INFECTION CONTROL

2016 HAI CAUCUS
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NORTHERN NEVADA MEDICAL CENTER
MISSION:

The mission of the infection control program is the prevention and control of infections to promote the well-being of patients, healthcare staff, volunteers, students, and visitors through a commitment to excellent and respectful patient care, effective use of resources, and continuous improvement.
HEALTHCARE-ASSOCIATED INFECTIONS: IMPACT IN UNITED STATES

• 1.7 million infections per year
• 98,987 deaths due to HAI
  • Pneumonia 35,967
  • Bloodstream 30,665
  • Urinary tract 13,088
  • SSI 8,205
  • Other 11,062
• 6th leading cause of death (after heart disease, cancer, stroke, chronic lower respiratory diseases, and accidents)

National Center for Health Statistics
# AVERAGE LENGTH OF STAY DUE TO COMMON HAIS

<table>
<thead>
<tr>
<th>HAI</th>
<th>Avg Length of Stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Site Infection (SSI)</td>
<td>~11 days</td>
</tr>
<tr>
<td>MRSA SSI</td>
<td>~23 days</td>
</tr>
<tr>
<td>Central Line-Associated Bloodstream Infection (CLABSI)</td>
<td>~10 days</td>
</tr>
<tr>
<td>MRSA CLABSI</td>
<td>~16 days</td>
</tr>
<tr>
<td>Ventilator Associated Pneumonia (VAP)</td>
<td>~13 days</td>
</tr>
<tr>
<td>Catheter-Associated Urinary Tract Infection (CAUTI)</td>
<td>&lt; 1 day</td>
</tr>
<tr>
<td><em>Clostridium difficile</em> Infection (CDI)</td>
<td>~ 3 days</td>
</tr>
</tbody>
</table>
## COST ESTIMATES FOR HEALTHCARE-ASSOCIATED INFECTIONS (HAIS)

<table>
<thead>
<tr>
<th>HAI</th>
<th>Est Direct Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Site Infection (SSI)</td>
<td>$20,785</td>
</tr>
<tr>
<td> MRSA SSI</td>
<td>$42,300</td>
</tr>
<tr>
<td>Central Line-Associated Bloodstream Infection (CLABSI)</td>
<td>$45,814</td>
</tr>
<tr>
<td> MRSA CLABSI</td>
<td>$42,300</td>
</tr>
<tr>
<td>Ventilator Associated Pneumonia (VAP)</td>
<td>$40,144</td>
</tr>
<tr>
<td>Catheter-Associated Urinary Tract Infection (CAUTI)</td>
<td>$896</td>
</tr>
<tr>
<td>Clostridium difficile Infection (CDI)</td>
<td>$11,285</td>
</tr>
</tbody>
</table>
# MORTALITY RATE OF COMMON HAIS

<table>
<thead>
<tr>
<th>HAI</th>
<th>Attributable Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Site Infection (SSI)</td>
<td>~4%</td>
</tr>
<tr>
<td>Central Line-Associated Bloodstream Infection (CLABSI)</td>
<td>~26%</td>
</tr>
<tr>
<td>Ventilator Associated Pneumonia (VAP)</td>
<td>~24%</td>
</tr>
<tr>
<td>Catheter-Associated Urinary Tract Infection (CAUTI)</td>
<td>&lt;1%</td>
</tr>
<tr>
<td><em>Clostridium difficile</em> Infection (CDI)</td>
<td>~4%</td>
</tr>
</tbody>
</table>
PATHOGENS ASSOCIATED WITH HAIS, NHSN

- CoNS: 15.3%
- S. aureus: 14.5%
- Enterococcus: 12.1%
- Candida: 10.7%
- E. coli: 9.6%
- P. aeruginosa: 7.9%
- K. pneumoniae: 5.8%
- Enterobacter: 4.8%
- Acinetobacter: 2.7%
- Klebsiella oxytoca: 1.1%
- Other: 15.6%
Healthcare-associated infections (HAIs) are infections patients can get while receiving medical treatment in a healthcare facility. Working toward the elimination of HAIs is a CDC priority. The standardized infection ratio (SIR) is a summary statistic that can be used to track HAI prevention progress over time: lower SIRs are better. The infection data are reported to CDC’s National Healthcare Safety Network (NHSN). HAI data for nearly all U.S. hospitals are published on the Hospital Compare website. This report is based on 2014 data, published in 2016.

