REFLECTION ON LEARNING ANTIMICROBIAL STEWARDSHIP

Implementation of an Antimicrobial Stewardship Newsletter to serve as a tool for staff education and antibiotic reporting

ABOUT ME

HMH
Hardin Memorial Health

PROJECT PURPOSE

- FOCUS/GOAL: Improve awareness and knowledge of antimicrobial stewardship through educational processes across the organization
- **SUBJECT: Antimicrobial Stewardship**
- **PURPOSE:** To promote antimicrobial stewardship in order to optimize patient care and safety related to antimicrobial usage and antimicrobial resistance

Core Elements of Hospital Antibiotic Stewardship Programs

Hospital Leadership Commitment
Dedicate necessary human, financial, and information technology resources.

Accountability
Appoint a leader or co-leaders, such as a physician and pharmacist, responsible for program management and outcomes.

Pharmacy Expertise (previously "Drug Expertise"):
Appoint a pharmacist, ideally as the co-leader of the stewardship program, to help lead implementation efforts to improve antibiotic use.

Action
Implement interventions, such as prospective audit and feedback or preauthorization, to improve antibiotic use.

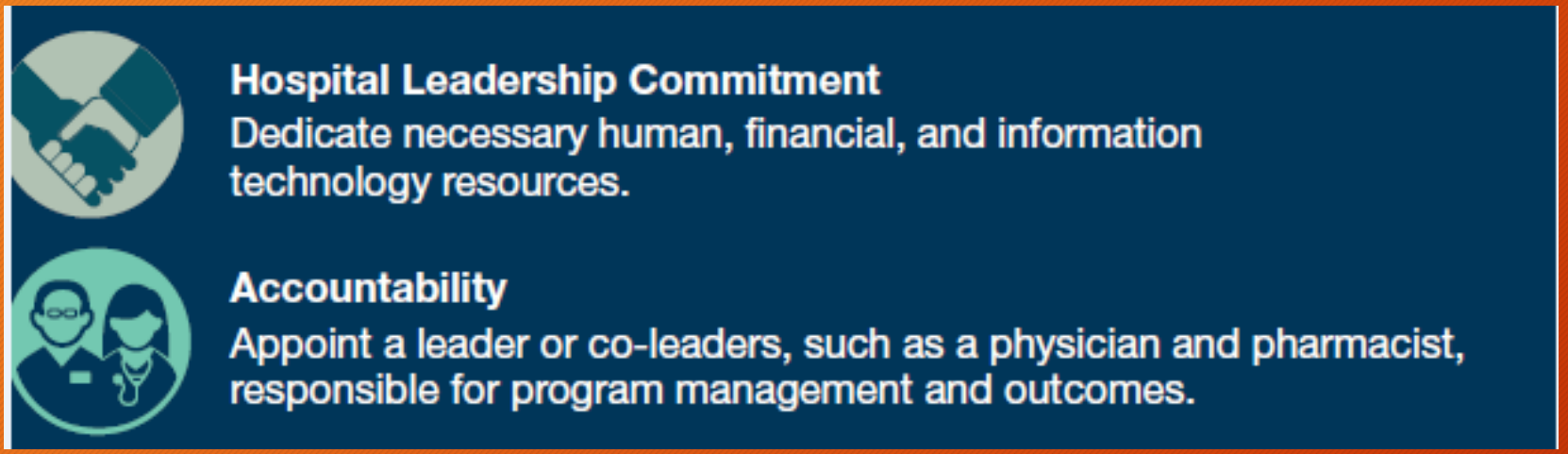
Tracking
Monitor antibiotic prescribing, impact of interventions, and other important outcomes, like *C. difficile* infections and resistance patterns.

Reporting
Regularly report information on antibiotic use and resistance to prescribers, pharmacists, nurses, and hospital leadership.

Education
Educate prescribers, pharmacists, nurses, and patients about adverse reactions from antibiotics, antibiotic resistance, and optimal prescribing.

NO NEED TO REINVENT THE WHEEL

- ❑ CDC recommendations and ASP assessment tool



- ❑ AMS Team that currently meets monthly
- ❑ Good representation from a variety of departments

LEADERSHIP / ACCOUNTABILITY

Pharmacy Expertise (previously "Drug Expertise"):

Appoint a pharmacist, ideally as the co-leader of the stewardship program, to help lead implementation efforts to improve antibiotic use.

- ❑ Clinical Coordinator, Ashleigh Mouser
- ❑ MDStewardship
- ❑ Sentri7
- ❑ Continuously updating/improving

