PADONA'S 29th ANNUAL CONVENTION

How to Prioritize and Implement Antibiotic Stewardship Strategies

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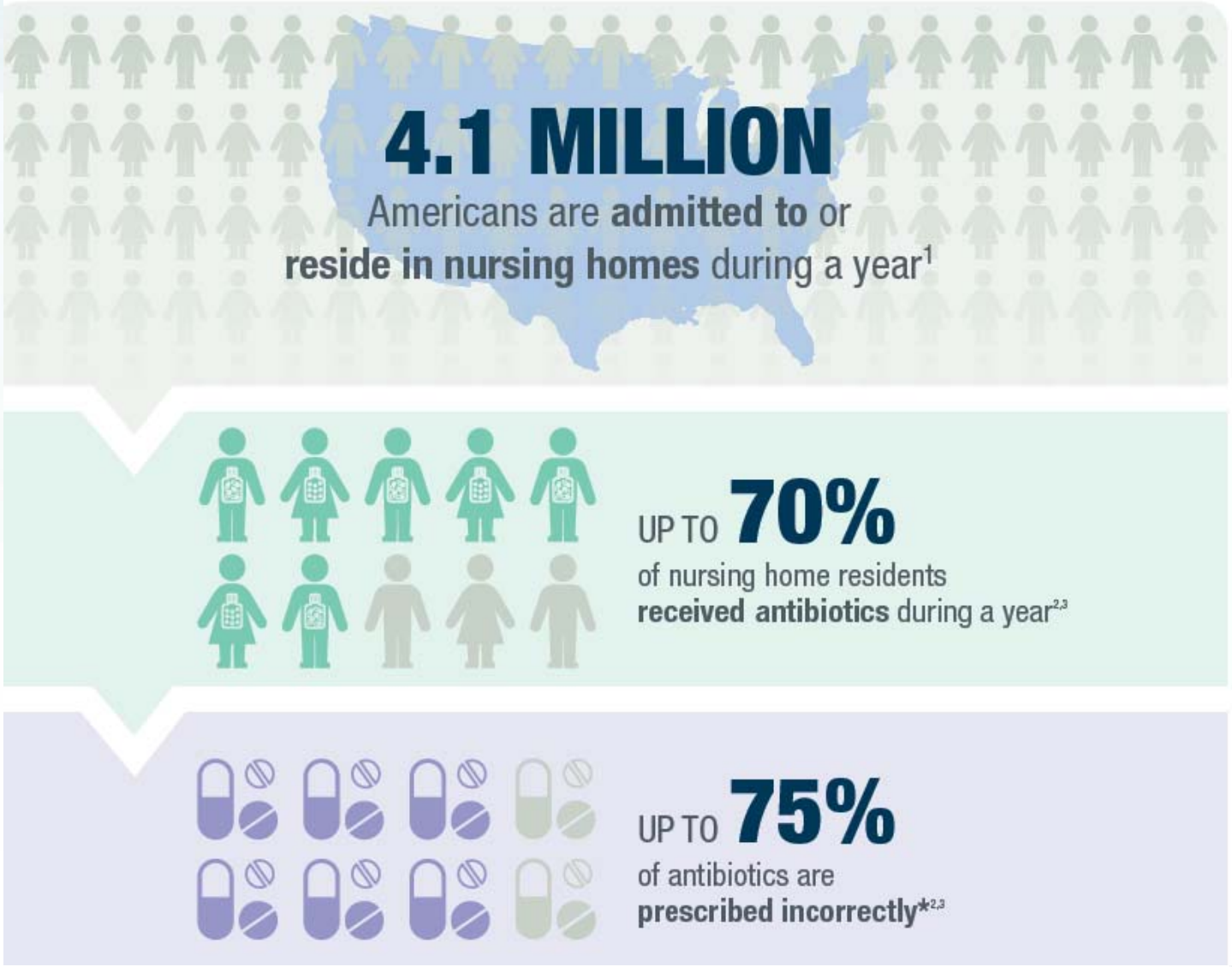
PENNSYLVANIA PATIENT SAFETY ADVISORY

Analyzing, Educating and Collaborating for Patient Safety

Objectives

- Recall the factors influencing the antibiotic prescribing decision making process
- Select interventions that target phases of the antibiotic prescribing process
- Identify methods to overcome stewardship barriers at provider, clinician, family and resident levels

Antibiotic Use in Long Term Care



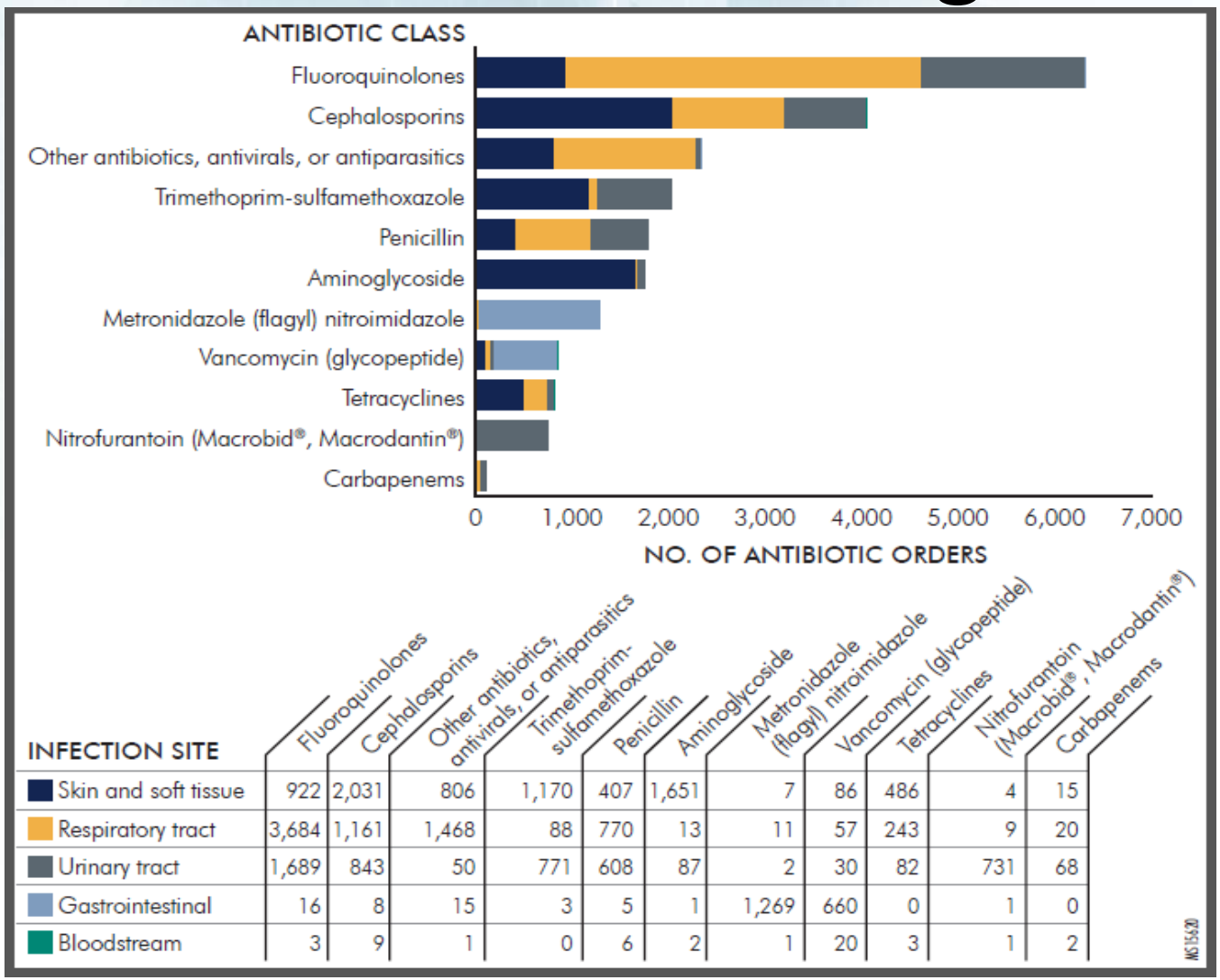
(Source: CDC newsroom)

