Washington State Department of Health

Education • Quality • Infection Prevention
EQuIP for LTC
Training and Professional Development Program

WELCOME!

Please MUTE your phones!

EQuIP for LTC webinar will begin at 10:00 AM

Today's topic is

"Antibiotic Stewardship in a Rural Nursing Home"

6/28/17

PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND HEALTHIER COMMUNITY

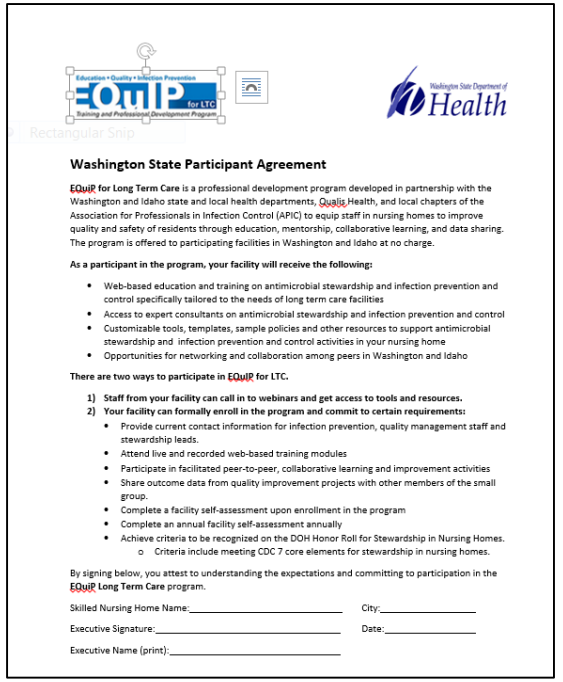
Housekeeping

Please…

- Mute your phone if you are not speaking
- Do not put the phone line on hold
- Use the chat box to ask questions during and after the presentation

Enrollment in EQuIP

- Formal participation encouraged (not mandatory)
- Requires signed enrollment form by facility leadership & contact info for facility attendees
- Annual facility self-assessment
- Opportunity to participate in small group collaborative and QI projects
  - Work together
  - Share outcome data
  - Community of support
- Establish ASP & be recognized on DOH Honor Roll for Stewardship



Washington State Participant Agreement

EQuIP for Long Term Care is a professional development program developed in partnership with the Washington and Idaho state and local health departments, Qualis Health, and local chapters of the Association for Professionals in Infection Control (APIC) to equip staff in nursing homes to improve quality and safety of residents through education, mentorship, collaborative learning, and data sharing. The program is offered to participating facilities in Washington and Idaho at no charge.

As a participant in the program, your facility will receive the following:

- Web-based education and training on antimicrobial stewardship and infection prevention and control specifically tailored to the needs of long term care facilities
- Access to expert consultants on antimicrobial stewardship and infection prevention and control
- Customizable tools, templates, sample policies and other resources to support antimicrobial stewardship and infection prevention and control activities in your nursing home
- Opportunities for networking and collaboration among peers in Washington and Idaho

There are two ways to participate in EQuIP for LTC.

1) **Staff from your facility can call in to webinars and get access to tools and resources.**
2) **Your facility can formally enroll in the program and commit to certain requirements:**
   - Provide current contact information for infection prevention, quality management staff and stewardship leads.
   - Attend live and recorded web-based training modules
   - Participate in facilitated peer-to-peer, collaborative learning and improvement activities
   - Share outcome data from quality improvement projects with other members of the small group.
   - Complete a facility self-assessment upon enrollment in the program
   - Complete an annual facility self-assessment annually
   - Achieve criteria to be recognized on the DOH Honor Roll for Stewardship in Nursing Homes.
     - Criteria include meeting CDC 7 core elements for stewardship in nursing homes.

By signing below, you attest to understanding the expectations and committing to participation in the **EQuIP Long Term Care** program.

Skilled Nursing Home Name:_____ City:_____

Executive Signature:_____ Date:_____

Executive Name (print):_____

http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/HealthcareAssociatedInfections/EQuIP/LTC

Education • Quality • Infection Prevention
EQuIP for LTC
Training and Professional Development Program

Leadership Commitment Poster

- Customize for your facility
- Post in prominent location
- Include in admission packet

Your nursing home photo and logo here!

A Commitment to Our Patients about Antibiotics

What we will do as your healthcare team

Your health is important to us. When you have an illness, we promise to provide the best possible treatments for your condition. If an antibiotic is not needed, or would do more harm than good, we will explain this to you and offer other treatments that are better for you.

Antibiotics only fight infections caused by bacteria

- Antibiotics don't work for viral infections like the common cold, most coughs, and most sore throats.
- If you're sick from a virus and you take antibiotics, you won't get better and you could get bad side effects.
- Antibiotics should only be taken when necessary.
- Buying medications that won't help you is a waste of your money.

Problems with using antibiotics

Antibiotics make bacteria more resistant and can make future infections harder to treat.

Side effects include:

- Drug-resistant infections ("superbugs")
- Skin rashes
- Diarrhea (including *C.difficile* which can be serious and difficult to treat)
- Yeast infections

What should you do?

- If you get an antibiotic, take it as prescribed.
- If you don't get an antibiotic but think you need one, discuss your concerns with us.

Our promise

As your healthcare team, we promise to provide the best possible treatments for your condition. We are dedicated to prescribing antibiotics only when they are needed, and we will avoid giving them to you when they might do more harm than good.

If you have any questions, please feel free to ask your doctor, nurse, or pharmacist.

Clinic Picture Here

Clinic Name Here

Clinic Logo Here

Quality Improvement Organizations — Sharing Knowledge. Improving Health Care.

QUALIS HEALTH

WSMA Washington State Medical Association — Physician Driven. Patient Focused.

