

This document is intended for convenience only. Final dose and delivery decisions are the healthcare provider's responsibility.

Antibiotic (brand name)	Concentration	Stability at 4°C	Reference
Ampicillin	30 mg/mL ≤20 mg/mL	W: 48h; NS: 24h W: 72h; NS: 48h; D5W: 1h	PI: Pfizer; New York NY, 2010.
Ampicillin/sulbactam (Unasyn [®])	30/15 mg/mL 20/10 mg/mL	W, NS: 48h W, NS: 72h; D5W: 4h	PI: Pfizer; New York NY, 2014.
Aztreonam (Azactam [®])	100 mg/mL	W, NS: 7d	PI: Bristol-Myers Squibb; Princeton NJ, 2013
Cefazolin (Ancef [®])	40 mg/mL 100 to 200 mg/mL	NS: 56d; D5W: 91d1 W, NS, D5W: 102-14d3	1. Walker SE et al. Can J Hosp Pharm. 2010;63:212-24. 2. PI: GlaxoSmithKline; Research Triangle Park NC, 2004. 3. Bornstein et al. Am J Hosp Pharm. 1974; 31:296-98.
Cefotaxime (Claforan [®])	100 mg/mL	W, NS, D5W: 5d	PI: Sanofi-Aventis; Bridgewater NJ, 2007.
Ceftazidime (Fortaz [®] , Tazicef [®])	60 mg/mL 100 mg/mL	NS: 10d1 W, NS, D5W: 7d2,3	1 Walker SE et al. Can J Hosp Pharm. 2010;63:212-24. 2. PI: GlaxoSmithKline; Research Triangle Park NC, 2004. 3. PI: Hospira Worldwide; Lake Forest IL, 2014.
Ceftriaxone (Rocephin [®])	40 mg/mL 100 mg/mL	NS: 23d; D5W: 26d1 W, NS D5W: 10d2	1. Walker SE et al. Can J Hosp Pharm. 2010;63:212-24. 2. PI: Genentech USA; South San Francisco CA, 2015.
Clindamycin (Cleocin [®]) ^a	18 mg/mL	W, NS, D5W: 30d	ASHP's Handbook on Injectable Drugs, 18th Edition, 2015.
Daptomycin (Cubicin [®])	20 mg/mL	NS: 10d	Bing CM, Nowobilski-Vasilios A, American Society of Health-System P. Extended stability for parenteral drugs. Bethesda, Md.: American Society of Health-System Pharmacists; 2013.
Ertapenem (Invanz [®]) ^b	20 mg/mL 100 mg/mL	W, NS: 4.5d; D5W: 28h1 NS: 48h2	1. Fugit KD, Anderson BD. Antibiotic Stability in Freedom60 Syringe Report By HealthTek [™] and the University of Kentucky, Lexington. Chester, NY: RMS;2015. 2. Walker SE et al. Can J Hosp Pharm. 2015;68:121-6.
Imipenim/cilastin (Primaxin [®])	5 mg/mL	NS, D5W: 24h	PI: Merck; Whitehouse Station NJ, 2014.
Meropenem (Merrem [®])	50 mg/mL	W: 44h NS: 40h D5W: 25h	Fugit KD, Anderson BD. Antibiotic Stability in Freedom60 Syringe Report By HealthTek [™] and the University of Kentucky, Lexington. Chester, NY: RMS; 2015.
Oxacillin (Oxacillin [®]) ^c	200 mg/mL (W, D5W) 100 mg/mL (NS)	W: Not recommended at 4°C; 84h at RT NS: ≥2wk D5W: Not recommended at 4°C; 42h at RT	Fugit KD, Anderson BD. Antibiotic Stability in Freedom60 Syringe Report By HealthTek [™] and the University of Kentucky, Lexington. Chester, NY: RMS; 2015.
Penicillin G (Pfizerpen [®])	50,000 U/mL	W, NS, D5W: 7d	PI: Pfizer; New York NY, 2005.
Piperacillin/tazobactam (Zosyn [®])	0.1125 g/mL	W, NS, D5W: 7d	PI: Pfizer, Wyeth; Philadelphia PA, 2012.
Tobramycin (Nebcin [®])	12.5 mg/mL	W, NS, D5W: 30d	Dienstag & Neu. Clin Med 1975; 82:13-9.
Vancomycin ^d	≤25 mg/mL	W, NS, D5W: ≥14d	ASHP's Handbook on Injectable Drugs, 18th Edition, 2015.
CI: Cefazolin (Ancef [®])	40 mg/mL 100 to 200 mg/mL	NS: 56d; D5W: 91d1 W, NS, D5W: 102-14d3 RT high conc- W: 4d3; NS, D5W: 24h2	1. Walker SE et al. Can J Hosp Pharm. 2010;63:212-24. 2. PI: GlaxoSmithKline; Research Triangle Park NC, 2004. 3. Bornstein et al. Am J Hosp Pharm. 1974;31:296-98.
CI: Cefotaxime (Claforan [®])	100 mg/mL	W, NS, D5W: 5d W, NS, D5W: 24h at RT	PI: Sanofi-Aventis; Bridgewater NJ, 2007.
CI: Ceftazidime (Fortaz [®] , Tazicef [®])	60 mg/mL 100 mg/mL	NS: 10d; 1.5d at RT W, NS, D5W: 7d at 4°C; 24h1 at RT2,3	1. Walker SE et al. Can J Hosp Pharm. 2010;63:212-24. 2. PI: GlaxoSmithKline; Research Triangle Park NC, 2004. 3. PI: Hospira Worldwide; Lake Forest IL, 2014.
CI: Meropenem (Merrem [®])	50 mg/mL	W: 44h NS: 40h D5W: 25h W, NS: 8h at RT D5W: 5h at RT	Fugit KD, Anderson BD. Antibiotic Stability in Freedom60 Syringe Report By HealthTek [™] and the University of Kentucky, Lexington. Chester, NY: RMS; 2015.
CI: Penicillin G (Pfizerpen [®])	50,000 U/mL	W, NS, D5W: 7d1 NS, D5W: 24h at RT2	1. PI: Pfizer; New York NY, 2005. 2. ASHP's Handbook on Injectable Drugs, 18th Edition, 2015.
CI: Piperacillin/tazobactam (Zosyn [®])	0.1125 g/mL	W, NS, D5W: 7d W, NS, D5W: 24h at RT	PI: Pfizer, Wyeth; Philadelphia PA, 2012.

CI = continuous infusion; D5W = 5% dextrose in water; NS = normal saline (0.9%); RT = room temperature; W = sterile water for injection.

Special Notes: ^aRefrigerated or frozen, clindamycin forms crystals which must be resolubilized before administration. Clindamycin is incompatible with natural rubber closures because it may extract to form crystal particulates, so RT storage in disposable syringes should be limited to a few days.; ^bErtapenem should not be reconstituted or mixed with solutions containing dextrose.; ^cOxacillin sodium can be extremely irritating to veins at higher concentrations.; ^dAdminister higher concentrations via a central line to avoid irritation; durations >90 min may be required if redman syndrome develops. ASHP's Handbook on Injectable Drugs, 18th Edition, 2015.

