HOSPITAL STORIES: IMPLEMENTING THE 7 CORE ELEMENTS

HAYS MEDICAL CENTER
KANSAS MEDICAL CENTER
STORMONT VAIL HEALTH SYSTEM

2220 Canterbury Drive
Hays, Kansas
www.haysmed.com
ABOUT US

Hospital characteristics
► Regional Referral Center for Western Kansas
  ● 207 Beds; ADC 85
  ● 24 CAH (Regional Referral Center)
► DNV Accredited
  ● ISO 9001 Certified
  ● Certified Primary Stroke Center
  ● Management of Infection Risk (MIR) Certified
► Verified Level 3 Trauma Center
► Accredited Chest Pain Center
► Disciplines of care
  ● 30 Specialties
► Your ASP Team
  ● Infection Control, Pharmacist, Physician, Laboratory, CNO, OR Director, IT

OUR STORY

► Working on ASP development since 2011
► First formal meeting in September of 2015
► Quarterly Meetings
MEASURES

► Defined daily doses/1000 patient days
► Antimicrobial sensitivities tracked
  ● Formulary changes
  ● Infusion changes
► PCR MRSA/MSSA rates
  ● General (sepsis orderset)
  ● Surgery (orthopedic) preoperative
► PCR C.diff. rates
► Pharmacy following procalcitonin levels
► Prescriber use of restricted antimicrobials

TRENDING

► Improved *pseudomonas aeruginosa* and other gram negative bacteria sensitivities
► Low incidence of positive preoperative MRSA screenings
► Providers evaluating antibiotic therapy with serial procalcitonin levels and deescalating antibiotics themselves (!)
BARRIERS/SUCCESES

► Vancomycin overuse
► Physician acceptance on de-escalation efforts
► ASP physician meeting attendance
► Pharmacy staffing
► Decreased C-diff rates

Aim: Prevention of hospital-acquired C-difficile infections

Why is this project important:
Preventing C-diff infections decreases patient harm.

Change being Tested, Implemented or Spread:

1. UV light boxes for hand held devices (Nov. 2017) (I)
2. Hand hygiene campaign (ATP Testing) FY2016 Quality Goal
3. Ultraviolet disinfection system (Spring 2013) (S)
4. Antimicrobial Stewardship Program (I)
5. Kansas Foundation for Medical Care Clostridium difficile Prevention Project (December 2012)

Charts:

Date: Feb. 2018

Aim Statement

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Lessons Learned

Preventing C-diff infections decreases patient length of stay (LOS).

Recommendations and Next Steps

1. Associate education
2. Antibiotic Stewardship Program
3. Education for outpatient departments

Team Members

Management of Infection Risk Committee
ADVICE FOR OTHERS

► Find a physician champion
► Multidisciplinary effort – choose your team wisely
► Communication with administration and prescribers
► Be visible and actively involved “in the trenches”

NEXT STEPS

► Vancomycin “time out”
► Required diagnosis and duration for antibiotic orders
ABOUT US

Hospital characteristics
► 58 bed acute care hospital
► ED, ICU, Tele, Medsurg, 6 OR’s, 2 cath labs
► Strong emphasis on Cardiovascular services and surgeries.
► Ortho, cosmetic, maxillo-facial, urology, GI, and general surgeries.
► Nursing, PA, CRNA, ARNP, and PharmD student rotation site.
► 400 employees
► 150 contracted physicians
► Satellite ED department off campus
► 4 outpatient physician clinics
KMC’S ANTIMICROBIAL STEWARDSHIP COMMITTEE
► Started as a pharmacist-driven program in 2006 when the hospital opened.
► Started our current Antimicrobial Stewardship Committee in 2016.
  ● Pharmacist
  ● Infectious Disease Physician
► Expanded our committee to include other disciplines
  ● Infection Control Nurse
  ● CNO
  ● Hospitalist
MEETING CORE ELEMENTS

► Leadership commitment
► Accountability
► Drug Expertise
► Actions that support optimal antibiotic use
► Tracking and Monitoring Antibiotic Use and Resistance
► Reporting Information on Improving Antibiotic Use and Resistance
► Education

BARRIERS

► Reporting abilities/IT
► Allocating staff time without increasing FTE’s
► Surgeon unwillingness to cut back on antimicrobial prophylaxis post-op.
SUCCESES

► Strong physician support
► Strong support through P&T
  ● Willingness to implement automatic changes based on Pharmacist recommendations:
    ▪ IV to PO autoswitch
    ▪ Extended infusion Zosyn