Washington State Department of Health

www.medicare.qualishealth.org

This material was prepared by the Washington State Department of Health, the Washington State Medical Association and Qualis Health, the Medicare Quality Innovation Network - Quality Improvement Organization (QIN-QIO) for Idaho and Washington, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy. IDWA-C3-10-OH-2194-02-17

Material adapted from: Meeker D, Knight TK, Friedberg MW, et. al. JAMA Intern Med. 2014;174(3):425-431. doi:10.1001/jamainternmed.2013.14191 and Centers for Disease Control and Prevention (CDC) Get Smart: Know When Antibiotics Work materials. https://www.cdc.gov/getsmart/community/index.html

Washington State Department of Health

Antibiotic Stewardship in a Rural Nursing Home:

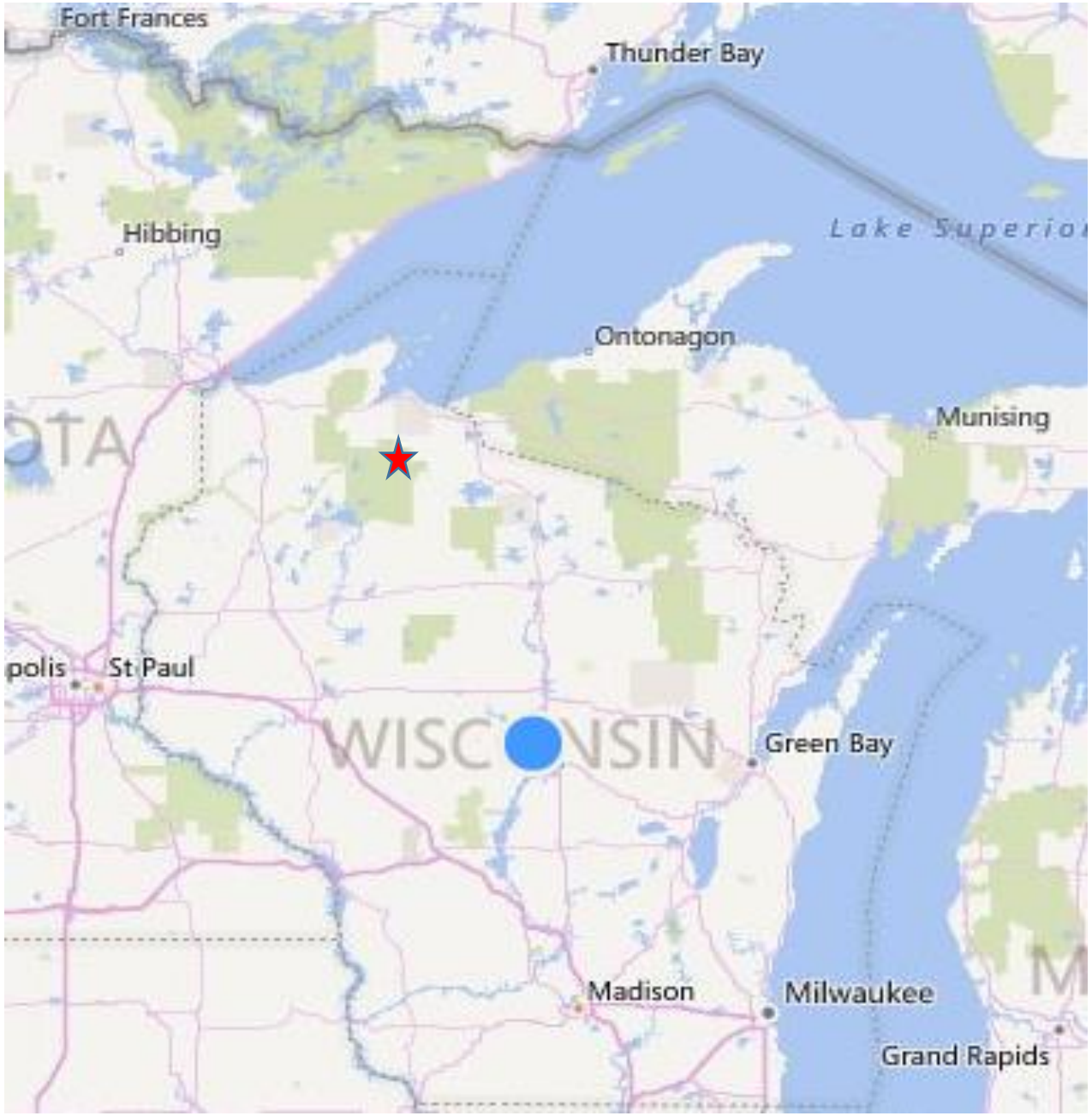
Where We Went, How We Got There, What We learned

Joe Boero MD CMD
Park Manor Nursing Home
Park Falls, WI 54423
dr.boero.pfrmc@gmail.com

“If you really look closely, most overnight successes took a long time.”

Park Manor Nursing Home
Private for Profit
Employee Owned
90 licensed skilled beds
CNA school two cohorts/yr
CLIA Certified Lab-Mod Complexity

Flambeau Hospital (Critical Access)
Marshfield Clinic Primary Care
Tertiary Care ➡ Wausau, Marshfield



MRSA associated Staff skin infection

Staff Year	Month	Number	
2006	January		
	February		
	March		
	April		
	May		
	June		
	July	10	
	August	2	
	September	2	
	October		
	November		
	December	1	
2007	January	2	1 repeater
	February		
	March	1	repeater
	April	2	
	May	2	
	June		
	July		
	August	1	repeater

Lifeline

The Audience always knows

the correct answer.

“We have a lot of antibiotic resistance”

“It’s those damn doctors, they treat everything”

“You’re the medical director, tell them to stop!”

