Top 10 Deficiencies in Infection Prevention in Long Term Care

J. Hudson Garrett Jr., PhD, MSN, MPH, FNP-BC, CRRN, PLMC, VA-BC™, CDONA, FACDONA

May 3, 2015

Dr. Hudson Garrett

Dr. Hudson Garrett is currently employed as the Vice President, Clinical Affairs for PDI, and is responsible for the global clinical affairs program and also the Medical Science Liaison program for all divisions within the company. He is a recognized international infection prevention and control expert. He has completed the Johns Hopkins Fellows Program in Hospital Epidemiology and Infection Control, and the CDC Fundamentals of Healthcare Epidemiology program. He is board certified in family practice, critical care, vascular access, moderate sedation, and long term care. He is the President of the Vascular Access Certification Corporation, President of the Southeastern Chapter of the Infusion Nurses Society, and the Chairperson for the Research Committee for the Association for the Healthcare Environment.
Objectives

- Discuss the impact of HAI’s to Long Term Care settings
- Review the most significantly cited CMS citations related to Infection Prevention in Long Term Care
- Review techniques to mitigate risk and improve accountability to reduce HAI’s

What are the Expectations?

“Facility must establish and maintain an Infection Control Program designed to provide a safe, sanitary and comfortable environment and to help prevent the development and transmission of disease and infection.”
Components......Preventing the Spread

- When the Infection Control Program determines the spread of infection, the facility must isolate the resident
- The facility must prohibit employees with a communicable disease or infected skin lesions from direct contact with residents or their food, if direct contact will transmit the disease
- The facility must require staff to wash their hands after each direct resident contact for which handwashing is indicated by accepted professional practice
- Personnel must handle, store, process and transport lines so as to prevent the spread of infection

Source: 483.65 (a)

Components......Program

- Investigates, controls, and prevents infection in the facility
- Decides what procedures, such as isolation, should be applied to an individual resident
- Maintains a record of incidents and corrective actions related to infections

Source: 483.65 (b) and 483.65 (c)

It touches all of us

- 1 to 3 million serious infections every year in long term care
- As many as 380,000 residents die of the infections they contract
- Infections are among the most frequent reasons long term care residents get admitted to the hospital
What is our current level of compliance with EBP?

The Future of Healthcare

The *Triple Aim*

What do these have in common?
What is the Ideal?

NO
GERM
ZONE

Chain of Infection

Susceptible Host

Portal of Entry

Infectious Agent

Mode of Transmission

Reservoir

Portal of Exit

How Does Transmission Occur?

- Contaminated Hands
- Contaminated Skin
- Contaminated Environmental Surfaces

Why Be Concerned?

- Infections have a significant negative influence on health status and function of residents
- Defense mechanisms against infection decline with age
- Infections cause 26% - 50% of transfers to hospitals
- 25% - 70% of antibiotic use in LTC is inappropriate


Common Infections

<table>
<thead>
<tr>
<th>Infection</th>
<th>Prevalence %</th>
<th>Incidence/1,000 Patient-Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Infections</td>
<td>1.6 - 32.7</td>
<td>1.8 - 13.5</td>
</tr>
<tr>
<td>Respiratory</td>
<td>0.3 - 3.7</td>
<td>0.3 - 4.7</td>
</tr>
<tr>
<td>Urinary</td>
<td>0.6 - 21.8</td>
<td>0.19 - 2.2</td>
</tr>
<tr>
<td>Skin and Soft Tissue</td>
<td>1.1 - 8.8</td>
<td>0.1 - 2.1</td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td>--------</td>
<td>0.1 - 2.5</td>
</tr>
<tr>
<td>Bloodstream</td>
<td>--------</td>
<td>0.2 - 0.4</td>
</tr>
</tbody>
</table>

The Importance of a Checklist

WHO Checklist for Safer Surgical Care

Surgical Safety Checklist

- Before insertion of instruments
- Before skin incision
- Before patient leaves operating room

- Name of the patient
- Date and time of surgery
- Operation performed
- Name of the surgeon
- Name of the anesthesiologist
- Name of the scrub nurse
- Name of the circulating nurse
- Name of the patient's relative

- Consent form signed
- Name of the hospital
- Name of the ward
- Name of the surgical team
- Name of the surgery

- Identification of the patient
- Identification of the surgeon
- Identification of the anesthesiologist
- Identification of the scrub nurse
- Identification of the circulating nurse

- Prescription medication
- Preoperative medication
- Preoperative antibiotics
- Preoperative fluids
- Preoperative blood products

- Intraoperative monitoring
- Intraoperative medication
- Intraoperative blood products
- Intraoperative fluids
- Intraoperative complications

- Postoperative medication
- Postoperative fluid administration
- Postoperative blood products
- Postoperative complications

- Discharge instructions
- Postoperative care
- Follow-up appointment
- Postoperative medication

- Surgical site
- Incision
- Drainage
- Wound closure
- Wound dressing

- Postoperative care
- Postoperative medication
- Postoperative blood products
- Postoperative complications

- Follow-up appointment
- Postoperative care
- Postoperative medication

- Surgical site
- Incision
- Drainage
- Wound closure
- Wound dressing

- Postoperative care
- Postoperative medication
- Postoperative blood products
- Postoperative complications

- Follow-up appointment
- Postoperative care
- Postoperative medication

- Surgical site
- Incision
- Drainage
- Wound closure
- Wound dressing

- Postoperative care
- Postoperative medication
- Postoperative blood products
- Postoperative complications

- Follow-up appointment
- Postoperative care
- Postoperative medication
Top Opportunities for Improvement

- Just follow your policy
- Critically Think
- Engage the Resident and Staff
- Disinfect everything between resident uses
- Implement Isolation Precautions
- Disinfect Glucometers between uses
- Wash those Hands
- Vaccinate, Vaccinate, Vaccinate
- Have an Infection Prevention Program
- Unit-Based Champions

Self Check

“So with all of the evidence based practices that exist for the prevention of HAIs, why do most healthcare facilities fail to utilize these recommendations approximately 60% of the time?”