PHARMACY EXPERTISE

Action

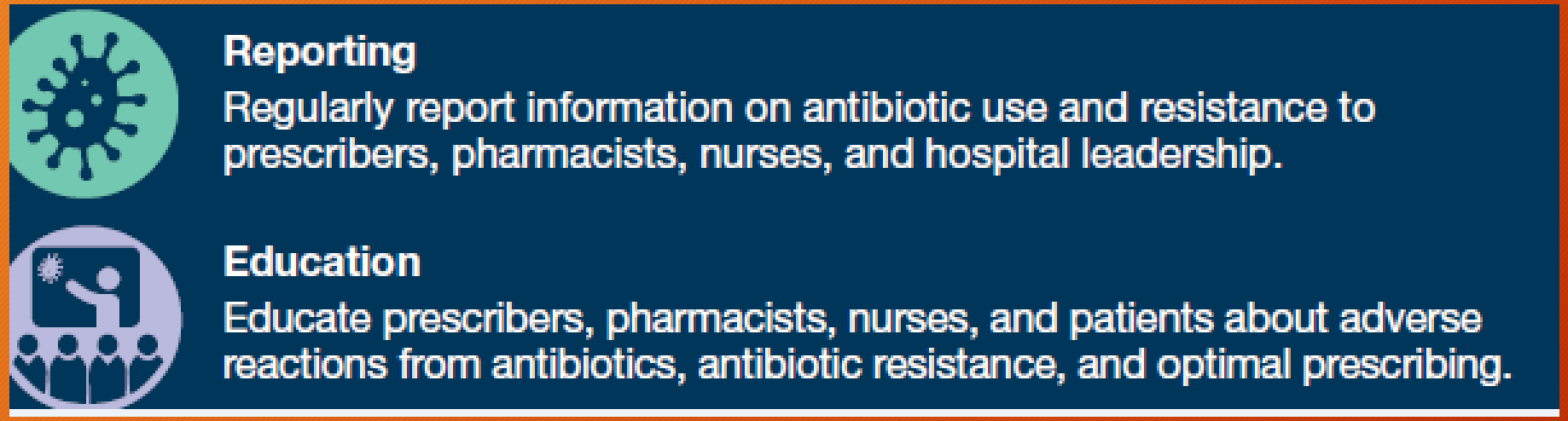
Implement interventions, such as prospective audit and feedback or preauthorization, to improve antibiotic use.

Tracking

Monitor antibiotic prescribing, impact of interventions, and other important outcomes, like *C. difficile* infections and resistance patterns.

- ❑ Sentri 7
- ❑ Ensuring our order sets align with current guidelines…ONGOING

ACTION / TRACKING

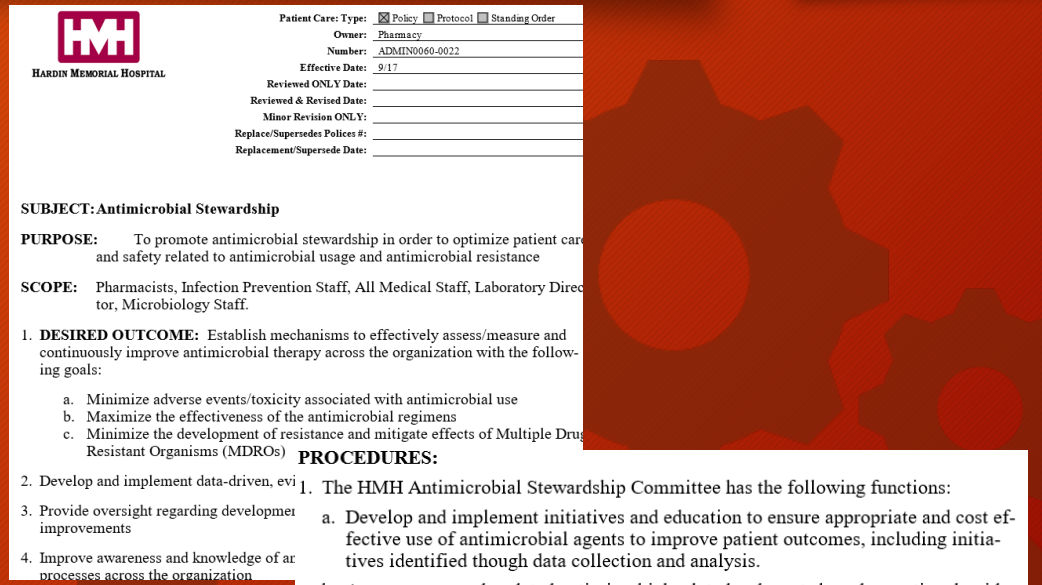


- BINGO

REPORTING / EDUCATION

GETTING STARTED

- Established policy that has a stated outcome to **"Improve awareness and knowledge of antimicrobial stewardship through educational processes across the organization"**
- What is the best method of achieving the CORE elements of Reporting & Education
- Newsletter……How frequent….What Content…Who should receive
- Frequency: Quarterly
- **What**: focus on what our most important needs are; where did we have room for improvement
- **Who**: Pharmacists/Nurses/Physicians



HARDIN MEMORIAL HOSPITAL

Patient Care: Type: ☒ Policy ☐ Protocol ☐ Standing Order
Owner: Pharmacy
Number: ADMIN0060-0022
Effective Date: 9/17
Reviewed ONLY Date:
Reviewed & Revised Date:
Minor Revision ONLY:
Replace/Supersedes Polices #:
Replacement/Supersede Date:

SUBJECT: Antimicrobial Stewardship

PURPOSE: To promote antimicrobial stewardship in order to optimize patient care and safety related to antimicrobial usage and antimicrobial resistance

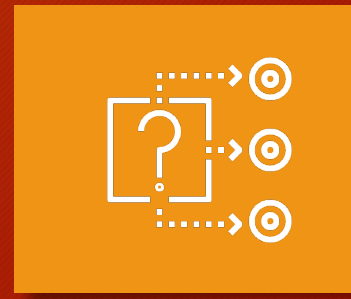
SCOPE: Pharmacists, Infection Prevention Staff, All Medical Staff, Laboratory Director, Microbiology Staff.

