Infection Prevention and Control Updates and Q&A Webinars for Long-Term Care and Congregate Residential Settings

February 9th, 2024

Housekeeping

- All attendees in listen-only mode
- Submit questions via Q&A pod to **All Panelists**
- Slides and recording will be made available later
- For continuing education credit, complete evaluation survey upon end of webinar
  - Must be registered individually to receive credit

IDPH
Illinois Department of Public Health

Agenda

- Upcoming Webinars
- Upcoming Educational Opportunities
- Resident Falls, Infection Prevention, and Antimicrobial Stewardship
- Open Q & A

Slides and recording will be made available after the session.

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Illinois Department of Public Health

Upcoming Infection Prevention and Control Q&A

1:00 pm - 2:00 pm

Date	Infection Control Topic	Registration Link
Friday, February 23rd	~~Urinary Tract Infections~~ Enhanced Barrier Precautions	https://illinois.webex.com/weblink/register/r59f9d827f42f61e76cdb9d6e00c3a8df
Friday, March 8th	XDRO Registry	TBD
Friday, March 22nd	Outbreak	TBD
Friday, April 12th	UTI	TBD
Friday, April 26th	Water management	TBD

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Illinois Department of Public Health

Exciting Educational Opportunities!!!

- **Infection Prevention and Control Courses for Long-term Care Infection Preventionists (IPs)!**
- **Course pre-requisite: Persons who have completed at least 19 hours of training in infection prevention and control**
  https://www.ilga.gov/commission/jcar/admincode/077/077003000C06970R.html
- **Three individual courses for three levels of experience**
  - Novice
  - Proficient
  - Advanced

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
IDPH
PROTECTING HEALTH, IMPROVING LIVES

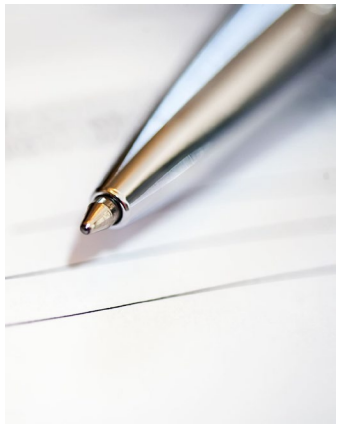
Grant Funded

HEKTOEN INSTITUTE OF MEDICINE
EST 1943
CHICAGO ILLINOIS

Complete a Self Assessment

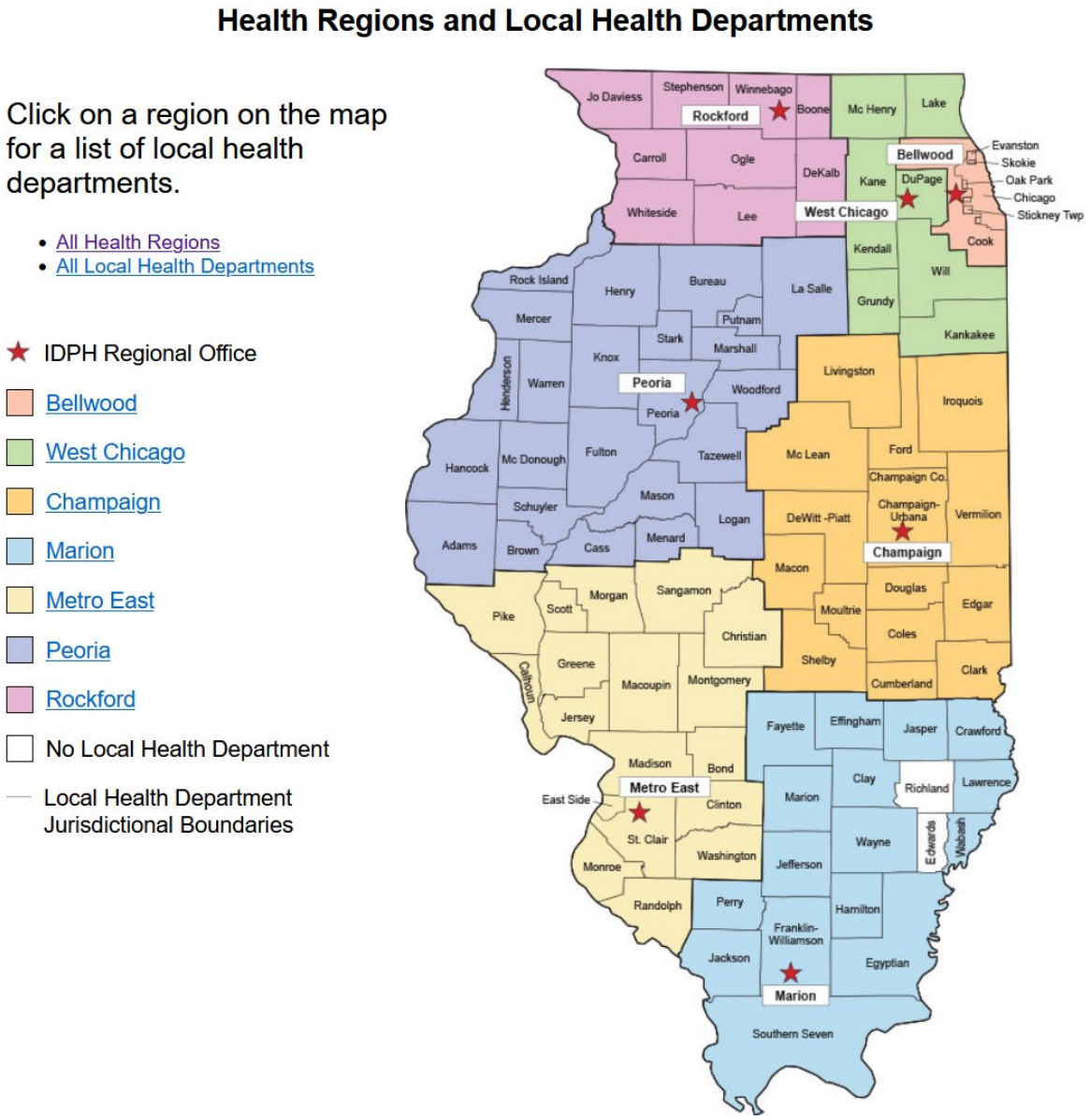
https://redcap.link/ipcselfassessment

- Please use the QR Code to complete the self assessment
- There is also a link in the SIREN announcement
- Determine what course level will be the best fit for you



Regional Offerings April through August 2024

- Offered in person to maximize interaction and participation.
- Offered throughout Illinois to accommodate IPs across the state.



Novice Infection Preventionist (IP)
Welcome to the profession of Infection Prevention!

- The novice IP is:
  - Beginning to acquire knowledge, skills, and experience
  - Beginning to have situational awareness in infection prevention and control (IPC) and epidemiology
  - Relies on rules and concepts to guide their practice. Beginning to develop their knowledge/skills in the core competencies

Proficient Infection Preventionist
Glad you are here, there is more to learn!

- The proficient IP can demonstrate:
  - More complete knowledge of the core competencies of infection prevention and control
  - The ability to move beyond rule-based thinking to:
    - Identify common trends that need to be addressed
    - Ensure resident, patient and employee safety
    - Use past experiences to shape future thinking about a situation

Advance Infection Preventionist Lifelong Learning

- The Advanced IP:
  - Demonstrates professional expertise in infection prevention and control core competencies and future-oriented competency domains
  - Shares knowledge and skills through mentoring, research, publication, collaboration, leadership, and educating other IPs
  - Analyzes data more rapidly than any other stage and bases future decisions on experience and data to achieve defined outcomes

Questions?