Antimicrobial Misuse

- Unnecessary
- No longer necessary
- Wrong dose
- Wrong antibiotic
- Broad spectrum agents used on very susceptible bacteria

(CDC Get Smart for Healthcare)

Antibiotic Usage



INFECTION SITE	Fluoroquinolones	Cephalosporins	Other antibiotics, antivirals, or antiparasitics	Trimethoprim-sulfamethoxazole	Penicillin	Aminoglycoside	Metronidazole (flagyl) nitroimidazole	Vancomycin (glycopeptide)	Tetracyclines	Nitrofurantoin (Macrobid®, Macrodantin®)	Carbapenems
Skin and soft tissue	922	2,031	806	1,170	407	1,651	7	86	486	4	15
Respiratory tract	3,684	1,161	1,468	88	770	13	11	57	243	9	20
Urinary tract	1,689	843	50	771	608	87	2	30	82	731	68
Gastrointestinal	16	8	15	3	5	1	1,269	660	0	1	0
Bloodstream	3	9	1	0	6	2	1	20	3	1	2

MS15620

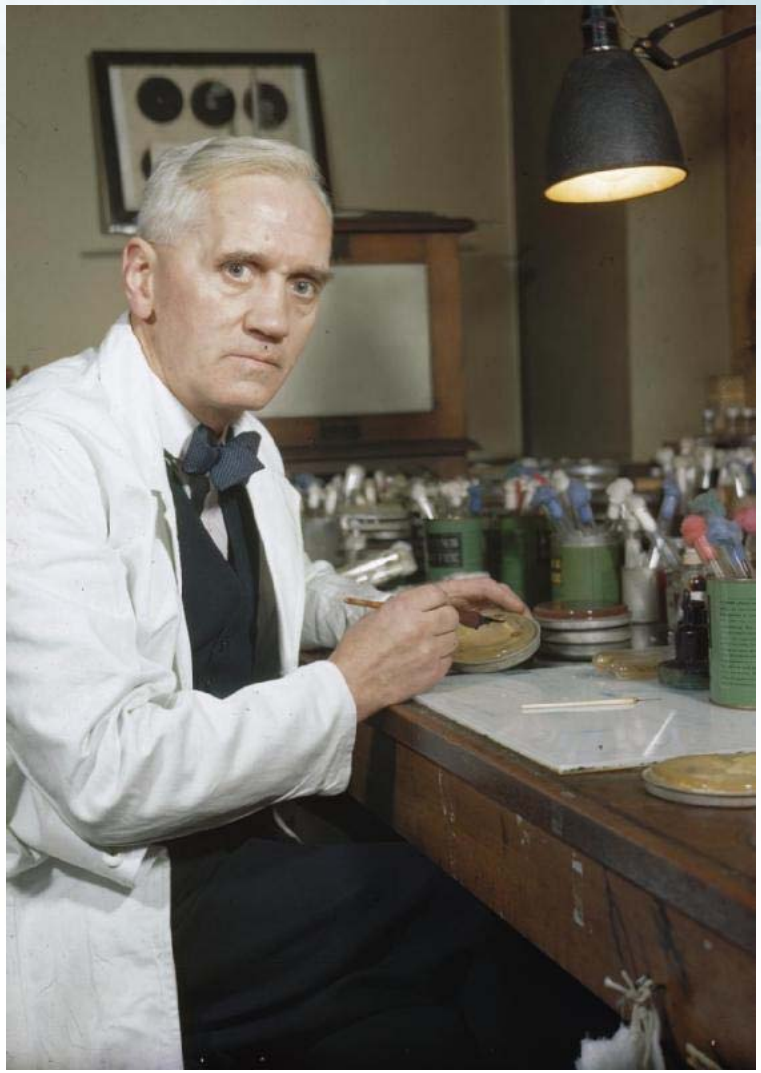
(Adkins)

Adverse Drug Effects from Antibiotics

- 1:1000 risk that taking an antibiotic will result in an Emergency Department (ED) visit
- 1:5 annual ED visits due to antibiotic reactions
  - 4:5 ED visits for allergic reactions
  - 5%-25% of patients will develop antibiotic-associated diarrhea
- Common
  - Rash, nausea, vomiting, diarrhea, stomach pain, fungal infections, drug fever
- Serious
  - Anaphylaxis, *C.difficile*, central nervous system and kidney toxicity, abnormal liver function

(CDC medication safety)

Antibiotic Misuse Warning



"The thoughtless person playing with penicillin treatment is morally responsible for the death of the man who succumbs to infection with the penicillin-resistant organism."

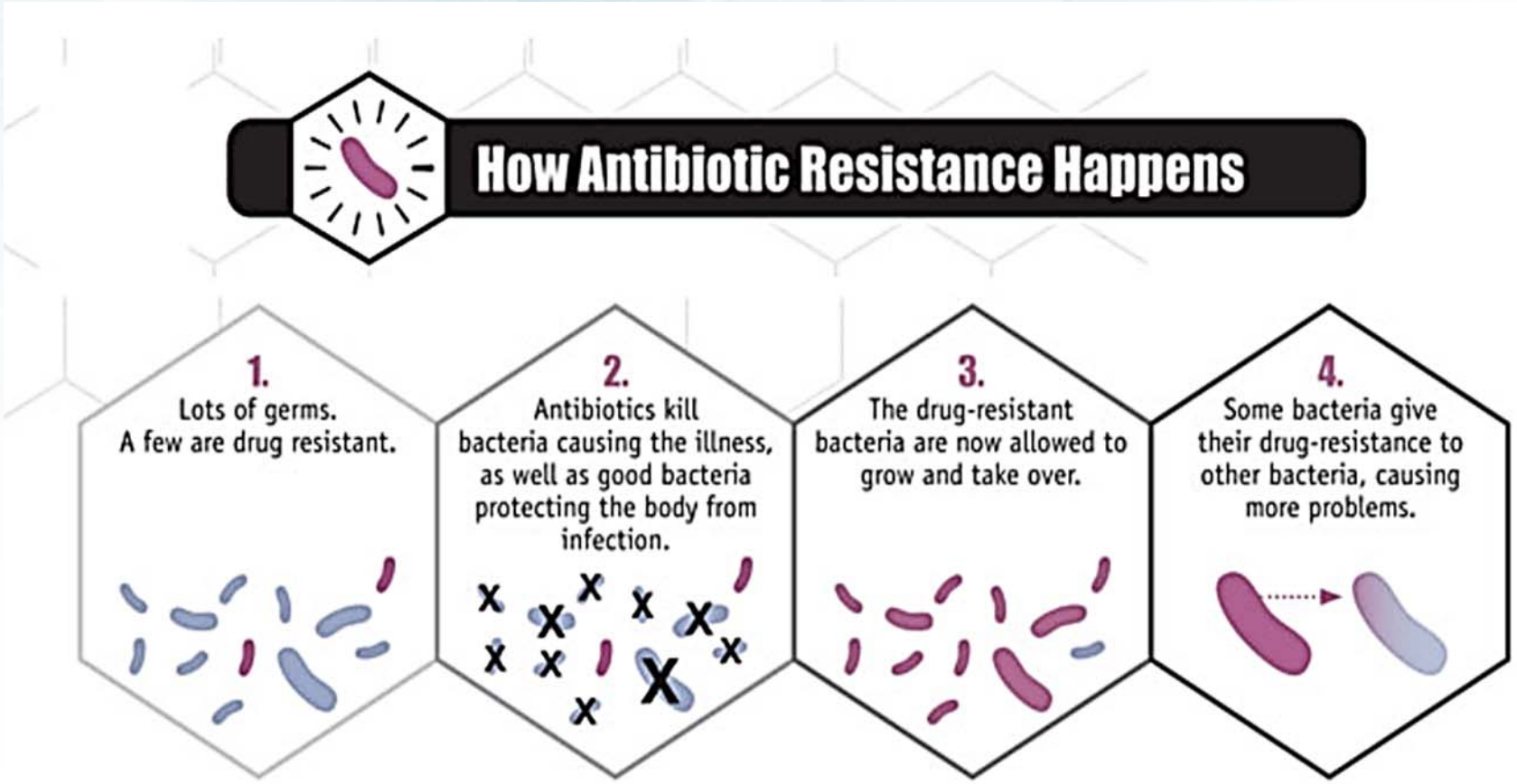
https://commons.wikimedia.org/wiki/File:Synthetic_Production_of_Penicillin_TR1468.jpg#filehistory