**NEVADA ACUTE CARE HOSPITALS**

**CLABSIs**
- **42% LOWER COMPARED TO NAT'L BASELINE**

  **CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS**

  When a tube is placed in a large vein and not put in correctly or kept clean, it can become a way for germs to enter the body and cause deadly infections in the blood.

  - Nevada hospitals reported no significant change in CLABSIs between 2013 and 2014.
  - Among the 19 hospitals in Nevada with enough data to calculate an SIR, 22% had an SIR significantly higher (worse) than 0.50, the value of the national SIR.

**CAUTIs**
- **2% HIGHER COMPARED TO NAT'L BASELINE**

  **CATHETER-ASSOCIATED URINARY TRACT INFECTIONS**

  When a urinary catheter is not put in correctly, not kept clean, or left in a patient for too long, germs can travel through the catheter and infect the bladder and kidneys.

  - Nevada hospitals reported no significant change in CAUTIs between 2013 and 2014.
  - Among the 23 hospitals in Nevada with enough data to calculate an SIR, 26% had an SIR significantly higher (worse) than 1.00, the value of the national SIR.

**MRSA Bacteremia**
- **8% HIGHER COMPARED TO NAT'L BASELINE**

  **LABORATORY IDENTIFIED HOSPITAL-ONSET BLOODSTREAM INFECTIONS**

  Methicillin-resistant *Staphylococcus aureus* (MRSA) is a bacteria usually spread by contaminated hands. In a healthcare setting, such as a hospital, MRSA can cause serious bloodstream infections.

  - Nevada hospitals reported a significant increase in MRSA bacteremia between 2013 and 2014.
  - Among the 17 hospitals in Nevada with enough data to calculate an SIR, 18% had an SIR significantly higher (worse) than 0.87, the value of the national SIR.

**SSIs**

**SURGICAL SITE INFECTIONS**

When germs get into an area where surgery is or was performed, patients can get a surgical site infection. Sometimes these infections involve only the skin. Other SSIs can involve tissues under the skin, organs, or implanted material.

- **SSI: Abdominal Hysterectomy**
  - 22% LOWER COMPARED TO NAT'L BASELINE

    - Nevada hospitals reported no significant change in SSIs related to abdominal hysterectomy surgery between 2013 and 2014.
    - Not enough data to report how many hospitals had an SIR significantly higher (worse) than 0.83, the value of the national SIR.

- **SSI: Colon Surgery**
  - 40% HIGHER COMPARED TO NAT'L BASELINE

    - Nevada hospitals reported no significant change in SSIs related to colon surgery between 2013 and 2014.
    - Among the 15 hospitals in Nevada with enough data to calculate an SIR, 20% had an SIR significantly higher (worse) than 0.98, the value of the national SIR.

**C. difficile Infections**
- **8% HIGHER COMPARED TO NAT'L BASELINE**

  **LABORATORY IDENTIFIED HOSPITAL-ONSET C. difficile INFECTIONS**

  When a person takes antibiotics, good bacteria that protect against infection are destroyed for several months. During this time, patients can get sick from *Clostridium difficile* (C. difficile), bacteria that cause potentially deadly diarrhea, which can be spread in healthcare settings.

  - Nevada hospitals reported no significant change in C. difficile infections between 2013 and 2014.
  - Among the 22 hospitals in Nevada with enough data to calculate an SIR, 32% had an SIR significantly higher (worse) than 0.92, the value of the national SIR.
CHALLENGES OF INFECTION CONTROL

• Changing population of hospital patients
  • Increased severity of illness
  • Increased numbers of immunocompromised/older patients
  • Shorter duration of hospitalization
  • More and larger intensive care units
  • Larger step-down units

• Growing frequency of antimicrobial-resistant and emerging pathogens

• Lack of compliance with hand hygiene and other infection preventive measures (e.g., endoscope)
AGING POPULATION, US
EMERGING RESISTANT PATHOGENS: HEALTH CARE FACILITIES

- Methicillin-resistant Staphylococcus aureus (MRSA)
- Vancomycin-resistant Enterococci (VRE)
- Carbapenem-resistant Enterobacteriaceae (CRE)
- Extended Spectrum Beta-lactamases (ESBL)
- Acinetobacter baumannii
- Pseudomonas aeruginosa
- Mycobacterium tuberculosis: MDR
- C. difficile
CLOSTRIDIUM DIFFICILE – NEW EPIDEMIC
GROWING PROBLEM OF *C. DIFF COLITIS*