Please contact Shannon Calus at shannon.calus@hektoen.org

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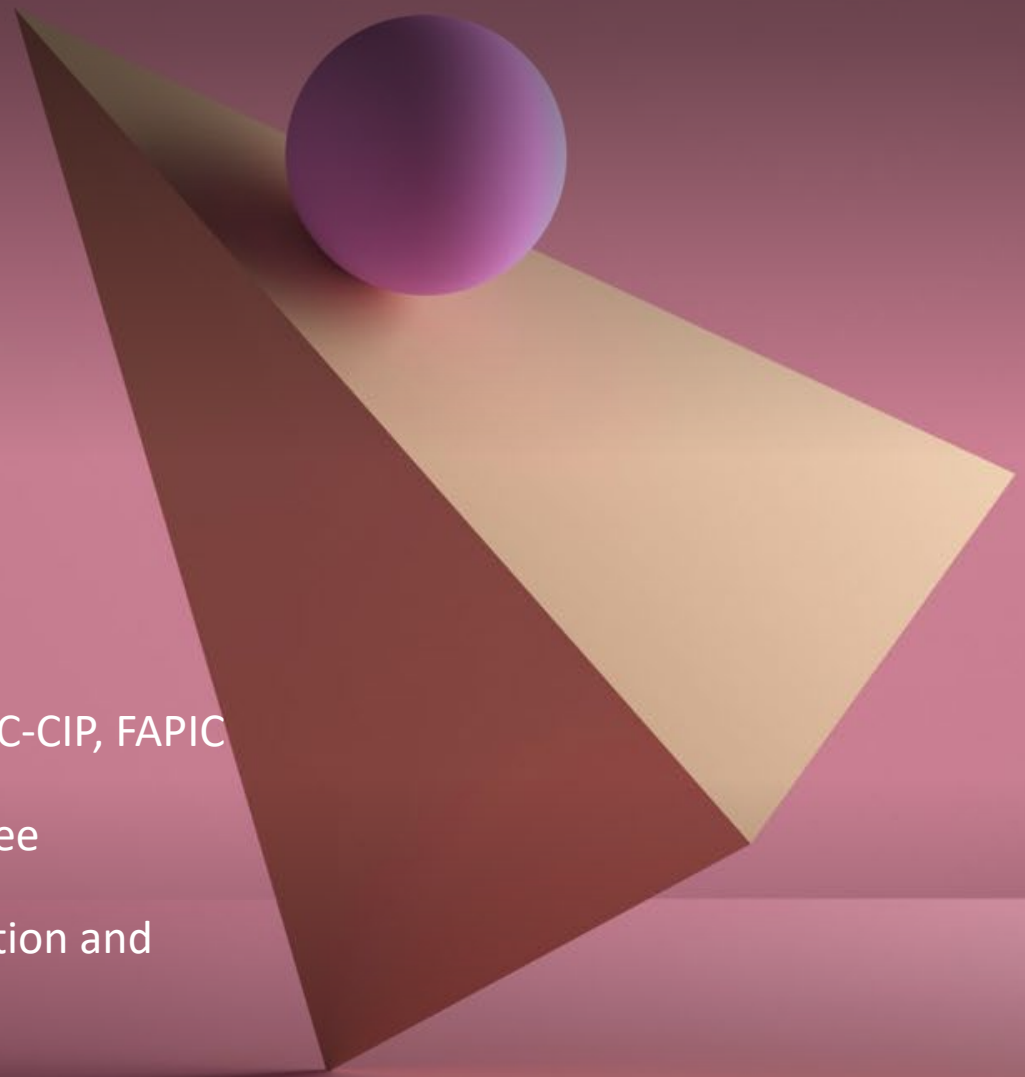
www.hektoen.org

Resident Falls, Infection Prevention, and Antimicrobial Stewardship



Deb Patterson Burdsall PhD, RN-BC, CIC, LTC-CIP, FAPIC
Infection Preventionist
Hektoen Institute of Medicine, IDPH Grantee

Sylwia Jasniuk RN, Director, Clinical Innovation and Therapeutics CIMPAR, S.C

Nothing to disclose

Learning Objectives

- Describe the research behind the relationship between fall prevention and infection prevention
- Understand the strength of different types of practice evidence
- Implement evidence-based strategies to decrease the risk of unnecessary antimicrobial use related to non-specific symptoms (e.g. falls)

Why are We Talking About Falls?

Because You Asked!

One!

Two!

Three!

- F884 - Reporting to the National Health Safety Network (NHSN)
- F-880- Infection Prevention and Control
- F689 – Accidents, *"The resident environment remains as free of accident hazards as is possible; and each resident receives adequate supervision and assistance devices to prevent accidents."*
- F684 – Quality of Care
- F812 – Food Procurement – Store, Prepare, Serve, Sanitary (Infection prevention and control story for another day!)

https://leadingage.org/top-five-frequently-cited-f-tags-2022/

What is a "Fall"? F689 page 329

- *"Fall" refers to unintentionally coming to rest on the ground, floor, or other lower level, but not as a result of an overwhelming external force (e.g., resident pushes another resident).*
- *An episode where a resident lost his/her balance and would have fallen, if not for another person or if he or she had not caught him/herself, is considered a fall.*
- *A fall without injury is still a fall.*
- *Unless there is evidence suggesting otherwise, when a resident is found on the floor, a fall is considered to have occurred (refer to Resident Assessment Instrument User's Manual. Version 3.0, Chapter 3, page J-27)."*

https://downloads.cms.gov/files/mds-3.0-rai-manual-v1.17.1_october_2019.pdf

State Operations Manual
Appendix PP - Guidance to Surveyors for
Long Term Care Facilities
Table of Contents
(Rev. 211, 02-03-23)

https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf

Community vs. Nursing Home Falls

National Library of Medicine
National Center for Biotechnology Information

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Search in PMC

Journal List > J Funct Morphol Kinesiol > PMC7739361

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Journal of Functional Morphology and Kinesiology

MDPI

J Funct Morphol Kinesiol. 2019 Mar; 4(1): 3.
Published online 2018 Dec 25. doi: 10.3390/jfmk4010003

PMCID: PMC7739361
PMID: 33467318

What Factors Predict Falls in Older Adults Living in Nursing Homes: A Pilot Study

Aditi Datta,[1,*] Rahul Datta,[2,*] and Jeananne Elkins[1]

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7739361/

- *Residents of nursing homes suffer **falls at nearly twice the rate of persons living in the community.*** **(NOTE: Is this because of frailty or required reporting in LTCF?)**
- *More than 30% of recorded falls had an **environmental cause**, which was significant at p = 0.0005.*
- *Participants who fell had at least one fall due to an environmental hazard*
  - *Wet floor*
  - *Narrow doorways*
  - *Clutter in the room*
  - *Tripping on door rails.*

Poll:
How many of you have fallen in the past year?

