



The Infection Control Risk Assessment and Plan

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Which comes 1st the chicken or the egg?

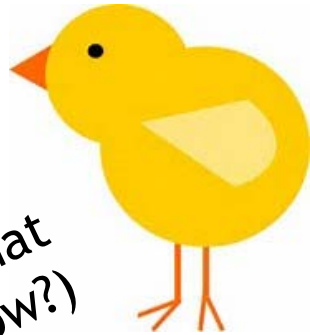
Risk Assessment



Infection Control and Prevention Plan



Annual Review (what does the data show?)



INFORMATION OVERLOAD

HELP!!!!!!!!!!!!



Antimicrobial Stewardship

Construction & Renovation

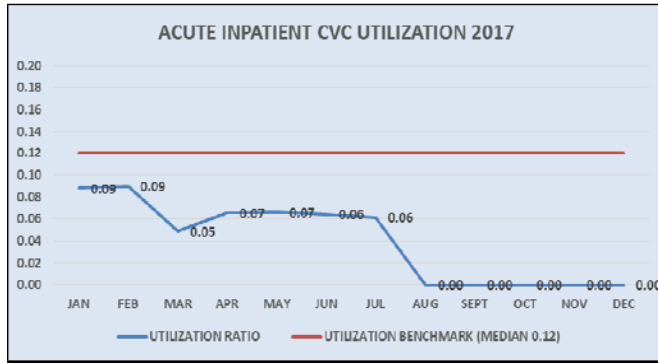
Syndrome surveillance

Cop

International Travel
Advisories/Health
Alerts

NPSGs

Aggregate,
analyze, plan



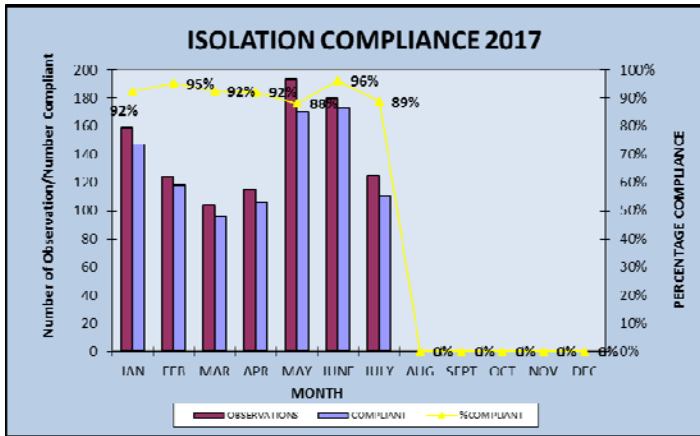
| COMMUNICABLE DISEASE REPORTED | TOTAL REPORTED |
|------------------------------------|----------------|
| CAMPYLOBACTER | 1 |
| CHLAMYDIA | 1 |
| HEPATITIS B | 6 |
| HEPATITIS C | 24 |
| HIV | 2 |
| INFLUENZA A SUBTYPE H3 | 1 |
| LYME DISEASE | 1 |
| PERTUSSIS | 1 |
| ROCKY MOUNTAIN SPOTTED FEVER | 2 |
| SALMONELLA | 1 |
| SHIGELLA | 1 |
| STEPTOCOCCUS PNEUMONIAE (INVASIVE) | 3 |
| SUSPECTED TB/TB | 12 |

Emergency Preparedness

Community outbreaks/threats

Employee exposures

Employee immunizations



WHERE DO I START?