Multi-drug Resistant Organisms

- Risk increased by inappropriate antibiotic usage
- Difficult to treat
- Incur greater morbidity, mortality, cost
- Pennsylvania April 2014-April 2015
  - 2% of all healthcare associated infections (HAI) in LTCF are multi-drug resistant organisms (MDRO)
  - 20% of all MDRO are bloodstream infections
  - 54% of gastrointestinal infections are *Clostridium difficile (C.difficile)*

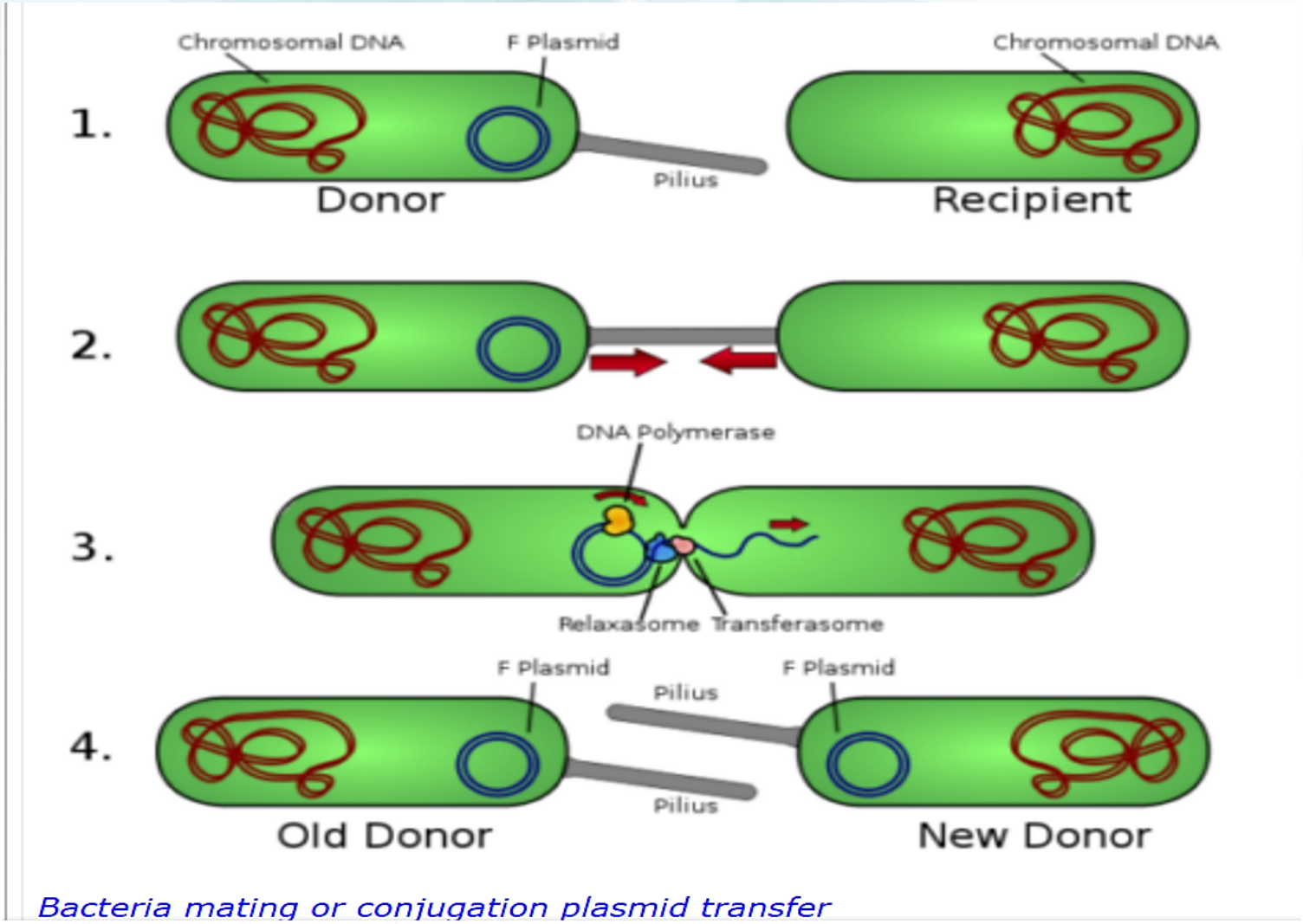
(SHEA,IDSA,CDC Core elements, Bradley)

Antibiotic Resistance



(Source : CDC- Get Smart Know When Antibiotics Work)

Mechanisms of Resistance



Bacteria mating or conjugation plasmid transfer

(Source: Wikipedia labeled for reuse at : https://en.wikipedia.org/wiki/Lactobacillus_brevis)

National Action Plan for Combating Antibiotic-Resistant Bacteria

- Slow emergence and prevent the spread of resistant organisms
- Strengthen national health surveillance efforts to combat resistance
- Advance development and use of rapid and innovative diagnostic tests
- Accelerate research and development for new antibiotics, other therapeutics, and vaccines
- Improve international collaboration and capacities for prevention, surveillance, control, research and development

(White House: National Action Plan)

What is Antimicrobial Stewardship?

- Uses coordinated interventions
- Improves and measures the appropriate use of antimicrobial agents
- Promotes the selection of the optimal drug regimen
  - Dosing
  - Duration of therapy
  - Route of administration

(SHEA)

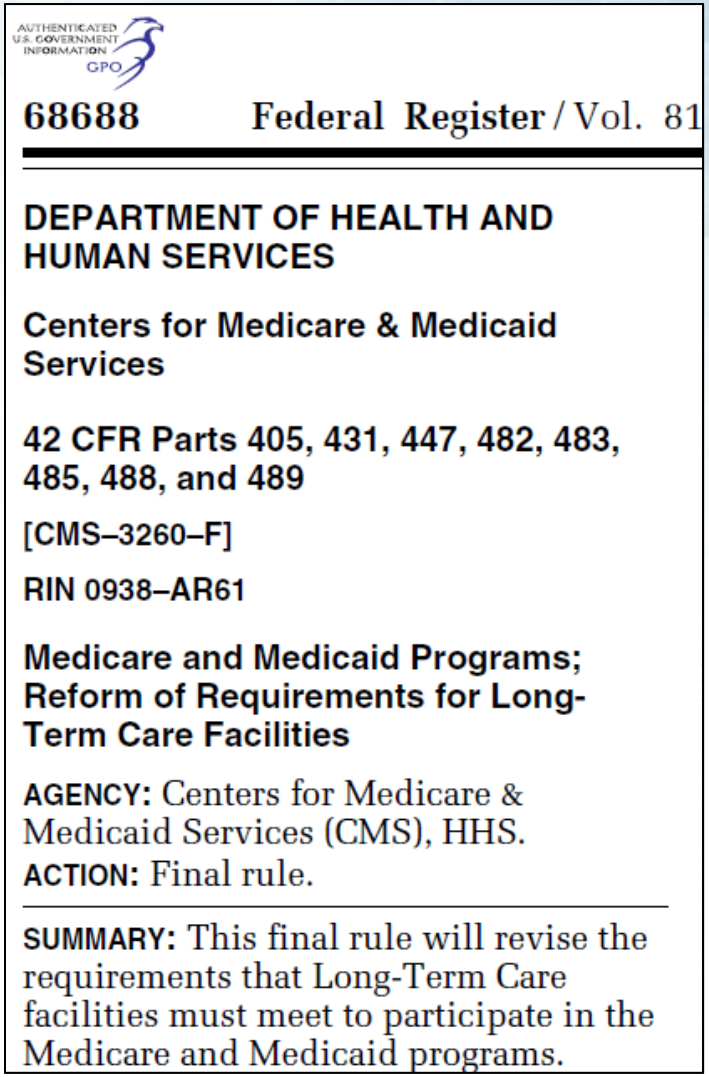
Rationale for Stewardship

OPTIMAL USE	SUBOPTIMAL USE
• Increases infection cures • Improves pathogen susceptibility profiles • Reduces adverse effects of antibiotics • Increases appropriate, cost effective prescribing for therapy and prophylaxis	• Increases treatment failures • Increases morbidity, mortality, hospitalization • Increases adverse effects of antibiotics • Higher costs for treatment

(SHEA)

Analyzing, Educating and Collaborating for Patient Safety

CMS Long-Term Care Final Rule



AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

68688 Federal Register / Vol. 81

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Parts 405, 431, 447, 482, 483, 485, 488, and 489

[CMS–3260–F]

RIN 0938–AR61

Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Final rule.

