

A Randomized Clinical Trial of Single-Dose Versus Weekly Dalbavancin for Treatment of Acute Bacterial Skin and Skin Structure Infection

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Background. Acute bacterial skin and skin structure infections (ABSSSIs) are a cause of significant morbidity and therapy can be a burden to the healthcare system. New antibiotics that simplify treatment and avoid hospitalization are needed. This study compared the safety and efficacy of a single intravenous infusion of 1500 mg of dalbavancin to the 2-dose regimen.

Methods. This study was a randomized, double-blind trial in patients aged >18 years with ABSSSIs. Patients were randomized to dalbavancin 1500 mg either as a single intravenous (IV) infusion or 1000 mg IV on day 1 followed 1 week later by 500 mg IV. The primary endpoint was a $\geq 20\%$ reduction in the area of erythema at 48–72 hours in the intent-to-treat population. Noninferiority was to be declared if the lower limit of the 95% confidence interval (CI) on the difference in the outcomes was greater than -10% . Clinical outcome was also assessed at days 14 and 28.

Results. Six hundred ninety-eight patients were randomized. Demographic characteristics were similar on each regimen, although there were more patients with methicillin-resistant *Staphylococcus aureus* (MRSA) at baseline on the 2-dose regimen (36/210 [17.1%] vs 61/220 [27.7%]). Dalbavancin delivered as a single dose was noninferior to a 2-dose regimen (81.4% vs 84.2%; difference, -2.9% [95% CI, -8.5% to 2.8%]). Clinical outcomes were also similar at day 14 (84.0% vs 84.8%), day 28 (84.5% vs 85.1%), and day 14 in clinically evaluable patients with MRSA in a baseline culture (92.9% vs 95.3%) in the single- and 2-dose regimens, respectively. Treatment-emergent adverse events occurred in 20.1% of the single-dose patients and 19.9% on the 2-dose regimen.

Conclusions. A single 1500-mg infusion of dalbavancin is noninferior to a 2-dose regimen, has a similar safety profile, and removes logistical constraints related to delivery of the second dose.

Clinical Trials Registration. NCT02127970.

Keywords. dalbavancin; skin infection; efficacy; methicillin-resistant *Staphylococcus aureus*; clinical trial.

Acute bacterial skin and skin structure infection (ABSSSI) remains a significant cause of morbidity in both the hospital and outpatient settings [1]. Gram-positive pathogens are responsible for the majority of cases of ABSSSI, a significant proportion of which in the United States are methicillin-resistant *Staphylococcus aureus* (MRSA) [2, 3]. Therapy is largely empiric and must address the spectrum of possible pathogens, penetration into the affected tissue, safety, and efficacy outcomes with a route of administration dictated largely by the setting of patient care [4, 5].

Dalbavancin is a lipoglycopeptide antibiotic with activity against the gram-positive pathogens responsible for ABSSSI,

including MRSA. Its pharmacokinetic/pharmacodynamic properties would predict that larger doses given early in the course of therapy would be most beneficial [6, 7]. Currently approved therapy is given as 2 doses 1 week apart, a regimen made possible by its terminal half-life of 15.5 days. Based on the principle that treatment for infection should be given early in the course of therapy while the bacterial burden is highest and the likelihood of compliance is greatest [8], further studies to optimize the treatment course were warranted. The objective of this clinical trial was to compare the efficacy and safety of the entire treatment course of dalbavancin given in a single infusion with the established 2-dose regimen.

METHODS

Study Conduct

This study was a double-blind, pharmacist-unblinded, randomized trial conducted between April 2014 and March 2015 at 60 centers in the United States, Eastern Europe, Russia, and South Africa. The protocol and informed consent form were reviewed by the institutional review boards at each center, and all patients provided written informed consent.

Received 19 August 2015; accepted 18 November 2015; published online 26 November 2015.
Presented in part: IDWeek, San Diego, California, 7–11 October 2015. Abstract 785.