Annual Infection Control Program Review

- ▶ Data aggregation and analysis
- ▶ Healthcare-acquired infection trends
- ▶ Compliance with infection control standards
- ▶ Communicable diseases (prevalence rates, incidence rates)
- ▶ Acknowledge achievements and challenges
- ▶ Presented as a stand alone document
- ▶ Annual review and approval by the Infection Control Committee

Basis of the annual risk assessment



THE COMPREHENSIVE RISK ASSESSMENT

PURPOSE OF THE RISK ASSESSMENT GRID

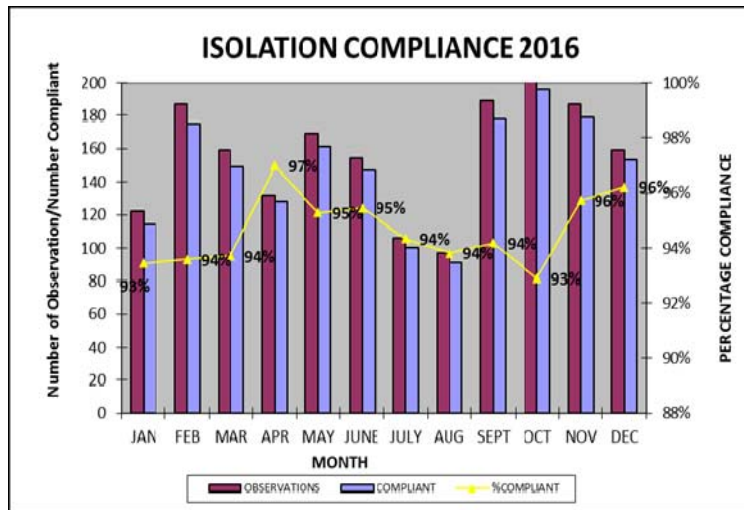
- ▶ Rank risks by score to determine organizational priorities
- ▶ Assist in determining where to focus available resources
- ▶ Provides basis for developing The Infection Control Plan
- ▶ Identify gaps in infection prevention measures/processes
- ▶ Communication tool - provide leadership and patient care providers with known and potential risks which can directly affect our patients

The Annual Risk Assessment

What do I want to include from the annual review?

- ▶ Identified infections with the highest probability and potential for harm (known risk, potential risk, contamination, exposures)
- ▶ Identified environmental issues/concerns
- ▶ Identified organizational areas of weakness
- ▶ Emergency preparedness (Internally and Externally)
- ▶ National Patient Safety Goals - have patient safety issues been identified
- ▶ Conditions of Participation - does your organization meet CMS health and safety standards

Annual Program Review - Use Historical Data, Example 1: Organization challenge



Goal - 100%

Isolation Observations - 1,872, Compliant - 1,771

2016 Compliance 95%

Improvement in isolation compliance has consistently improved:

| Year | Compliance |
|------|------------|
| 2013 | 84% |
| 2014 | 89% |
| 2015 | 90% |
| 2016 | 95% |

Daily isolation rounds are done. When making isolation rounds the Infection Preventionist looks for appropriate signage for the communicable disease/disease process, isolation caddies are stocked with appropriate personal protective equipment (PPE), employees wearing appropriate PPE dedicated equipment, disposing of PPE properly, hand hygiene on entering and exiting the isolation room, and patient/family education.

Annual Program Review - Use Historical Data Example 2:
Community challenge

2016 COMMUNICABLE DISEASE REPORTING

| <i>REPORTABLE DISEASES/CONDITIONS</i> | <i>TOTAL REPORTED</i> |
|--|------------------------------|
| Campylobacteriosis | 11 |
| Chlamydia trachomatis | 2 |
| Cryptosporidiosis | 1 |
| Ehrlichiosis | 4 |
| Hepatitis A | 2 |
| Hepatitis B | 14 |
| Hepatitis C | 115 |
| HIV | 2 |
| Legionellosis | 2 |
| Lyme disease | 4 |
| Pertussis | 4 |
| Rocky Mountain Spotted Fever | 3 |
| Salmonellosis | 1 |
| Shigellosis | 1 |
| Syphilis | 2 |
| Suspected tuberculosis | 8 (2 confirmed acute) |
| Arboviral diseases (Zika) | 2 |