- MMWR- “…incidence, deaths, and excess health care costs are at historic highs” ± 1 billion dollars/yr
- Estimated cost of each *C. difficile* case - $11,285
- 3x increase in a decade - now 500,000 infections and 29,000 deaths per year. More deaths than even MRSA infections.
CAUSES

#1 cause of increase- over use of antibiotics
* In the healthcare setting- PPI, NG tube

#2 cause – appearance of a more virulent C.diff strain associated with risk of greater mortality

#3 cause- increased relapse rate – 20% of cases have at least one relapse- difficult to treat
HOSPITALS STARTED SEEING VERY SEVERE CASES OF COLITIS WITH HIGH MORTALITY CAUSED BY A NEW VIRULENT STRAIN OF *C. DIFFICILE*
MORE VIRULENT STRAIN

• A genetic mutation allows 10 to 20x more toxin A and B to be secreted than in regular C. diff, plus it has its own unique binary toxin

• Usual treatment with Flagyl and vancomycin less effective as in regular C. diff cases
NAP-1 *C. DIFF STRAIN* - SUPER BUG NOW SEEN THROUGHOUT NEVADA AND USA.

- Approx. 1/3 of all cases in Nevada are now NAP-1 positive!!!

- If your micro lab does a PCR test, they are already testing for NAP-1, but you may need to request results.
ANTIBIOTIC RESISTANCE – SIGNIFICANT HEALTH PROBLEM

- Widespread antibiotic use began in 1940s
- Antibiotics were able to cure previously untreatable bacterial illnesses
- Bacteria are very adaptable and able to genetically resist the effect of antibiotics
- The more antibiotics are used, the more resistant bacteria become
ANTIBIOGRAM

• Done annually by the Microbiology lab
• Helps guide antibiotic usage, very specific to the facility
ROLE OF MICROBIOLOGY IN INFECTION CONTROL

- Clinical
  - Diagnosis of infection in an individual patient for everyday management of infections

- Epidemiological
  - Support for infection prevention and control in searching for source and route of transmission of HAI
HANDWASHING IS THE SINGLE MOST EFFECTIVE WAY TO PREVENT THE SPREAD OF INFECTION.
RATIONALE FOR HAND HYGIENE

• Many infectious agents are acquired via hand contact with contaminated surfaces
  • Contact transmission: healthcare (MRSA, VRE)
  • Fecal-oral transmission: day care (Shigella, E. coli O157:H7), home (Salmonella, E. coli O157:H7, Cryptosporidium)

• Hand hygiene effective in reducing or eliminating transient flora

• Hand hygiene demonstrated to be effective in preventing illness (especially fecal-oral diarrheal illnesses) in healthcare facilities, child care centers/homes, and households

• ~40% of healthcare-associated infections due to cross-transmission
Before hand hygiene

After hand hygiene
BUILD A CULTURE

• It is Ok to be reminded by family members
• It is OK to remind co-workers
• It is OK to remind physicians
WHAT IS OUR TRACK RECORD ON HANDWASHING IN HEALTHCARE FACILITIES?

- A review of 34 published studies of handwashing adherence among healthcare workers found that adherence rates varied from 5% to 81%.

- The average adherence rate was only 40%.
There is a strong association between Hand Hygiene compliance and HAI rates
HAND HYGIENE ADHERENCE AN INSTITUTIONAL PRIORITY

• Multidisciplinary Program
  • Administrative support (IOC, Executive Staff, Dept Heads)
  • Monitor HCWs adherence to policy and provide staff with information about performance
  • Provide HCWs with accessible hand hygiene (HH) products to include alcohol based hand rubs
  • Education regarding types of activities that result in hand contamination and indications for hand hygiene
  • Reminders in the workplace (e.g., posters)
  • Considering ways to include HH in management standards (loss of hospital privileges, tickets for non-compliance, coffee coupons)
ENDOSCOPE REPROCESSING: CURRENT STATUS OF CLEANING AND DISINFECTION

• Guidelines
  • Multi-Society Guideline, 12 professional organizations
  • Centers for Disease Control and Prevention
  • Society of Gastroenterology Nurses and Associates
  • AAMI Technical Information Report, Endoscope Reprocessing, In preparation
  • Food and Drug Administration
  • Endoscope Reprocessing, Health Canada
  • Association for Professional in Infection Control and Epidemiology
ENDOSCOPE INFECTIONS

