Weekly Pharmacy Pearl: Dalbavancin (Dalvance®)

Background
Acute bacterial skin and skin structure infection (ABSSSI) accounts for ~ 2.3 million ED visits in the US annually. Gram positive pathogens are responsible for the majority of ABSSSI, a significant portion of which are caused by MRSA. While most patients can be managed with a combination of incision and drainage and oral antibiotics, some may require IV antibiotics.

Drug Information		
Indication	ABSSSI	
Covered Organisms **(Gram positive ONLY)**	***Staphylococcus* aureus (including MRSA)** *Streptococcus* spp. *Enterococcus* faecalis (vancomycin susceptible strains)	
Dose	CrCl ≥ 30 or on HD	CrCl < 30
	1500 mg	1125 mg
Pharmacokinetics	**Terminal half-life: 15.5 days** (Maintains adequate bactericidal levels 7 days after single dose)	
Adverse Drug Reactions	Nausea (4.7%), headache (3.8%), diarrhea (3.4%)	
Allergic Cross Reactivity	Same class as vancomycin**. No data on cross-reactivity.** Only caution if anaphylaxis to vancomycin.	
Infusion Related Reactions **(< 2% of patients in clinical trials)**	Infusion < 30 minutes resulted in infusion reactions that resemble "Red-Man Syndrome," including flushing of the upper body, urticaria, pruritus, rash, and/or back pain. Slowing the infusion rate should mitigate the reaction. Extend to 1 hour infusion time if patient has a history of red man syndrome with vancomycin.	

Efficacy

Authors	Design	Patients	Outcomes
Patel et al. *Ann of Pharm.* 2019.	Retrospective cohort study @ 3 EDs over 3-year period	65 patients - 79% spontaneous ABSSSI diagnosis 71% did not have cultures collected	11 of 65 (16.9 %) patients had infxn recurrence. Median time to recurrence 4 days. 1 of 65 patients had adverse reaction (facial rash developed 1 day after but resolved with short course of corticosteroids)
Dunne et al. *Clin Infect Disease.* 2016.	RCT, 1500 mg once vs. 2 dose regimen of 1000 mg x 1 followed by 500 mg on day 8	695 patients with ABSSSI 61.6% had a pathogen isolated from culture	85% of patients were deemed clinical responders with resolution in lesion size by > 20% and resolution of s/sx of infection. **Single dose of 1500 mg was noninferior to split-dose regimen.**

1. Patel M, Smalley S, Dubrovskaya Y, et al. Dalbavancin use in the emergency department setting. Ann *Pharmacother*. 2019;53(11):1093-1101.
2. Koziatek C, Mohan S, Caspers C, Swaminathan A, Swartz J. Experience with dalbavancin for cellulitis in the emergency department and emergency observation unit. *The American Journal of Emergency Medicine*. 2018;36(7):1312-1314.
3. Dunne MW, Puttagunta S, Giordano P, Krievins D, Zelasky M, Baldassarre J. A randomized clinical trial of single-dose versus weekly dalbavancin for treatment of acute bacterial skin and skin structure infection. *Clin Infect Dis*. 2016;62(5):545-551.