SUMMARY: This final rule will revise the requirements that Long-Term Care facilities must meet to participate in the Medicare and Medicaid programs.

- 42 CFR part § 483.80 Infection Control
- Infection Prevention & Control Program (IPCP) includes:
  - Antibiotic stewardship program
  - Antibiotic use protocols
  - System to monitor antibiotic use
  - Effective as of November 28, 2017

Getting Started Strategies

- Identify champions and a team
- Use a checklist to identify targets for improvement
- Outline a plan
- Track prescribing practices
- Develop and implement an antibiogram
- Educate clinicians to national infection criteria and treatment guidelines

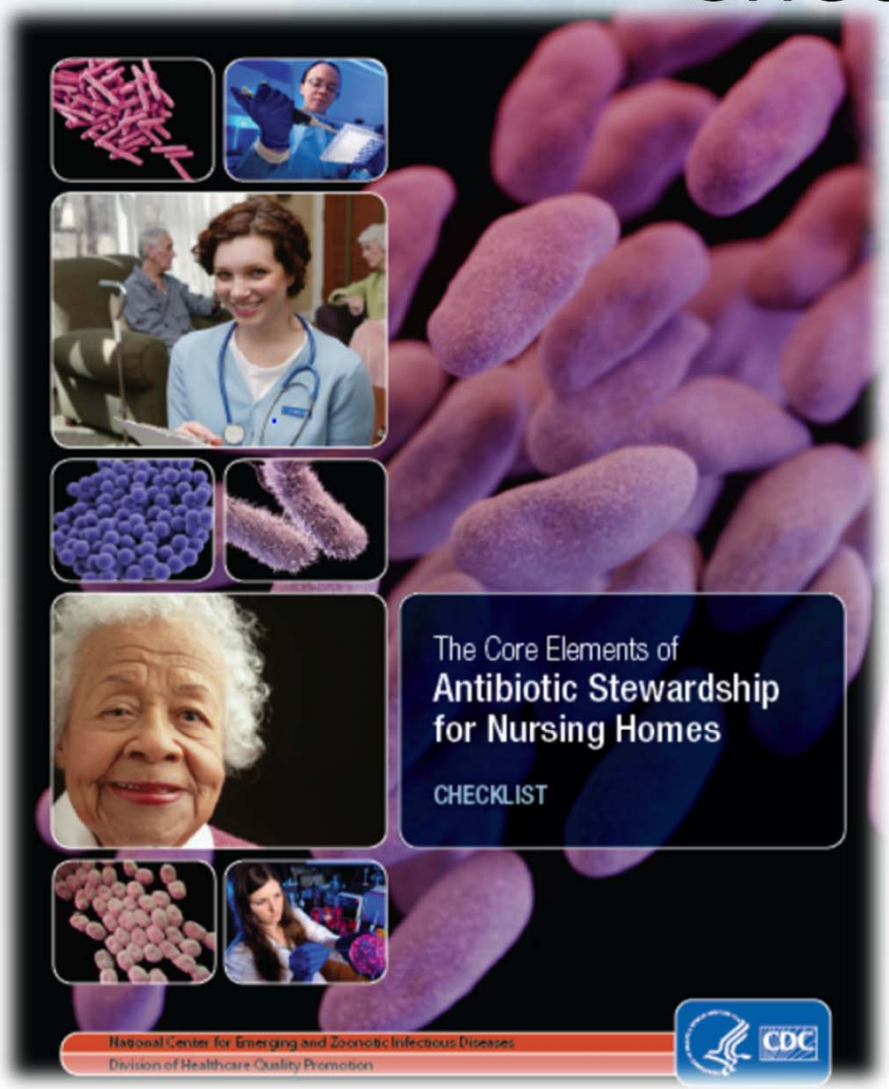
(Adkins, Bradley, AHRQ Toolkit)

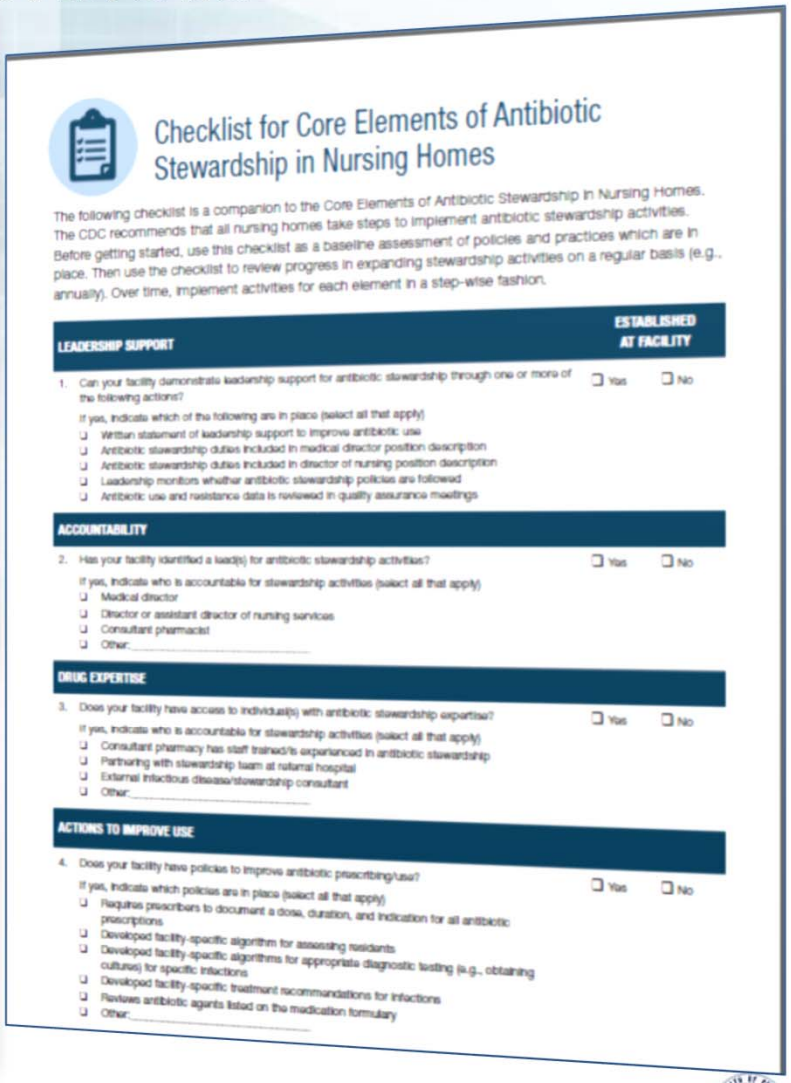
Identify Champions and Team

- **Select members**
  - Medical Director, Director of Nursing, Infection Preventionist
  - Pharmacist, Lab, Information Technology support
  - Clinical and prescriber champions
- **Introduce members to antimicrobial stewardship standards**
  - Core elements of stewardship
  - Antibiotic resistance

(Crnich , AHRQ toolkit)

Checklists





Checklist for Core Elements of Antibiotic Stewardship in Nursing Homes

The following checklist is a companion to the Core Elements of Antibiotic Stewardship in Nursing Homes. The CDC recommends that all nursing homes take steps to implement antibiotic stewardship activities. Before getting started, use this checklist as a baseline assessment of policies and practices which are in place. Then use the checklist to review progress in expanding stewardship activities on a regular basis (e.g., annually). Over time, implement activities for each element in a step-wise fashion.