1. **DESIRED OUTCOME:** Establish mechanisms to effectively assess/measure and continuously improve antimicrobial therapy across the organization with the following goals:
   a. Minimize adverse events/toxicity associated with antimicrobial use
   b. Maximize the effectiveness of the antimicrobial regimens
   c. Minimize the development of resistance and mitigate effects of Multiple Drug Resistant Organisms (MDROs)
2. Develop and implement data-driven, evi
3. Provide oversight regarding developmer improvements
4. Improve awareness and knowledge of ar processes across the organization

PROCEDURES:

1. The HMH Antimicrobial Stewardship Committee has the following functions:
   a. Develop and implement initiatives and education to ensure appropriate and cost effective use of antimicrobial agents to improve patient outcomes, including initiatives identified though data collection and analysis.
   b. Approve new and updated antimicrobial-related order sets based on national guidelines and local susceptibility data
   c. Perform review of antimicrobial susceptibility rates via annual reports (e.g., Antibiograms) and distribute Antibiograms to prescribers and other appropriate staff
   d. Track and monitor antimicrobial documentation adherence (drug, dose, duration, and indication), facility-specific order set utilization, pharmacist prospective audit and feedback recommendation acceptance rates, and any other information as deemed necessary by the committee.
      a. Providers are required to document drug, dose, and clinical indication in the electronic medical record. All antibiotics have an automatic stop date of 7 days (or less for select antibiotics) unless otherwise specified by the provider during ordering.
   e. Collect, document, and analyze the facility's antimicrobial usage
   f. Report antimicrobial stewardship data periodically to prescribers and other appropriate staff.

GOALS OF AN ANTIMICROBIAL STEWARDSHIP NEWSLETTER



- To share facility specific data and address potential problem areas
- To provide awareness of how our facility compares.
- Empower staff to be AMS/ASP collaborators and remove stigma of pharmacy being the AMS/ASP POLICE
- Ensure our medical staff have all the up to date information and are aware of the most current guidelines and recommendation for antimicrobial use

CONTENT | IS IT CURRENT | KEEP IT CONCISE

- ❑ New CAP Guidelines from ATS/IDSA
- ❑ Highlight the changes
- ❑ Create a facility specific algorithm for empiric treatment
- ❑ Stress the most important aspects relative to our facility

Table 4. Initial Treatment Strategies for Inpatients with Community-acquired Pneumonia by Level of Severity and Risk for Drug Resistance

	Standard Regimen	Prior Respiratory Isolation of MRSA	Prior Respiratory Isolation of *Pseudomonas aeruginosa*	Recent Hospitalization and Parenteral Antibiotics and Locally Validated Risk Factors for MRSA	Recent Hospitalization and Parenteral Antibiotics and Locally Validated Risk Factors for *P. aeruginosa*
Nonsevere inpatient pneumonia*	β-Lactam + macrolide† or respiratory fluroquinolone‡	Add MRSA coverage§ and obtain cultures/nasal PCR to allow deescalation or confirmation of need for continued therapy	Add coverage for *P. aeruginosa*‖ and obtain cultures to allow deescalation or confirmation of need for continued therapy	Obtain cultures but withhold MRSA coverage unless culture results are positive. If rapid nasal PCR is available, withhold additional empiric therapy against MRSA if rapid testing is negative or add coverage if PCR is positive and obtain cultures	Obtain cultures but initiate coverage for *P. aeruginosa* only if culture results are positive
Severe inpatient pneumonia*	β-Lactam + macrolide† or β-lactam + fluroquinolone‡	Add MRSA coverage§ and obtain cultures/nasal PCR to allow deescalation or confirmation of need for continued therapy	Add coverage for *P. aeruginosa*‖ and obtain cultures to allow deescalation or confirmation of need for continued therapy	Add MRSA coverage§ and obtain nasal PCR and cultures to allow deescalation or confirmation of need for continued therapy	Add coverage for *P. aeruginosa*‖ and obtain cultures to allow deescalation or confirmation of need for continued therapy

Definition of abbreviations: ATS = American Thoracic Society; CAP = community-acquired pneumonia; HAP = hospital-acquired pneumonia; IDSA = Infectious Diseases Society of America;

600 mg every 12 hours AND azithromycin 500 mg daily or clarithromycin

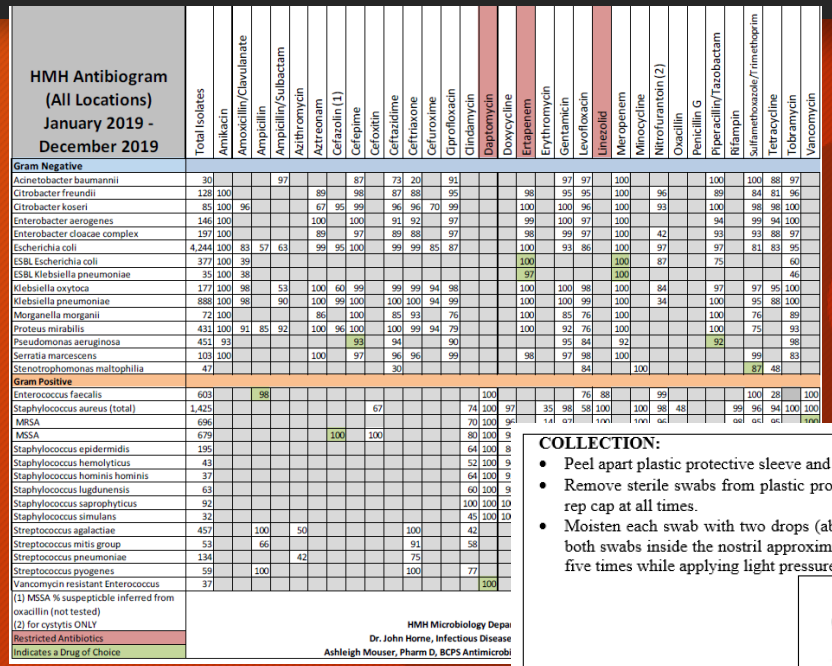
olid (600 mg every 12 h).
ceftazidime (2 g every 8 h), m (500 mg every 6 h), meropenem
ducing Enterobacteriaceae uld be considered only on the