1. Yes, I have fallen
2. No, I have not fallen

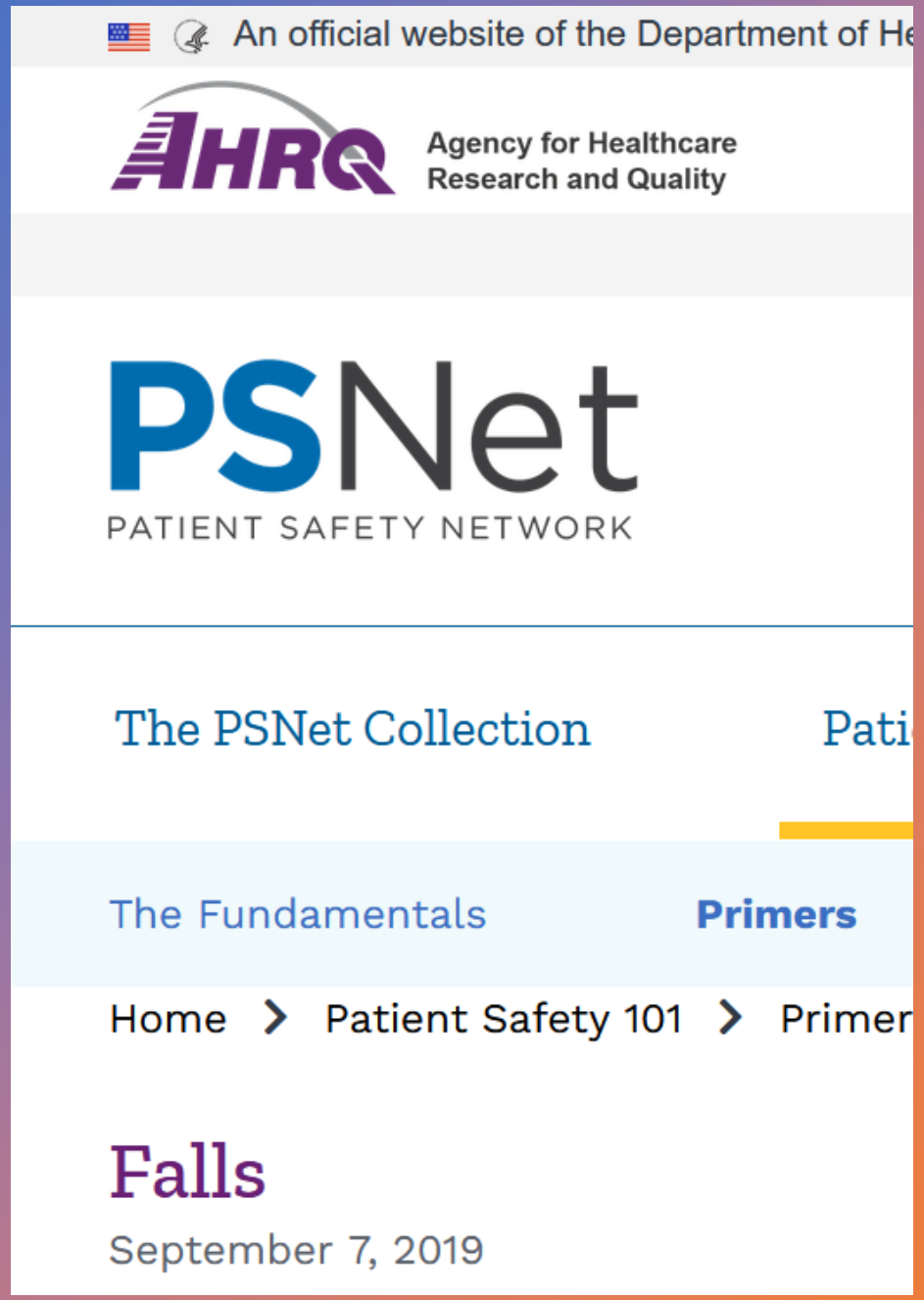
Poll:
How many of you have been injured in a fall in the past year?

1. Yes, I have been injured in a fall
2. No, I have not been injured in a fall

© Mommarazzi Images (2007)

Provide a safe, competent, person-centered environment

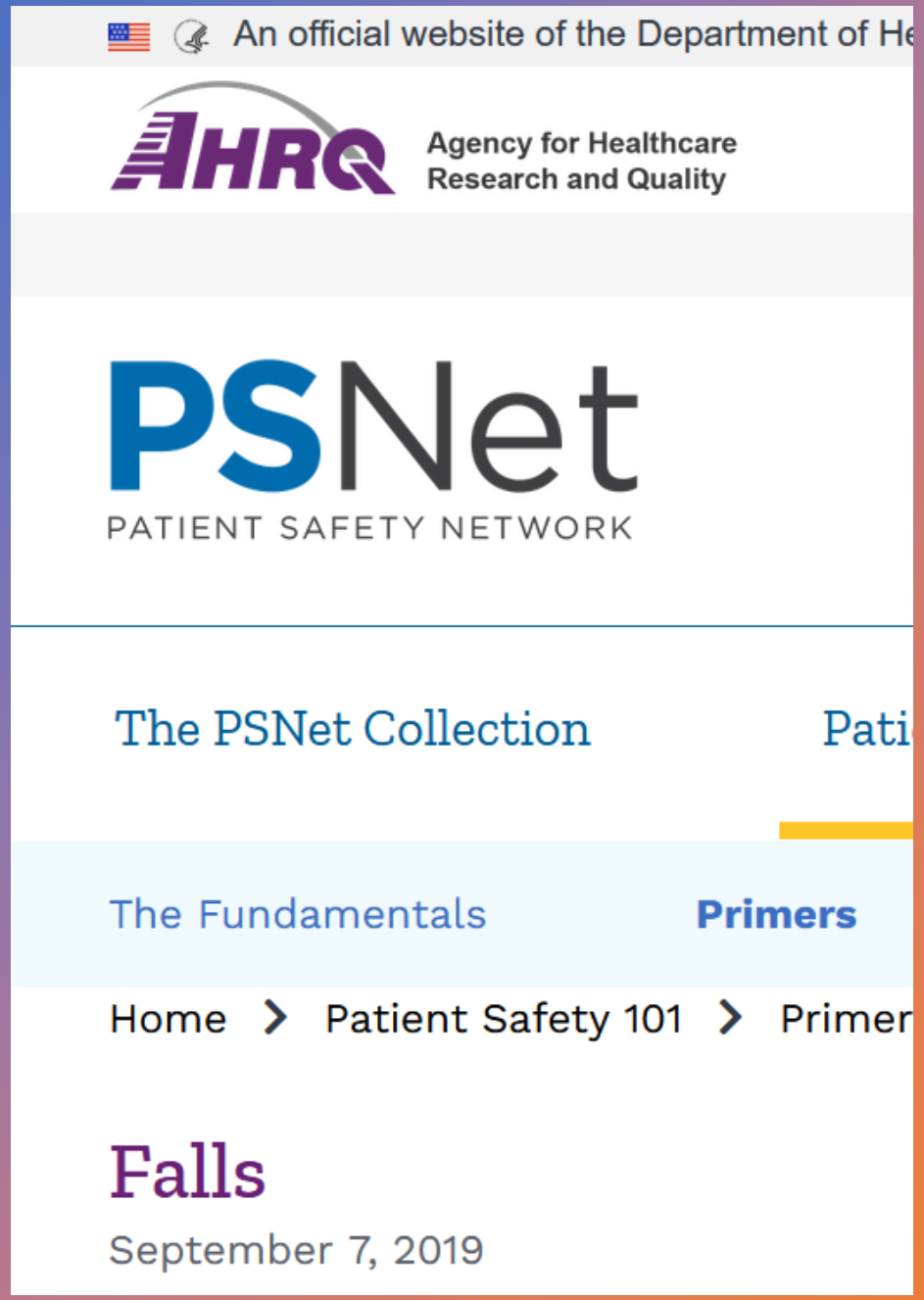
Chat Exercise: How many fall risks do you see in this photo?



Nursing Home Falls

- *Approximately half of the 1.6 million nursing home residents in the United States fall each year*
- *Nearly 10% of adverse events experienced by Medicare skilled nursing facility residents were falls resulting in significant injury*
- *2014 report by the Office of the Inspector General (OIG)*