Risk Assessment Components

- ▶ Geographical area served
- ▶ Population served
- ▶ Environmental issues
- ▶ Access to healthcare
- ▶ Prevalence of chronic disease
- ▶ Emergency preparedness
- ▶ Availability of equipment/supplies
- ▶ Public health
- ▶ Services provided including areas of specialization
- ▶ Actual data collected and analyzed from previous year
- ▶ Prevention measures consistent with evidence based practices

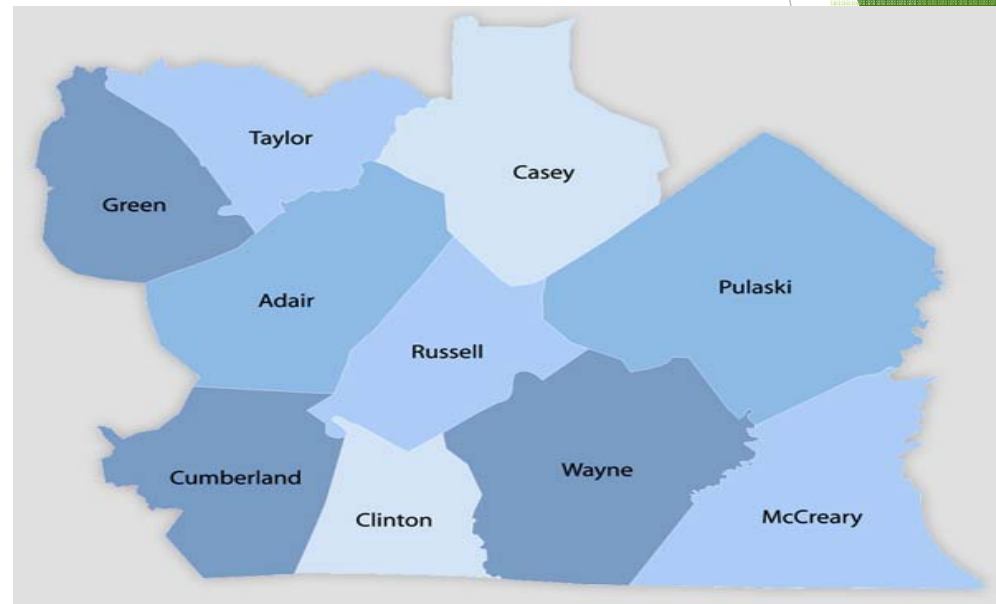
DEFINE THE GEOGRAPHIC AREA AND POPULATION SERVED

External Risk Factors

- Available services
- Geography
- Environment
- Prevalent diseases and conditions
- Emerging Infections
- High risk populations

Internal Risk Factors

- Patients
- Employees
- Procedures
- Devices



COMMUNITY CHARACTERISTICS

- Chronic diseases and conditions
- Number of acute care facilities in the service area
- Antibiotic prescribing practices
- Socioeconomic status
- Prevalence of MDROs/CDI in the community/district
- Senior population
- Substance abuse
- Immigration population

FACILITY CHARACTERISTICS

- ▶ Number of licensed beds
- ▶ Number of clinicians and licensed staff
- ▶ Specialty services provided
- ▶ Affiliates such as physician practice, wound care center, cancer treatment center, etc.
- ▶ Construction/Renovation
- ▶ Specific units within the facility (i.e., ICU, NICU, Dialysis)
- ▶ Invasive devices, invasive procedures

OTHER RISK FACTORS TO CONSIDER

- Antibiotic prescribing practices
- Skilled Nursing Facilities, intermediate and personal care facilities/homes, Home Health Agencies, Durable Medical Equipment Providers, Hospice
- Affiliation with local community colleges/universities
- Volunteer program(s)
- Residency Program