• Infections traced to deficient practices
  • Inadequate cleaning (clean all channels)
  • Inappropriate/ineffective disinfection (time exposure, perfuse channels, test concentration)
  • Failure to follow recommended disinfection practices (drying, contaminated water bottles, irrigating solutions)
  • Flaws in design/manufacture of endoscopes or AERs
Based on outbreak data, if eliminated deficiencies associated with cleaning, disinfection, AER, contaminated water and drying would eliminate about 85% of the outbreaks.
MOST RECENT OUTBREAK: ECRP


✓ CDC recommendations, February–March, 2016

✓ Olympus Announces Recall and Redesign on Scope Linked to Deadly Outbreak, January 2016
FUTURE OF INFECTION CONTROL

- Limited infection prevention resources
- Implementation of guidelines/standards, bundles and new technology demonstrated to reduce HAIs
- Health insurance and CMS reimbursement and employee incentive payments tied to quality goals
- Public reporting of HAIs
- State and federal laws legislating care issues
- Greater emphasis on infection prevention by TJC
- Reduced funds for new infection prevention technologies
INCREASING DEMANDS ON IP’S WITH ACCOUNTABILITY

- Public expectation of 0 rate of healthcare-associated infections?
- Buy in by legislatures and CMS
- IC accountability and attention rich but resource poor
<table>
<thead>
<tr>
<th>1975 to 1990</th>
<th>1991 to 2016</th>
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<tbody>
<tr>
<td>- Surveillance</td>
<td>- Liaison to public health</td>
</tr>
<tr>
<td>- Outbreak investigations</td>
<td>- Liaison in emergency preparedness</td>
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<tr>
<td>- Exposure evaluations</td>
<td>- Promote zero tolerance for HAIs</td>
</tr>
<tr>
<td>- Education</td>
<td>- Targeted surveillance</td>
</tr>
<tr>
<td>- JCAHO (TJC)</td>
<td>- NHSN</td>
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<tr>
<td>- Policy development and review</td>
<td>- Develop and review policies</td>
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<tr>
<td>- Sterilizer monitoring</td>
<td>- Infection risk assessments, prevention</td>
</tr>
<tr>
<td></td>
<td>and control strategies</td>
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<tr>
<td>- Dialysis water</td>
<td>- Education</td>
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<td></td>
<td>- Implement change mandated by regulatory bodies</td>
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<td></td>
<td>- Evaluate Product changes</td>
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<tr>
<td></td>
<td>- Evaluate Chemical changes</td>
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<tr>
<td></td>
<td>- Development of IC Surveillance plan and annual</td>
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<tr>
<td></td>
<td>evaluation</td>
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<tr>
<td></td>
<td>- IHI bundles</td>
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<td></td>
<td>- OSHA TB and Bloodborne</td>
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<tr>
<td></td>
<td>- Molecular epidemiology</td>
</tr>
<tr>
<td></td>
<td>- MRSA active surveillance</td>
</tr>
<tr>
<td></td>
<td>- Endoscope sampling</td>
</tr>
<tr>
<td></td>
<td>- BT preparedness</td>
</tr>
<tr>
<td></td>
<td>- Construction rounds etc.</td>
</tr>
</tbody>
</table>
FUTURE IP ACTIVITIES

- Public health reporting
- Mandated influenza vaccine
- Mandated MRSA surveillance
- Cost analyses
- Comprehensive surveillance
- Transparency
- Electronic medical records
- Clinical surveillance software systems
INFECTION PREVENTION STRATEGIES

• Centers for Disease Control and Prevention
  • Prevention of Catheter-Associated UTI
  • Guideline for D/S in Healthcare Facilities
  • Guideline for Isolation Precautions
  • Management of MDR Organisms
  • Preventing HA Pneumonia
  • Environmental Infection Control in HCF
  • Hand Hygiene in Healthcare Settings
  • Prevention of Intravascular Device-Related Infections
  • Prevention of Surgical Site Infections
  • Management of Occupational Exposure to HBV, HCV, HIV
  • Infection Control in Healthcare Personnel
INFECTION PREVENTION STRATEGIES

SHEA

- Management of HCWs Infected with HBV, HCV, HIV
- Disinfection and Sterilization of Prion-Contaminated Medical Instruments
- Compendium of Strategies to Prevent HAIs
- Surgical Site Infection
  - CLA-Bloodstream Infection
  - Catheter-Associated UTI
  - Ventilator-Associated Pneumonia
  - Clostridium difficile
  - Methicillin-resistant *S. aureus*
INFECTION PREVENTION STRATEGIES

