

**Intravenous Medications Beyond-Use-Dating List**  
**Table applicable to individual compounded IVPBs/LVPs only (NOT BATCHED PREPARATIONS)**

Drug	Vial Size	Reconstituting Diluent	Concentration	Stability (after further dilution)		Other Comments
				Room Temperature (RT)	Refrigerated (REF)	
<b>Acetazolamide</b>	500 mg	5 mL SW	100 mg/mL	12 hrs (PI)	<b>3 days</b> (PI, M)	Add to 50 mL NS bag
<b>Acetylcysteine</b>	6 gm/30 mL	-	200 mg/mL	<b>24 hrs</b> (PI)	<b>24 hrs</b> (PI)	Compatible with D5W, and ½ NS
<b>Acyclovir</b>	500 mg/10 mL	-	50 mg/mL	<b>4 days (M)</b>	-	<b>DO NOT REF</b> – may precipitate Use AdjBW if > 20% above IBW
	1 gm/20 mL			24 hrs (PI)		
<b>Adenosine</b>	90 mg/30 mL	Remove 35 mL from 50 mL <b>NS</b> bag then add 90 mg/30 mL drug	2 mg/mL	4 days (M, DAG)	10 days (HOID)	
<b>Alprostadil (pediatric/PALS)</b>	500 mcg/mL	Remove 1 mL from 50 mL <b>D5W</b> bag then add 500 mcg/1 mL of drug	10 mcg/mL	<b>24 hrs (M)</b>	-	Withdraw required volume and dispense in appropriately sized <b>BD, Monoject or Terumo syringe</b>
<b>Alteplase (EKOS)</b>	2 mg	2.2 mL <b>SW</b>	1 mg/mL	<b>24 hrs</b> (PI, DAG)	-	<b>DO NOT SHAKE</b> Final conc depends on dose and volume ordered Diluent: <b>NS</b> D5W only if >= 0.5 mg/mL
<b>Alteplase (systemic)</b>	100 mg	100 mL SW	1 mg/mL	<b>8 hrs</b> (M, DAG)	-	<b>DO NOT SHAKE</b>
<b>Amikacin</b>	1 gm/4 mL	-	250 mg/mL	<b>48 hrs</b> (M)	<b>48 hrs</b> (M)	Usual diluents: NS, D5W
<b>Aminocaproic Acid</b>	5 gm/20 mL	Add to 250 mL	20 mg/mL	4 days (M, DAG)	<b>7 days</b> (M, DAG)	Usual diluents: NS, D5W
	10 gm/40 mL	Remove 40 mL from bag then add 40 mL to 500 mL				
<b>Aminophylline (continuous infusion)</b>	500 mg/20 mL	Remove 40 mL from 500 mL bag then add 1000 mg/40 mL to 500 mL bag	Final conc = 2 mg/mL	48 hrs (M)	<b>48 hrs</b> (M)	Usual diluents: NS, D5W
<b>Amiodarone</b>	450 mg/9 mL	-	50 mg/mL	<b>Polyolefin (B Braun) = 24 hrs (M)</b> PVC container= 2 hrs (PI)	<b>24 hrs</b> (M)	<b>Diluent: D5W</b> RTU bag good for 5 days after removed from box NS = conflicting stability studies

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<b>Amphotericin B liposome</b>	50 mg	12 mL <b>SW</b> *Do not use NS*	4 mg/mL	24 hrs (M) "Start infusion within 6 hours" (PI)	<b>10 days</b> (M)	Use one filter <u>per vial</u> <b>Diluent: D5W</b> Incompatible with NS
<b>Ampicillin IV</b>	500 mg	4.8 mL SW or NS	100 mg/mL	NS up to 30 mg/mL = 8 hrs D5W 10-20 mg/mL = 1 hr D5W up to 2 mg/mL = 2 hrs *Direct IV Use = 1 hr*	NS 30 mg/mL = 24 hrs NS up to 20 mg/mL = 48 hrs D5W up to 20 mg/mL = 1 hr	May attach to <b>Mini-Bag Plus</b>  BUDs from PI
	1 gm	7.4 mL SW or NS	125 mg/mL			
	2 gm	14.8 mL SW or NS				
<b>Ampicillin IM</b>	500 mg	1.8 mL SW	250 mg/mL	<b>1 hr</b>	<b>1 hr</b>	Dispense in <b>syringe</b> Dilution, BUDs from PI
	1 gm	3.5 mL SW	250 mg/mL			
<b>Ampicillin/Sulbactam IV</b>	1.5 gm	3.2 mL SW or NS	375 mg/mL (250 mg ampicillin/125 mg sulbactam per mL)	NS 45 mg/mL = 8 hrs D5W 3 mg/mL = 4 hrs D5W 30 mg/mL = 2 hrs	NS 45 mg/mL = 48 hrs NS 30 mg/mL = 3 days D5W 30 mg/mL = 4 hrs	May attach to <b>Mini-Bag Plus</b>  Dilution, BUDs from PI
	3 gm	6.4 mL SW or NS				
<b>Ampicillin/Sulbactam IM</b>	1.5 gm	3.2 mL SW, 0.5% lidocaine or 2 % lidocaine	375 mg/mL (250 mg ampicillin/125 mg sulbactam per mL)	<b>1 hr</b> (PI)	-	Dispense in <b>syringe</b>
	3 gm	6.4 mL SW, 0.5% lidocaine or 2 % lidocaine				
<b>Angiotensin II</b>	2.5 mg/mL	Add to 500 mL <b>NS</b> (standard) or 250 mL <b>NS</b> (fluid restricted)	5,000 <b>NANO</b> grams/mL (standard) 10,000 <b>NANO</b> grams/mL (fluid restricted)	24 hrs (PI)	<b>24 hrs</b> (PI)	<b>Diluent: NS only</b>
<b>Argatroban</b>	250 mg/2.5 mL	Add to 250 mL bag of NS or D5W	1 mg/mL	4 days (HOID)	<b>4 days</b> (HOID)	
<b>Ascorbic Acid</b>	25 gm/50 mL		500 mg/mL	D5W, NS 1-25 mg/mL = <b>24 hrs</b> (HOID)  PI "Immediately administer..."	<b>24 hrs</b> (HOID)	Largest recommended single dose is 200 mg. Do not administer undiluted. <b>Protect from light</b> See PI for SW dilution.
<b>Azithromycin</b>	500 mg	4.8 mL SW or NS	100 mg/mL	4 hrs (PI)	<b>7 days</b> (PI)	May attach with <b>Vial-Mate</b> to 250 mL bag Usual diluents: NS, D5W