RECOMMENDATION	2019 ATS/IDSA GUIDELINE CHANGES
Sputum Culture	Now recommended in patients with severe Disease as well as in all patients Empirically treated for MRSA or P. aeruginosa
Blood Culture	Now Recommended in patients with severe Disease as well as in all inpatients Empirically treated for MRSA or P. aeruginosa
Macrolide monotherapy	Conditional recommendation for outpatients Based on resistance levels (pneumococcal resistance Less than 25%)
Use of procalcitonin	Not recommended to determine need for Initial antibacterial therapy
Use of corticosteroids	Recommended not to use. May be considered In patients with refractory septic shock
Use of healthcare-associated Pneumonia category	Recommended abandoning this categorization. Emphasis on local epidemiology and validated Risk factors to determine need for MRSA or P.aeruginosa coverage. Increased emphasis on de-escalation of treatment if cultures are negative.
Standard empiric therapy for severe CAP	Both accepted but stronger evidence in favor of b-lactam/macrolide combination
Routine use of follow-up chest imaging	Recommended not to obtain. Patients may be eligible for lung cancer screening, which should be performed as clinically indicated.

CONTENT

ANTIBIOGRAM / AREAS OF IMPROVEMENT

- Opportunity to review our most updated antibiogram and review how to interpret it's data
- Share some important takeaways from the new 2019 antibiogram and changes from previous measures
- MRSA PCR issues: address collection technique making sure everyone "NOSE" how to do it
- Importance of completing the procedure in a timely fashion
- WHY?: To aid in reducing days of therapy on empiric MRSA antibiotics

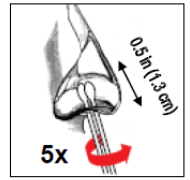


HMH Antibiogram (All Locations) January 2019 - December 2019	Total Isolates	Amikacin	Amoxicillin/Clavulanate	Ampicillin	Ampicillin/Sulbactam	Azithromycin	Aztreonam	Cefazolin (1)	Cefepime	Cefoxitin	Ceftazidime	Ceftriaxone	Cefuroxime	Ciprofloxacin	Clindamycin	Daptomycin	Doxycycline	Ertapenem	Erythromycin	Gentamicin	Levofloxacin	Linezolid	Meropenem	Minocycline	Nitrofurantoin (2)	Oxacillin	Penicillin G	Piperacillin/Tazobactam	Rifampin	Sulfamethoxazole/Trimethoprim	Tetracycline	Tobramycin	Vancomycin
Gram Negative																																
Acinetobacter baumannii	30				97				87		73	20		91						97	97		100					100		100	88	97	
Citrobacter freundii	128	100					89		98		87	88		95				98		95	95		100		96			89		84	81	96	
Citrobacter koseri	85	100	96				67	95	99		96	96	70	99				100		100	96		100		93			100		98	98	100	
Enterobacter aerogenes	146	100					100		100		91	92		97				99		100	97		100					94		99	94	100	
Enterobacter cloacae complex	197	100					89		97		89	88		97				98		99	97		100		42			93		93	88	97	
Escherichia coli	4,244	100	83	57	63		99	95	100		99	99	85	87				100		93	86		100		97			97		81	83	95	
ESBL Escherichia coli	377	100	39															100					100		87			75				60	
ESBL Klebsiella pneumoniae	35	100	38															97					100									46	
Klebsiella oxytoca	177	100	98		53		100	60	99		99	99	94	98				100		100	98		100		84			97		97	95	100	
Klebsiella pneumoniae	888	100	98		90		100	99	100		100	100	94	99				100		100	99		100		34			100		95	88	100	
Morganella morganii	72	100					86		100		85	93		76				100		85	76		100					100		76		89	
Proteus mirabilis	431	100	91	85	92		100	96	100		100	99	94	79				100		92	76		100					100		75		93	
Pseudomonas aeruginosa	451	93							93		94			90						95	84		92					92				98	
Serratia marcescens	103	100					100		97		96	96		99				98		97	98		100							99		83	
Stenotrophomonas maltophilia	47										30										84			100						87	48		
Gram Positive																																
Enterococcus faecalis	603			98												100					76	88			99					100	28		100
Staphylococcus aureus (total)	1,425									67						74	100	97		35	98	58	100		100	98	48			99	96	94	100	100
MRSA	696															70	100	96		14	97		100		100	96				98	95	96		100
MSSA	679							100		100						80	100	9																
Staphylococcus epidermidis	195															64	100	8															
Staphylococcus hemolyticus	43															52	100	9															
Staphylococcus hominis hominis	37															64	100	9															
Staphylococcus lugdunensis	63															60	100	9															
Staphylococcus saprophyticus	92															100	100	10															
Staphylococcus simulans	32															45	100	10															
Streptococcus agalactiae	457			100		50					100					42																	
Streptococcus mitis group	53			66							91					58																	
Streptococcus pneumoniae	134					42					75																						
Streptococcus pyogenes	59			100							100			77																			
Vancomycin resistant Enterococcus	37															100																	
(1) MSSA % suspecticble inferred from oxacillin (not tested)																																	
(2) for cystytis ONLY																																	
Restricted Antibiotics																																	
Indicates a Drug of Choice																																	