VAP Bundle

✓ Elevation of the head of the bed to between 30 and 45 degrees
✓ Daily “sedation vacation” and daily assessment of readiness to extubate
✓ Peptic ulcer disease (PUD) prophylaxis
✓ Deep venous thrombosis (DVT) prophylaxis (unless contraindicated)

CLABSI

✓ Hand hygiene
✓ Maximal barrier precautions
✓ Chlorhexidine skin antisepsis
✓ Optimal catheter site selection, with subclavian vein as the preferred site for non-tunneled catheters
✓ Daily review of line necessity, with prompt removal of unnecessary lines
INFECTION PREVENTION STRATEGIES

CAUTI BUNDLE

✓ Avoid unnecessary urinary catheters
✓ Insert using aseptic technique
✓ Maintain catheters based on recommended guidelines (daily care)
✓ Review catheter necessity daily and remove promptly

7S BUNDLE

✓ Safe OR practices
✓ Screen
✓ Shower
✓ Skin Prep
✓ Solution
✓ Sutures
✓ Skin incisional protection
INFECTION CONTROL INTERVENTIONS

• 2000: Addition of 2% chlorhexidine/70% isopropyl alcohol (ChoraPrep®) to the central line dressing kit.
• 2001: Mandatory training for nurses on IV line site care and maintenance.
• 2003: Full body drape added to central line kit. MD could choose kit containing a catheter impregnated with antiseptic or antibiotic.
• 2005: 2nd generation impregnated catheter included in all central line kits (except for Neonatal ICU).
• 2006: Pilot in MICU of IHI bundle to prevent CLA-BSI.
• 2007: Implementation of the IHI bundle in all ICUs.
• 2008: Implementation of Infection Control Liaison Program
• 2009: Implementation of CHG patch.
• UV light
HEALTH INSURANCE AND CMS REIMBURSEMENT AND EMPLOYEE INCENTIVE PAYMENTS TIED TO QUALITY GOALS

• Health insurance reimbursement tied to meeting quality goals
• Employee incentive package involves metrics that are clinically meaningful and measurable.
  • Patient and employee satisfaction goals
  • Fiscal goals
  • Quality goals
    • Ventilator-associated pneumonia, 5-10% below past FY
    • Central-line associated bacteremia, 5-10% below past FY
    • Prophylactic antibiotics within one hour of surgical incision
    • Catheter-associated urinary tract infections, 5% below past FY
HEALTHCARE FACILITY HAI REPORTING TO CMS VIA NHSN: CURRENT AND PROPOSED REQUIREMENTS

<table>
<thead>
<tr>
<th>CMS Reporting Program</th>
<th>HAI Event</th>
<th>Reporting Specifications</th>
<th>Reporting Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Inpatient Quality Reporting (IQR) Program</td>
<td>CLABSI</td>
<td>Adult, Pediatric, and Neonatal ICUs</td>
<td>January 2011</td>
</tr>
<tr>
<td></td>
<td>CAUTI</td>
<td>Adult and Pediatric ICUs</td>
<td>January 2012</td>
</tr>
<tr>
<td></td>
<td>SSI: COLO</td>
<td>Inpatient COLO Procedures</td>
<td>January 2012</td>
</tr>
<tr>
<td></td>
<td>SSI: HYST</td>
<td>Inpatient HYST Procedures</td>
<td>January 2012</td>
</tr>
<tr>
<td></td>
<td>MRSA Bacteremia LabID Event</td>
<td>FacWideIn</td>
<td>January 2013</td>
</tr>
<tr>
<td></td>
<td><em>C. difficile</em> LabID Event</td>
<td>FacWideIn</td>
<td>January 2013</td>
</tr>
<tr>
<td></td>
<td>Healthcare Personnel Influenza Vaccination</td>
<td>All Inpatient Healthcare Personnel</td>
<td>January 2013</td>
</tr>
<tr>
<td></td>
<td>Medicare Beneficiary Number</td>
<td>All Medicare Patients Reported into NHSN</td>
<td>July 2014</td>
</tr>
<tr>
<td></td>
<td>CLABSI</td>
<td>Adult &amp; Pediatric Medical, Surgical, &amp; Medical/Surgical Wards</td>
<td>January 2015</td>
</tr>
<tr>
<td></td>
<td>CAUTI</td>
<td>Adult &amp; Pediatric Medical, Surgical, &amp; Medical/Surgical Wards</td>
<td>January 2015</td>
</tr>
<tr>
<td>Hospital Outpatient Quality Reporting (OQR) Program</td>
<td>Healthcare Personnel Influenza Vaccination</td>
<td>All Outpatient Healthcare Personnel</td>
<td>October 2014</td>
</tr>
<tr>
<td>ESRD Quality Incentive Program (QIP)</td>
<td>Dialysis Event (includes Positive blood culture, I.V. antimicrobial start, and signs of vascular access infection)</td>
<td>Outpatient Hemodialysis Facilities</td>
<td>January 2012</td>
</tr>
<tr>
<td></td>
<td>Healthcare Personnel Influenza Vaccination</td>
<td>All Healthcare Personnel</td>
<td>October 2015</td>
</tr>
<tr>
<td>Long Term Care Hospital* Quality Reporting (LTCHQQR) Program</td>
<td>CLABSI</td>
<td>Adult &amp; Pediatric LTAC ICUs &amp; Wards</td>
<td>October 2012</td>
</tr>
<tr>
<td></td>
<td>CAUTI</td>
<td>Adult &amp; Pediatric LTAC ICUs &amp; Wards</td>
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<tr>
<td></td>
<td>VAE</td>
<td>Adult LTAC ICUs &amp; Wards</td>
<td>January 2016</td>
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<tr>
<td>Inpatient Rehabilitation Facility Quality Reporting (IRFQQR) Program</td>
<td>CAUTI</td>
<td>Adult &amp; Pediatric IRF Wards</td>
<td>October 2012</td>
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* Long Term Care Hospitals are called Long Term Acute Care Hospitals in NHSN

