Novel Agents and Strategies for Avoiding OPAT

Rapid Clinical Updates Society of Hospital Medicine

Outpatient Parenteral Antibiotic Therapy (OPAT)

- Context: Prolonged outpatient parenteral antibiotic therapy (OPAT) has been the historical standard of care for severe infections but comes with numerous downsides.
- Current: Long-acting infusion antibiotics and oral stepdown are excellent options to avoid the complications of OPAT in the right patient population.
- Cutting edge: We need to be mindful of key patient and drug factors that need to be absent while picking the right patient population.¹ 90/60 rule: Treatment success is achieved in ~90% of patients with susceptible isolates, but only ~60% with resistant isolates.

DOTS Trial (Dalbavancin versus standard of care)²



Methicillin resistant Staph Aureus (MRSA) infections accounted for 323,700 cases and 10,600 deaths in 2019.

Vancomycin and linezolid are standard of care for Methicillin resistant Staph Aureus (MRSA) infections.

Cutting Edge: Dalbavancin is non-inferior to standard of care along the lines of traditional clinical efficacy and had overall similar adverse event rates as compared to standard of care for MRSA bacteremia.

Oritavancin Control Study or Subgroup Events Total Events Total Weight	Risk Ratio Risk Ratio M-H, Fixed, 95% CI M-H, Fixed, 95% CI	Oritavancin	
1.7.1 inpatient setting Whittaker 2020 7 99 18 100 27.3% Subtotal (05% CI) 99 100 27.3% Total events 7 18	0.39 [0.17, 0.90]	Context:	Intravenous medications for treatment of MRSA
Heterogeneity: Not applicable Test for overall effect: Z = 2.21 (P = 0.03)			intections require inpatient stay.
1.7.2 Outpatient setting Anastasio 2017 0 59 3 59 5.3% Lodine 2019 7 120 1085 6685 58.2% Subtoal (45% Cl) 179 6754 63.6% 7108 Votal events 7 1088 1695 1695 Test for overall effect 2 = 30.2 (P = 0.55); if = 0% Test for overall effect 2 = 30.2 (P = 0.003) 1695	0.14 [0.01, 2.71] 0.38 [0.18, 0.74] 0.34 [0.17, 0.69]	Current:	Oritavancin demonstrates comparable efficacy to vancomycin and reduced occurrence of treatment related adverse effects as compared to vancomycin. ³
1.7.3 Emergency Room setting Helton 2020 6 61 6 9.1% Subtobal (9% Ct) 61 61 9.1% Total events 6 6 Heterogeneity: Not applicable Test for overall effect: Z = 0.00 (P = 1.00)	1.00 [0 34, 2.93] 1.00 [0 34, 2.93]	Cutting Edge:	Oritavancin provides a single-dose alternative to multidose vancomycin for treatment of skin and soft tissue infections in the outpatient setting and may
Total (95% CI) 339 6915 100.0% Total events 20 1112 Heterogeneity: Ch ² = 324, df = 3 (P = 3.36); P = 7% 7% Test for voerall effect: Z = 357 (P = 0.0004) 7 Test for subaroux differences: Ch ² = 2.82, df = 2 (P = 0.24), P = 29 74 Fig. 9. Forest plots showing risk tand with 95% confidence interval 76	0.42 [0.26, 0.67] 0.005 0.1 1 0 20 1% Favours oftavancin Favours control 1(0) of 30-day readmission rates in a fixed-effects model.		result in lower 30-day hospital admission rates.4

References:

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