https://psnet.ahrq.gov/primer/falls

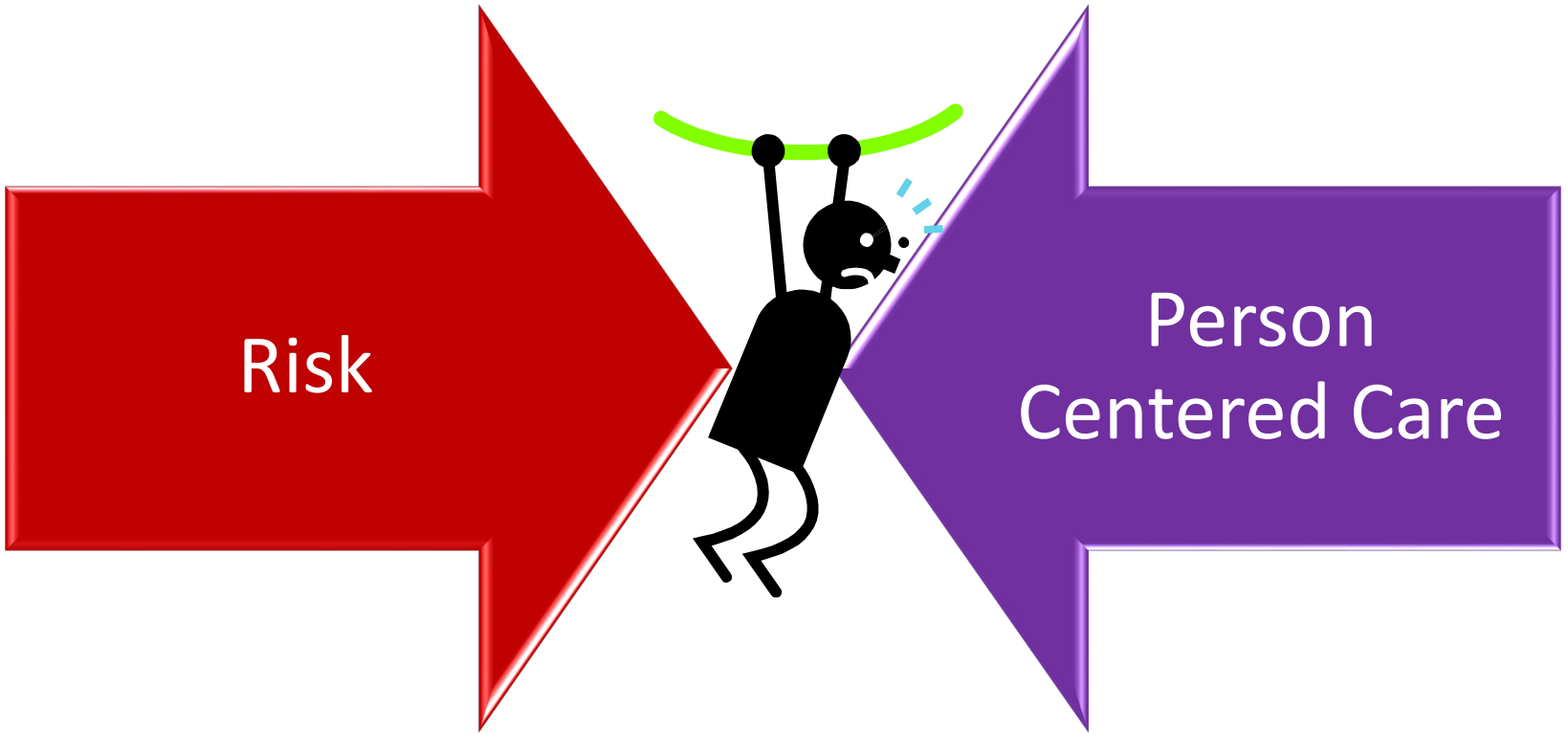


Acute Care

- *Falls are a common and devastating complication of hospital care, particularly in elderly patients*
- *Epidemiologic studies have found that falls occur at a rate of 3–5 per 1000 bed-days*
- *700,000 to 1 million hospitalized patients fall each year*
  - *AHRQ estimate*

https://psnet.ahrq.gov/primer/falls

Balancing Risk and Person-Centered Care



Paradigm Shift: Remember Restraints? Healthcare Evidence to Healthcare Practice

1964 nursing textbook

"Guard against injury or accident by the use of side rails and careful observation"

Research showed side rails *increased* the risk of severe injury

1998 study by Elizabeth Capezuti, Neville Strumpf, Lois Evans, Jeane Ann Grisso & Greg Maislin

Regulatory change and the hard work of surveyors and facilities

Brunner, Emerson, Ferguson, & Suddarth, (1964, p. 342).
Capezuti, Strumpf, Evans, Grisso, & Maislin, (1998).

Poll: How Long Does it Take for Healthcare Evidence to Turn Into Healthcare Practice?

1. 5 Years
2. 10 Years
3. 12 Years
4. 15 Years
5. 17 Years
6. 20 Years
7. 25 Years

REVIEW

The answer is 17 years, what is the question: understanding time lags in translational research

Zoë Slote Morris[1] • Steven Wooding[2] • Jonathan Grant[2]

[1]Institute of Public Health, University of Cambridge, Cambridge CB2 0SR, UK
[2]RAND Europe, Cambridge CB4 1YG, UK
Correspondence to: Jonathan Grant. Email: jgrant@rand.org

J R Soc Med 2011: 104: 510 –520. DOI 10.1258/jrsm.2011.110180

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3241518/pdf/JRSM-11-0180.pdf

Medical News & Perspectives

April 5, 2023

It Takes an Average of 17 Years for Evidence to Change Practice—the Burgeoning Field of Implementation Science Seeks to Speed Things Up

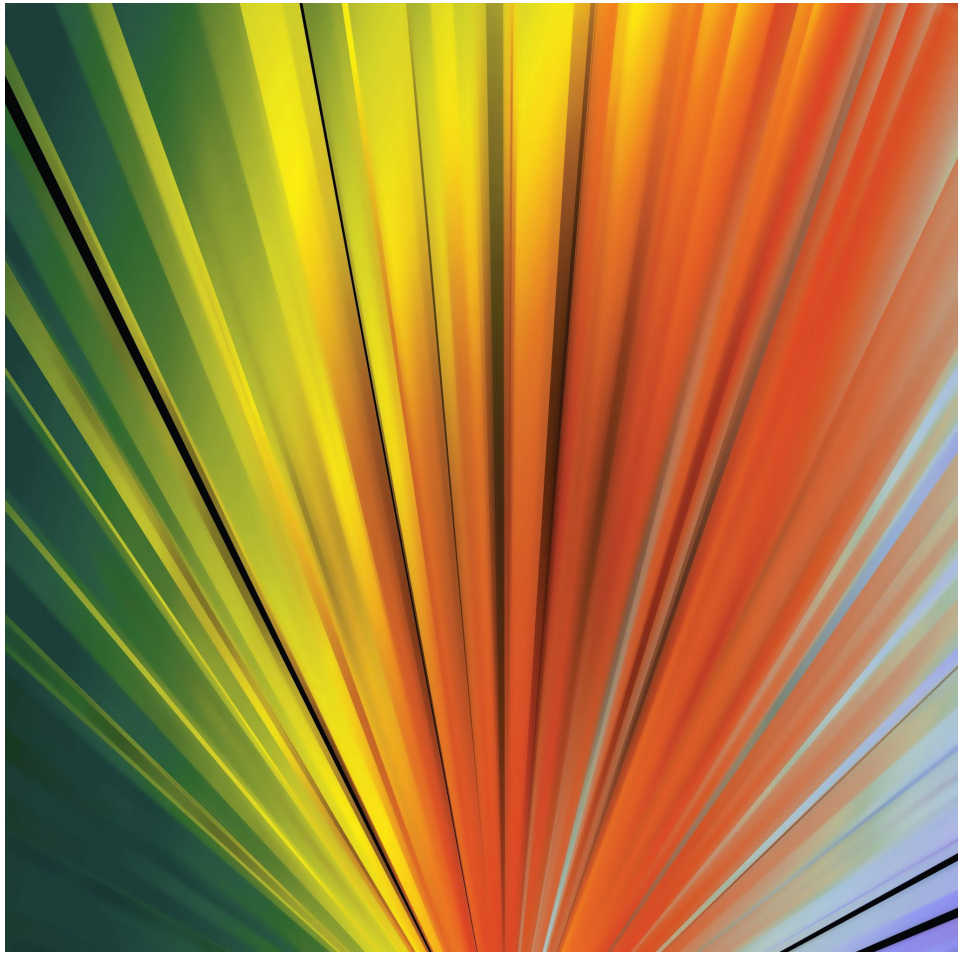
Rita Rubin, MA

JAMA. 2023;329(16):1333-1336. doi:10.1001/jama.2023.4387

JAMA Medical News

https://jamanetwork.com/journals/jama/article-abstract/2803716

Hand Hygiene



Example of Evidence Based Practice Just Now Being Accepted

Use of Alcohol Based Hand Rub (ABHR) vs. Hand Washing with soap and water

Published 16 Years Ago: Read with a critical eye

- Single 138 bed long term care facility
- 75 residents followed
- “Data suggests”
- Diagnostic criteria for UTI not explicitly defined
- The rate of falls among residents with suspected UTI has not been systematically examined in this study

National Library of Medicine
National Center for Biotechnology Information

PubMed®

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Director. 2007 Winter;15(1):22-6.