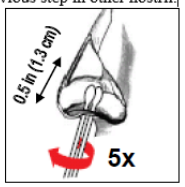
HMH Microbiology Depa
Dr. John Horne, Infectious Disease
Ashleigh Mouser, Pharm D, BCPS Antimicrobi

COLLECTION:

- Peel apart plastic protective sleeve and remove cap from media tube by twisting.
- Remove sterile swabs from plastic protective sleeve, be sure to keep both swabs attached to rep cap at all times.
- Moisten each swab with two drops (about 50 µL) of sterile saline **or use dry**. Gently insert both swabs inside the nostril approximately 0.5 inch or 1.3 cm and rotate against the mucosa five times while applying light pressure on the outside of the nose (to help insure contact).



- Using the same swabs, repeat previous step in other nostril.



- Insert swabs into media tube, use caution to not touch swab tips to avoid contamination.
- Label swab and send to Microbiology department for testing.

CONTENT

TIME IS OF THE ESSENCE

- ❑ Importance of an antibiotic TIMEOUT
- ❑ Duration of therapy and how that is changing
- ❑ PLAN is to include this with every subsequent newsletter
- ❑ EDUCATION HAS A SHORT HALF-LIFE

3. Procedure for Antibiotic Time Out
    a. Providers are required to review all patients on antimicrobials 48 hours after initiation of the medication and document in the progress note the need for continuation based on the patient specific condition.
    b. Antimicrobials should be assessed by the provider for appropriate dose, route, duration and spectrum of coverage.
    c. The AMS team periodically monitors compliance with completing the antibiotic time out through review of progress notes and provide feedback to physicians if warranted.

Stewardship: Shorter = Better

Diagnosis	Short (d)	Long (d)	Result	#RCTs
CAP	3 or 5	7-14	Equal	9
VAP	8	15	Equal	2
Pyelo	7 or 5	14 or 10	Equal	7
Intra-abd	4	10	Equal	2
GNB Bacteremia	7	14	Equal	1*
AECB	≤5	≥7	Equal	>20
Cellulitis	5-6	10	Equal	4*
Chronic Osteomyelitis	42	84	Equal	2
Septic Arthritis	14	28	Equal	1
Ortho Implant w/removal	28	42	Equal	1
Neutropenic Fever	AFx72 h	+ANC>500	Equal	1
P. vivax Malaria	7	14	Equal	1

*GNB bacteremia also in UTI/cIAI RCTs; 3 cellulitis RCTs equal, 1 (low dose oral flucox) ↑relapses; refs at https://www.bradspellberg.com/shorter-is-better

FUTURE TOPICS

INCLUDE A BIT OF HUMOR

- What to include in future Newsletters and how best to continue reporting the DATA
- Possibilities are endless…
- Focus on the areas that have the greatest opportunity
- Include a bit of FUN

Future Topics:

Symptomatic VS Asymptomatic UTI

SSTI

More on Antibiotic Timeouts and Durations

YOUR SUGGESTIONS WELCOME!!!

FUN CORNER

THE CAP RAP

If CAP has the potential for MRSA

At HMH we do not play!

We need to get a PCR

Resistance avoiders is who we are!

In CAP acinetobacter ain't no factor

Gram negatives here are rarely bad actors.

But if HAP or VAP you better be a quick reactor

Acineto is joined by Pseudo, Klebsi, & E.Coli

Those are the primary pathogens I tell no lie

Now if that VAP involves aspiration

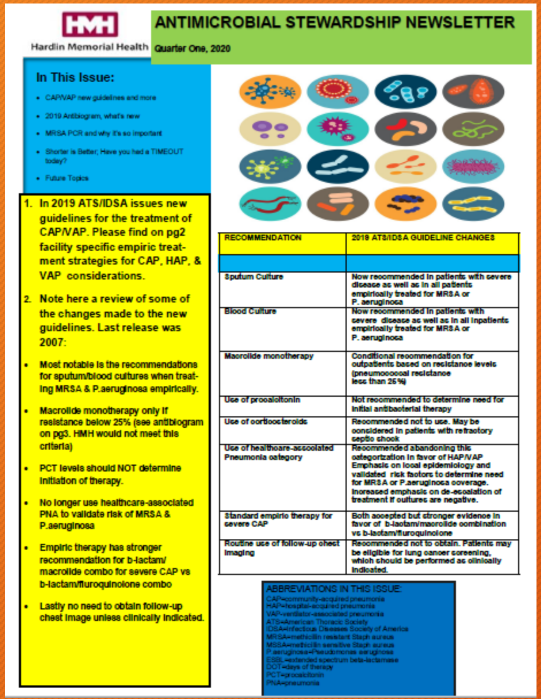
Covering anaerobes MIGHT be a consideration

All we're saying is let's all work together

And be good stewards to make life better!