RISK ASSESSMENT GRID SCORING

2017 Infection Prevention and Control Risk Assessment

| Potential Risks/Problems | PROBABILITY OF OCCURRENCE | | | | RISK/ IMPACT ON PATIENTS, STAFF, AND VISITORS | | | ORGANIZATION PREPAREDNESS TO ADDRESS RISK AT THIS TIME | | | RISK LEVEL | |
|--|---------------------------|---------------|------------|-----------|---|-----------------|---------------------------|--|----------|----------|------------|------------------|
| | SCORE | Expect it (4) | Likely (3) | Maybe (2) | Low (1) | Life Threat (3) | Temp loss of function (2) | Min Clinical or financial (1) | Poor (3) | Fair (2) | | Good / Solid (1) |
| Geography and Community | | | | | | | | | | | | |
| Chronic diseases and conditions (diabetes, obesity, asthma, renal failure, lung disease) | 4 | | | | | 3 | | | | | 1 | 12 |
| Behavioral risk factors (tobacco use, substance abuse, poor dietary habits, lack of physical activity) | 4 | | | | | 3 | | | | | 1 | 12 |
| Prevalence of MDROs/CDI in the community/district | 4 | | | | | 3 | | | | | 1 | 12 |
| Senior population | 4 | | | | | 3 | | | | | 1 | 12 |
| Unvaccinated in the community-increased risk for communicable disease transmission | | | | 2 | | 3 | | | | | 1 | 6 |
| Immigrant population, international travel | 4 | | | | | 3 | | | | 2 | | 24 |

RISK ASSESSMENT GRID SCORING

| Potential Risks/Problems | PROBABILITY OF OCCURRENCE | | | | RISK/ IMPACT ON PATIENTS, STAFF, AND VISITORS | | | ORGANIZATION PREPAREDNESS TO ADDRESS RISK AT THIS TIME | | | RISK LEVEL | |
|--|---------------------------|---------------|------------|-----------|---|-----------------|---------------------------|--|----------|----------|------------------|-------|
| | SCORE | Expect it (4) | Likely (3) | Maybe (2) | Low (1) | Life Threat (3) | Temp loss of function (2) | Min Clinical or financial (1) | Poor (3) | Fair (2) | Good / Solid (1) | TOTAL |
| PREVENTION ACTIVITIES | | | | | | | | | | | | |
| Potential for influx of patients with communicable disease(s) as only Acute Care Hospital for the Lake Cumberland District | | | 2 | | | 3 | | | | | 1 | 6 |
| Non-compliance with standard precautions including hand hygiene/respiratory hygiene and cough etiquette | | | | | 1 | 3 | | | | | 1 | 4 |
| Non-compliance to Transmission Based Precautions (Contact, Droplet, Airborne) | | | 2 | | | 3 | | | | | 1 | 6 |
| Lack of necessary PPE & appropriate PPE (increase need for supplies during outbreaks (nation, state, local) | | | 3 | | | 3 | | | | | 1 | 9 |
| Failure to implement EBPs to prevent hospital acquired pneumonia in a community where chronic lung disease, stroke, obesity, etc. increase the risk for developing pneumonia | | | | | 2 | 3 | | | | | 1 | 6 |
| Failure to educate patient/family in prevention of infection and preventing transmission of infectious diseases | | | 2 | | | 3 | | | | 2 | | 12 |

RISK ASSESSMENT SCORING

- ▶ Multiply the ratings for each risk in the area of probability, impact and organization preparedness = Risk Score
- ▶ Ranking our risks by total score to help identify priorities – sort in order of risk
- ▶ Priorities are used in the development of the Infection Control Plan

WHAT COMES NEXT?



