



UW TASP
tele-antimicrobial stewardship program

February 19, 2019

Agenda

- AMS Research Update
- Case Discussions
- Open Discussion



AMS Research Update

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7 vs. 14 days for uncomplicated GNR bacteremia

- Non-inferiority RCT – not blinded
- Inclusion: GNR bacteremia, stable
- Exclusion:
 - uncontrolled focus
 - polymicrobial cx
 - specific pathogens (Salmonella, Brucella)
 - significant immunosuppression
- Source: urinary (68%), abd (12%), CVC (7%)
- Pathogen: Enterobacteriaceae (90%)



7 vs. 14 days for uncomplicated GNR bacteremia

Patients with Uncomplicated GNR Bacteremia on day 7
afebrile + hemodynamically stable x 48 hours

RANDOMIZATION

7 days of Abx

306 pts

14 days of Abx

298 pts

90 d Composite Outcome:

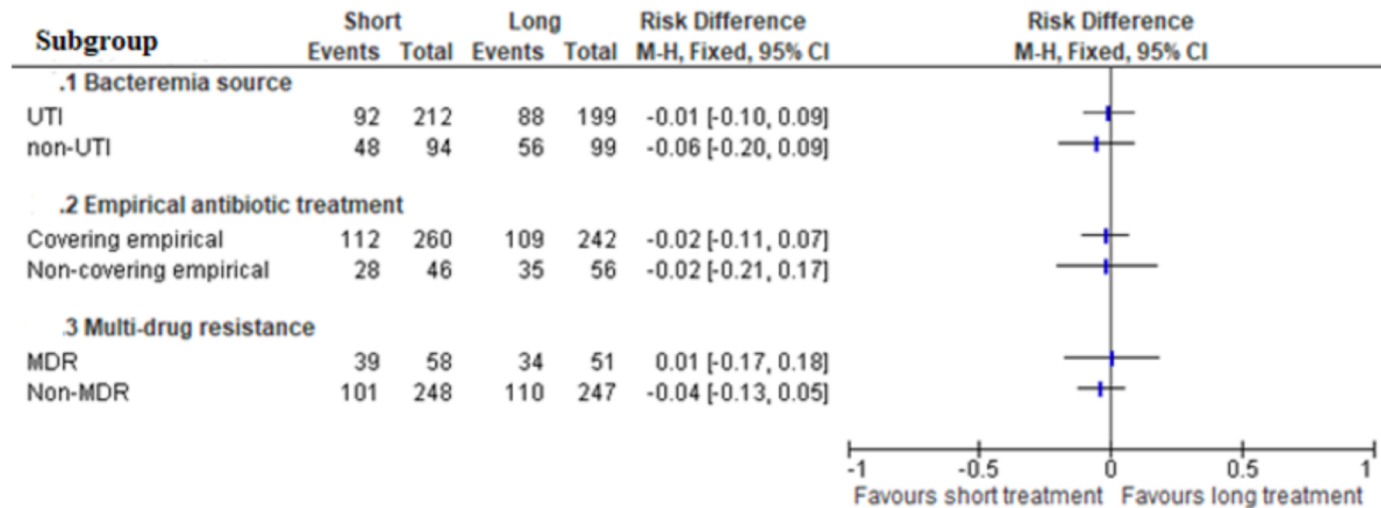
46%

mortality,
clinical failure,
readmission,
extended hospitalization

48%

RD: -2.6%, 95% CI -10.5% to 5.3%

7 vs. 14 days for uncomplicated GNR bacteremia

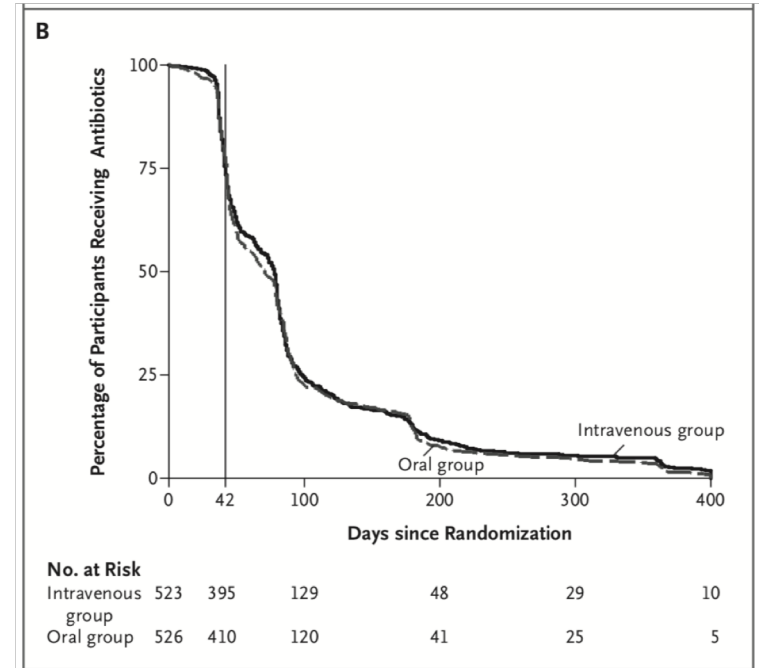
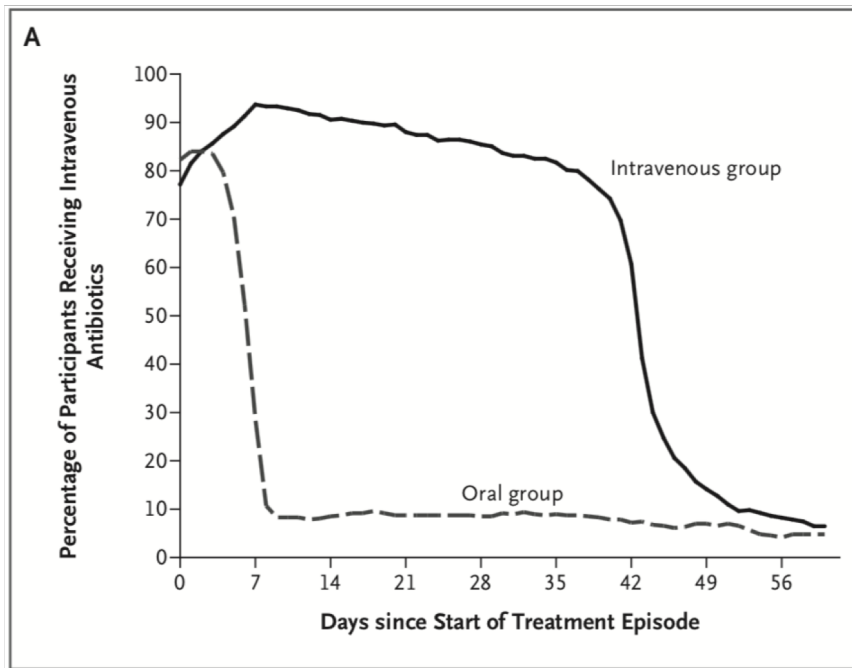


Oral Abx for Bone & Joint Infxn

- Non-inferiority RCT – not blinded
- Inclusion: adults with bone and joint infections
- Initial 6 weeks of treatment randomized to IV or oral; antibiotic choice left to the ID clinician
- Infection details:
 - Chronic osteo with debridement (30%), implant debrided and retained (23%), ortho device removed (16%), prosthetic joint implant removes (12%)
 - *S. aureus*, CoNS, Strep; Gram negatives ~15%



Oral Abx for Bone & Joint Infxn



Oral Abx for Bone & Joint Infxn

Patients with bone or joint infection
7 days after surgery or treatment start

RANDOMIZATION

IV Abx

527 pts

15%

Definitive Treatment
Failure at 1 yr

Oral Abx

527 pts

13%

Risk difference oral v. IV: -1.4%; 90% CI, -5.6% to 2.9%

Treatment Complications

19%

Early treatment change

13%

P=0.006

9%

Catheter issues

1%

P<0.001

Pre-op ASB: Screen and Treat?

- Retrospective cohort study within the VA