The relationship of urinary tract infections and falls in a nursing home

Jacqueline Rhoads [1], Andrea Clayman, Susan Nelson

Affiliations + expand

PMID: 19348053

Abstract

The purpose of this study was to determine if there was a relationship between urinary tract infections and falls in a nursing home population. The incidence of falls in nursing homes is prevalent with the current data suggesting that each nursing home resident falls 1.6 times per year. The consequences of a fall can be devastating to the quality of life of the nursing home resident. Therefore, this study was designed to identify falls as the symptom of a urinary tract infection and to provide treatment. Over 75 patients in a 138 bed community nursing home were followed for 6 months. Data suggests that majority of those residents who had a history of a fall also had a UTI In addition; the study data shows that severely demented patients who fall have a higher probability of having a urinary tract infection.

https://pubmed.ncbi.nlm.nih.gov/19348053/

Published 10 Years Ago

NIH Public Access
Author Manuscript
J Am Geriatr Soc. Author manuscript; available in PMC 2014 April 01.

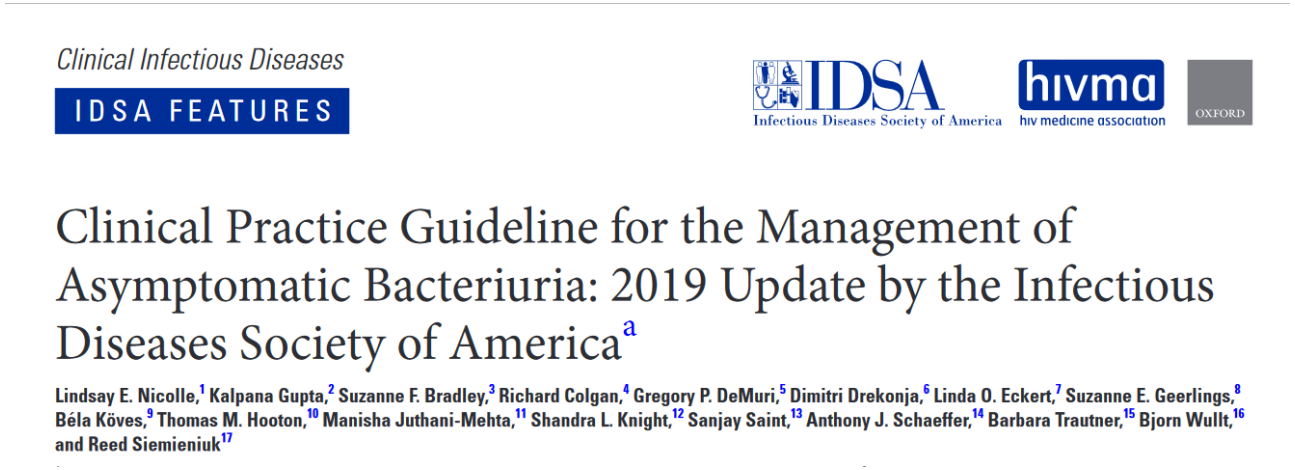
Published in final edited form as:
J Am Geriatr Soc. 2013 April ; 61(4): 653–654. doi:10.1111/jgs.12177.

Lack of Positive Association Between Falls and Bacteriuria Plus Pyuria in Older Nursing Home Residents

Theresa Rowe, DO, **Virginia Towle, MPhil**, **Peter H. Van Ness, PhD, MPH**, and **Manisha Juthani-Mehta, MD**
Department of Internal Medicine, Yale University School of Medicine, New Haven, Connecticut

- Design: Secondary analysis of a published 2009 prospective, observational cohort study from 2005 to 2007.
- Setting: Five New Haven, Connecticut area nursing homes.
- Participants: 551 nursing home residents each followed for 1 year for the development of clinically suspected UTI.
- Nursing home residents are particularly susceptible to overuse of antibiotics because of non-specific symptoms associated with infection such as altered mental status or fall.
- Our results do not support claims for a positive association between falls and UTI.
- Thus, empiric treatment with antibiotics for fall is not warranted and may contribute to the over-utilization of antimicrobials in nursing homes.

Published 5 Years Ago



- *Falls are common among older populations who also have a high prevalence of asymptomatic bacteriuria (ASB), and often lead to a diagnosis of UTI and initiation of antimicrobial therapy, in the absence of consistent genitourinary symptoms or systemic signs of infection (such as fever or change in hemodynamic status).*
- *Cohort study of suspected UTI in nursing home residents, only 9 of 45 (20%) fall episodes occurred in residents with bacteriuria and pyuria present—the remaining 80% had no bacteriuria and pyuria.*
- *These studies suggest that* ***most older residents who fall do not have ASB and falls should not immediately trigger suspicion for UTI; other causes are much more likely.***

Nicolle, L. E., Gupta, K., Bradley, S. F., Colgan, R., DeMuri, G. P., Drekonja, D., ... & Siemieniuk, R. (2019). Clinical practice guideline for the management of asymptomatic bacteriuria: 2019 update by the Infectious Diseases Society of America. *Clinical Infectious Diseases*, *68*(10), e83-e110.

Evidence-Based Clinical Practice Guidelines May 2021: Fall Risks

- Fall within the past 6 months
- Over 80 years of age
- Parkinson's disease
- Dizziness (vertigo)
- Impaired balance
- Cognitive impairment
- Moderate physical impairment and restricted gait
- Wandering
- Psychoactive drugs
- Taking more than 3 drugs
- Vasodilators
- Walking aids (canes, walkers)
- Slippers
- **NO MENTION OF INFECTIONS/URINARY TRACT INFECTIONS**

Received: 20 May 2021 | Revised: 9 September 2021 | Accepted: 18 September 2021

DOI: 10.1111/wvn.12571

Worldviews on Evidence-Based Nursing

EVIDENCE REVIEW

Fall prevention in hospitals and nursing homes: Clinical practice guideline

Daniela Schoberer RN, PhD[1] | Helga Elisabeth Breimaier RN, PhD[2] | Julia Zuschnegg RN, MSc[3] | Thomas Findling RN, BSc[4] | Susanna Schaffer RN, PhD[5,6] | Tamara Archan RN, MScN[7]

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[2]Strategic Management of Nursing, RKU – University and Rehabilitation Clinics Ulm, Ulm, Germany

[3]Institute of Nursing Science, Medical University Graz, Graz, Austria

[4]Institute of Health Care and Nursing, FH JOANNEUM University of Applied Sciences, Graz, Austria

[5]Nursing School, Graz, Austria

[6]Independent Researcher, Graz, Austria

[7]Haus der Barmherzigkeit Seeböckgasse, Vienna, Austria

Correspondence
Daniela Schoberer, Institute of Nursing Science, Medical University of Graz, Universitätsplatz 4/3rd floor, 8010 Graz, Austria.
Email: daniela.schoberer@medunigraz.at

Funding information
This research did not receive any funding from agencies in the public, commercial, or

Abstract

Background: Falls and their consequences are particularly common in older adults in hospitals and long-term care (LTC) facilities.

Aim: To avoid falls and their consequences, and provide nurses with an overview of all relevant research literature on fall prevention, and a practice guideline on fall prevention in older adults was developed.

Methods: The development process included a systematic literature review to identify systematic reviews and primary studies on the topic of fall prevention, an assessment of the study quality, the preparation of meta-analyses to summarize the results, and the application of the GRADE (Grading of Recommendations Assessment, Development and Evaluation) approach to grade the scientific literature. The guideline panel and an external multidisciplinary team graded the recommendations using the Delphi method. In addition, the panel and team formulated expert opinions.