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Clinical Infectious Diseases® 2016;62(5):545–51

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Study Patients

Patients enrolled in the study had an ABSSSI described as either a major abscess, cellulitis, or traumatic wound/surgical site infection. All patients were required to have an area of erythema of at least 75 cm² associated with the infection. A major abscess by definition required surgical incision and drainage and the erythema was to extend for at least 5 cm in all directions beyond the central area of induration. A traumatic wound/surgical site infection required 5 cm of erythema beyond the margin of the wound. In addition to erythema, patients were required to have other local signs or symptoms such as warmth, tenderness/pain, fluctuance, swelling, and drainage, as well as at least 1 systemic sign including a white blood cell count >12 000 cells/ μ L, \geq 10% immature neutrophils on peripheral smear, or a temperature \geq 38°C within the prior 24 hours. Patients could not have taken antibiotics in the prior 14 days except for a single dose of a short-half-life drug. There was no exclusion for patients with liver function abnormalities or renal insufficiency.

Excluded were patients with catheter infection, infected devices, diabetic foot ulceration, perirectal abscess, or decubitus ulcer.

Randomization and Intervention

Patients were assigned to either of the study-drug regimens by an unblinded pharmacist through an interactive Web-based randomization system in a 1:1 fashion, with a block size of 4. Randomization was stratified by geographic location, subtype of ABSSSI (with <30% of patients having a major abscess), and administration in the previous 14 days of a single dose of a short-half-life antibiotic (capped at <25% of those enrolled). Patients received dalbavancin as either a single intravenous infusion of 1500 mg of dalbavancin over 30 minutes or in 2 doses as 1000 mg intravenously over 30 minutes followed 1 week later by 500 mg intravenously. Dosing was adjusted by the unblinded pharmacist for patients not on dialysis with a creatinine clearance of <30 mL/minute such that those randomized to the single-dose regimen received 1000 mg as a single infusion and those randomized to the 2-dose regimen