“lots of antibiotic resistance”
and
“doctors treat everything”

“Get Me the Data !”

“START COUNTING STUFF”

January-December 2006

Park Manor Percentage of Urines Susceptible
January 1, 2006 - December 31, 2006

Thru 12/31/2006

# of isolates	Organism	ampicillin	carbenicillin	cefazolin	ciprofloxacin	minocycline	nitrofurantion	ofloxacin	timentin	bactrim	norfloxacin	tetracycline	levofloxacin	tobramycin	gentamicin	ticarcillin	ceftazidime	piperacillin	augmentin	vancomycin	ceftriaxone	pip/tazobactam	oxaxillin	penicillin	imipenim	unasyn	clindamycin	erythromycin	antibiotic use
1	Alpha hemolytic streptococcus	100		100			100			100			100																
2	Citrobacter (levinea) amalonatica			R			100			100			100		100						50								
1	Citrobactor fruendii complex			R			R			100			100		100						100								
1	Citrobactor koseri			100			100			100			100																
8	Coagulase negative staphylococci			36			100			75										63			R	13					
27	E. Coli	63		96	17		89			89			81		0						4								
4	Enterbacter cloacae	R		R	25		33			100			75		100						100								
2	Enterococcus faecium						R						R							R				R					
2	Gram negative bacilli																												
3	Gram positive cocci																												
6	Group B Streptococcus																							20			20	20	
29	Group D Enterococcus						86						3							55				86					
1	Klebsiella oxytoca	R		100	100		100			100			100																
14	Klebsiella pneumoniae	8		93	8		64			93			93																
4	Lactobacillus species																												
14	Proteus mirabilis	100		100	R		R			100			50																
3	Pseudomonas aeruginosa				67								67	100			100					100							
2	Pseudomonas fluorescsens/putida group				R					50			R	100			100				R	100							
1	Serratia marcescens	R		R	100					100	R		100		100						100				100	R			
7	Staphylococcus aureus			14			100			100		100								17			R	R					
7	Staphylococcus aureus-Methicillin						100			100		100								0			R						
6	yeast																												
145																													