	ESTABLISHED AT FACILITY
LEADERSHIP SUPPORT	
1. Can your facility demonstrate leadership support for antibiotic stewardship through one or more of the following actions?	❑ Yes ❑ No
If yes, indicate which of the following are in place (select all that apply)	
❑ Written statement of leadership support to improve antibiotic use	
❑ Antibiotic stewardship duties included in medical director position description	
❑ Antibiotic stewardship duties included in director of nursing position description	
❑ Leadership monitors whether antibiotic stewardship policies are followed	
❑ Antibiotic use and resistance data is reviewed in quality assurance meetings	
ACCOUNTABILITY	
2. Has your facility identified a lead(s) for antibiotic stewardship activities?	❑ Yes ❑ No
If yes, indicate who is accountable for stewardship activities (select all that apply)	
❑ Medical director	
❑ Director or assistant director of nursing services	
❑ Consultant pharmacist	
❑ Other:_____	
DRUG EXPERTISE	
3. Does your facility have access to individual(s) with antibiotic stewardship expertise?	❑ Yes ❑ No
If yes, indicate who is accountable for stewardship activities (select all that apply)	
❑ Consultant pharmacy has staff trained/is experienced in antibiotic stewardship	
❑ Partnering with stewardship team at referral hospital	
❑ External infectious disease/stewardship consultant	
❑ Other:_____	
ACTIONS TO IMPROVE USE	
4. Does your facility have policies to improve antibiotic prescribing/use?	❑ Yes ❑ No
If yes, indicate which policies are in place (select all that apply)	
❑ Requires prescribers to document a dose, duration, and indication for all antibiotic prescriptions	
❑ Developed facility-specific algorithm for assessing residents	
❑ Developed facility-specific algorithms for appropriate diagnostic testing (e.g., obtaining cultures) for specific infections	
❑ Developed facility-specific treatment recommendations for infections	
❑ Reviews antibiotic agents listed on the medication formulary	
❑ Other:_____	

(Source: CDC http://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html

Assessment of Current CDI Prevention Activities

Antibiotic Stewardship

December 28, 2016

National Nursing Home QUALITY IMPROVEMENT CAMPAIGN

SECTION 1. KNOWLEDGE AND COMPETENCY				
		YES	**NO**	**N/A**
Q1	Do direct care personnel*understand how to recognize changes in a resident that might indicate a new infection or other concerning condition?			
Q2	Do direct care personnel understand how to communicate information to medical personnel* when a resident has a change that might indicate a new infection or other concerning condition?			
Q3	Do nursing personnel* receive any periodic training or education about appropriate antibiotic use?			
Q4	Are medical personnel given any resources to help guide decisions about when to suspect a resident has an infection or needs an antibiotic?			
Q5	Do residents and family receive education about appropriate antibiotic use?			
SECTION 2. INFECTION PREVENTION POLICIES AND INFRASTRUCTURE				
		YES	**NO**	**N/A**
Q1	Do direct care personnel document changes in a resident that might indicate a new infection or other concerning condition?			
Q2	Do nursing personnel communicate information to medical personnel when a resident has a change that might indicate a new infection or other concerning condition?			
Q3	Does your nursing home have a pharmacist or physician who provides guidance or expertise on antibiotic use?			
Q4	Does your nursing home use standardized order forms for antibiotic prescriptions including documentation of indication and anticipated duration of therapy?			
SECTION 3. MONITORING PRACTICES				
		YES	**NO**	**N/A**
Q1	Does the pharmacy service provide a monthly report of antibiotic use (e.g., new orders, number of days of antibiotic treatment) for the nursing home?			
Q2	Does your nursing home have a process to perform a follow-up assessment 3 days after a new antibiotic start to determine whether the antibiotic is still indicated and appropriate?			
Q3	Does your nursing home provide feedback on antibiotic prescribing practices to medical personnel?			
Q4	Does the laboratory provide your nursing home with a report of antibiotic resistance in bacteria			

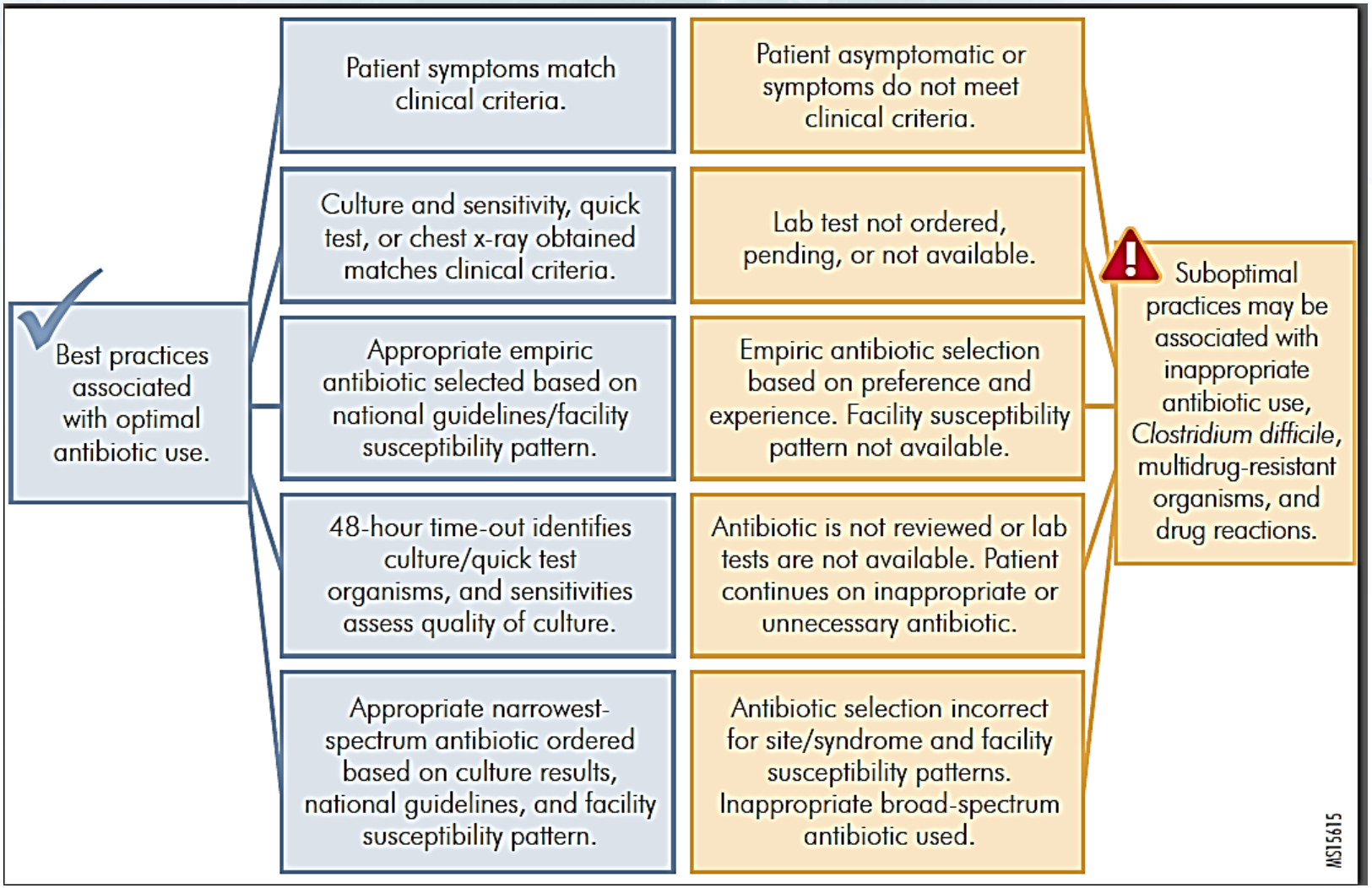
(Source: CDC : https://www.nhqualitycampaign.org/files/AntibioticStewardship_Assessment.pdf)

Outline Goals and a Plan

- **Short and long term goals**
  - Strategies based on assessment
- **Plan**
  - Statement of leadership support
  - Resources to provide education, download or develop materials
  - Timeline, responsibilities, budget, meeting schedules, meeting agenda
  - Sustainability strategies

(AHRQ Toolkit)

Assess Optimal Prescribing Practices



(Adkins)

Monitor Antibiotic Prescribing Processes Measures

- Clinical assessment
  - Signs/symptoms, vital signs, physical exam and lab findings
- Antibiotic prescribing documentation
  - Dose, duration, indication
- Facility-specific treatment recommendations
  - Broad spectrum versus narrow spectrum
  - Use of facility susceptibility patterns

(CDC Core Elements)

Antibiotic Use Outcome Measures

Measure	Formula
Point prevalence surveys of antibiotic use	# of residents on antibiotics / total residents in facility that day x 100
Rates of new antibiotic starts	# of new antibiotic prescriptions / total number of resident days X 1000
Rate of antibiotic days of therapy	Total monthly days of therapy / Total resident days for the month x 1000
Antibiotic utilization Ratio	Total monthly days of therapy / Total resident days

(CDC Core elements)

Line Listing Elements

Resident	Identifier	Room	Admit Date	Prescriber
Symptoms Date	Lab done Date	Lab Results Date	Meets Criteria	Antibiotic
Empiric Antibiotic	48 -72 hour Time out	Empiric Antibiotic	Report to PSRS	POA or HAI

(AHRQ Toolkit)

Why Use An Antibiogram?