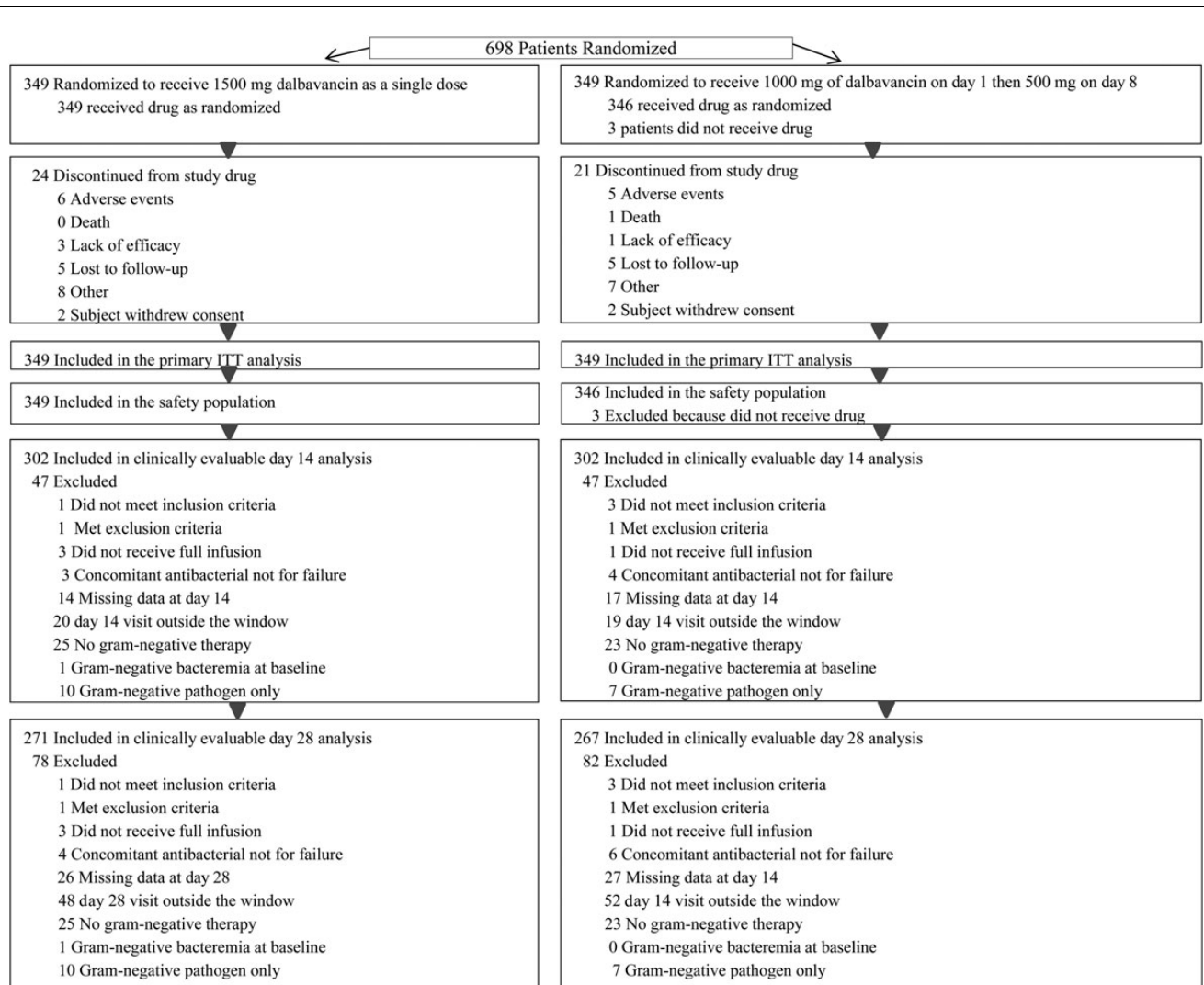


Figure 1. Disposition of patients and analysis sets. Abbreviation: ITT, intent to treat.

received 750 mg intravenously followed 1 week later by 375 mg intravenously. Patients randomized to the 1500-mg single dose received a placebo infusion on day 8. Metronidazole 500 mg intravenously or orally every 8 hours was allowed in both treatment groups for infection with suspected anaerobic pathogens, and aztreonam was allowed for the empiric treatment of ABSSSI or for a gram-negative pathogen identified in culture postbaseline. Patients could receive therapy as inpatients or outpatients.

Endpoints

The primary endpoint was a comparison of the proportion of patients in the intent-to-treat (ITT) population who achieved a $\geq 20\%$ reduction in the size of the erythema 48–72 hours (± 3 hours) after initiation of study drug and did not receive rescue antibacterial therapy. Preplanned sensitivity analyses included an assessment at 36–72 hours ($+3$ hours), a modified ITT (mITT) analysis including only those receiving study drug, and adjustments to the confidence interval (CI) based on the stratification variables. Clinical status, defined as improvement in lesion size as well as resolution or improvement of clinical signs and symptoms, was performed at day 14 and day 28. Investigator assessments were also collected at these timepoints.

The clinically evaluable (CE) population includes patients who met all of the required inclusion criteria and did not meet any of the exclusion criteria, did not have a bacteremia at baseline with a gram-negative pathogen, received dalbavancin as randomized, received for a non-ABSSSI indication no more than 1 dose of another systemic antibacterial that has documented activity against the causative organism, had an assessment in the time window, and received appropriate adjunctive antibacterial coverage if the patient had a culture-documented ABSSSI with 1 or more gram-negative aerobic or anaerobic organisms.

Safety data were collected at each visit through day 28 and included adverse events as well as chemistry and hematology test results and physical examinations.

Statistical Analysis

The initial proposed sample size of 410 patients was based on the method of Farrington and Manning [9], assuming a noninferiority margin of 10%, power of 90%, a 1-sided α level of .025, and a 90% treatment response rate [10], estimated from the Dalbavancin for Infections of the Skin Compared to Vancomycin at an Early Response (DISCOVER) studies [11]. To test the assumption of a 90% response rate, a prespecified interim analysis was performed when approximately 240 patients had been enrolled, at which time the aggregate, blinded response rate at 48–72 hours was 82%, leading to a recommendation by the independent, blinded data monitoring committee to increase the sample size to 698 patients to maintain adequate power for noninferiority testing.