* not tested

2/14/2011

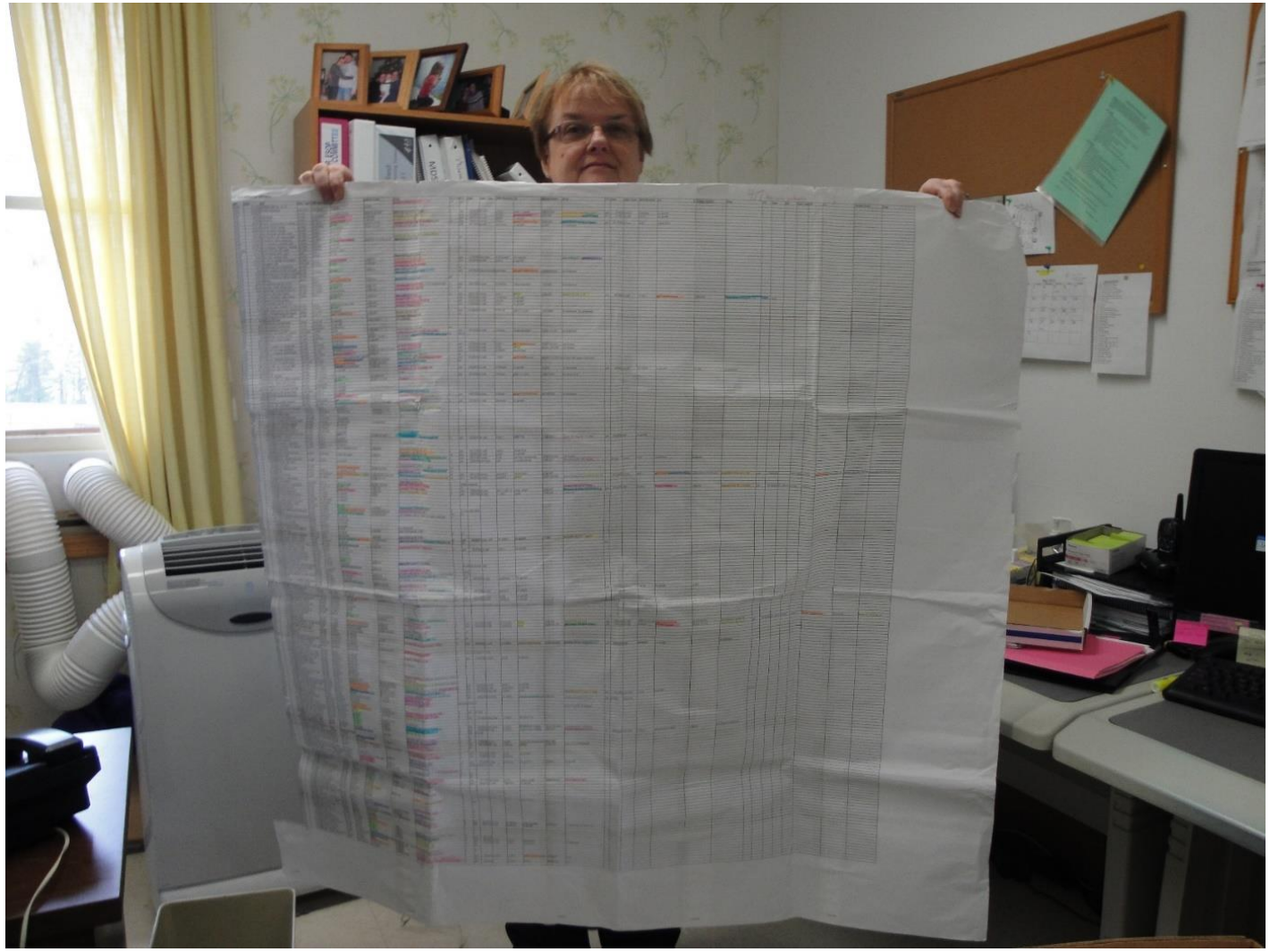
2/14/2011

January 1, 2006 - December 31, 2006

Thru 12/31/2006

es	Organism	ampicillin	carbenicillin	cefazolin	ciprofoxacin	minocycline	nitrofurantion	ofloxacin	ti
1	Alpha hemolytic streptococcus	100		100			100		
2	Citrobacter (levinea) amalonatica			R			100		
1	Citrobactor fruendii complex			R			R		
1	Citrobactor koseri			100			100		
8	Coagulase negative staphylococci			36			100		
27	E. Coli	63		96	17		89		
4	Enterbacter cloacae	R		R	25		33		
2	Enterococcus faecium						R		
2	Gram negative bacilli								
2	Gram positive cocci								
6	Group B Streptococcus								
29	Group D Enterococcus						86		
1	Klebsiella oxytoca	R		100	100		100		
14	Klebsiella pneumoniae	8		93	8		64		
4	Lactobacillus species								
14	Proteus mirabilis	100		100	R		R		
3	Pseudomonas aeruginosa				67				

She counted…, we're counting…., we're still counting….



Two main core Stewardship strategies

- 1. prospective audit of antibiotic use with direct interaction and feedback to the prescribing physician
- 2. formulary restriction and prior authorization requirements.

ISDA 2007

(2). Using the right drug for the right diagnosis in the right dose for the right length of time.

Crnich 2013

Why Antibiotic Stewardship?

- "The primary goal of antimicrobial stewardship is to optimize clinical outcomes while minimizing unintended consequences of antimicrobial use including toxicity, the selection of pathogenic organisms and the emergence of resistance....
- Given the association between antimicrobial use and the selection of resistant pathogens, the frequency of inappropriate antimicrobial use is often used as a surrogate marker for the avoidable impact on antimicrobial resistance."

IDSA, 2007

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

Nursing Homes and Assisted Living (Long-term Care Facilities [LTCFs])

Sept 15, 2015

Summary of Core Elements for Antibiotic Stewardship in Nursing Homes

Leadership commitment
Demonstrate support and commitment to safe and appropriate antibiotic use in your facility

Accountability
Identify physician, nursing and pharmacy leads responsible for promoting and overseeing antibiotic stewardship activities in your facility

Drug expertise
Establish access to consultant pharmacists or other individuals with experience or training in antibiotic stewardship for your facility

Action
Implement **at least one** policy or practice to improve antibiotic use

Tracking
Monitor **at least one process** measure of antibiotic use and **at least one outcome** from antibiotic use in your facility

Reporting
Provide regular feedback on antibiotic use and resistance to prescribing clinicians, nursing staff and other relevant staff

Education
Provide resources to clinicians, nursing staff, residents and families about antibiotic resistance and opportunities for improving antibiotic use

1. Leadership Commitment
2. Accountability
3. Drug expertise
4. Action … at least one policy or practice to improve antibiotic use
5. Tracking … at least one process measure of and one outcome measure of antibiotic use
6. Reporting … provide feedback
7. Education

An antibiotic stewardship “Policy” is a facility’s statement of mission to monitor, intervene, and improve the chain of events or process leading to antibiotic use in bacterial infection.

A “Process measure” is something within the process you can count, intervene in and improve.

An “Outcome measure” is something you can count and track over time to see if you improved it after application of the intervention within the policy.

Process measures

Number of urinalyses done per 1000 resident days…

Number of antibiotics prescribed per 1000 resident days…

Outcome measures

Adding "… appropriately according to facility best practice definition for uti…"

… when resident clinical symptoms meet facility best practice definition of antibiotic appropriateness…"

or… when antibiotic dosed appropriately for renal function…"

Annual Urinalyses PMNH

Year	urinalysis	Repeat Ua	Ua total	Ua/Kdays	Ua/U Res
2006	202	87	289	6.80	2.16
2007	148	44	192	5.13	1.48
2008	145	59	196	5.50	1.21
2009	145	42	187	5.05	1.21
2010	175	23	198	5.60	1.66
2011	150	15	165	4.55	1.16
2012*	157	10	167	4.40	0.98

* Revised McGeer Criteria; Stone, et. al.

Revised McGeer: Without Indwelling Catheter

(A) Clinical (At least one of the following must be met)	+	(B) Lab (At least one of the following must be met)
1. Either of the following: ☐ Acute dysuria or ☐ Acute pain, swelling or tenderness of testes, epididymis or prostate		1. VOIDED SPECIMEN: POSITIVE URINE CULTURE ($\geq 10^5$ CFU/ML) NO MORE THAN 2 ORGANISMS
2. If either FEVER or LEUKOCYTOSIS present need to include ONE or more 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 frequency		2. STRAIGHT CATH SPECIMEN: POSITIVE URINE CULTURE ($\geq 10^2$ CFU/ML) ANY NUMBER OF ORGANISMS
3. If neither FEVER or LEUKOCYTOSIS present INCLUDE TWO or more of the ABOVE (Box #2).		

