Poster 3185

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Real-world experience of cefiderocol in bone and joint infections from the PROVE (retrospective cefiderocol chart review) study

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OBJECTIVES

We aimed to describe the characteristics and the outcomes of cefiderocol treatment in bone and joint infections caused by Gram-negative bacterial species among patients included in the ongoing observational PROVE study.

METHODS

Design: retrospective, observational, international study.

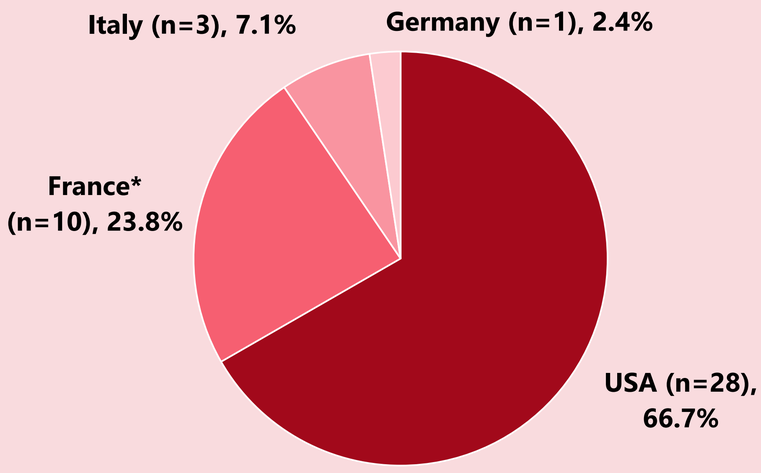
Inclusion criteria: adult hospitalised patients with bone and joint infections caused by Gram-negative pathogens, treated with cefiderocol consecutively for ≥72 hours (November 2020–March 2023).

Endpoints: patient and pathogen characteristics, hospitalisation course, antibiotic treatment patterns, clinical cure (clinical cure is defined as improvement or resolution of signs/symptoms without evidence of relapse or death at end of hospitalisation), and 14-day and 30-day all-cause mortality (ACM). Only descriptive statistics are used.

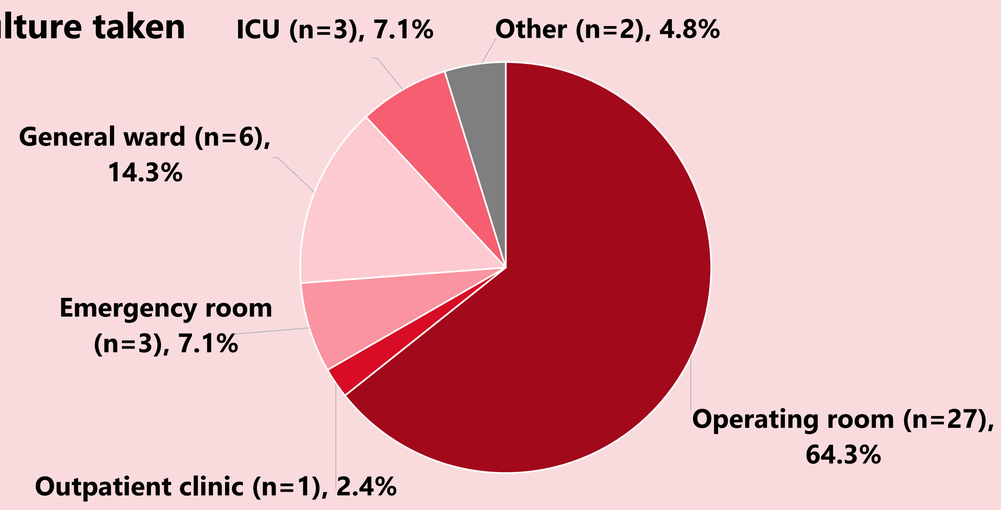
RESULTS

Patient characteristics (N=42)		Main comorbidities	
Age, median (Q1–Q3), years	59.5 (45–69)	Diabetes with end-organ damage	11 (26.2%)
Sex, male	28 (66.7%)	Peripheral vascular disease	10 (23.8%)
CCI score, median (Q1–Q3)	2 (1–5)	Hemiplegia	9 (21.4%)
ICU at time of cefiderocol	5 (11.9%)	Musculoskeletal abnormality/ degenerative disease	9 (21.4%)
		Renal disease	7 (16.7%)