Consumers Union
Pathogens of Particular Concern

- Norovirus
- VRE
- Clostridium difficile
- MRSA
- Acinetobacter

Colonized or Infected: What is the Difference?

- People who carry bacteria without evidence of infection (fever, increased white blood cell count) are colonized
- Bacteria can be transmitted even if the resident is not infected

The Iceberg Effect

- Infected
- Colonized
The Inanimate Environment Can Facilitate Transmission

- Contaminated surfaces increase cross-transmission -


Levels of Disinfection

- Sterilization
- High-level disinfection (expected to destroy all microorganisms except high numbers of bacterial spores)
- Intermediate-level disinfection (inactivates *Mycobacterium tuberculosis*, vegetative bacteria, most viruses, most fungi)
- Low-level disinfection (can kill most bacteria, some viruses, and some fungi, but cannot be relied on to kill resistant microorganisms such as tubercle bacilli or bacterial spores)
Contact Time

“Disinfect noncritical surfaces with an EPA-registered hospital disinfectant using the label’s safety precautions and use directions. By law, the user must follow all applicable label instructions on EPA-registered products. If the user selects exposure conditions that differ from those of EPA-registered products label, the user assumes liability for any injuries resulting from off-label use and is potentially subject to enforcement action under FIFRA.”

Continuum of Care for Vascular Access

Decision  Insertion  Maintenance  Access  Removal

Safe Injection Practices

Copyright 2016 NADONA
Safe Use of Needles & Syringes

Rx for Safe Injections in Healthcare
1 Needle
1 Syringe
+1 Time
0 Infections

“In medicine, as in any profession, we must grapple with systems, resources, circumstances, people—and our own shortcomings, as well. We face obstacles of seemingly endless variety. Yet somehow we must advance, we must refine, we must improve.”

Atul Gawande, Better: A Surgeon’s Notes on Performance

Resident Health Program

- Resident Hand Hygiene
- Oral Hygiene
- Prevention of Aspiration
- Skin Care
- Prevention of UTI’s

Antibiotic Stewardship

- Failure to distinguish between colonization and infection.
- Treatment of colonization
- Antimicrobials are among the most frequently prescribed medications (2.9 – 13.9 antibiotic courses per 1,000 resident days)
- Significant variability in antibiotic prescribing patterns in LTC


The Study We Have All Heard

- The Institute of Medicine (IOM) study "To Err is Human; Building a Safer Healthcare System"
- Adverse events occur in 2.9 to 3.7% of all hospitalizations
- 44,000 to 98,000 patients dies a year as a result of medical errors
- Source at http://books.nap.edu/openbook.php?isbn=0309068371

Definition of Patient Safety

- Freedom from injury or illness resulting from the processes of care
- Patient safety event is an occurrence or potential occurrence, that is directly linked to the delivery of healthcare that results, or could result, in injury, death, or illness
Patient Safety and Just Culture

The studies show that individual blame is still dominant despite the literature. No blame is the appropriate stance for system related errors. But what about reckless behavior or intentional acts that lead to harm? Certain errors do demand accountability and the Just Culture theory is that balance. Establishes zero tolerance for reckless behavior such as ignoring all of the safety steps put in place.

Just Culture

You want to create a safe system: • Hands on, not relying on written guidelines to avoid places of high risk. • Reducing complex tasks that require specific language. 

You want to create a learning culture: • We want to learn from our mistakes and create a just workplace for quality.

You want to create behavioral choices: • When cardioverting the machine automatically reverted to defib and the patient died so let’s redesign the machine.

Just Culture

Human factor design to reduce the rate of error • When cardioverting the machine automatically reverted to defib and the patient died so let’s redesign the machine

Redundancy to limit the effects of failure (mistake proofing)

Balance duty against organizational and individual values

There are three duties • Duty to avoid causing unjustified risk or harm • Duty to produce an outcome • Duty to follow a procedural rules
Just Culture Principles

Values and expectations—what is important to the organization

System design—continual redesign of system and address processes and systems so it does not happen to someone else

Peer to peer coaching where helping one another to stay safe and make sure things are being done correctly

• Coaching and open environment

• Just culture algorithms can help

Just Culture Principles

Responses to human error—willing to discuss this and discipline does not help if one makes a mistake

Responses to reckless behavior—take action if reckless behavior to one who knowingly endangers a patient—need to be fair culture

Severity bias in rejection of no harm no foul, it is not based on only looking at issue if patient was harmed

Equity is about being fair and consistent with every employee group and all are set for the same expectations

Seeing Things Through Their Lenses
Please Use CUS Words
but only when appropriate!

EVIDENCE-BASED PRACTICES
Collaboration & Communication

DON Administrator
Clinical Nursing Personnel
Environmental Services
Consulting Pharmacist
Rehab Services

Moving From the Past to the Future

Hybrid Approach
Historic Focus: "Prevention of Transmission of Infection"
Futuristic Focus: "Prevention of the Cause of the Infection (Prophylaxis)"

Formula for Success

HAI Prevention
Clean Hands Clean & Sanitary Environment Clean Skin

Infection Prevention

Copyright 2016 NADONA
Safe Healthcare is Everyone's Responsibility

Question and Answer

Contact Information:
Dr. Hudson Garrett
Email: Hudson.garrett@nadona.org