Fever = >100F or 2F over baseline
Leukocytosis = WBC >14K or >6% bands

Stone et al. *Infect Control Hosp Epidemiol* 2012; 33:965-977

Revised McGeer
Resident With Indwelling Catheter

(A) Clinical (At least one of the following must be met with no alt. explanation)
☐ Fever
☐ Rigors
☐ New onset hypotension
☐ Either acute change in mental status or acute functional decline, with no alternate diagnosis AND leukocytosis
☐ New onset costovertebral angle pain or tenderness
☐ New onset suprapubic pain
☐ Acute pain, swelling or tenderness of the testes, epididymis or prostate
☐ Purulent drainage from around the catheter

+

(B) Lab (Must be met)
☐ Positive urine culture ($\geq 10^5$ CFU/ML) OF ANY ORGANISM(S)

Fever = >100F or 2F over baseline
Leukocytosis = WBC >14K or >6% bands

Stone et al. *Infect Control Hosp Epidemiol* 2012; 33:965-977

Dialogue all #1
Facility Urinalysis metric?

Annual Urinalyses PMNH

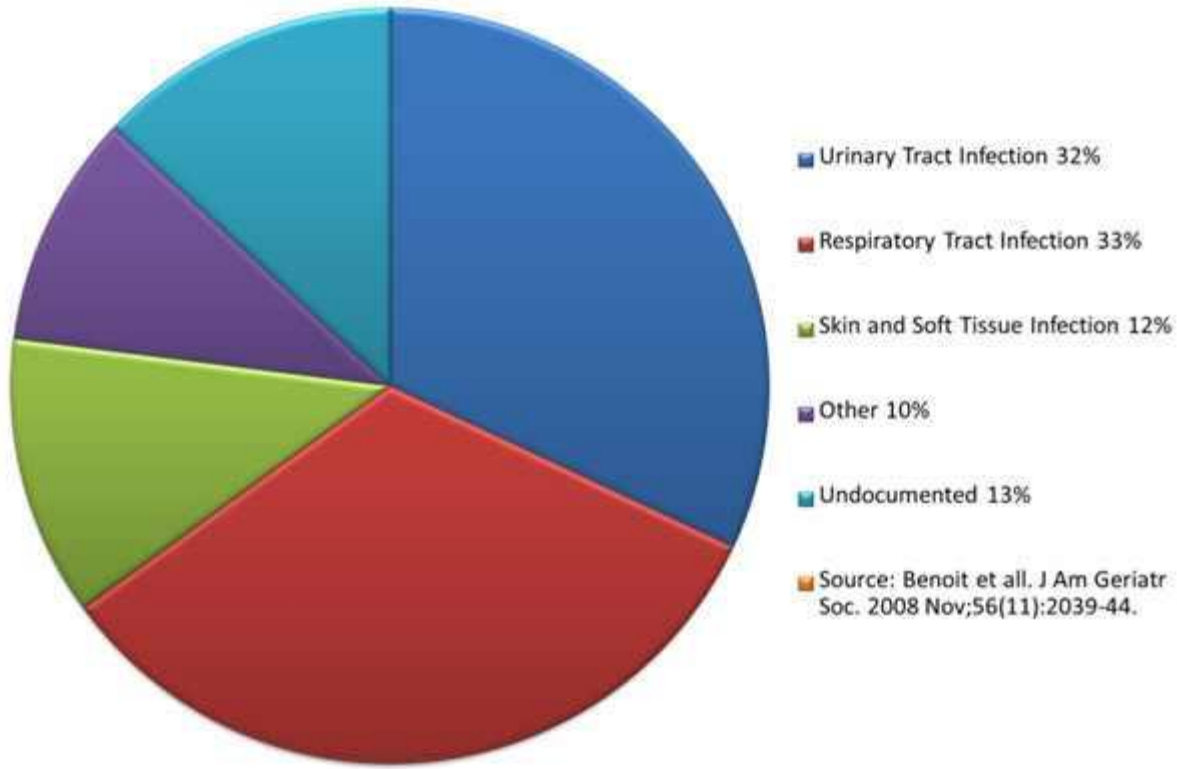
Year	urinalysis	Repeat Ua	Ua total	Ua/Kdays	Ua/U Res
2006	202	87	289	6.80	2.16
2007	148	44	192	5.13	1.48
2008	145	59	196	5.50	1.21
2009	145	42	187	5.05	1.21
2010	175	23	198	5.60	1.66
2011	150	15	165	4.55	1.16
2012*	157	10	167	4.40	0.98
2013	111	5	116	3.10	0.70

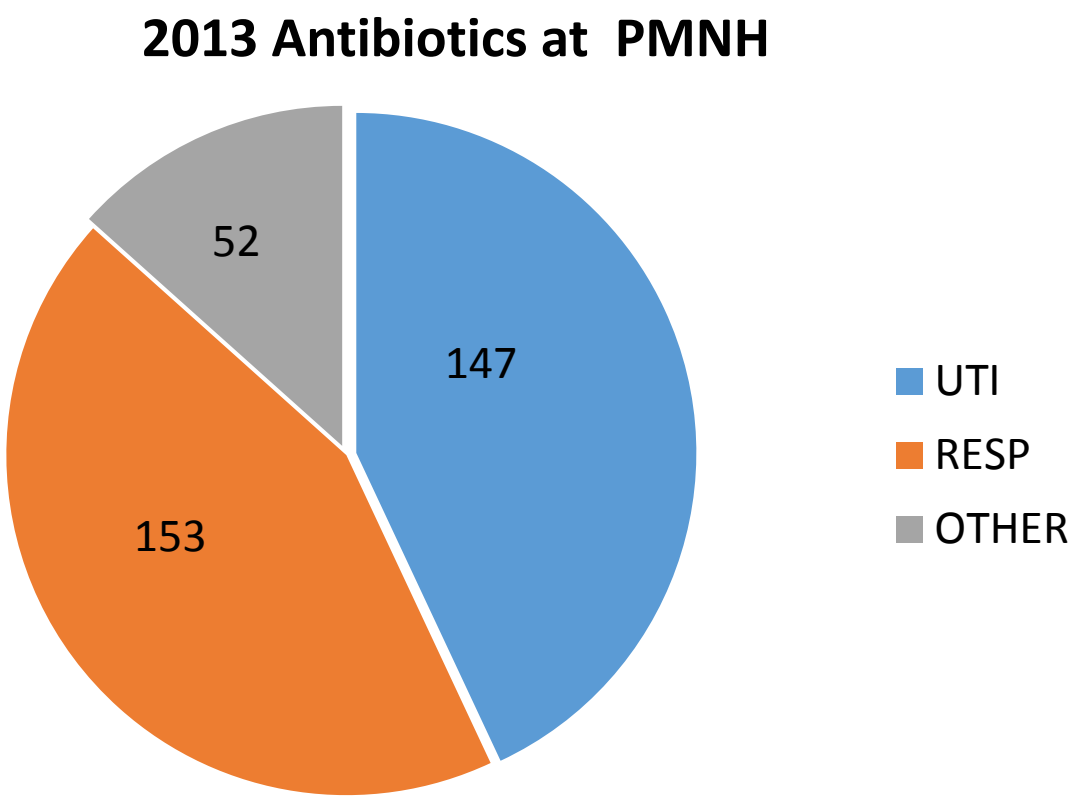
* Revised McGeer Criteria; Stone, et. al.