THE ANNUAL INFECTION CONTROL PLAN

- ▶ Number priorities according to the risk scores
- ▶ Purpose, Goals, Responsibility, Reporting, Authority Statement, Resource Allocation, Data Collection, Surveillance Method(s), Allocation of Time, Scope of Care
- ▶ Measurable goals (zero CLABSI)
- ▶ Strategies/Interventions the organization will use to achieve goals
- ▶ Responsible person(s)
- ▶ Time frame
- ▶ Method of evaluation

2017 INFECTION PREVENTION PRIORITIES

1. Surgical complication prevention

- a. Cleaning/Disinfection/Sterilization of equipment/instruments
- b. Compliance with EBPs to prevent SSIs (modifiable risk factors such as surgical attire, cleaning and disinfection of instruments)
 - a. Environmental cleaning in the OR
 - b. Postoperative pneumonia

1. Healthcare associated pneumonia

- a. Increase activity/ambulation as tolerated
- b. Deep breathing
- c. Oral care

1. Environmental Cleaning

- a. Patient care area
- b. Terminal cleaning
- c. Insect control
- d. Storage of patient care supplies

1. Device Related Infection Prevention

- a. Foley catheter related urinary tract infections (focus on removing unnecessary FCs)
- b. CVC related infections (remove unnecessary CVCs/aseptic technique)
- c. Ventilator management/Ventilator Bundle

Infection Prevention and Control Plan 2017

| Potential Risks/Problems | Goals | Strategies/Interventions | Responsible person(s) | Timeframe | Method of Evaluation |
|---|--|---|---|--|---|
| PRIORITY 1: PROCEDURE RELATED RISKS | | | | | |
| <p>Prevent Surgical Site Infection</p> <p>Rationale: Surgical site infections are the most common healthcare-associated infection, accounting for 31% of all HAIs among hospitalized patients. SSIs are a substantial cause of morbidity, prolonged hospitalization, and death. SSI is associated with a mortality rate of 3%.</p> <p>1 of every 24 patients who have inpatient surgery in the U.S. develops an SSI.</p> <p>Procedures involving contact with a medical device or surgical instrument with a patient's sterile tissue or mucous membranes poses a major risk of introducing pathogens which can lead to infection. Failure to properly clean, disinfect or sterilize equipment may lead to</p> | <p>Overall SSI rate ≤ 0.50%</p> <p>Colon = Number SSI/Expected SSI</p> <p>TAH = Number of SSI/Expected SSI</p> <p>Bi-monthly duodenoscopy culture negative</p> <p>100% percent compliance with defined process for cleaning, disinfecting and sterilization of critical and semi-critical devices and instruments</p> <p>100% compliance with use of low level disinfectants for non-critical items</p> | <p>Reprocessing of Instruments</p> <ul style="list-style-type: none"> Flexible endoscopes and accessories will be pre-cleaned at the point of use Endoscopes will be processed in area designed and constructed to support processing activities Flexible endoscopes and accessories will be pre-cleaned at the point of use. After pre-cleaning at the point of use, contaminated flexible endoscopes and accessories will be transported to the endoscopy processing room Flexible endoscopes designed to be leak tested should be leak tested after each use After leak testing and before HLD or sterilization, flexible endoscopes will be manually cleaned Flexible endoscopes and accessories will be visually inspected for cleanliness, integrity and function before use After manual cleaning and inspection flexible endoscopes and accessories will be HLD or sterilized. Flexible endoscopes and accessories should be stored to minimize contamination and protect from damage | <p>Central Sterile Processing</p> <p>Surgical staff, surgeons, anesthesiologist</p> <p>Materials Management</p> <p>Laboratory</p> <p>Plant Operations</p> | <p>Annually January 1, 2017- December 31, 2017</p> | <p>Colon/TAH Reportable through NHSN</p> <p>SIR = <u>Observed HAIs</u> Expected HAIs</p> <p>SSI RATE (All other) = <u>Total SS</u></p> <p>Total no. of procedures = ra</p> <p>SSI rates per 100 operative procedures are calculated by dividing the number of SSIs the number of specific operative procedures and multiplying the results by 10</p> <p>SSI rate calculations are performed separately for different types of operative procedures and stratified by the basic risk index.</p> <p>For surgical procedures that are not reported through NHSN all procedures will be totaled and all SSIs totaled. Total SS will be divided by the total</p> |

QUESTIONS?