Noninferiority of the single-dose regimen compared to the 2-dose regimen was to be declared if the lower limit of the 95% CI for the difference in response rates for the primary endpoint in

Table 1. Demographics and Baseline Patient and Disease Characteristics in the Intent-to-Treat Population

Characteristic	Dalbavancin Treatment	
	Single-Dose (n = 349)	2-Dose (n = 349)
Age, y, mean (SD)	48.0 (14.8)	48.3 (14.7)
Female sex	145 (41.5)	146 (41.8)
Race		
White	312 (89.4)	311 (89.1)
Black or African American	28 (8.0)	31 (8.9)
Other	9 (2.6)	7 (2.0)
Hepatitis C	49 (14.0)	64 (18.3)
Current or former intravenous drug use, %	105 (30.1)	107 (30.7)
Diabetes	38 (10.9)	42 (12.0)
BMI, kg/m ²		
Mean (SD)	28.7 (7.5)	29.0 (7.3)
Median (Min, Max)	26.9 (15.9, 70.6)	27.8 (17.9, 65.5)
BMI distribution		
<25 kg/m ²	115 (33.0)	122 (35.0)
25–30 kg/m ²	123 (35.2)	99 (28.4)
>30 kg/m ²	111 (31.8)	128 (36.7)
Location of trial center		
North America	158 (45.3)	160 (45.8)
Rest of world	191 (54.7)	189 (54.2)
Cellulitis	167 (47.9)	166 (47.6)
Major abscess	86 (24.6)	89 (25.5)
Traumatic wound/surgical site infection	96 (27.5)	94 (26.9)
White blood cell count >12 000 cells/ μ L	132 (37.9)	126 (36.8)
Temperature $\geq 38^\circ\text{C}$ at baseline	290 (83.1)	283 (81.8)
Immature neutrophils $\geq 10\%$	56 (21.3)	46 (17.2)
Median infection area, cm ² (range)	296.1 (56.0–4235.0)	293.3 (76.5–2668.0)
Systemic inflammatory response syndrome	148 (42.4)	154 (44.4)
Pathogen at baseline	210 (60.2)	220 (63.0)
MRSA, no./No. (%) [*]	36/210 (17.1)	61/220 (27.7)
MSSA, no./No. (%)	103/210 (49.0)	96/220 (43.6)
Gram-negative aerobic organism, no./No. (%)	19/210 (9.0)	28/220 (12.7)

Data are presented as No. (%) unless otherwise specified.

Abbreviations: BMI, body mass index; MRSA, methicillin-resistant *Staphylococcus aureus*; MSSA, methicillin-sensitive *Staphylococcus aureus*; SD, standard deviation.

^{*} $P = .011$.

the ITT population was greater than -10% . The ITT population is defined as all randomized patients. Other patient populations included a mITT population of randomized patients who received a dose of study drug in whom all safety analyses were performed; a CE population of patients who met all the inclusion criteria and none of the exclusion criteria, received the correct study drug, received appropriate additional antibacterial therapy if culture confirmed a gram-negative pathogen, and met minimum dosing requirements; and a microbiologic ITT and a microbiologically evaluable population in which patients had a pathogen identified at baseline and met either ITT or CE

Table 2. Clinical Response at Early and Late Timepoints

Timepoint	Dalbavancin Treatment Group		Difference ^a (95% CI)
	Single-Dose, no./No. (%)	2-Dose, no./No. (%)	
48–72 h			
Treatment response (ITT)	284/349 (81.4)	294/349 (84.2)	−2.9 (−8.5, 2.8)
Treatment nonresponder or indeterminate	65/349 (18.6)	55/349 (15.8)	
Death	0	1/55 (1.8)	
Antibacterial therapy for ABSSSI	4 /65 (6.2)	4/55 (7.3)	
Decrease of <20% in lesion area	41/65 (63.1)	34/55 (61.8)	
Missing lesion data	22/65 (33.8)	18/55 (32.7)	
Lesion area data outside window	15/65 (23.1)	11/55 (20.0)	
Treatment response (mITT)	284/349 (81.4)	294/346 (85.0)	−3.6 (−9.2, 2.0)
Treatment response at 36–75 hours (ITT)	293/349 (84.0)	298/349 (85.4)	−1.4 (−6.8, 4.0)
Day 14			
Clinical success (ITT)	293/349 (84.0)	296/349 (84.8)	−0.9 (−6.3, 4.6)
Clinical success (CE)	267/302 (88.4)	270/302 (89.4)	−1.0 (−6.1, 4.1)
Day 28			
Clinical success (ITT)	295/349 (84.5)	297/349 (85.1)	−0.6 (−6.0, 4.8)
Clinical success (CE)	250/271 (92.3)	247/267 (92.5)	−0.3 (−4.9, 4.4)
Investigator assessment of cure			
Clinical response, day 14 (CE)	292/302 (96.7)	292/301 (97.0)	−0.3 (−3.4, 2.7)
Clinical response, day 28 (CE)	263/271 (97.0)	258/266 (97.0)	0.1 (−3.1, 3.2)