Annual Antibiotic Utilization PMNH

Year	Antibiotic	Abx/Kdays	Abx/patient
2006	503	11.75	2.57
2007	400	10.68	2.23
2008	343	9.68	1.63
2009	360	9.72	1.81
2010	351	9.93	1.87
2011	295	8.14	1.52
2012*	315	8.13	1.23
2013	352	9.41	1.39

Most common infections treated with antibiotics in nursing homes




2013 Antibiotics at PMNH
52
147
153
UTI
RESP
OTHER

Finding Pneumo 2014:

Improving Antibiotic Use in Respiratory Tract Infection

This basic ASP QAPI project is…

Predicated on the concept that most new antibiotic orders in the nursing home do not get written until a Nurse contacts the provider and delivers a change in resident condition report.

Scripted Charting as function of Antibiotic Stewardship

As we continue to improve our infection control and antibiotic stewardship programs (saving antibiotics for when our residents really need them) we will take the next step in education and utilization of antibiotics.

We want to begin to streamline our physician notification procedure. In efforts to accomplish this we are introducing our surveillance tool that the infection control preventionist nurses utilize at Park Manor. It is called McGeer's Criteria. McGeer's Criteria is a series of guidelines used for surveillance of infections. This is our standard of practice.

We will start our initiative with respiratory infections. That is the area of infections where we used the most antibiotics last year. Looking back we used antibiotics sometimes when simple conservative treatment ie: pushing fluids, rest, cough syrup would have been adequate treatment.

McGeer's Criteria is loaded in ECS under the respiratory assessment. There will be copies of McGeer's Criteria laminated and available at the nurses station for reference.

I will schedule a nurses meeting to further teach this method.

McGeer's Criteria for Respiratory illness

A. Common Cold or pharyngitis (at least 2)

runny nose or sneezing

nasal congestion

sore throat or hoarseness

dry cough

swollen or tender glands in neck

McGeer's Criteria Respiratory illness, cont

B. Influenza like illness(both 1 & 2)
    1. fever
    2. at least three of ILI criteria
        chills
        new headache or eye pain
        body aches
        malaise or loss of appetite
        new or increased dry cough

Fever = >100F or 2F over baseline

C. Pneumonia (all 3)

1. X-ray with pneumonia or infiltrate
2. Clinical criteria (at least 1)

   new or increased cough

   new or increased sputum

   O2 Sat <94% RA or >3% below baseline

   new or changed lung exam*

   pleuritic pain
3. Constitutional criteria (at least 1 of 4)

   fever

   leukocytosis

   change in MS-acute, fluctuation, inattention, and disorganized thinking

   3 point increase in ADL score- bed mobility, transfer, locomotion, dressing, toileting, hygiene, eating

Fever = >100F or 2F over baseline
Leukocytosis = WBC >14K or >6% bands

D. Lower Respiratory Infection (all 3)

1. Negative CXR or no CXR
2. Clinical criteria (at least 1)
   - new or increased cough
   - new or increased sputum
   - O2 Sat <94% RA or >3% below baseline
   - new or changed lung exam*
   - pleuritic pain
3. Constitutional criteria (at least 1 of 4)
   - fever
   - leukocytosis
   - change in MS-acute, fluctuation, inattention, and disorganized thinking
   - 3 point increase in ADL score- bed mobility, transfer, locomotion, dressing, toileting, hygiene, eating

McGeer (2012 Revised)

* ”…Given that a nurse’s assessment for the presence of crackles and the absence of wheezing was highly predictive of identifying radiographic evidence of pneumonia…”

Mehr, et. Al, *J Fam Pract* 2001;50: 931-937. Clinical findings associated with radiographic pneumonia in nursing home residents.

Staff educational development

1. Facility evidence based RTI best practice criteria
2. Clinical skills
3. Scripting vs hinting and hoping
4. Stewardship principles
5. Empowerment of the nurse role as physician collaborator
6. Validation in nursing knowledge and skill
7. Diplomacy in communication

Finding Pneumo Jan-Feb 2014

sample script/URI

Date of onset: 09/16/12

Vitals: Temp 98.9 , Apical Pulse 68, Resp 28, B/P 112/72, O2 sat on RA 91%

Allergies: Sulfa

Change in condition: Resident is afebrile. No respiratory distress noted. She does have a new dry cough and sore throat. She has no headache, abd pain or general body aches. Lungs clear. Bowel sounds present in all four quads. Urine in unremarkable. Appetite has been 100% over past 24 hours.