- Inclusion: pts who had surgery & pre-op Urine Cx
 - Cardiac, orthopedic, vascular
- ID clinician review of complete medical records
- Male predominant population
- Patients with ASB were more likely to be
 - Female, older, DM
- 2 cases of ASB and SSI organism match (*S. aureus*)



Pre-op ASB: Screen and Treat?

17,611 surgical patients
With pre-op Urine Cx

ASB

617 pts

No ASB

16,994 pts

30-day SSI

2.4%

1.6%

Adjusted odds ratio: 1.58; 95% CI, 0.9–2.7

Rx or Propy for ASB

30-day SSI

YES

NO

2.5%

2.3%

Adjusted odds ratio: 1.01; 95% CI, 0.3–3.7

Water to Prevent Recurrent UTI

- RCT, unblinded
- Inclusion:
 - Premenopausal women with recurrent cystitis
 - Baseline fluid intake < 1.5 L per day
- Women were randomized to increase water intake
 - Given 3 x 500mL bottles with instructions to drink throughout the day
 - Called monthly



Water to Prevent Recurrent UTI

Women with recurrent UTI and baseline low fluid intake

RANDOMIZATION

Usual + 1.5L water

70 pts

1.7

Frequency of recurrent
cystitis 1 yr

Usual

70 pts

3.2

Difference: 1.5, 95% CI, 1.2-1.8; $P < 0.01$

Secondary outcomes

1.9	# Abx Regimens	3.6	$P < 0.001$
143 d	Interval between cystitis	84 d	$P < 0.001$

Take Aways

- Uncomplicated GNR bacteremia: treat for 7 days
- Oral antibiotics for bone and joint infections are an appropriate treatment option with fewer treatment associated complications
- Screening for and treating/prophylaxis for pre-op ASB: doesn't reduce SSI
- Increase water intake (1.5 L) in premenopausal women with recurrent cystitis to decrease frequency of episodes and decrease abx use



Citations

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- Salazar JG, O'Brien W, Strymish JM, Itani K, Branch-Elliman W, Gupta K. Association of Screening and Treatment for Preoperative Asymptomatic Bacteriuria With Postoperative Outcomes Among US Veterans. JAMA surgery. 2018 Dec 12.
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