Data are presented as No. of patients with the respective observation/No. of patients in the respective population.

Abbreviations: ABSSSI, acute bacterial skin and skin structure infection; CE, clinically evaluable; CI, confidence interval; ITT, intent to treat; mITT, modified intent-to-treat.

^a For the difference in clinical response rates (single-dose group minus 2-dose group).

requirements, respectively. *P* values for the analysis of demographic characteristics and safety analyses were performed using Fisher's exact test for categorical variables and the Wilcoxon rank-sum test for continuous variables. Cochran-Mantel-Haenszel weights were used for the stratum weights in the calculation of the 95% CI. In the ITT analyses, patients with missing data were considered failures whereas in the CE analyses, patients with missing data were not included. Safety data were coded using version 17.1 of the Medical Dictionary for Regulatory Activities (MedDRA Maintenance and Support Services Organization). Version 9.3 of the SAS statistical software package was used for statistical analyses.

RESULTS

Patients

Six hundred ninety-eight patients were randomized to either a single dose of dalbavancin or the 2-dose regimen (Figure 1); 695 patients received study drug and are included in the safety analyses. A total of 99.6% (695/698) of patients received the first dose on day 1 and 93.1% (650/698) on day 8 (*P* < .0001), with the same number receiving a day 8 dose of active or placebo (325/349 [93.1%] on each regimen). Eighty-seven percent were included in the CE population at day 14.

The treatment regimens were well balanced with regard to demographic and other baseline characteristics (Table 1). Diabetes mellitus was present in 11.5% of patients, and an additional 5.0% of patients without a history of diabetes had a random glucose

level at baseline >11.1 mmol/L (200 mg/dL). A total of 30.4% of patients were intravenous drug users and 16.2% had hepatitis C. Cellulitis was the subtype of infection in 48% of patients, a major abscess in 25%, and a traumatic wound/surgical site infection in 27%, similarly distributed among regimens. Systemic signs of infection at baseline included temperature >38°C in 82% of patients, elevated white blood cell count in 37%, and immature neutrophils in 15%. Forty-three percent of patients had at least 2 signs required for a diagnosis of systemic inflammatory response syndrome (SIRS). A pathogen was isolated from a baseline culture in 61.6% of patients overall, with more patients having MRSA in the 2-dose regimen (36/210 [17.1%] vs 61/220 [27.7%] in the single-dose and 2-dose regimens, respectively; *P* = .011). Based on follow-up cultures taken after baseline, no patient developed a resistant organism on therapy. Twenty-two patients (6.3%) in the single-dose group and 19 patients (5.4%) in the 2-dose group received a systemic antibacterial agent in the 14 days prior to study drug assignment. A similar number of patients received concomitant aztreonam on the single-dose (12 [3.4%]) and 2-dose regimens (23 [6.6%]). Metronidazole was used by 6.6% and 4.3% of patients through day 14 on the single- and 2-dose regimens, respectively.

Efficacy Outcomes

Clinical response at 48–72 hours was demonstrated in 81.4% of those randomized to the single-dose regimen vs 84.2% in the 2-dose regimen. The absolute difference was −2.9% and the lower

Table 3. Clinical Status at Day 14 by Pathogen in Clinically Evaluable Patients With a Monomicrobial Infection at Baseline