BARRIERS ENCOUNTERED

- No clear way to ensure the information is READ
- Keeping the information relevant and specific
- Including all the disciplines
- Will the data reviewed adequately reflect the goals of this initiative



HMH Hardin Memorial Health

ANTIMICROBIAL STEWARDSHIP NEWSLETTER

Quarter One, 2020

In This Issue:

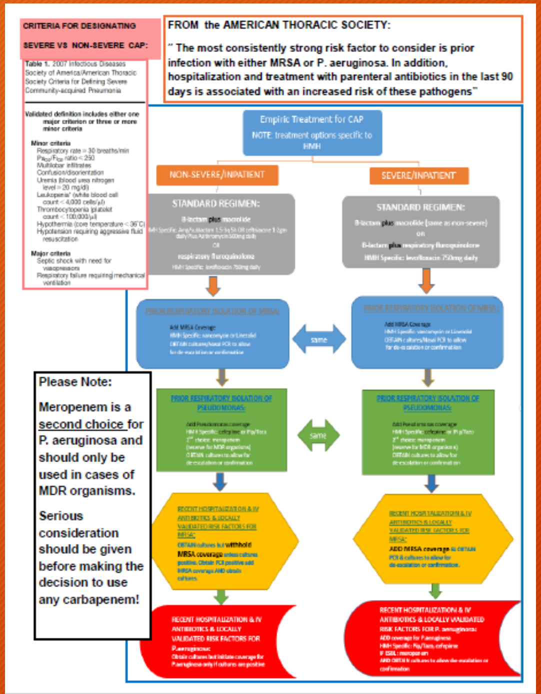
- CAP/VAP new guidelines and more
- 2019 Antibiogram, what's new
- MRSA PCR and why it's so important
- Shorter is Better, Have you had a TIMEOUT today?
- Future Topics

1. In 2019 ATS/IDSA issues new guidelines for the treatment of CAP/VAP. Please find on pg2 facility specific empiric treatment strategies for CAP, HAP, & VAP considerations.
2. Note here a review of some of the changes made to the new guidelines. Last release was 2007:

- Most notable is the recommendations for sputum/blood cultures when treating MRSA & P.aeruginosa empirically.
- Macrolide monotherapy only if resistance below 25% (see antibiogram on pg2. HMH would not meet this criteria)
- PCT levels should NOT determine initiation of therapy.
- No longer use healthcare-associated PNA to validate risk of MRSA & P.aeruginosa
- Empiric therapy has stronger recommendation for b-lactam/macrolide combo for severe CAP vs b-lactam/fluroquinolone combo
- Lastly no need to obtain follow-up chest image unless clinically indicated.

RECOMMENDATION	2019 ATS/IDSA GUIDELINE CHANGES
Sputum Culture	Now recommended in patients with severe disease as well as in all patients empirically treated for MRSA or P. aeruginosa
Blood Culture	Now recommended in patients with severe disease as well as in all inpatients empirically treated for MRSA or P. aeruginosa
Macrolide monotherapy	Conditional recommendation for outpatients based on resistance levels (pneumococcal resistance less than 25%)
Use of procalcitonin	Not recommended to determine need for initial antibacterial therapy
Use of corticosteroids	Recommended not to use. May be considered in patients with refractory septic shock
Use of healthcare-associated Pneumonia category	Recommended abandoning this categorization in favor of HAP/VAP. Emphasis on local epidemiology and validated risk factors to determine need for MRSA or P.aeruginosa coverage. Increased emphasis on de-escalation of treatment if cultures are negative.
Standard empiric therapy for severe CAP	Both accepted but stronger evidence in favor of b-lactam/macrolide combination vs b-lactam/fluroquinolone
Routine use of follow-up chest imaging	Recommended not to obtain. Patients may be eligible for lung cancer screening, which should be performed as clinically indicated.

ABBREVIATIONS IN THIS ISSUE:
CAP=community-acquired pneumonia
HAP=hospital-acquired pneumonia
VAP=ventilator-associated pneumonia
ATS=American Thoracic Society
IDSA=Infectious Diseases Society of America
MRSA=methicillin resistant Staph aureus
MSSA=methicillin sensitive Staph aureus
P.aeruginosa=Pseudomonas aeruginosa
ESBL=extended spectrum beta-lactamase
DOT=days of therapy
PCT=procalcitonin
PNA=pneumonia



CRITERIA FOR DESIGNATING SEVERE VS NON-SEVERE CAP:

Table 1. 2007 Infectious Diseases Society of America/American Thoracic Society Criteria for Defining Severe Community-acquired Pneumonia

Validated definition includes either one major criterion or three or more minor criteria

Minor criteria
Respiratory rate ≥ 30 breaths/min
Pa_{O_2}/Fi_{O_2} ratio ≤ 250
Multilobar infiltrates
Confusion/disorientation
Uremia (blood urea nitrogen level ≥ 20 mg/dl)
Leukopenia (white blood cell count < 4,000 cells/μl)
Thrombocytopenia (platelet count < 100,000/μl)
Hypothermia (core temperature < 36°C)
Hypotension requiring aggressive fluid resuscitation

Major criteria
Septic shock with need for vasopressors
Respiratory failure requiring mechanical ventilation

