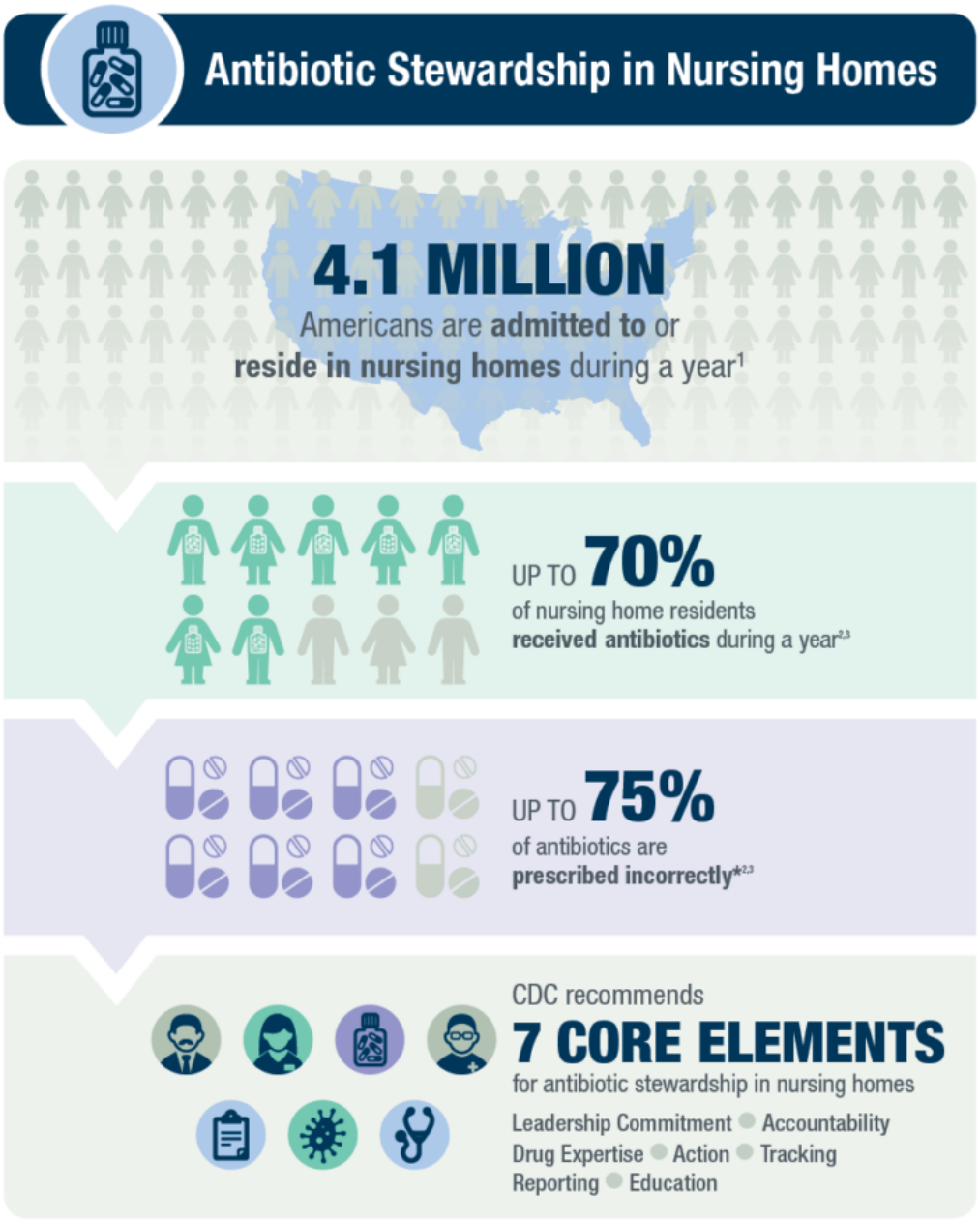
There is still significant overuse of antibiotics in Long Term Care. This leads to significant dangers related to drug resistant organisms and side effects related to antibiotic use. Improving our knowledge, clinical skills, and surveillance processes can help reduce antibiotic overuse as well as reduce hospitalizations and adverse drug effects.

It is estimated that 1 in 5 ER visits for an adverse drug event is related to an antibiotic. C. diff and facility transmission of antibiotic resistance are just two of many other potential adverse effects. When we prescribe a broad-spectrum antibiotic for one patient, we put everyone else in the facility at risk of acquiring a drug-resistant organism as well. Antibiotic prescribing effects the entire facility, not just one patient.

It is also now recognized that shorter courses of antibiotics are usually just as effective as longer, more traditional, courses of antibiotics. We now have randomized clinical trials showing this. Previous antibiotic recommendations were based on the 7-day week, for simplicity, and simply were not based on good evidence. At least one study has found that late career physicians are more likely to prescribe longer courses of antibiotics…. likely based on training and therapeutic inertia. By some estimates, it takes approximately 17 years for medical practitioners to change their practice pattern.