Pathogen	Dalbavancin Treatment Group	
	Single-Dose, no./No. (%)	2-Dose, no./No. (%)
All target pathogens	109/121 (90.1)	128/134 (95.5)
Gram-positive aerobe		
<i>Staphylococcus aureus</i>	85/94 (90.4)	101/105 (96.2)
MRSA	26/28 (92.9)	41/43 (95.3)
MSSA	59/66 (89.4)	60/62 (96.8)
<i>Streptococcus agalactiae</i>	2/2 (100.0)	1/2 (50.0)
<i>Streptococcus anginosus</i> group	14/17 (82.4)	9/9 (100.0)
<i>Streptococcus anginosus</i>	2/3 (66.7)	1/1 (100.0)
<i>Streptococcus constellatus</i>	3/3 (100.0)	2/2 (100.0)
<i>Streptococcus intermedius</i>	9/11 (81.8)	6/6 (100.0)
<i>Streptococcus dysgalactiae</i>	0	2/2 (100.0)
<i>Streptococcus pyogenes</i>	6/6 (100.0)	11/12 (91.7)
<i>Streptococcus mitis</i>	4/4 (100.0)	4/4 (100.0)
<i>Enterococcus faecalis</i>	2/2 (100.0)	4/4 (100.0)

Data are presented as no. of clinical responders/No. of patients with the specified organism. Abbreviations: MRSA, methicillin-resistant *Staphylococcus aureus*; MSSA, methicillin-sensitive *Staphylococcus aureus*.

limit of the CI on that difference was greater than -10% , allowing the single-dose regimen to be declared noninferior to the 2-dose regimen (Table 2). The most common reason for failure was a result of not achieving a 20% reduction in lesion area followed by missing data in the 48- to 72-hour window. Expanding the window of observation earlier to 36 hours narrowed the treatment difference.

Clinical success rates as well as the investigator assessment of response at day 14 and day 28 were similar between regimens, and adjustments based on stratification variables did not change the CI. Subset analyses in the CE population at day 28 did not demonstrate any difference between the single- and 2-dose regimens by SIRS at baseline (104/114 [91.2%] vs 108/117 [92.3%], respectively). In the ITT subpopulation of patients with a history of intravenous drug use, clinical success at 48–72 hours on the single- and 2-dose regimens was seen in 94 of 105 (89.5%) and 92 of 107 (86.0%) (difference, 3.5% [95% CI, -5.6% to 12.7%]) patients, respectively, and in the CE population at end of treatment in 78 of 87 (89.7%) and 78 of 85 (91.8%) (difference, -2.1% [95% CI, -11.5% to 7.1%]) patients, respectively.

Overall, 318 of 698 (45.6%) of patients enrolled in the trial were hospitalized and 379 of 698 (54.3%) were treated as outpatients. The median duration of hospitalization was 8.0 days for patients randomized to either the single- or 2-dose regimen. Outcome rates for those patients hospitalized were similar to those treated completely as outpatients (260/312 [83.3%] vs 318/386 [82.4%], respectively), and outcome rates for the outpatients treated with the single- and 2-dose regimens were similar (156/190 [82.1%] and 162/196 [82.7%], respectively). Similar findings in these populations were observed at the day 14 and day 28 visits.

Table 4. Patients With Treatment-Emergent Adverse Events

Adverse Event	Dalbavancin Treatment Group	
	Single-Dose, No. (%) (n = 349)	2-Dose, No. (%) (n = 346)
Patients experiencing ≥ 1 of:		
TEAE	70 (20.1)	69 (19.9)
Drug-related TEAE	25 (7.2)	26 (7.5)
Serious TEAE	7 (2.0)	5 (1.4)
Death	1 (0.3)	1 (0.3)
TEAE leading to premature discontinuation of study drug	6 (1.7)	5 (1.4)
TEAE $>1\%$		
Nausea	12 (3.4)	7 (2.0)
Headache	6 (1.7)	4 (1.2)
Vomiting	6 (1.7)	3 (0.9)
Diarrhea	4 (1.1)	2 (0.6)
Dizziness	4 (1.1)	0 (0.0)
Cellulitis	1 (0.3)	5 (1.4)
Chills	0 (0.0)	4 (1.2)
Localized infection	0 (0.0)	5 (1.4)

Abbreviation: TEAE, treatment-emergent adverse event.