INFECTION CONTROL

► Role of Infection Control Nurse
  ● Educate staff to reduce the risk of multidrug-resistant organisms (MDROs) like *C. diff*
  ● Daily Culture Report
  ● Isolation Team Email
  ● Monitor and report trends to team
  ● Educate Self – KHC, APIC, CDC, WHO, CMS, KDHE, Healthy People 2020
INFECTION CONTROL

► Education:
  - Medical providers
  - Nursing and other relevant staff
    - prevention and control of HAI
    - Training and education upon hire, annually and ongoing as needed
  - Patients and Visitors
    - Admission Packet Handouts
    - Posters in Departments
    - Bedside Education
    - Dismissal Education

► Tracking:
  - Daily Culture Report
  - Isolation Team Email
  - Review the Chart
  - Monitor Trends

► Reporting:
  - Report trends
    - medical providers
    - nurses
    - relevant staff
    - key stakeholders
    - NHSN – C. Diff rates
  - Come to conclusion as a team for Process Improvement
PHYSICIAN PERSPECTIVES

INFECTIOUS DISEASE SPECIALTY INPUT

SCOPE OF PHYSICIAN INVOLVEMENT AT KMC

► Each AM I review a pharmacy generated printout of all patients on IV antibiotics
► I then review (in peer review mode) the EMR of each patient to determine appropriateness of therapy
► I discuss each case with the attending physician
► If the patient’s LOS will exceed 72 hrs, I then initiate a formal ID consult and begin management of the antibiotics
► Automatic ID consultation per protocol or medical staff parameters (ie on IV antibiotics >48-72 hrs)
SCOPE OF PHYSICIAN INVOLVEMENT AT KMC

► 12-15 patients daily on the pharmacy IV antibiotic list
► Several of them I am already seeing in consult (8-10)
► A few patients are receiving only surgical prophylaxis
► I review the EMR and speak with attending physicians
► 2-3 new consults per day

SUCCESS OF AMS AT KANSAS MEDICAL CENTER

► 100% concurrent review of all patients on IV antibiotics, and medical staff consent to ID consult for evaluation and management within 48-72 hrs of admission/start of treatment.
► Approximately 8-10 pts seen daily for ID assessment and antibiotic management (2-3 new consults daily)
ABOUT US

- Stormont Vail Health (SVH) is a 586-licensed bed acute care referral center in northeast Kansas
- Recognized Magnet Hospital, Trauma Level II, NICU level III, Stroke, MI and Total Joint Center JCAHO accredited
- Serves the city of Topeka which is ~ 150,000 people and 13-counties in northeast Kansas ~581,837 people
- Affiliated with Health Innovations Network of Kansas (HINK)
  - ~30 facilities associated with SVH
  - 450 physicians with medical staff privileges
  - 250 physicians employed by SVH
  - 5,000 employees
OUR STORY

► Antibiotic Stewardship Program Started in the hospital August 2010

► Multidisciplinary Medical staff committee

► Completed CDC Antibiotic Stewardship Gap Analysis to help determine where to focus efforts

► Reviewed pharmacy antibiotic budget to determine high utilizations of antibiotics.

► Reviewed antibiogram to determine if there are antibiotics with <90% susceptibilities.

MEASURES/TRENDING

► Passed were only able to obtain pharmacy budget data.

► Reviewed retrospective data that was "manually extrapolated" to determine if antibiotics were used appropriately.

► Currently use Care Discovery data to review diagnosis related codes to review Stormont Vail Health data to national comparative data
BARRIERS/SUCCESSES

► CPOE order oversight committee to let us review all orders with antibiotics
► Antibiotic Surgical Prophylaxis
► Recommendations thru multiple committees chains took so long as they got held up in committee
► Unable to provide feedback consistently because unable to measure DDD or DOT
► Not enough clinical pharmacists to review all pts on antibiotics at 48hrs
► Clinical pharmacists started to round with hospitalists (who loved it) but it couldn't be sustained except NICU Peds and ICUs
► Antibiotic indication and duration (Inpatient vs ambulatory)
► Penicillin Allergy testing

ADVICE FOR OTHERS

► Never Give up trying to do what is right
► Some times like doing the "Cha Cha" to get things accomplished
NEXT STEPS

► Yearly review
  ● CDC GAP analysis for Hospital and ambulatory
  ● Review of antibiogram
  ● Review CMS, JCAHO and ASP/IDSA guidelines

► EPIC Antibiotic Stewardship Module Updates

► Penicillin testing

► ED pharmacist antibiotic culture review

► Questions?
  ● Contact: katfoste@stormontvail.org