibigram requested and uploaded onto desktops
  - Required that duration and indication be placed on all antibiotic orders (ongoing)
  - Developed workflow for antibiotic timeout (nursing/provider/pharmacy)
  - Formalized ABS policy
  - Purchased Verigene Nanosphere
- 2017
  - Began work on "tracking and reporting" element (ongoing)
  - Great Plains QIN Outpatient Antibiotic Stewardship Initiative
  - Developed outpatient viral prescriptions (adult and pediatric)

## Timeline

- 2018
  - Education provided by physician leader at community events
  - Adopted new workflow for IV to PO transition
  - Patient education made available through website
  - Nursing Education opportunities through CDC
  - Updating patient allergy records (ongoing)
  - Development of order sets (ongoing)
- 2019
  - Included ABS duties in job description
  - Community health fair education
  - Quarterly reporting on adherence to ABS practices

## Antibiotic Stewardship in a CAH

### Advantages

- Medical professionals practice in a variety of settings
- Accessible expertise
- Data collection

### Challenges

- Measuring success
- Limited resources
- Change!

## Resources

- Antimicrobial Stewardship Programs a Toolkit for Critical Access Hospitals in Kansas
- CDC Implementation of Antibiotic Stewardship Core Elements at Small and Critical Access Hospitals

## Questions

## Upcoming Webinars

- 2019 SHIP Informational Webinars
  - June 20, September 20, and December 20
- Quality Corner Calls
  - July 17 – Palliative Care Ideas for Rural Hospitals
  - August 14 – TBD
- Efficient Revenue Cycle Project
  - May 22 – Informational Webinar



## Turning Data into Improvement

- Topics:
  - Refresher of MBQIP measures
  - Discussion of reported quality data
  - Group breakout
  - PDSA development
  - Quality improvement strategies
- Dates offered:
  - May 29 – Garden City
  - June 19 – Emporia
  - August 15 – Belleville



## Upcoming In-Person Education

- CART Abstraction Training
  - July 23 – Wichita
- Quality 101
  - August 1 & 2 – Topeka



## Contact Us

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