Of the 49 patients receiving either the single- or 2-dose regimen who had a gram-negative pathogen identified at baseline that did not receive additional gram-negative antibacterial coverage, the success rate was 89.7% at 48–72 hours in the ITT population and 88.9% at day 14 in the CE population.

Clinical success by baseline pathogen was also similar for each regimen (Table 3). The dalbavancin mean inhibitory concentration to inhibit 90% of organisms (MIC_{90}) for *S. aureus* was 0.06 $\mu\text{g/mL}$. No organisms had an MIC to vancomycin $>2 \mu\text{g/mL}$. Methicillin resistance in *S. aureus* did not affect the outcome of patients treated with dalbavancin. At 48–72 hours, 7 of 8 patients on the single-dose regimen and all 7 patients on the 2-dose regimen with *S. aureus* bacteremia were clinical responders and all had documented clearance of their bacteremia.

Safety

The number of patients with a treatment-emergent adverse event (TEAE), drug-related TEAE, serious TEAE, a TEAE leading to premature discontinuation of study drug, or the number of deaths was similar on each regimen (Table 4). Nausea was the only event reported in $>2\%$ of patients in either arm. Headache and vomiting were the only other events seen in $>1\%$ of the pooled population. No significant difference was observed in the rate of a TEAE occurring in the first 12 hours after infusion of either the 1500-mg or the 1000-mg dose (24/349 [6.9%] vs 15/346 [4.3%], respectively; $P = .14$) or the type of TEAE observed. The number of patients with laboratory abnormalities of serum chemistry or hematology was similar on each treatment regimen.

DISCUSSION

The primary purpose of this study was to determine whether a 1500-mg dose of dalbavancin delivered as a single infusion

would result in safety and efficacy outcomes similar to the same total dose given as 1000 mg on day 1 and 500 mg on day 8. An analysis of the primary endpoint of $\geq 20\%$ reduction at 48–72 hours confirmed that the single dose is noninferior to the 2-dose regimen and that the early activity of each regimen was sustained at day 14 and day 28, confirming results from prior studies [11, 12]. By day 14, patients in both regimens had received 1500 mg of drug and the additional increase in serum levels on day 8, as a consequence of the 500 mg intravenous infusion, was not found to be essential to a sustained clinical response.

The pooled point estimate of success was somewhat lower at the interim analysis than projected, requiring an increase in the sample size to maintain 90% power. The pooled point estimate in the DISCOVER studies [11] was 88% and the response rate at the interim was 82%. Some of the reason for this difference was that 3% of patients had their primary endpoint assessment slightly earlier than the 48- to 72-hour window specified in the protocol and were subsequently considered ITT failures due to missing data in the window. Almost all of these patients were a clinical success, however, and a broadened window to assess response at 36–72 hours, as seen in Table 1, increased the response rate to 85%, closer to outcomes in the previous trials.

Thirty percent of the patients in this study had a history of intravenous drug abuse. The treatment outcome for these patients was similar on each regimen and slightly higher than the overall population, likely a result of a higher incidence of major abscess in this subpopulation, which tends to resolve more quickly than cellulitis [11]. Given these encouraging clinical success rates and the absence of a requirement for an indwelling peripheral or central line, dalbavancin may be an attractive option for treatment of skin infections in this patient population.

No significant increase in the adverse event rate, including adverse events within the first 12 hours, was observed when the total dose was delivered at one time, consistent with studies in phase 1 volunteers [13], even though the concentration of dalbavancin in the infusate is higher in patients receiving the 1500-mg dose.

The option to use a single- or 2-dose regimen of dalbavancin introduces flexibility into the treatment decision for ABSSSIs. Some patients are less likely to return for follow-up than others, and this study documents that compliance with a single-dose regimen is superior to that of even a very simple weekly, 2-dose regimen. For other patients, especially those with a history of intravenous drug use, prolonged placement of an intravenous catheter is associated with the potential for abuse [14]; the robust clinical response rates for intravenous drug users in this study would support the single-dose treatment approach and ease the logistical burden associated with their care. Physicians can now make a rational choice between a single-dose regimen and a weekly regimen that recognizes a patient's social circumstance and tailors the regimen for that individual patient's

needs. Delivery over 30 minutes is also a significant advantage that simplifies implementation in busy emergency rooms.

