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Poster Session VI

Skin and soft tissue infections and diabetic foot

**GEOGRAPHIC DIFFERENCES IN THE PRESENTATION AND OUTCOMES OF ACUTE BACTERIAL SKIN AND SKIN STRUCTURE INFECTIONS (ABSSSI) IN THE DISCOVER PROGRAM**

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**Objective**

To evaluate for any differences in presentation and outcomes of abSSSI based on geographic location.

**Methods**

Dalbavancin is a lipoglycopeptide antibiotic with activity against Gram-positive pathogens and a long half-life allowing weekly dosing. DISCOVER 1 and 2 were double-blind, double-dummy, pharmacist-unblinded randomized trials in which patients with abSSSI were randomized to receive IV dalbavancin or Vancomycin with an option to switch to oral linezolid to complete 10-14 days of therapy. The primary endpoint was measured at 48-72 h of therapy with success requiring both cessation of spread of the lesion and complete resolution of fever. Secondary endpoints included clinical status at the end of therapy. We analyzed efficacy outcomes by geographic region on pooled data from these identically designed trials.

**Results**

A total of 1312 patients were enrolled in the two regions: 49 centers enrolled 473 patients in North America and 91 centers enrolled 839 patients in Europe/Asia (Bulgaria, Croatia, Estonia, Georgia, Hungary, Latvia, Lithuania, Romania, Russia, Serbia, Slovakia, Ukraine, Israel, South Africa, South Korea and Taiwan).

Table 1: Infection type and frequently isolated pathogens causing abSSSI by region

	North America	Europe/Asia	p value
	n/N (%)	n/N (%)	
<b>Type of Infection</b>			
Cellulitis	179/473 (37.8)	524/839 (62.5)	<0.001
Major Abscess	214/473 (45.2)	121/839 (14.4)	<0.001
Wound/surgical site infection	80/473 (16.9)	193/839 (23.0)	0.012
<b>Pathogen</b>			
<i>Staphylococcus aureus</i>	265/323 (82.0)	247/323 (76.5)	0.113
MSSA	115/265 (43.4)	240/247 (97.2)	<0.001
MRSA	150/265 (56.6)	7/247 (2.8)	<0.001
<i>Streptococcus pyogenes</i>	5/323 (1.6)	68/323 (21.1)	<0.001
<i>Streptococcus anginosus</i> group	38/323 (11.8)	9/323 (2.8)	<0.001

Table 2: Clinical outcome by region

Region	DISCOVER 1 and DISCOVER 2	
	Dalbavancin n/N (%)	Vancomycin/Linezolid n/N (%)
Clinical Responders at 48-72 h (ITT population)		
US/Canada	196/238 (82.4)	189/235 (80.4)
Europe/Asia	329/421 (78.1)	332/418 (79.4)
Clinical Status at EOT (Clinically evaluable population)		
US/Canada	175/193 (90.7)	169/185 (91.4)
Europe/Asia	342/377 (90.7)	333/360 (92.5)

**Conclusion**

Among abSSSI patients enrolled in these studies, cellulitis was most common in Europe/Asia, versus major abscess in North America. *S. aureus* was the most common pathogen isolated in both regions, but the proportion of MRSA was higher in North America. *S. pyogenes* was more frequently isolated in Europe/Asia. Early response rates were slightly higher in North America, but clinical success rates at EOT were comparable in both regions. Outcomes were similar for patients treated with either dalbavancin or the comparator.