Below are some antibiotic stewardship resources for Long Term Care. At the end of the page, there is a list of hyperlinks for providers seeking an update or review on the topic of antibiotic stewardship.

DS



*incorrectly = prescribing the wrong drug, dose, duration or reason

[1] AHCA Quality Report 2013.
[2] Lim CJ, Kong DCM, Stuart RL. Reducing inappropriate antibiotic prescribing in the residential care setting: current perspectives. Clin Interven Aging. 2014; 9: 165-177.
[3] Nicolle LE, Bentley D, Garibaldi R, et al. Antimicrobial use in long-term care facilities. Infect Control Hosp Epidemiol 2000; 21:537–45.

Centers for Disease Control and Prevention
National Center for Emerging and Zoonotic Infectious Diseases

Antibiotic Course – Shorter is better

Table 1. Diseases for Which Short-course Antibiotic Therapy Has Been Found to Be Equally Effective to Longer Traditional Courses of Therapy (With References)

Diagnosis	Short (d)	Long (d)	Result
Community-acquired pneumonia [6–14]	3 or 5	7, 8, or 10	Equal
Hospital-acquired/ventilator-associated pneumonia [15, 16]	7–8	14–15	Equal
Complicated urinary tract infections/pyelonephritis [17–22]	5 or 7	10 or 14	Equal
Complicated/postoperative intraabdominal infections [23, 24]	4 or 8	10 or 15	Equal
Gram-negative bacteremia [25]	7	14	Equal
Acute exacerbation of chronic bronchitis/chronic obstructive pulmonary disease (meta-analysis of 21 trials [26])	≤5	≥7	Equal
Acute bacterial skin and skin structure infections (cellulitis/major abscess) [27–29]	5–6	10	Equal
Chronic osteomyelitis [30]	42	84	Equal
Empiric neutropenic fever [31]	Afebrile and stable × 72 h	Afebrile and stable × 72 h and with absolute neutrophil count > 500 cells/μL	Equal

Antibiotic Use in nursing homes: Summary recommendations for the common indications

Nursing Home Antibiotics Guidelines Summary ResourceDownload

Antibiotic Tracking and Surveillance Spreadsheet with Instructions

Abx tracker_LTCF_2022 SpreadsheetDownload

Antibiotic Timeout Checklist

Antibiotic time-out checklist FINAL 20190227Download

UTI Action Tool

Suspected UTI Action Tool v.4 11-18Download

CDC Antibiotic Stewardship for Nursing Homes Checklist

core-elements-antibiotic-stewardship-checklist-508Download

UTI Information for Residents and Families – docShepherd

UTI in PALTC Consensus JAMDA 2020 (1)Download

Provider Courses/Training:

- ***** Washington State Dept of Health: Lecture: UTI or ASB? - docShepherd**
- Diagnosis, Treatment, and Prevention of Urinary Tract Infections in Post-Acute and Long-Term Care Settings: A Consensus Statement From AMDA's Infection Advisory Subcommittee
- CDC's Antibiotic Stewardship Courses – CDC TRAIN – an affiliate of the TRAIN Learning Network powered by the Public Health Foundation
- Pyuria does not equal UTI – docShepherd
- Don't Lose Your Head: Altered Mental Status (AMS) and UTI – docShepherd

- UTI Information for LTC – Urine is NOT sterile – docShepherd
- Short-course Antibiotic Therapy—Replacing Constantine Units With “Shorter Is Better” – PMC (nih.gov)
- Late-career Physicians Prescribe Longer Courses of Antibiotics | Clinical Infectious Diseases | Oxford Academic (oup.com)
- CASE workshop 11_17_23 Antibiotic Durations.pdf – Google Drive
    - docshepherd.com/wp-content/uploads/2024/10/Workshop-1-Recording-Durations-of-Therapy-November_2023.mp4
- Infectious Diseases Society of America Guidelines for the Diagnosis and Treatment of Asymptomatic Bacteriuria in Adults | Clinical Infectious Diseases | Oxford Academic (oup.com)

Table 1. Prevalence of Asymptomatic Bacteriuria Reported for Different Populations

Population	Prevalence, %	Reference
Children		
Boys	<1	[7]
Girls	1–2	[8–10]
Healthy women		
Premenopausal	1.0–5.0	[11]
Pregnant	1.9–9.5	[11]
Postmenopausal (age 50–70 y)	2.8–8.6	[11]
Persons with diabetes		
Women	10.8–16	[12]
Men	0.7–11	[12]
Elderly persons in the community (age ≥70 y)		
Women	10.8–16	[13]
Men	3.6–19	[13]
Elderly persons in a long-term care facility		
Women	25–50	[13]
Men	15–50	[13]
Persons with spinal cord injury		
Intermittent catheter use	23–69	[14]
Sphincterotomy/condom catheter	57	[15]
Persons with kidney transplant		
First month posttransplant	23–24	[16, 17]
1 mo–1 y post-transplant	10–17	[16]
>1 y post-transplant	2–9	[16]
Persons with indwelling catheter use		
Short-term	3%–5%/day catheter	[18]
Long-term	100	[19]