







...collaborate through "Action Teams" to catalyze and accelerate improvement on the priorities and goals of the National Quality Strategy to improve quality, improve health, and reduce healthcare costs

NATIONAL QUALITY FORUM

NQF's National Quality Partners...

...maximize the impact of high-leverage drivers—payment, public reporting, consumer engagement, and accreditation and certification—that each of us brings to bear

NATIONAL QUALITY FORUM







The Look Forward: 2015-2016 NQP Efforts

- Reducing antimicrobial resistance through aggressive antibiotic stewardship
- Improving advanced illness care through authentic patient and family engagement





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National Quality Partners convened by the National Quality forum



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Power of Antibiotics				
Disease	Pre-Antibiotic Death Rate	Death With Antibiotics	Change in Death	
Community Pneumonia ¹	~35%	~10%	- 25%	
Hospital Pneumonia ²	~60%	~30%	-30%	
Heart Infection ³	~100%	~25%	-75%	
Brain Infection ⁴	>80%	<20%	-60%	
Skin Infection ⁵	11%	<0.5%	- 10%	
<i>By comparisontreatment of heart attacks with aspirin or clot busting drugs</i> ⁶			-3%	
¹ IDSA Position Paper '08 Clin Infect Dis 47(S3):S249-65; ² IDSA/ACCP/ATS/SCCM Position Paper '10 Clin Infect Dis In Press; ³ Kerr AJ. <u>Subacute Bacterial Endocarditis</u> . Springfield IL: Charles C. Thomas, 1955 & Lancet 1935 226:383-4; ⁴ Lancet '38 231:733-4 & Waring et al. '48 Am J Med 5:402-18; ⁵ Spellberg et al. '09 Clin Infect Dis 49:383-91 & Madsen '73 Infection 1:76-81; ⁶ 88 Lancet 2:349-60 Clinical Services Group				



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Condition	% bacterial	overtreatment
pneumonia	70%	30%
acute bronchitis	<< 5 %	70%
rhino-sinusitis	<<5 %	95%
UTI	100%	70% in elderly
cellulitis	100 %	30%











World Health Day – 7 April 2011

Antimicrobial resistance and its global spread



Antimicrobial resistance: no action today no cure tomorrow

We live in an era of medical breakthroughs with new wonder drugs available to treat conditions that a few decades ago, or even a few years ago in the case of HIV/AIDS, would have proved fatal. For World Health Day 2011, WHO will launch a worldwide campaign to safeguard these medicines for future generations. Antimicrobial resistance and its global spread threaten the continued effectiveness of many medicines used today to treat the sick, while at the same time it risks jeopardizing important advances being made against major infectious killers. WHO considers <u>AR an emerging threat to global stability</u>



Policy Statement on Antimicrobial Stewardship by the Society for Healthcare Epidemiology of America (SHEA), the Infectious Diseases Society of America (IDSA), and the Pediatric Infectious Diseases Society (PIDS)

 "antimicrobial stewardship and other efforts to limit the emergence and transmission of antimicrobial resistance must be viewed as the fiduciary responsibility of all healthcare institutions <u>across the continuum of care."</u>











HCA[•] Clinical Services Group









Where Do We Want to Be?

- Every hospitalized patient gets optimal antibiotic treatment.
- Every hospital in America has an active antibiotic stewardship program to accomplish that goal.
- Every stewardship program uses proven best practices.

Turning This Into A National Program for Antibiotic Stewardship

- Education on interventions and implementation
- Measurement
 - Total antibiotic use and appropriate use
 - Prevalence of stewardship programs
- National goals
- National policies
- Research to expand implementation and develop new interventions.

What Is The Current Status of Antibiotic Stewardship Programs?

- To get a better picture of stewardship programs, CDC added questions to the 2015 annual facility survey of the National Healthcare Safety Network (covers hospital activities in 2014).
- Questions based on items outlined in CDC "Core Elements for Hospital Antibiotic Stewardship Programs."

Core Elements for Antibiotic Stewardship Programs

- Leadership commitment from administration
- □ Single leader responsible for outcomes
- □ Single pharmacy leader
- □ Antibiotic use tracking
- **Regular reporting on antibiotic use and resistance**
- Educating providers on use and resistance
- Specific improvement interventions
- http://www.cdc.gov/getsmart/healthcare/implementation/coreelements.html

NHSN Annual Facility Survey-Antibiotic Stewardship

□ 12 questions based on the 7 core elements.

Responses received from 4091 acute care hospitals.

NHSN Annual Facility Survey-Antibiotic Stewardship

Element	N	%
Leadership	2457	60.1
Accountability	2949	72.1
Drug Expertise	3566	87.2
Act	3844	94.0
Track	3211	78.5
Report	2767	67.6
Educate	2827	69.1

NHSN Annual Facility Survey-Antibiotic Stewardship

Count of Elements	N	%
0	103	2.5
1	160	3.9
2	279	6.8
3	324	7.9
4	359	8.8
5	441	10.8
6	685	16.7
7	1740	42.5

NHSN Annual Facility Survey-Antibiotic Stewardship

- A substantial percentage of US hospitals do have stewardship programs that incorporate all, or almost all, of the core elements.
- But more than half still do not.
- Programs are not limited to large, academic hospitals
 - Smaller hospitals have clearly found ways to get this done.