FROM the AMERICAN THORACIC SOCIETY:

" The most consistently strong risk factor to consider is prior infection with either MRSA or P. aeruginosa. In addition, hospitalization and treatment with parenteral antibiotics in the last 90 days is associated with an increased risk of these pathogens"

Empiric Treatment for CAP
NOTE: treatment options specific to HMH

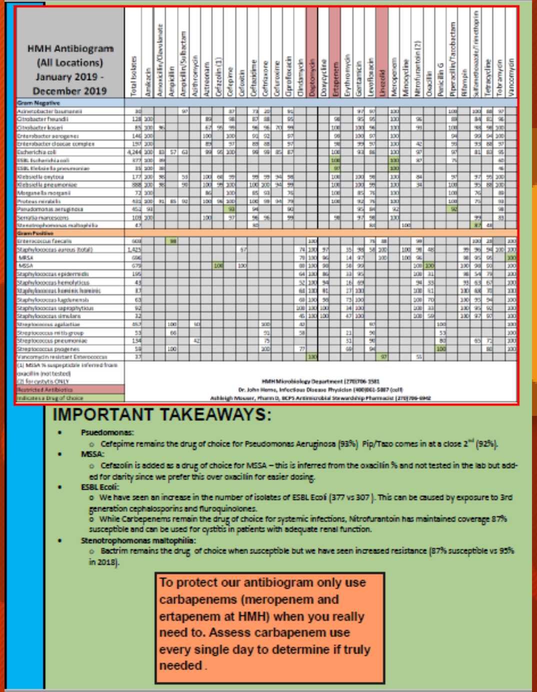
NON-SEVERE/INPATIENT — STANDARD REGIMEN: B-lactam plus macrolide OR respiratory fluoroquinolone

SEVERE/INPATIENT — STANDARD REGIMEN: B-lactam plus macrolide OR B-lactam plus respiratory fluoroquinolone

Please Note:

Meropenem is a second choice for P. aeruginosa and should only be used in cases of MDR organisms.

Serious consideration should be given before making the decision to use any carbapenem!

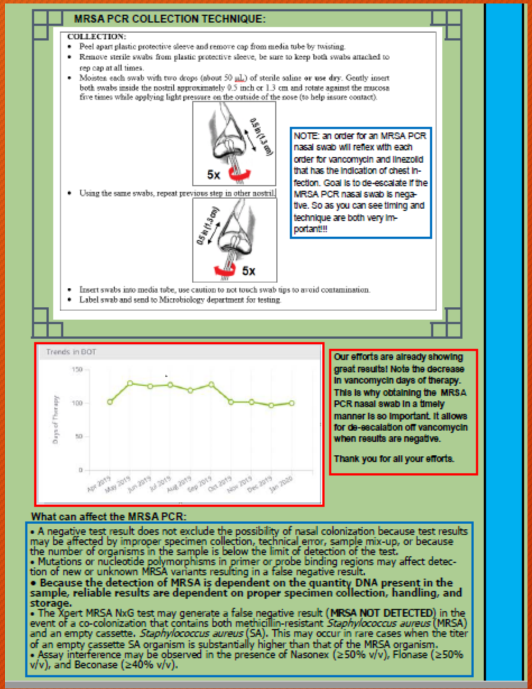


HMH Antibiogram (All Locations) January 2019 - December 2019

IMPORTANT TAKEAWAYS:

- Pseudomonas:
  - Cefepime remains the drug of choice for Pseudomonas Aeruginosa (93%) Pip/Tazo comes in at a close 2nd (92%).
- MSSA:
  - Cefazolin is added as a drug of choice for MSSA – this is inferred from the oxacillin % and not tested in the lab but added for clarity since we prefer this over oxacillin for easier dosing.
- ESBL Ecoli:
  - We have seen an increase in the number of isolates of ESBL Ecoli (377 vs 307). This can be caused by exposure to 3rd generation cephalosporins and fluroquinolones.
  - While Carbepenems remain the drug of choice for systemic infections, Nitrofurantoin has maintained coverage 87% susceptible and can be used for cystitis in patients with adequate renal function.
- Stenotrophomonas maltophilia:
  - Bactrim remains the drug of choice when susceptible but we have seen increased resistance (87% susceptible vs 95% in 2018).

To protect our antibiogram only use carbapenems (meropenem and ertapenem at HMH) when you really need to. Assess carbapenem use every single day to determine if truly needed.



MRSA PCR COLLECTION TECHNIQUE:

COLLECTION:
- Peel apart plastic protective sleeve and remove cap from media tube by twisting.
- Remove sterile swabs from plastic protective sleeve, be sure to keep both swabs attached to red cap at all times.
- Moisten each swab with two drops (about 50 μL) of sterile saline or use dry. Gently insert both swabs inside the nostril approximately 0.5 inch or 1.3 cm and rotate against the mucosa five times while applying light pressure on the outside of the nose (to help insure contact).
- Using the same swabs, repeat previous step in other nostril.
- Insert swabs into media tube, use caution to not touch swab tips to avoid contamination.
- Label swab and send to Microbiology department for testing.