Updated December 2014
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<tr>
<td>Ambulatory Surgery Centers Quality Reporting (ASCQR) Program</td>
<td>Healthcare Personnel Influenza Vaccination</td>
<td>All Healthcare Personnel</td>
<td>October 2014</td>
</tr>
<tr>
<td>PPS-Exempt Cancer Hospital Quality Reporting (PCHQR) Program</td>
<td>CLABSI</td>
<td>All Bedded Inpatient Locations</td>
<td>January 2013</td>
</tr>
<tr>
<td></td>
<td>CAUTI</td>
<td>All Bedded Inpatient Locations</td>
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<td>Inpatient HYST Procedures</td>
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</tr>
<tr>
<td>Inpatient Psychiatric Facility Quality Reporting (IPFQR) Program</td>
<td>Healthcare Personnel Influenza Vaccination</td>
<td>All Inpatient Healthcare Personnel</td>
<td>October 2015</td>
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</table>
GREATER EMPHASIS ON INFECTION PREVENTION
BY THE JOINT COMMISSION: NATIONAL
PATIENT SAFETY GOALS

• Old
  • Comply with CDC hand hygiene guidelines
  • Manage as sentinel events all HAI-related deaths

• New (2009-2016)
  • Implement evidence-based practices to prevent HAIs due to MDROs (MRSA, VRE, MDR-GNR, C. difficile)
  • Implement evidence-based practices to prevent CLA-BSIs
  • Implement best practices to prevent SSIs
  • Prevent CA-UTIs
HOSPITALS-BUDGET CUTS

• Hospitals reduce spending (job losses, service reductions) due to reduced revenues (reimbursement for service, no new volumes)

• Utilizing new technology to improve outcomes is superior to changing behavior

• New technology have played a critical role in reducing HAIs (CHG-Alc for SSI, CHG sponge, antiseptic/antibiotic impregnated central lines, UV-light)

• Reduced hospital margins will force hospitals to limit investments in new infection prevention technology
EMERGING INFECTIOUS DISEASES: DEFINITION

Newly identified & previously unknown infectious agents that cause public health problems either locally or internationally
Infectious agents that have been known for some time, had fallen to such low levels that they were no longer considered public health problems & are now showing upward trends in incidence or prevalence worldwide.
EMERGING AND RE-EMERGING INFECTIONS:
THE BEST DEFENSE (MULTI-FACTORIAL):

✓ Coordinated, well-prepared, well-equipped PH systems
✓ Partnerships- clinicians, laboratory experts & PH agencies
✓ Improved methods for detection & surveillance
RESOURCES FOR INFECTION CONTROL PRACTICES

- Centers for Disease Control and Prevention
- The Joint Commission
- Centers for Medicare and Medicaid Services
- Institute for Healthcare Improvement (IHI)
- Professional Organizations: APIC, SHEA, AAMI, AORN, SGNA, AIA, SGNA, ASGE
Infection Control is Everybody’s Business
QUESTIONS?