Results: A total of 79 randomized controlled trials on fall prevention were identified, which formed the basis of the recommendations. Strongly recommended measures for both settings included multifactorial interventions, professionally supported body exercise interventions, and education and counselling interventions. The panel and team did not recommend the use of a specific assessment tool for fall risk assessment

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9310602/pdf/WVN-19-86.pdf

Society for Healthcare Epidemiology of America (SHEA) Guidance (2022)

Infection Control & Hospital Epidemiology (2022), **43**, 417–426
doi:10.1017/ice.2020.1282

SHEA

SHEA Document

Reliability of nonlocalizing signs and symptoms as indicators of the presence of infection in nursing-home residents

Theresa A. Rowe DO, MS[1], Robin L.P. Jump MD, PhD[2,3], Bjørg Marit Andersen MD, PhD[4], David B. Banach MD, MPH, MS[5], Kristina A. Bryant MD[6], Sarah B. Doernberg MD, MAS[7], Mark Loeb MD, MSc[8], Daniel J. Morgan MD, MS[9], Andrew M. Morris MD, SM(Epi)[10], Rekha K. Murthy MD[11], David A. Nace MD, MPH[12] and Christopher J. Crnich MD, PhD[13,14]

- Expert guidance: Basis for revising Loeb *Minimum Criteria for Initiation of Antibiotics in Long-Term Care Residents*
- ***"Falls Guidance**: Should a fall in a nursing home resident prompt further evaluation for the presence of infection?*
- ***Recommendation:***
- ***Not recommended** that clinicians evaluate a resident who has experienced a fall for the presence of infection…*
- *Falls are common among older residents of nursing homes…*
- *Falls often prompt an infectious work-up and/or empiric antibiotic treatment for suspected infection, specifically, UTIs…*
- *Literature search did not identify studies that evaluated the association between falls and other infectious syndromes such as pneumonia…*
  - ***Insufficient evidence exists to estimate the likelihood of infection in residents of nursing homes who have fallen."***

https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/reliability-of-nonlocalizing-signs-and-symptoms-as-indicators-of-the-presence-of-infection-in-nursinghome-residents/7293386E2E61A4224C7F71C66D48B835

Person-centered guidance to prescribers for antimicrobial use

What are the current Loeb Criteria?

"Note: Foul smelling or cloudy urine is not a valid indication for initiating antibiotics. Asymptomatic bacteriuria should not be treated with antibiotics."

Minimum Criteria for Initiation of Antibiotics in Long-Term Care Residents

Suspected Urinary Tract Infection

NO indwelling catheter:

- Acute dysuria

or

- Fever (>37.9°C [100°F] or a 1.5°C [2.4°F] increase above baseline temperature)
  and at least one of the following:
  New or worsening:
  - Urgency
  - Frequency
  - Suprapubic pain
  - Gross hematuria
  - Costovertebral angle tenderness
  - Urinary incontinence

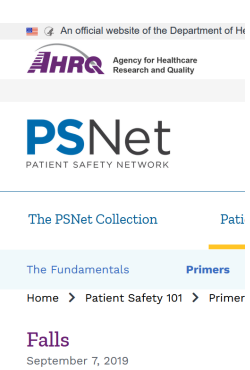
WITH indwelling catheter (Foley or suprapubic):

- *At least one* of the following:
  - Fever (>37.9°C [100°F] or a 1.5°C [2.4°F] increase above baseline temperature)
  - New costovertebral tenderness
  - Rigors
  - New onset of delirium

Note: Foul smelling or cloudy urine is not a valid indication for initiating antibiotics. Asymptomatic bacteriuria should not be treated with antibiotics.

https://www.health.state.mn.us/diseases/antibioticresistance/hcp/ltcabxcard.pdf

https://www.health.state.mn.us/diseases/antibioticresistance/hcp/asp/ltc/loebmcgeer.pdf



AHRQ Fall Prevention (No antibiotics suggested)

- Multidisciplinary (Interdisciplinary) (rather than solely nursing) responsibility for intervention
- Staff and patient education (if provided by health professionals and structured rather than ad hoc)
- An individualized plan of care that is responsive to individuals' differing risk factors, needs, and preferences
- Provision of safe footwear (rather than solely advice on safe footwear)
- A focus on prevention, detection, and treatment of delirium
- Review and (where appropriate) discontinuation of "culprit" medications associated with increased risk of falls, especially psychotropic medication
- Continence management, including routines of offering frequent assistance to use the toilet
- Early access to advice, mobility aids, and (where appropriate) exercise from physiotherapists
- A post-fall review used as an opportunity to plan secondary prevention, including a careful history to identify potential syncope

https://psnet.ahrq.gov/primer/falls

State Operations Manual
Appendix PP - Guidance to Surveyors for Long Term Care Facilities

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(Rev. 211, 02-03-23)

A SYSTEMS APPROACH
Processes in a facility's interdisciplinary systematic approach

- **Risk Assess**
- **IDT through the QAA Committee**
- **F689 p.323**
- **F881 p. 794**
- **See also:**
  - **F726 Nursing Services p. 478**
  - **F945 Infection Control Mandatory Training p. 852**

https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf

Implementation of Interventions

Implementation refers to using specific interventions to try to reduce a resident's risks from hazards in the environment. The process includes: Communicating the interventions to all relevant staff, assigning responsibility, providing training as needed, documenting interventions (e.g., plans of action developed *through the QAA committee* or care plans for the individual resident), and ensuring that the interventions are put into action.

Interventions are based on the results of the evaluation and analysis of information about hazards and risks and are consistent with professional standards, including evidence-based practice. Development of interim safety measures may be necessary if interventions cannot immediately be implemented fully.

Facility-based interventions may include, but are not limited to, educating staff, repairing the device/equipment, and developing or revising policies and procedures. Resident-directed approaches may include implementing specific interventions as part of the plan of care, supervising staff and residents, etc. Facility records document the implementation of these interventions.

F881
(Rev. 211; Issued: 02-03-23; Effective: 10-21-22; Implementation: 10-24-22)

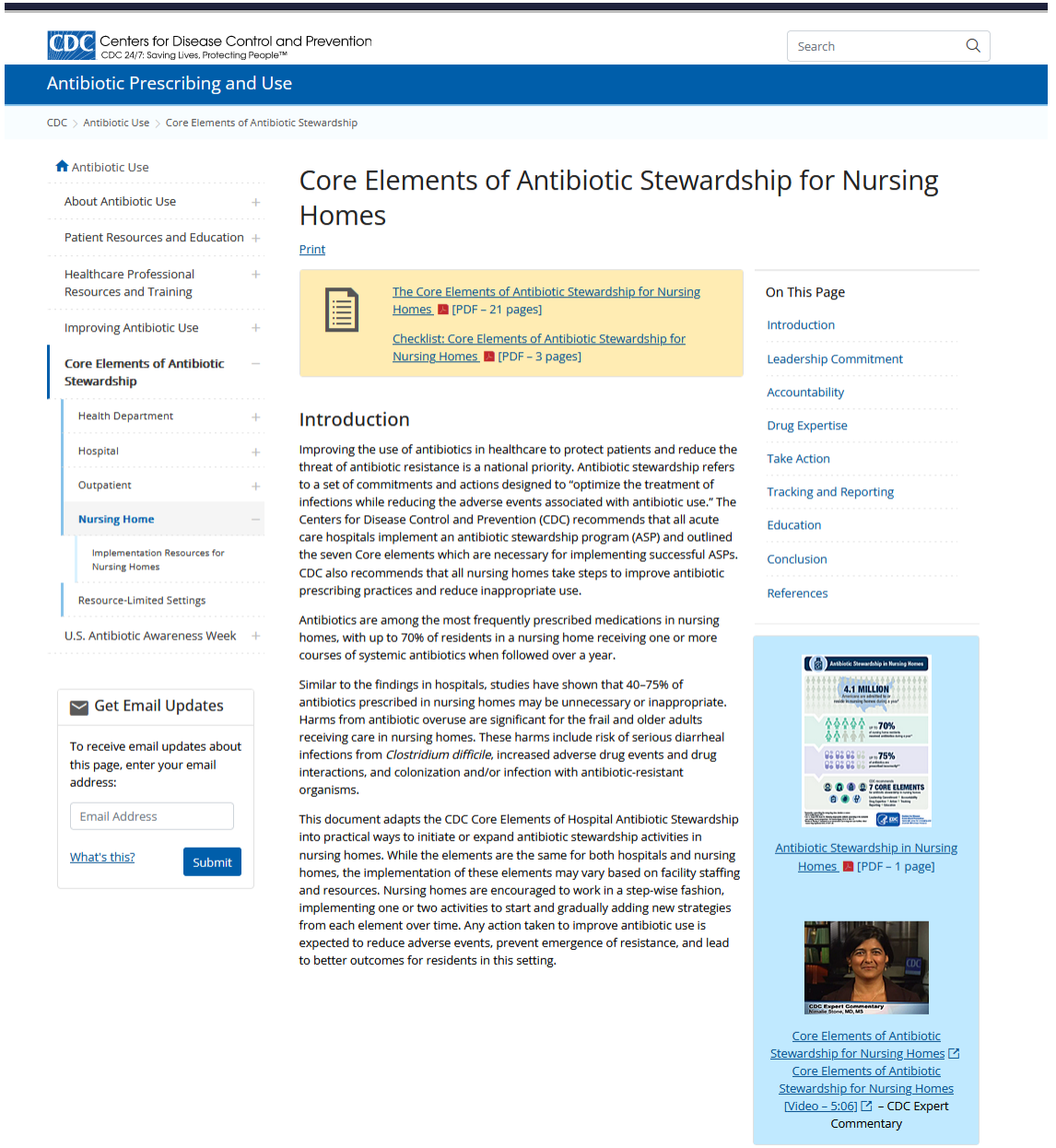
§483.80(a) Infection prevention and control program. The facility must establish an infection prevention and control program (IPCP) that must include, at a minimum, the following elements:

§483.80(a)(3) An antibiotic stewardship program that includes antibiotic use protocols and a system to monitor antibiotic use.

INTENT
The intent of this regulation is to ensure that the facility:

- Develops and implements protocols to optimize the treatment of infections by ensuring that residents who require an antibiotic, are prescribed the appropriate antibiotic;
- Reduces the risk of adverse events, including the development of antibiotic-resistant organisms, from unnecessary or inappropriate antibiotic use; and
- Develops, promotes, and implements a facility-wide system to monitor the use of antibiotics.

CDC Resources for Long Term Care



CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™
Search

Antibiotic Prescribing and Use

CDC › Antibiotic Use › Core Elements of Antibiotic Stewardship

Antibiotic Use
About Antibiotic Use
Patient Resources and Education
Healthcare Professional Resources and Training
Improving Antibiotic Use
Core Elements of Antibiotic Stewardship
Health Department
Hospital
Outpatient
Nursing Home
Implementation Resources for Nursing Homes
Resource-Limited Settings
U.S. Antibiotic Awareness Week

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Core Elements of Antibiotic Stewardship for Nursing Homes

Print

The Core Elements of Antibiotic Stewardship for Nursing Homes [PDF – 21 pages]

Checklist: Core Elements of Antibiotic Stewardship for Nursing Homes [PDF – 3 pages]

Introduction

Improving the use of antibiotics in healthcare to protect patients and reduce the threat of antibiotic resistance is a national priority. Antibiotic stewardship refers to a set of commitments and actions designed to "optimize the treatment of infections while reducing the adverse events associated with antibiotic use." The Centers for Disease Control and Prevention (CDC) recommends that all acute care hospitals implement an antibiotic stewardship program (ASP) and outlined the seven Core elements which are necessary for implementing successful ASPs. CDC also recommends that all nursing homes take steps to improve antibiotic prescribing practices and reduce inappropriate use.

Antibiotics are among the most frequently prescribed medications in nursing homes, with up to 70% of residents in a nursing home receiving one or more courses of systemic antibiotics when followed over a year.

Similar to the findings in hospitals, studies have shown that 40–75% of antibiotics prescribed in nursing homes may be unnecessary or inappropriate. Harms from antibiotic overuse are significant for the frail and older adults receiving care in nursing homes. These harms include risk of serious diarrheal infections from *Clostridium difficile*, increased adverse drug events and drug interactions, and colonization and/or infection with antibiotic-resistant organisms.

This document adapts the CDC Core Elements of Hospital Antibiotic Stewardship into practical ways to initiate or expand antibiotic stewardship activities in nursing homes. While the elements are the same for both hospitals and nursing homes, the implementation of these elements may vary based on facility staffing and resources. Nursing homes are encouraged to work in a step-wise fashion, implementing one or two activities to start and gradually adding new strategies from each element over time. Any action taken to improve antibiotic use is expected to reduce adverse events, prevent emergence of resistance, and lead to better outcomes for residents in this setting.

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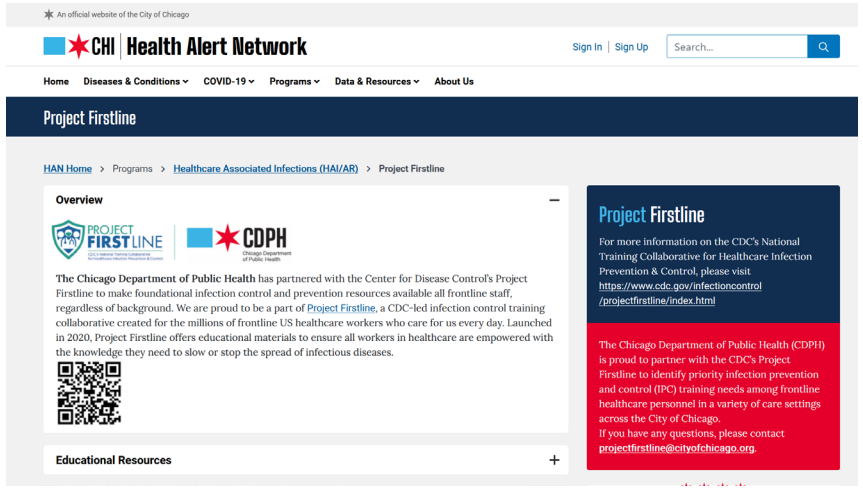
Tracking and Reporting
Education
Conclusion
References

Antibiotic Stewardship in Nursing Homes [PDF – 1 page]

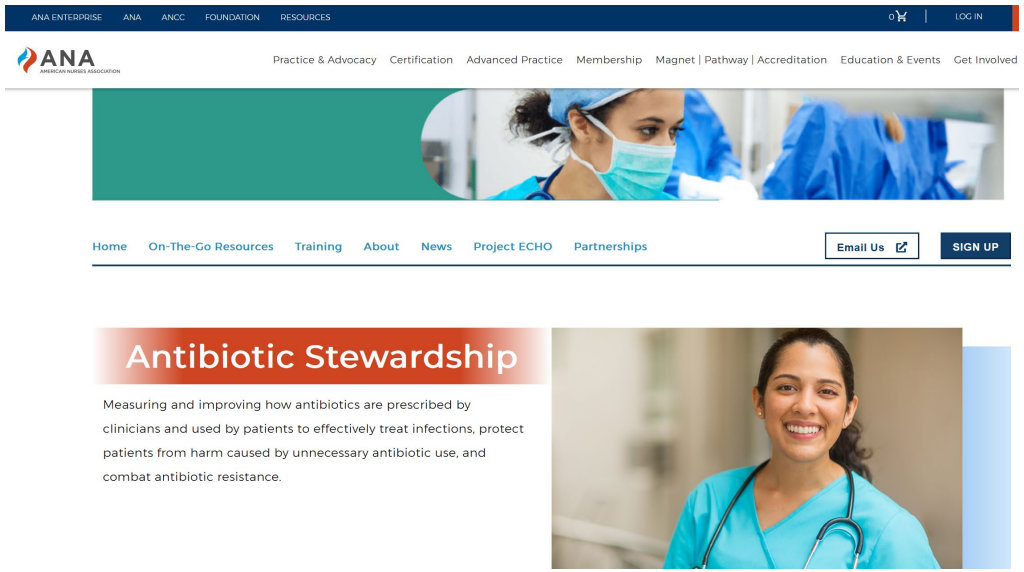
Core Elements of Antibiotic Stewardship for Nursing Homes
Core Elements of Antibiotic Stewardship for Nursing Homes [Video – 5:06] – CDC Expert Commentary

https://www.cdc.gov/antibiotic-use/core-elements/nursing-homes.html

Project Firstline Resources



https://www.chicagohan.org/hai/pfl



https://www.nursingworld.org/practice-policy/project-firstline/on-the-go-resource/healthcare-acquired-infections/antibiotic-stewardship/

PROJECT FIRSTLINE

Project Firstline (PFL) is a partnership between the CDC, the Illinois Department of Public Health, and The Hektoen Institute that aims to provide engaging and effective infection prevention and control training to frontline workers, staff, and members of the public health workforce.

https://www.hektoen.org/initiatives-2/project-firstline/

https://dph.illinois.gov/topics-services/prevention-wellness/patient-safety-quality/hai-ar-prevention/cdc-project-firstline.html

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Home › Nursing Home Antimicrobial Stewardship Guide

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Nursing Home Antimicrobial Stewardship Guide

Overview of the Guide

The Nursing Home Antimicrobial Stewardship Guide provides toolkits to help nursing homes optimize their use of antibiotics.