Country



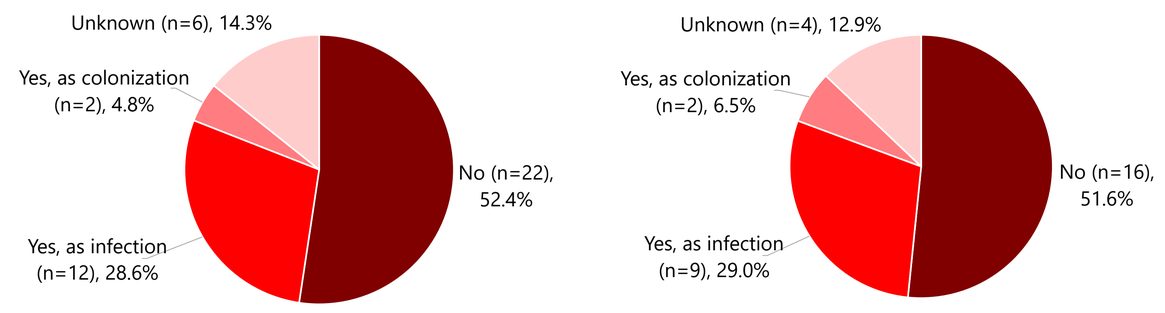
Index culture taken



CCI, Charlson Comorbidity Index; ICU, intensive care unit; Q, quartile. *One patient, who received cefiderocol in compassionate use/early access programme, was a protocol violation; data will be excluded from further analyses.

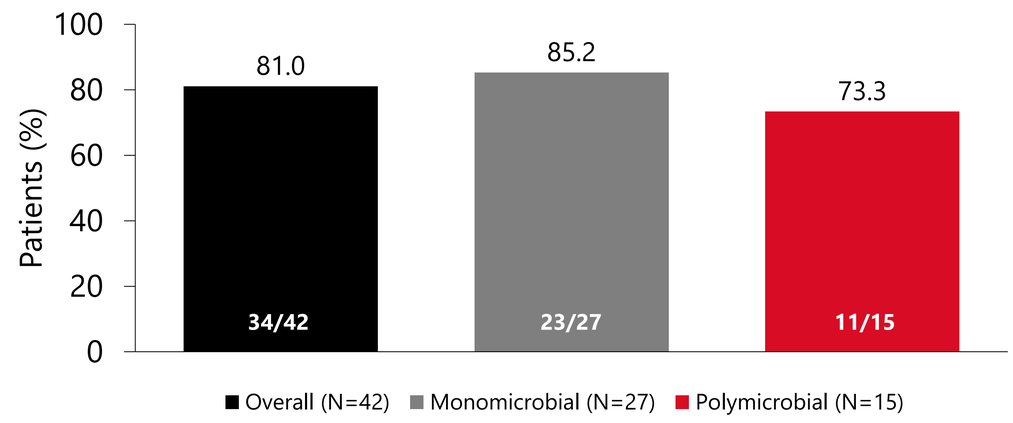
RESULTS CONT'D

Patients had the same pathogen as index culture pathogen prior to the current hospitalisation