- **Utilizes microbiologic data from patient specimens**
  - Identifies facility and/or unit specific antibiotic resistance patterns
  - Facilitates identification of changes in patterns
- **Helps prescribing clinicians:**
  - Select the most appropriate agents for initial empirical antimicrobial therapy
  - Improve outcomes among patients with infections
  - Identify opportunities to reduce inappropriate antibiotic use
  - Determine success of such efforts

(AHRQ TOOLKIT)

Sample Antibiogram

		Aminoglycosides			B-Lactams			Cephalosporins				Quinolones	Others	
Gram (−) *Highlighted rows include less than 30 isolates; interpret these results with caution*	# of residents	Amikacin	Gentamicin	Tobramycin	Ampicillin	Imipenem	Piperacillin-tazobactam	Cefazolin	Cefoxitin	Ceftriaxone	Ceftazidime	Ciprofloxacin	Nitrofurantoin	TMP/SMX
Escherichia coli	37	100	100	100		100	100				100	75		
Klebsiella sp *	* 33	100	84.6	92.3	38.5	100	92.3	84.6	100	100	100	38.5	92.3	38.5
Proteus sp	31	71.4	57.1	71.4		85.7	85.7			57.1	57.1		28.6	71.4
Pseudomonas aeruginosa †	† 23	100	83.3	92.3	91.7		100		81.8	100	100	30.8		69.2

		Penicillins				Cephalosporins		Quinolones		Others						
Gram (+) *Highlighted rows include less than 30 isolates; interpret these results with caution*	# of residents	Penicillins	Ampicillin	Oxacillin	Nafcillin	Cephalothin	Ceftriaxone	Ciprofloxacin	Moxifloxacin	Gentamicin	Linezolid	Rifampin	Tetracycline	TMP/SMX	Vancomycin	Nitrofurantoin
Staph aureus (all) †	† 17	0	0	0	0			0	0	87.5	100	100	100	100	100	100
Methicillin Resistant (MRSA)	34	0	0	0	0			0	0	87.5	100	100	100	100	100	100
Methicillin Susceptible (MSSA)	0															
Enterococcus sp *	* 30	100	100					50		75			25		100	100

(AHRQ Toolkit)

Antibiogram Development and Implementation

- Engage team members
- Determine if the antibiogram will be unit or facility-based
- Use resident and culture information
- Review the antibiogram to monitor resistance trends
  - Facility wide and/or unit specific
- Distribute the antibiogram to all prescribing clinicians
- Accompany distribution with education and instructions
- Monitor the use of the antibiogram

(IHI, AHRQ toolkit, Hirschon)

Isolate Klebsiella pneumoniae
Systemic Urine

ANTIBIOTICS		MIC
Ampicillin	>16	R
Amoxicillin	>16	R
Aztreonam	>16	R
Ceftriaxone	>32	R
Ceftazidime	>16	R
Cefotaxime	32	I
Cefazolin	>16	R
Ciprofloxacin	>2	R
Cefepime	>16	R
Amikacin	32	I
Cefuroxime	>16	R
Tigecycline	1.5	S
Ertapenem	>4	R
Gentamicin	<4	S
Imipenem	>32	R
Levofloxacin	>4	R
Meropenem	>8	R
Piperacillin/tazo	>64	R
Trimethoprim/Sulfa	>2/38	R
Tetracycline	<4	S
Tobramycin	>8	R
Polymyxin B	64	R

Sample Microbiology Report: Multi-Drug Resistant Klebsiella Culture and Sensitivity

Infection Criteria

- Infection Control and Hospital Epidemiology: Development of Minimum Criteria for the initiation of antibiotics in residents of LTCF
  - http://classes.kumc.edu/coa/Education/AMED900/InfectiousDisease-GeneralizedAssess.pdf
- Surveillance Definitions of Infections in Long-Term Care Facilities: Revisiting the McGeer Criteria
  - http://www.jstor.org/stable/10.1086/667743
- PA-PSRS: List of Reportable Infections: Infections reportable through PA-PSRS
  - http://patientsafetyauthority.org/NewsAndInformation/HealthcareAssociatedInfections/Documents/reportableinfections.pdf

Treatment Guidelines

- Infectious Diseases Society of America Guidelines
  - https://www.idsociety.org/Organ_System/
- CDC Get Smart Know When Antibiotics Work: Adult Treatment Recommendations
  - https://www.cdc.gov/getsmart/community/for-hcp/outpatient-hcp/adult-treatment-rec.html
- Society for Healthcare Epidemiology of America Position paper: Antimicrobial use in LTCF
  - https://www.shea-online.org/images/guidelines/Abx-LTCF96.PDF

Barriers to Antibiotic Stewardship

- Knowledge deficits
- Offsite physicians
- Inadequate communication
- Inaccurate assessment and diagnosis
- No formal policies, procedures, protocols
- Unclear commitment or accountability
- Lack of tracking and monitoring
- Lack of QAPI follow-up

(Crnich)

Factors Influencing Practice

- Belief that:
  - risk of antibiotics outweighs indiscriminate use
  - appropriate antibiotic use is the expected standard of care
  - resources are available to practice good stewardship
- Providers, clinicians, administrators
- Residents and families

Education

- Provide educational resources and materials about antibiotic resistance
- Patient Safety Authority, Centers for Disease Control, AHRQ
- Clinicians
  - Physicians, nurse practitioners, pharmacists
- Nursing staff
  - RNs, LPNs, CNAs
- Residents and families

(CDC Get Smart , Bradley, CDC Core Elements, AHRQ toolkit)

Communication: SBAR

- Situation, background, assessment, request form
  - Clinical evaluation
  - Indwelling devices
  - Co-morbidities, medications
  - Signs and symptoms
  - Rule out HAI
  - Order request

Suspected UTI **SBAR**

Complete this form before contacting the resident's physician.

Date/Time _____

Nursing Home Name _____

Resident Name _____ Date of Birth _____

Physician/NP/PA _____ Phone _____

Fax _____

Nurse _____ Facility Phone _____

Submitted by ☐ Phone ☐ Fax ☐ In Person ☐ Other _____

S Situation

I am contacting you about a suspected UTI for the above resident.

Vital Signs BP _____/_____ HR _____ Resp. rate _____ Temp. _____

B Background

Active diagnoses or other symptoms (especially, bladder, kidney/genitourinary conditions)

Specify _____

☐ No ☐ Yes The resident has an indwelling catheter

☐ No ☐ Yes Patient is on dialysis

☐ No ☐ Yes The resident is incontinent If yes, new/worsening? ☐ No ☐ Yes

☐ No ☐ Yes Advance directives for limiting treatment related to antibiotics and/or hospitalizations

Specify _____

☐ No ☐ Yes Medication Allergies

Specify _____

☐ No ☐ Yes The resident is on Warfarin (Coumadin®)

www.ahrq.gov/nh-ASPQuide - June 2014
AHRQ Pub. No. 14-0010-2-EF

(Source- AHRQ Toolkit)

Standardize Communication

- HAI specific, (e.g., suspected UTI)
- Evaluation options
  - Symptoms and lab testing - does it meet criteria
  - Change urinary catheter prior to culture if in >14 days
  - Mixed non-specific signs and symptoms
  - Watchful waiting- symptomatic treatment
- Management options
  - Send culture if symptomatic
  - Start empiric treatment for severe symptoms
  - Re-evaluate in 48 hours
    - Check culture results and organism sensitivities
    - Continue, adjust or stop empiric antibiotic selection

What is Watchful Waiting?