Browse Antimicrobial Stewardship Toolkits

Toolkits on four topic areas are available.

Implement, Monitor, and Sustain a Program

Two toolkits help nursing homes start and maintain antimicrobial stewardship programs.

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https://www.ahrq.gov/nhguide/index.html

CIMPAR ASP

Case Study

Sylwia Jasniuk, RN

CIMPAR

94 y/o female with history of Parkinson's, COPD, DM2, and HTN at a long-term care facility experienced a fall with a suspected arm fracture 3 days ago. She was taken to the ED for evaluation. She returns to the facility with a cast and order for an antibiotic.

Family History - N/A

Social History – 20 pack year smoker, nonalcoholic

Surgical History - Appendectomy 50 years prior, Right hip arthroplasty 9 year prior

Current medications - fluticasone, metformin, levodopa, and lisinopril. Now - Levofloxacin 250mg PO daily for 5 days

- **Upon entering the new orders in the EMR, the floor nurse contacted the IP nurse to make them aware of the new antibiotic order per protocol.**

Review of Systems (ROS)

- Reports 3/10 pain in left forearm. Denies all other symptoms.

Physical Exam:

- General - A/O x2, cannot recall month or year. Baseline.
- Cardiovascular - Normal S1 and S2, no murmurs
- Respiratory - Clear to auscultation bilaterally, no wheezing, rhonchi or rales
- MSK – Lt arm cast is intact. Left fingers appear pink, warm to touch.
- Abdomen - nondistended, nontender, normal bowel sounds
- Genitourinary – incontinent, voids without discomfort, no increased frequency. Baseline.

Vitals – BP: 140/67mmhg,

HR: 79bpm,

Temp: 97.5°F

O^2 Sat: 99%

Imaging and Labs - XR shows transverse nondisplaced radial fracture.

Urinalysis - Leukocyte Esterase positive, and Nitrite Positive

Urine culture unavailable.

72-Hour Antibiotic Time-Out

Resident name: Smith, Jane Date: 01/01/2024 Room #: 32-B

Antibiotic(s) prescribed: Levofloxacin

Start date: 01/01/2024 Dose: 50mg Route: PO Duration: 5 days Stop date: 01/05/2024

Prescriber name: Emergency Physician, MD

Facility where antibiotic prescribed: Community Hospital

☐ ER ☐ Medical office ☑ Hospital ☐ Other: _____

Reason Antibiotic Prescribed	Culture	Date	X-Ray	Pathogen	Signs & Symptoms
Skin | Wound | Cellulitis	☐ Yes ☐ No		☐ Yes ☐ No		
Urinary Tract Infection (UTI)	☐ Yes ☑ No		☐ Yes ☑ No		
Lung Respiratory Infection (LRI)	☐ Yes ☐ No		☐ Yes ☐ No		
Other: _____	☐ Yes ☐ No		☐ Yes ☐ No		

Antibiotic Appropriateness

Does resident meet Loeb criteria? ☐ Yes ☑ No

What are the risk factors/concerns? ☐ PVD ☐ Wound ☑ Diabetes ☐ Catheter ☐ Penicillin allergy ☐ Other: _____

Does resident still have symptoms? ☐ Yes ☑ No

Are signs and symptoms improving? ☐ Yes ☐ No

Red Flags (select all that apply)

☐ Antibiotic is ordered for more than 7 days
☐ Antibiotic inconsistent with organism sensitivities
☐ There is no stop date on antibiotic order
☐ No labs are available
☐ IV route ☐ Catheter ☐ Penicillin allergy

Actions to Take (select all that apply)

☑ Inquire about lab diagnostic result if pending
☐ Remove catheter
☑ Update provider
☑ Notify nurse manager or facility supervisor
☐ No action needed
☐ Other: _____

Minimum Criteria for Initiation of Antibiotics in Long-Term Care Residents

Suspected Urinary Tract Infection

NO indwelling catheter:

- Acute dysuria

or

- Fever (>37.9°C [100°F] or a 1.5°C [2.4°F] increase above baseline temperature)
  and at least one of the following:
  New or worsening:
  - Urgency
  - Frequency
  - Suprapubic pain
  - Gross hematuria
  - Costovertebral angle tenderness
  - Urinary incontinence

CIMPAR

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Assessment – Asymptomatic bacteriuria

On call Physician contacted to review order

To Be Completed by Attending Provider (Check all that apply. Describe any changes.)

☐ Antibiotic prescribed is appropriate
☑ Antibiotic should be discontinued
☐ Change antibiotic to: _____
☐ Change antibiotic route to: ☐ IV ☐ PO
☐ Change duration of antibiotic to: ☐ Days of therapy: _____ ☐ End date: _____
☐ Transmission-based precautions: ☐ Standard ☐ Contact ☐ Droplet ☐ Airborne ☐ None
☐ Other: _____

Table 2. Urinary Tract Infection (UTI) Surveillance Definitions		
Syndrome	**Criteria**	**Selected Comments***
UTI without indwelling catheter	***Must fulfill both 1 AND 2.*** □ 1. At least one of the following sign or symptom □ Acute dysuria or pain, swelling, or tenderness of testes, epididymis, or prostate □ Fever or leukocytosis, and ≥ 1 of the following: □ Acute costovertebral angle pain or tenderness □ Suprapubic pain □ Gross hematuria □ New or marked increase in incontinence □ New or marked increase in urgency □ New or marked increase in frequency □ If no fever or leukocytosis, then ≥ 2 of the following: □ Suprapubic pain □ Gross hematuria □ New or marked increase in incontinence □ New or marked increase in urgency □ New or marked increase in frequency □ 2. At least one of the following microbiologic criteria □ ≥ 10^5 cfu/mL of no more than 2 species of organisms in a voided urine sample □ ≥ 10^2 cfu/mL of any organism(s) in a specimen collected by an in-and-out catheter	The following 2 comments apply to both UTI with or without catheter: • UTI can be diagnosed without localizing symptoms if a blood isolate is the same as the organism isolated from urine and there is no alternate site of infection • In the absence of a clear alternate source of infection, fever or rigors with a positive urine culture result in the non-catheterized resident or acute confusion in the catheterized resident will often be treated as UTI. However, evidence suggests that most of these episodes are likely not due to infection of a urinary source. • Urine specimens for culture should be processed as soon as possible, preferably within 1-2 h • If urine specimens cannot be processed within 30 min of collection, they should be refrigerated and used for culture within 24 h

Thank you for being here!!!

Questions?

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Open Q&A

Submit questions via Q&A pod to **All Panelists**

Please do not resubmit a single question multiple times

Slides and recording will be made available after the session.

Reminders

- For continuing education credit, please fill out the evaluation survey upon end of webinar

- SIREN Registration
  - To receive situational awareness from IDPH, please use this link to guide you to the correct registration instructions for your public health related classification: http://www.dph.illinois.gov/siren

- Telligen Resources:
  - Project Firstline Trainings: https://www.telligenqiconnect.com/infectionpreventionandcontrol/
  - Contact Telligen: **nursinghome@telligen.com**