Acetaminophen 650 mg p.o. was administered at 9:20am for fever and pain.

Placed in droplet precautions this morning.

This is to inform you of a change in condition. According to our facility best practice, evidence based policy on respiratory tract infection, this resident has symptoms consistent with a viral URI. May we administer cough suppressant according to standing orders and monitor condition for 48 hrs? We will notify you of changing status.

Please Advise .

Counting stuff------Metrics

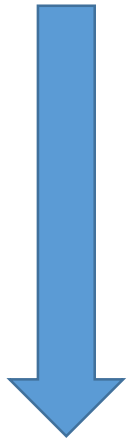
- Respiratory Tract Infection definition-McGeer’s
- Antibiotic Use Event-Order written with one day of therapy
- Antibiotic Use Indication-Doctor’s order
- In-appropriate Antibiotic Use for RTI-McGeers A or B
- Appropriate Antibiotic Use for RTI-McGeer C or D
- Antibiotic Utilization Rates-Antibiotic event/Kdays or /Ures

Annual Antibiotic Utilization PMNH

Year	Antibiotic	Abx/Kdays	Abx/Ures
2006	503	11.75	3.73
2007	400	10.68	3.08
2008	343	9.68	2.12
2009	360	9.72	2.32
2010	351	9.93	2.95
2011	295	8.14	2.08
2012	315	8.30	1.84
2013	352	9.41	2.13
2014	212	6.04	1.57
2015	209	7.62	1.26
2016	186	6.98	1.18

Dialogue all #2

Facility Antibiotic use metric?



Abx order?
Abx start?
Abx doses?
Abx days?
Abx ____?

Antibiotic for RTI- PMNH

Year	Total Abx for RI	Abx/Kdays	Abx/Ures
2011	104	2.9	.73
2012	88	2.3	.51
2013	157	4.2	.95
2014	72	2.1	.53
2015	64	2.3	.39
2016	79	3.0	.52

Dialogue all #3
Facility best practice
Criteria for antibiotic use in UTI, RTI= McGeer's Revised, Loeb?

Annual Urinalyses PMNH

Year	urinalysis	Repeat Ua	Ua total	Ua/Kdays	Ua/U Res
2006	202	87	289	6.80	2.16
2007	148	44	192	5.13	1.48
2008	145	59	196	5.50	1.21
2009	145	42	187	5.05	1.21
2010	175	23	198	5.60	1.66
2011	150	15	165	4.55	1.16
2012*	157	10	167	4.40	0.98
2013	111	5	116	3.10	0.70
2014	84	1	85	2.42	0.63
2015	41	-	41	1.49	0.25
2016	43	-	43	1.61	0.27

*Revised McGeer; Stone, et. al.

ASP=AUDIT+FEEDBACK

- Audit: Spreadsheet based/resident chart reviewed: IP/DON in context of daily nurse morning report and internal messaging with review of nurse actions in respiratory illness COC flag
- Feedback-nurse: daily critique of completion of nurse resp EMR note, use of appropriate script
- Feedback-physician: initial letter from med dir, nurse challenge Abx order, end of year Report Card, outlier letters

Physician Feedback

- Annual antibiotic susceptibility summary (antibiogram)
- Antibiotic Report Cards
- Annual Medical Director’s letters
- Outlier Medical Director letters
- Daily nursing service communication.

Annual Letters to Medical Staff

- Please see the enclosed antibiogram for our nursing home for 2011.
- Please note the high incidence of fluorquinolone resistance in our building.
- We have noticed that over 50 % of the time a fluorquinolone is chosen for empiric antibiotic therapy in suspected respiratory infections.
- Our nursing staff will continue to notify you for consideration of de-escalation of antibiotic therapy when cultures are negative or for change in therapy when sensitivities suggest alternate more appropriate therapy.

Antimicrobial Sensitivity Summary*
Park Manor Nursing Home 2016

	#	Amp	Amp/clav	cipro	NTF	SXT	gent	Keflex	ceftaz	ceftriax	Imipen	Pip		
E. Coli	11	18	45	27	91	100	100	64	100	100	100	100		
Enterobacter sp.	0	-	-	-	-	-	-	-	-	-	-	-		
Klebsiella sp.	0	-	-	-	-	-	-	-	-	-	-	-		
Proteus sp.	7	100	100	29	42	100	86	100	100	100	-	-		
Citrobacter sp.	2	0	50	100	100	100	100	50	100	100	100	100		
		Amp	Cipro	NTF	SXT	Gent	Vanco	PCN	Oxacil	Clinda	Erythro	Linezolide	TCN	
Enterococcus sp.	4	100	-	100	-	-	100	-	-	-	-	-	-	
Staph aureus	4	-	0	-	100	-	100	-	0	-	0	100	100	

# Denotes number of isolates

* Number in column below antibiotic denotes percent sensitive

PMNH Antibiotic Report Card for Treatment of UTI 2013

PROVIDER	ANTIBIOTIC STARTS	APPROPRIATE	*NOT APPROPRIATE	% NOT APPROPRIATE
DAN	42	36	6	14.3%
KAS	28	22	6	21.4%
CHA	32	29	3	9.5%
JOH	10	7	3	30%
HAR	8	8	0	0%
BOE	4	4	0	0%
ADE	0	0	0	---
PMNH	124	106	18	14.5

*Resident's clinical symptoms did not meet McGeer's Criteria for treatment of UTI

PMNH Antibiotic Report Card
for Treatment of Respiratory Infection 2014

Provider	Antibiotic Starts	Appropriate	Not* Appropriate	Percent not Appropriate
Dan	38	36	2	5.3
Kas	24	23	1	4.2
Cia	8	6	2	25.0
Gu	2	2	0	0.0
Ade	0	0	0	0
PMNH Cumulative	72	67	5	6.9