GET SMART
Know When Antibiotics Work

Good news! Your healthcare professional believes your illness will likely resolve on its own.

You should watch and wait for ___ days/hours before deciding whether to take an antibiotic.

In the meantime, follow your healthcare professional's recommendations to help you feel better and continue to **monitor your own symptoms** over the next few days.

- Rest
- Drink extra water and fluids
- Use cool mist vaporizer or saline nasal spray to relieve congestion
- For sore throats in older children and adults, try ice chips, sore throat spray, or lozenges
- Use honey to relieve cough. Do not give honey to an infant less than 1 year of age.

If you **feel better, no further action is necessary — you don't need antibiotics.**

If you **do not** feel better, experience **new symptoms,** or you have **other concerns,** call your healthcare professional _____ to **discuss if you need a recheck or if you need antibiotics,** which may be prescribed over the phone.

It may not be convenient to visit your healthcare professional multiple times, but it is critical to make the right choice. Antibiotics can cause side effects like a skin rash, diarrhea, a yeast infection, or worse.

Antibiotics can also make future bacterial infections stronger and harder to treat. You can protect yourself and others by learning when antibiotics are and aren't needed.

CDC
U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

For more information visit
www.cdc.gov/getsmart

[Source: CDC Get Smart "Watchful Waiting" https://www.cdc.gov/getsmart/community/downloads/16_270228-d-oneill_non-antibiotic_perscription_pads_508.pdf]

CDC - Diagnosis and Treatment

- Use established criteria for infection diagnosis
  - Target empiric therapy to likely pathogens
  - Target definitive therapy to known pathogens
  - Obtain appropriate cultures and interpret results with care
  - Consider *C.difficile* in patients with diarrhea and antibiotic exposure

(CDC Campaign)

CDC-Use Antimicrobials Wisely

- Stop antimicrobial treatment
  - When cultures are negative
  - When infection in unlikely
  - When infection has resolved

Source: AHRQ Nursing Home Antimicrobial Stewardship Guide

(CDC Campaign)

CDC - Use Antimicrobials Wisely

- Treat infection not colonization or contamination
  - Perform proper antisepsis with culture collection
  - Re-evaluate the need for continued therapy after 48-72 hours
  - Do not treat asymptomatic bacteriuria

(CDC Campaign)

CDC - Use Antimicrobials Wisely

- Know when to say “NO”
  - Minimize use of broad-spectrum antibiotics
  - Avoid chronic or long-term antimicrobial prophylaxis
  - Develop a system to monitor antibiotic use
  - Provide feedback to appropriate personnel

(CDC Campaign)

Leadership Commitment

- Distribute written statement of expectations
  - Include antibiotic stewardship duties in job descriptions
- Monitor and enforce antibiotic stewardship policies
- Quality assurance meeting agenda
  - Antibiotic use and resistance data
- Promote stewardship culture
  - Messaging
  - Education
  - Celebration of improvement

(CDC Core elements)

Action- Policies

- Require prescribers to document dose, duration, and indication for all antibiotic prescriptions
- Develop facility-specific algorithm for assessing residents
- Develop facility-specific algorithms for appropriate diagnostic testing
- Develop facility-specific treatment recommendations for infections

(CDC Core elements)

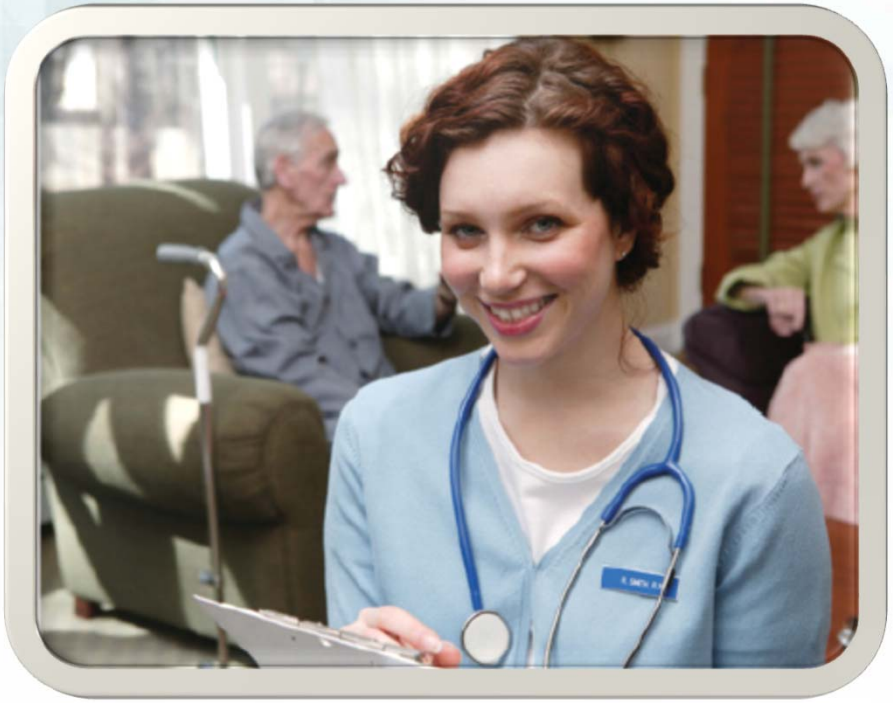
Accountability

- Identify, empower, and support antibiotic stewardship leaders and activities
  - Medical director
  - Director or assistant director of nursing services
  - Consultant pharmacist
- Utilize existing resources
  - Infection Prevention Designee
  - Consultant Laboratory
  - State and Local Health Department
  - Pennsylvania Patient Safety Authority

(CDC Core elements)

Monitor Outcomes

- Monitor Rates of Adverse events
  - Antibiotic-resistant organisms
  - Diarrhea, *C.difficile* infection
  - Allergic reactions
  - Drug toxicity
- Monitor costs



Source: CDC Core Elements for Nursing Homes

(CDC Core Elements)

Actions - Pharmacist

- Review antibiotic courses for appropriateness of administration and/or indication
- Establish standards for clinical/laboratory monitoring for adverse drug events from antibiotic use
- Review microbiology culture data to assess and guide antibiotic selection
- Partner with antibiotic stewardship leaders at local hospitals

(CDC Core Elements)

Reporting

- Report facility antibiotic susceptibility patterns
- Personalize feedback on antibiotic prescribing practices clinical providers
- Use the Pennsylvania Patient Safety Authority Reporting System (PA-PSRS) analytic tools
- Use the CDC National Healthcare Safety Network (NHSN) MDRO module

NHSN, CDC Core Elements)