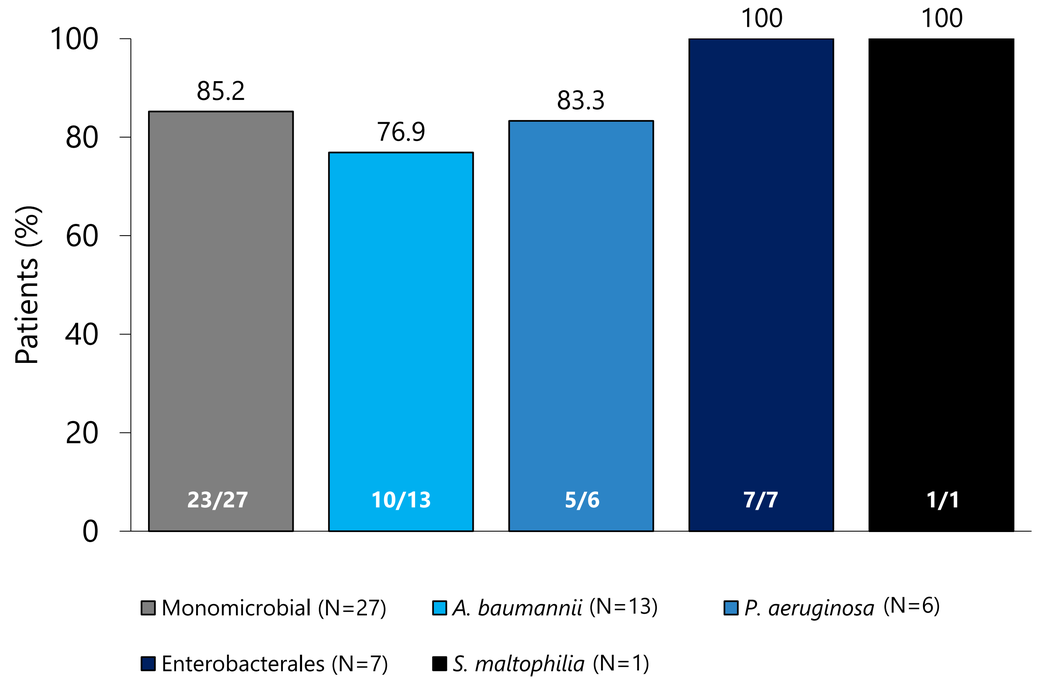


CR, carbapenem resistant.; carbapenem susceptible: 1; missing susceptibility: 10.

Clinical cure overall and by infection type



Clinical cure by primary pathogen in monomicrobial infections



Clinical cure is defined as improvement or resolution of signs/symptoms without evidence of relapse or death at end of hospitalization.

Admission type (N=42)	n (%)
Emergency or urgent admission	23 (54.8)
Direct transfer from another medical care facility	7 (16.7)
Scheduled admission	11 (26.2)
Other	1 (2.4)
Hospitalisation course and cefiderocol use	**Median (Q1–Q3)**
Days from admission to index culture	3.0 (1–11)
Days from index culture to starting cefiderocol	5.0 (3–8)
Days in hospital	36.5 (22–64)
Days on cefiderocol	22.5 (14–39)
>21 days on cefiderocol, n (%)	22 (52.4%)
Adverse drug reactions, n (%)*	1 (2.4)
Serious adverse drug reactions, n(%)^	1 (2.4)

*Urticarial rash; ^Interstitial nephritis.

Index culture pathogen	N or N' (%)	30-day ACM n (%)
Overall	**42 (100)**	**4 (9.5)**
Monomicrobial	**27 (64.3)**	**1 (3.7)**
A. baumannii	13 (31.0)	1 (7.7)
P. aeruginosa	6 (14.3)	0
Enterobacterales	7 (16.7)	0
S. maltophilia	1 (2.4)	0
Polymicrobial*	**15 (35.7)**	**3 (20.0)**
A. baumannii/*P. aeruginosa*	2 (4.8)	1 (50.0)
A. baumannii/Enterobacterales	2 (4.8)	1 (50.0)
P. aeruginosa/Enterobacterales	2 (4.8)	0
Another other 2 pathogens*	5 (11.9)	1 (20.0)
Another other ≥3 pathogens*	4 (9.5)	0

N, total number of patients; N', number of patients in the category; *only Gram-negative species.
Owing to differential consent requirements between alive and deceased patients in certain sites, mortality may be overestimated in this dataset.

CONCLUSIONS

In this large cohort of patients, clinical outcomes suggest that cefiderocol is an effective treatment for bone and joint infections in patients with limited treatment options.

Acknowledgements

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