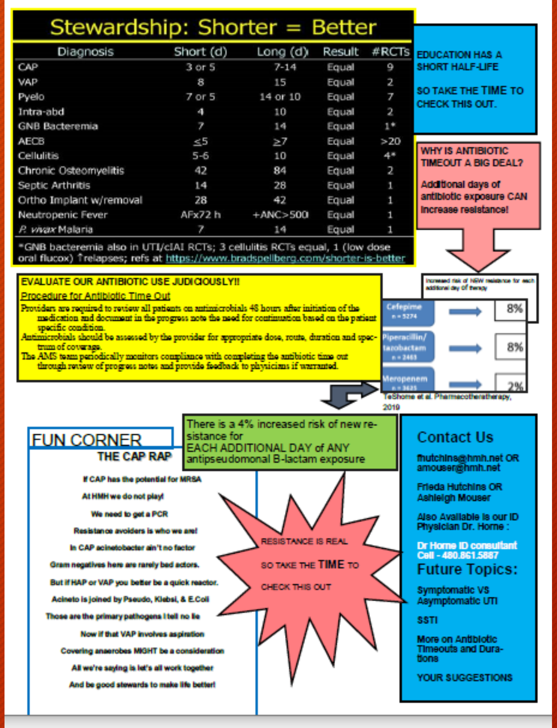
NOTE: an order for an MRSA PCR nasal swab will reflex with each order for vancomycin and linezolid that has the indication of chest infection. Goal is to de-escalate if the MRSA PCR nasal swab is negative. So as you can see timing and technique are both very important!!!

Our efforts are already showing great results! Note the decrease in vancomycin days of therapy. This is why obtaining the MRSA PCR nasal swab in a timely manner is so important. It allows for de-escalation off vancomycin when results are negative.

Thank you for all your efforts.

What can affect the MRSA PCR:

- A negative test result does not exclude the possibility of nasal colonization because test results may be affected by improper specimen collection, technical error, sample mix-up, or because the number of organisms in the sample is below the limit of detection of the test.
- Mutations or nucleotide polymorphisms in primer or probe binding regions may affect detection of new or unknown MRSA variants resulting in a false negative result.
- **Because the detection of MRSA is dependent on the quantity DNA present in the sample, reliable results are dependent on proper specimen collection, handling, and storage.**
- The Xpert MRSA NxG test may generate a false negative result (MRSA NOT DETECTED) in the event of a co-colonization that contains both methicillin-resistant *Staphylococcus aureus* (MRSA) and an empty cassette. *Staphylococcus aureus* (SA). This may occur in rare cases when the titer of an empty cassette SA organism is substantially higher than that of the MRSA organism.
- Assay interference may be observed in the presence of Nasonex (≥50% v/v), Flonase (≥50% v/v), and Beconase (≥40% v/v).



Stewardship: Shorter = Better

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Pyelo	7 or 5	14 or 10	Equal	7
Intra-abd	4	10	Equal	2
GNB Bacteremia	7	14	Equal	1*
AECB	≤5	≥7	Equal	>20
Cellulitis	5-6	10	Equal	4*
Chronic Osteomyelitis	42	84	Equal	2
Septic Arthritis	14	28	Equal	1
Ortho Implant w/removal	28	42	Equal	1
Neutropenic Fever	AFx72 h	+ANC>500	Equal	1
P. vivax Malaria	7	14	Equal	1

*GNB bacteremia also in UTI/cIAI RCTs; 3 cellulitis RCTs equal, 1 (low dose oral flucox) ↑relapses; refs at https://www.bradspellberg.com/shorter-is-better

EDUCATION HAS A SHORT HALF-LIFE

SO TAKE THE TIME TO CHECK THIS OUT.

WHY IS ANTIBIOTIC TIMEOUT A BIG DEAL?

Additional days of antibiotic exposure CAN increase resistance!

EVALUATE OUR ANTIBIOTIC USE JUDICIOUSLY!!

Procedure for Antibiotic Time Out

Providers are required to review all patients on antimicrobials 48 hours after initiation of the medication and document in the progress note the need for continuation based on the patient specific condition.
Antimicrobials should be assessed by the provider for appropriate dose, route, duration and spectrum of coverage.
The AMS team periodically monitors compliance with completing the antibiotic time out through review of progress notes and provide feedback to physicians if warranted.

Increased risk of NEW resistance for each additional day of therapy

Cefepime 8%
Piperacillin/tazobactam 8%
Meropenem 2%

Teshome et al. Pharmacotherapy, 2019

There is a 4% increased risk of new resistance for EACH ADDITIONAL DAY of ANY antipseudomonal B-lactam exposure

FUN CORNER

THE CAP RAP

If CAP has the potential for MRSA
At HMH we do not play!
We need to get a PCR
Resistance avoiders is who we are!
In CAP acinetobacter ain't no factor
Gram negatives here are rarely bad actors.
But if HAP or VAP you better be a quick reactor.
Acineto is joined by Pseudo, Klebsi, & E.Coli
Those are the primary pathogens I tell no lie
Now if that VAP involves aspiration
Covering anaerobes MIGHT be a consideration
All we're saying is let's all work together
And be good stewards to make life better!

RESISTANCE IS REAL
SO TAKE THE TIME TO CHECK THIS OUT

Contact Us

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Also Available is our ID Physician Dr. Horne :

Dr Horne ID consultant Cell - 480.861.5887

Future Topics:

Symptomatic VS Asymptomatic UTI

SSTI

More on Antibiotic Timeouts and Durations

YOUR SUGGESTIONS

THANK YOU!!!

QUESTIONS?