PA-PSRS Analytics

Denominator Type		Jan	Feb	Mar	Apr	2015 May
Aggregate Urinary Catheter Related MDRO Rate	Urinary Catheter Days	1168	984	1099	1015	1102
	Total Infections	27	13	8	14	15
	MDRO Infections	0	1	0	0	0
	MDRO Infection Rate	0.00	1.02	0.00	0.00	0.00
	Proportion of MDRO Infections %	0.00	7.69	0.00	0.00	0.00
	CRE Infections	0	0	0	0	0
	CRE Infection Rate	0.00	0.00	0.00	0.00	0.00
				0.00	0.00	0.00
				0	0	0
				0.00	0.00	0.00
				0.00	0.00	0.00
				0	0	0
				0.00	0.00	0.00
				0.00	0.00	0.00
				0	0	0
				0.00	0.00	0.00
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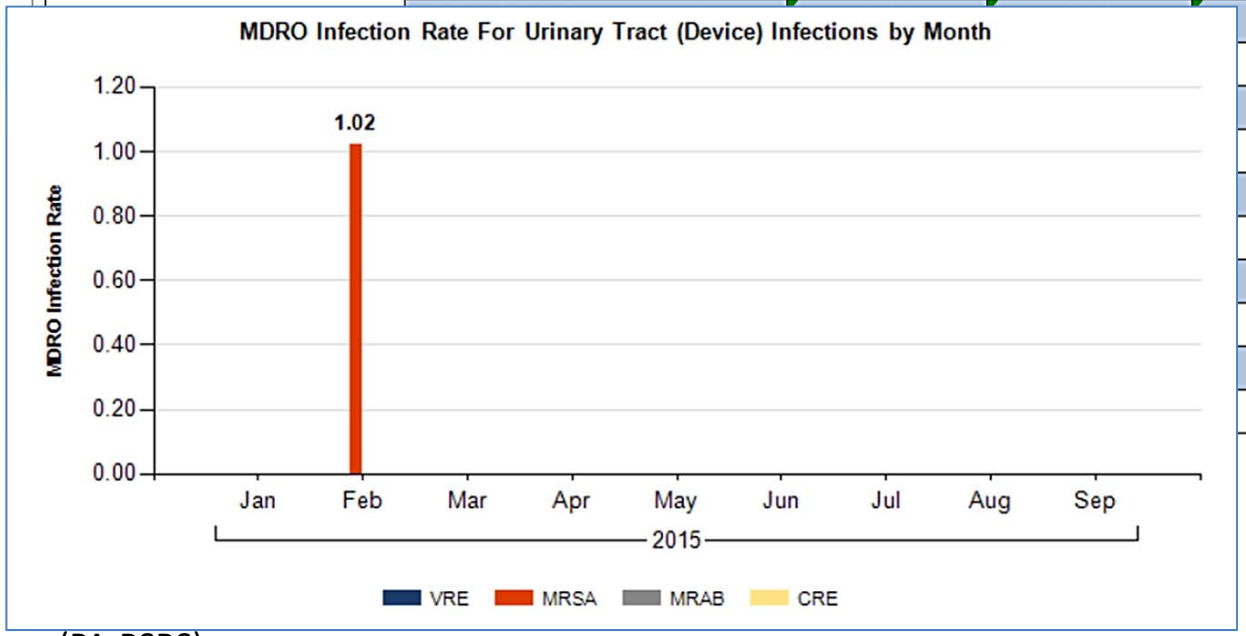
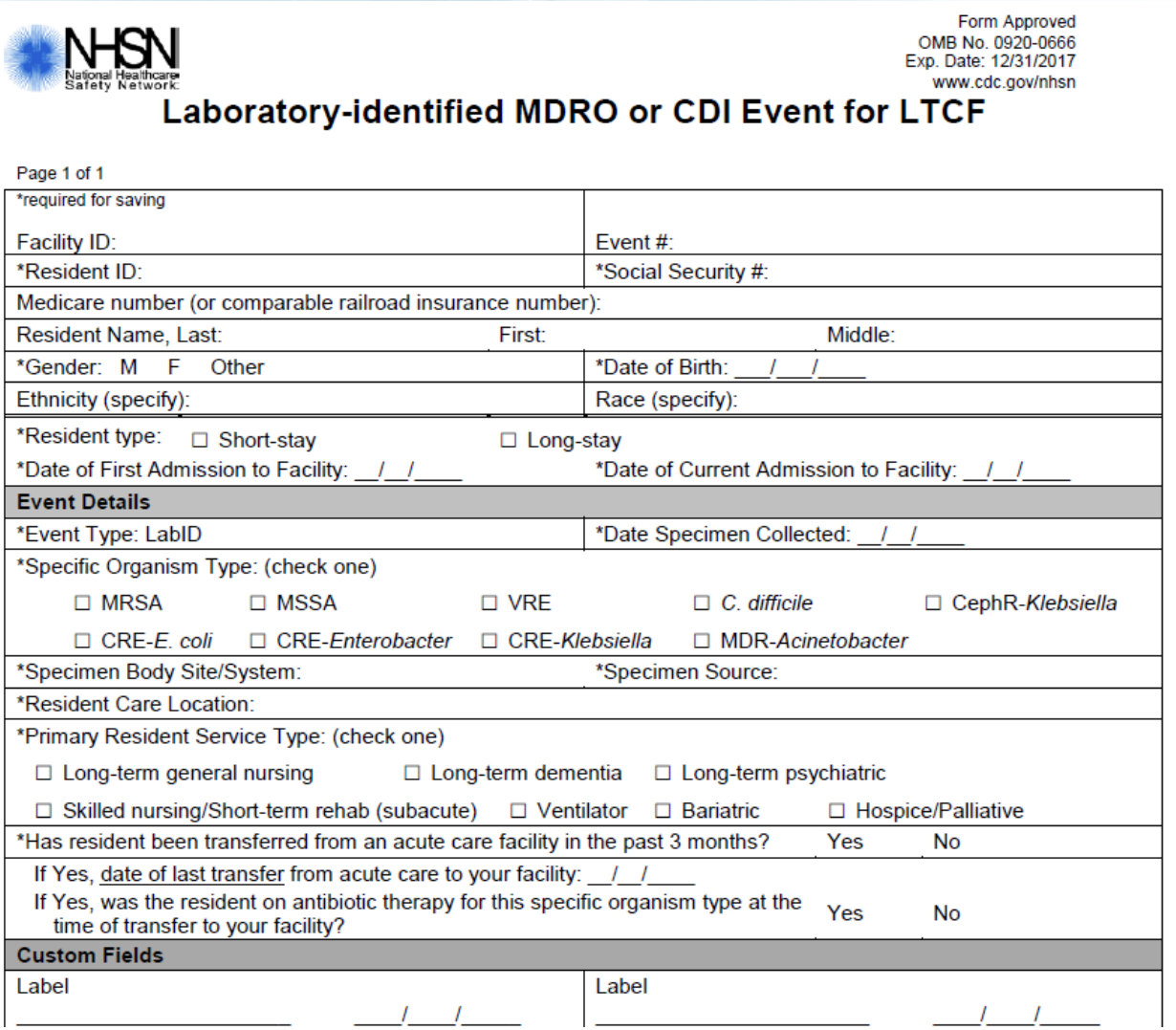


(PA-PSRS)

Analyzing, Educating and Collaborating for Patient Safety

NHSN



NHSN National Healthcare Safety Network

Form Approved
OMB No. 0920-0666
Exp. Date: 12/31/2017
www.cdc.gov/nhsn

Laboratory-identified MDRO or CDI Event for LTCF

Page 1 of 1

*required for saving Facility ID:	Event #:
*Resident ID:	*Social Security #:
Medicare number (or comparable railroad insurance number):	
Resident Name, Last: First: Middle:	
*Gender: M F Other	*Date of Birth: ___/___/____
Ethnicity (specify):	Race (specify):
*Resident type: ☐ Short-stay ☐ Long-stay *Date of First Admission to Facility: __/__/____	*Date of Current Admission to Facility: __/__/____
Event Details	
*Event Type: LabID	*Date Specimen Collected: __/__/____
*Specific Organism Type: (check one) ☐ MRSA ☐ MSSA ☐ VRE ☐ *C. difficile* ☐ CephR-*Klebsiella* ☐ CRE-*E. coli* ☐ CRE-*Enterobacter* ☐ CRE-*Klebsiella* ☐ MDR-*Acinetobacter*	
*Specimen Body Site/System:	*Specimen Source:
*Resident Care Location:	
*Primary Resident Service Type: (check one) ☐ Long-term general nursing ☐ Long-term dementia ☐ Long-term psychiatric ☐ Skilled nursing/Short-term rehab (subacute) ☐ Ventilator ☐ Bariatric ☐ Hospice/Palliative	
*Has resident been transferred from an acute care facility in the past 3 months? Yes No	
If Yes, date of last transfer from acute care to your facility: __/__/____ If Yes, was the resident on antibiotic therapy for this specific organism type at the time of transfer to your facility? Yes No	
Custom Fields	
Label _____ ____/____/____	Label _____ ____/____/____

(Source: NHSN)

Case Study

A 75 year old female with history of a CVA was sent to the emergency room with symptoms of hypotension, weakness and confusion. She was sent back to the LTCF the same day with a diagnosis of hypotension and UTI on Cipro 500 mg. od x 14 days.

1. What can you do to evaluate if this is a true UTI?

2. What information is necessary to determine if Cipro is the right drug?

3. What talking points are important when you call for approval of an antibiotic on re-admission orders?

Patientsafetyauthority.org

Thank You – Questions?

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