*Resident's clinical symptoms met McGeer's Surveillance Criteria for diagnosis of Viral Respiratory Infection

Letter of notice for inappropriate antibiotic use 2013

- Greetings from yours truly,
- Your patient Mrs. Tuulkala was treated for uti with ciprofloxin. Please note...,
- There was no dysuria, fever, leukocytosis, incontinence. Hematuria,…. If you have further clinical information…?
- Urine culture 1000 cfu Gram neg rod,
- Nurse prompted to de-escalate therapy,
- You chose to continue and said "…because I'm the Doctor!"
- Although….., I feel this represents inappropriate Abx use…
- Please read "Treatment of Bacteriuria in Older Adults Still Room for Improvement" Crnich, Drinka JAMDA Oct. 2008.
- Please consider participating in our IC Committee.

Nursing Staff Feedback $$$!!!

- In-services
- Skills improvement modules
- Consistent daily re-enforcement
- Share all facility outcomes

“Optimizing Antibiotic Stewardship in Nursing Homes: A Narrative Review and Recommendations for Improvement” Crnich, et.all; Drugs Aging (2015) 32:699–716

- “The unique structure of resident evaluation and treatment in nursing homes may represent the most important barrier to improving antibiotic stewardship.”
- Minimal infection control training, nurse workload, high resident/staff ratio, high staff turnover, use of agency nurses, and sub-optimal staff assignment consistency combine to compound the problem”

“Optimizing ABS in NHs…”

- Nursing homes should instead develop and use protocols that restrict all urine testing to residents with a high probability of having a UTI.
- These protocols should be operationalized not only through education of providers but, also through engagement of nursing staff, who should be empowered to discourage providers from ordering diagnostic urine tests in the absence of specific evidence-based criteria.
- Tracking the frequency of urine cultures and the number of treated UTI events that do not satisfy surveillance definitions provides targets that a facility can follow in order to assess the impact of the intervention.

Nurse Critical Thinking: The Important Component of Antibiotic Stewardship in Long Term Care

Joe Boero MD

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Western Regional Office Summer Forum

Sept 25, 2015 , 10:00 AM

The Critical Thinking Professional is Empowered

- “When empowered, nurses demonstrate increased participation in decision-making, increased autonomy over their practice, and a greater sense of organizational trust. Empowered nurses tend to be more satisfied with their jobs and they experience an increased sense of organizational commitment and quality of work life. They, in turn, experience less burnout and job stress and are less likely to leave their jobs or the profession all together.”

“The Role of DONs in Cultivating Nurse Empowerment”
Annals Long Term-Care Vol 24. April 2015

Cultivating Nurse Critical Thinking

- Include staff in opportunities to learn about clinical care, sharing information, and problem solving.
- Recognize staff opinions.
- Create culture that allows staff to acquire a high level of clinical knowledge.
- Allow and encourage staff to use that knowledge with courage, confidence and support.
- Acknowledge critical thinking coupled with action.

Examples of CTN opportunity

- Good nurse passes meds without error
- Critical thinking nurse recognizes two proton pump inhibitors and calls attending
- Good nurse charts on every resident including three with new coughs
- CTN activates respiratory illness outbreak management cascade
- Good nurse performs daily dressing change with proper technique
- CTN recognizes change in wound odor with spreading induration and acts on it

Nurse as Collaborator

- It’s not the nurse’s role to tell physicians how to practice medicine.
- It’s the nurse’s role to exercise discretionary judgement in the application of knowledge, skills and experience to deliver information that helps the physician practice better medicine.

Stated simply, antibiotic stewardship in LTC is:

- Creating a system for gathering data
- Deciding on best practice criteria for antibiotic use in bacterial infection within your institution - **the policy**
- Teach the nursing staff how to evaluate and document - the process measure
- Determining whether antibiotic use for that infection is within the institutional appropriate use - **the outcome measure**
- Providing feed-back to the prescribing providers and nursing staff so they can improve their practice behavior
- Assess and Refine processes to improve facility performance
- Keep measuring outcomes and assessing/refining processes.
- ? The Formulary Control?

Boero

Insights-Success of antibiotic stewardship in LTC depends on…

- Nursing staff education, assessment and communication skills, and empowerment
- Consistent data collection and audit
- Nursing staff feed-back on resident assessment, documentation and physician communication
- Physician feed-back from medical director, but more importantly from the line nurse

Where We Went 2006 - 2017

- Facility specific antibiogram - 2006 ongoing
- Antibiotic use tracking - 2006 ongoing
- Physician feedback - 2006 ongoing
- Facility best practice UTI definition - 2012
- Nurse feedback - 2012 ongoing
- UTI antibiotic use report card - 2013 annually
- Facility best practice criteria for Respiratory Tract Infection - 2014
- Sample nurse communication scripts UTI - 2012, RTI - 2014
- RTI best practice criteria included in EMR nurse assessment CoC - 2014
- Annual RTI antibiotic use report card - 2014 annually
- Consulting pharmacist involvement in right drug, dose, and time - 2017

Antibiotic Stewardship
Where Do We Go From Here

- Multiple tools and guidance for facilities
- Much of it turn-key solutions
- Multiple training materials
- The wealth of tools can be daunting
- Nursing homes may have difficulty figuring out where to start
- Nursing Homes tend to be resource scarce and staff challenged
- There can be resistance along the way

- Any of these tools are not likely to be useful in any facility without a culture of administrative and staff confirmation in nurse professional development and empowerment to improve clinical assessment/communication skills and consistent documentation.

“If you really look closely, most overnight successes took a long time.”

Questions?

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