Supplementary Materials

Ceftaroline Fosamil for Treatment of Pediatric Complicated Skin and Soft Tissue Infections and Community-Acquired Pneumonia

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Supplementary Table S1. Antibiotics with activity against Gram-positive organisms and approval for use in children

Drug	Europe	United States
Ceftaroline fosamil [1, 2]	All ages	All ages (ABSSSI only for patients <2 months old)
Clindamycin [3, 4]	All ages[a]	All ages
Daptomycin [5, 6]	Age ≥1 year	Age ≥1 year
Levofloxacin [7, 8]	Adult only	Adult only
Linezolid [9, 10]	Adult only	All ages
Teicoplanin [11]	All ages	Not available
Tigecycline [12, 13]	≥8 years of age	Adult only
Vancomycin [14, 15]	All ages	All ages
Dalbavancin [16, 17]	Adult only	Adult only
Tedizolid [18, 19]	Adult only	Adult only
Oritavancin [20, 21]	Adult only	Adult only

ABSSSI acute bacterial skin and skin structure infections; *MRSA* methicillin-resistant *Staphylococcus aureus*

[a]Not recommended if MRSA is suspected/confirmed.

Supplementary Table S2. Ceftaroline fosamil approved pediatric and adult dose regimens

	Age and renal function group	Ceftaroline fosamil dose (infusion duration) and administration frequency			
		Normal/mild impairment (CrCl >50 mL/min)	**Moderate impairment (>30 to ≤50 mL/min)**	**Severe impairment (≥15 to ≤30 mL/min)**	**ESRD, including hemodialysis (<15 mL/min)**
Standard dose[a,b] cSSTI/ABSSSI (*S. aureus* with an MIC ≤1 mg/L to ceftaroline) CAP/CABP	Adults	600 mg (5–60 min) q12h	400 mg (5–60 min) q12h	300 mg (5–60 min) q12h[c]	200 mg (5–60 min) q12h[c]
	Adolescents 12 to <18 years old, with bodyweight ≥33 kg	600 mg (5–60 min) q12h or 400 mg q8h (5–60 min)	400 mg (5–60 min) q12h[c]	300 mg (5–60 min) q12h[c]	200 mg (5–60 min) q12h[c]
	Adolescents 12 to <18 years old, with bodyweight <33 kg; and children ≥2 to <12 years old	12 mg/kg to a maximum of 400 mg (5–60 min) q8h	8 mg/kg to a maximum of 400 mg (5–60 min) q8h[c]	6 mg/kg to a maximum of 400 mg (5–60 min) q8h[c]	–
	Infants ≥2 months to <2 years old	8 mg/kg to a maximum of 300 mg (5–60 min) q8h	–	–	–
	Neonates from birth to <2 months old[d]	6 mg/kg to a maximum of 200 mg (30–60 min)[e] q8h	–	–	–
High dose[b,c] cSSTI confirmed or suspected to be caused by *S. aureus* with an MIC = 2 or 4 mg/L to ceftaroline[f]	Adults	600 mg (120 min) q8h	400 mg (120 min) q8h	300 mg (120 min) q8h	200 mg (120 min) q8h
	Children and adolescents ≥2 to <18 years old	12 mg/kg to a maximum of 600 mg (120 min) q8h	10 mg/kg to a maximum of 400 mg (120 min) q8h	8 mg/kg to a maximum of 400 mg (120 min) q8h	–
	Infants ≥2 months to <2 years old	10 mg/kg to a maximum of 400 mg (120 min) q8h	–	–	–

[a]For patients with supranormal renal clearance receiving the standard dose, an infusion time of 60 min may be preferable.

[b]Infusion times of less than 60 min, neonatal and high dose recommendations are based on PK and PD analyses only.

[c]Not approved in the US.

[d]Only approved for neonates with ABSSSI in the US (gestational age 34 weeks and older and postnatal age 12 days and older).

[e]60 min infusion recommended for neonates in Europe (30–60 min infusion approved in the US only).

[f]For treatment of *S. aureus* for which the ceftaroline MIC is ≤1 mg/L, the standard dose is recommended.

ABSSSI acute bacterial skin and skin structure infection; *CABP* community-acquired bacterial pneumonia; *CAP* community-acquired pneumonia; *cSSTI* complicated skin and soft tissue infection; *ESRD* end-stage renal disease; *IV* intravenous; *MIC* minimum inhibitory concentration; *CrCL* creatinine clearance calculated using the Cockcroft–Gault formula [22] for adults and Schwartz bedside formula (in mL/min/1.73 m^2) [23] for pediatric patients; *q8h* every 8 h; *q12h* every 12 h.

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