National Healthcare Safety Network Antibiotic Use Option

- Captures electronic data on antibiotics administered, along with admission/discharge/transfer data.
- Calculates rates of administration for use:
 - By facilities to monitor interventions on single units or facility wide
 - To collect aggregate information on antibiotic use at a regional and national level
 - Eventually, to create antibiotic use benchmarks.

Update on NHSN AU Option

- Close to 100 facilities are now submitting data.
 - Good mix of large/small and academic/nonacademic.
- Growing enrollment in AU remains a high priority for CDC.
- We would love to add you!

Developing an Antibiotic Use Measure

- Experts in stewardship have long called for a some type of national measure or measures related to antibiotic stewardship.
- Measurement is key to efforts to tie stewardship to quality improvement work.
 - "What gets measured gets done"

Challenges With A Quality Measure on Antibiotic Use

- Will require good benchmarking to help facilities know if they are outliers.
- □ The goal is not 100% or zero.
- Being an "outlier" does not necessarily mean there is a problem.
 - The measure would suggest areas where further review is warranted.
- Always have to be alert for unintended consequences.

Antibiotic Use Measure

- CDC worked with various partners who are submitting AU data to NHSN to help develop and refine a potential measure based on the data being submitted:
 - Days of therapy per 1000 patient days present.
- Goal was to develop a measure that could help inform stewardship efforts.

Antibiotic Use Measure

- CDC submitted a measure proposal to the National Quality Forum in April, 2015.
- The proposed measure is comprised of several different measures of categories of antibiotic agents and patient care locations.

Proposed AU Measure

- Locations categories
 - Adult and pediatric
 - ICU and ward
- Agent categories
 - Broad spectrum gram negative agents
 - Primarily active against community pathogens
 - Primarily active against hospital pathogens
 - Anti-MRSA agents
 - Agents primarily for surgical prophylaxis
 - All antibiotics

AU Measure

- For each measure and location, we propose summarizing use with a "Standardized Antibiotic Administration Ratio" or "SAAR".
- SAAR would be a risk adjusted summary measure of AU, where an SAAR of 1.0 would be "expected" use given a particular set of facility characteristics.

Next Steps for Antibiotic Use Measures in Hospitals

- How do we use the SAAR to help stewardship programs assess and then improve antibiotic use?
- Can we develop a structural measure of antibiotic stewardship programs based on the CDC Core Elements?
- Can we develop quality measures that focus on antibiotic prescribing for specific conditions?
 - E.g. A measure of how much asymptomatic bacteriuria is treated unnecessarily?









	Viral respiratory and adenovirus illnesses	
American Academy of Allergy, Asthma & Immunology	Don't order sinus computed tomography (CT) or indiscriminately prescribe antibiotics for uncomplicated acute rhino sinusitis.	
American Academy of Family Physicians	Don't routinely prescribe antibiotics for acute mild-to-moderate sinusitis unless symptoms last for seven or more days, or symptoms worsen after initial clinical improvement	
American College of Emergency Physicians	Avoid prescribing antibiotics in the emergency department for uncomplicated sinusitis.	
American Academy of Pediatrics	Antibiotics should not be used for apparent viral respiratory illnesses (sinusitis, pharyngitis, bronchitis).	
Infectious Diseases Society of America	Avoid prescribing antibiotics for upper respiratory infections.	
American Academy of Ophthalmology	Don't order antibiotics for adenoviral conjunctivitis (pink eye).	
	Ear infections	
American Academy of Family Physicians	Don't prescribe antibiotics for otitis media in children aged 2–12 years with non-severe symptoms where the observation option is reasonable.	
American Academy of Otolaryngology - Head & Neck Surgery Foundation	Don't prescribe oral antibiotics for uncomplicated acute tympanostomy tube otorrhea.	
American Academy of Otolaryngology - Head & Neck Surgery Foundation	Don't prescribe oral antibiotics for uncomplicated acute external otitis.	
	Bacteriuria and UTIs	
American Geriatrics Society	Don't use antimicrobials to treat bacteriuria in older adults unless specific urinary tract symptoms are present.	
Infectious Diseases Society of America	Don't treat asymptomatic baacteriuria with antibiotics.	
	Prophylaxis	
American Academy of Otolaryngology - Head & Neck Surgery Foundation	Don't routinely use perioperative antibiotics for elective tonsillectomy in children.	
American College of Emergency Physicians	Avoid antibiotics and wound cultures in emergency department patients with uncomplicated skin and soft tissue abscesses after successful incision and drainage and with adequate medical follow-up.	
American Academy of Ophthalmology	Don't routinely provide antibiotics before or after intravitreal injections.	
American Academy of Dermatology	Don't routinely use topical antibiotics on a surgical wound.	
Infectious Diseases Society of America	Avoid prophylactic antibiotics for the treatment of mitral valve prolapse.	
Infectious Diseases Society of America	Don't use antibiotic therapy for stasis dermatitis of lower extremities.	
American Academy of Dermatology	Don't use oral antibiotics for treatment of atopic dermatitis unless there is clinical evidence of infection.	
An electric line and a second star	Miscellaneous	
American Urological Association American Academy of Allergy, Asthma &	Don't treat an elevated PSA with antibiotics for patients not experiencing other symptoms.	
Immunology	Don't overuse non-beta lactam antibiotics in patients with a history of penicillin allergy, without an appropriate evaluation.	