This study once again documents that 90% of patients with culturable material associated with an ABSSSI have an infection due to a gram-positive pathogen with only 5% of patients receiving concomitant gram-negative therapy, significantly lower than the 60%–80% of patients getting broad-spectrum gram-negative coverage in clinical practice [15, 16]. Patients with a gram-negative pathogen isolated at baseline who did not receive gram-negative therapy had outcome rates similar to the group overall. These data provide support for antibiotic stewardship programs focused on more judicious use of broad-spectrum therapy, even for those patients seriously ill with ABSSSI.

There are limitations to this study. Although the sample size provided >90% power to determine noninferiority, it was not powered to detect superiority if the difference in successful outcomes was small. The noninferiority margins established by this study, however, do provide confidence that any difference in efficacy between the 1500-mg and 1000-mg doses at day 3 is likely to be of limited clinical significance. Also, whereas the definitions of cellulitis, major abscess, and wound infection used in this study are consistent with US Food and Drug Administration guidance, clinicians may define these subtypes of skin infection differently in clinical practice. In addition, as selected by these definitions, the patients in this study were significantly ill and may not fully reflect the cross-section of illness severity encountered outside of a clinical trial.

In conclusion, when delivered as a single 1500-mg infusion for treatment of patients with ABSSSI, dalbavancin is noninferior to the same total dose delivered as 2 infusions 1 week apart and is associated with a similar adverse event profile.

Notes

Acknowledgments. The authors recognize the contributions of the patients who volunteered to participate in this study, as well as the investigators: Igor Abramov, Konstantin Apartsin, Anna Barvinska, Sadia Dar, Oleksiy Datsenko, Douwe de Jong, Fared Dindar, Mirjana Djordjevic, Hermanus JC du Plessis, Olga Dulovic, Robert Eyzaguirre, Brett Farley, Jan Fourie, Bruce Friedman, Mashra Gani, Philip Giordano, Carmen Giuglea, Sergey Goryunov, Erekle Gotsadze, Sinikka Green, Barry Heller, Luis Jaurégui Peredo, Heidi Kabler, Aleksandar Karanikolic, Richard Keech, Lajos Kemeny, Jeff Kingsley, Kirill Korkorin, Sergii Kosulnykov, Bojan Kovacevic, Ivars Krastins, Dainis Krievins, Liudmila Lenskaya, Nodar Lomidze, Paul Manos, Silviu Marinescu, Elena Matevosyan, Jurijs Miscuks, Essack Mitha, Jeanne Nel, Nikolajs Novikovs, Steven O'Mara, Remus Orasan, Scott Overcash, Harald Plaudis, John Pullman, Oleksandr Pyptiuk, Shaikat Shah, Sergiy Shapoval, Vadym Shevchenko, Lubov Shpagina, Visnja Skerk, Mohammed Tayob, Juri Teras, Gia Tomadze, Tiit Vaasna, Jano Vashadze, Sergiy Vasylyuk, David Ware, Marcus Zervos. We also acknowledge the contribution of the Data Management Committee: Thomas F. Patterson, David Talan, and Chitra Lele.

Author contributions. M. W. D., S. P., and M. Z. had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. M. W. D.: design and conduct of the trial; interpretation of the data; preparation of the first draft of the manuscript. S. P.: conduct of the trial; interpretation of the data; participation in the drafting of the manuscript. J. B.: design and conduct of the trial; interpretation of the data; participation in the drafting of the manuscript. M. Z.: design of statistical

methodologies of the trial; interpretation of the data; participation in the drafting of the manuscript. P. G. and D. K.: investigators in the study; contributed to the review and interpretation of the data and preparation of the manuscript. The employee-authors of the study were responsible for the design and conduct of the clinical trial as well as the data analysis and interpretation; all also contributed to the review and preparation of the manuscript.

Financial support. This work was supported by Durata Therapeutics and Allergan plc.

Potential conflicts of interest. M. W. D., S. P., and M. Z. report holding stock in Durata Therapeutics and were employees of Actavis at the time of publication; P. G. held stock and has been on the speakers' bureau for Durata; J. B. was an employee of Durata Therapeutics and held stock in the company; D. K. has received research support from Durata. All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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