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Aztreonam IV	1 gm	3 mL SW or NS	250 mg/mL	D5W = 48 hrs (PI) <b>NS = 4 days (M);</b> 48 hrs (PI)	D5W = 7 days (PI) <b>NS = 10 days (M);</b> 7 days (PI)	May attach to <b>Mini-Bag Plus</b> Usual diluents: NS, D5W
	2 gm	6 mL SW or NS	250 mg/mL			
Aztreonam IM	1 gm	3 mL SW or NS	250 mg/mL	48 hours (PI)	<b>7 days (PI)</b>	Dispense in <b>syringe</b>
	2 gm	6 mL SW or NS	250 mg/mL			
Bumetanide	2.5 mg/10 mL	-	0.25 mg/mL	<b>72 hrs (ESPD)</b> 24 hrs (PI)	-	Drip = 10 vials into <b>empty bag</b> (25 mg/100 mL)
Caffeine	60 mg/3 mL	-	20 mg/mL	<b>4 days (HOID)</b> 24 hrs (PI)	<b>10 days (HOID)</b> 24 hrs (PI)	Dispense in <b>syringe</b>
Calcium Chloride	1 gm/10 mL	-	-	<b>4 days (M)</b>	-	Usual diluents: NS, D5W
Calcium Gluconate	1 gm/10 mL	-	-	<b>24 hrs (M)</b>	-	Usual diluents: NS, D5W
Cangrelor	50 mg	5 mL SW	10 mg/mL	<b>NS = 24 hrs (PI)</b> D5W = 12 hrs	-	Further dilute in 250 mL of NS or D5W, final conc 200 mg/mL
Caspofungin	50 mg	10.5 mL SW or NS	5 mg/mL	24 hrs (PI)	<b>48 hrs (PI)</b>	<b>Incompatible in D5W</b> Usual diluents: NS, ½NS
	70 mg	10.5 mL SW or NS	7 mg/mL			
Cefazolin IV	500 mg	4.8 mL SW or NS	100 mg/mL	3 days (M) 24 hrs (PI)	<b>10 days (PI)</b>	May attach to <b>Mini-Bag Plus</b> Usual diluents: NS, D5W
	1 gm	9.5 mL SW or NS	100 mg/mL			
	2 gm	8.7 mL SW or NS	200 mg/mL			
Cefazolin IM	500 mg	2 mL SW	225 mg/mL	24 hrs (PI)	<b>10 days (PI)</b>	Dispense in <b>syringe</b>
	1 gm	2.5 mL SW	330 mg/mL			
Cefepime	1 gm	10 mL SW or NS or D5W	100 mg/mL	24 hrs (PI)	<b>7 days (PI)</b>	May attach to <b>Mini-Bag Plus</b> Usual diluents: NS, D5W
	2 gm	10 mL SW or NS or D5W	160 mg/mL			
Cefotaxime	1 gm	9.6 mL SW	100 mg/mL	12 hrs (SteriMax PI)	<b>24 hrs (SteriMax PI)</b>	Usual diluents: NS, D5W
Cefotetan	1 gm	9.5 mL SW or NS	100 mg/mL	3 days (M) 24 hrs (PI)	<b>10 days (M)</b> 4 days (PI)	May attach to <b>Mini-Bag Plus</b> May be slight yellow color Usual diluents: NS, D5W
	2 gm	19 mL SW or NS				
Ceftaroline	400 mg	20 mL SW or NS or D5W	20 mg/mL	6 hrs (PI)	<b>24 hrs (PI)</b>	May attach to <b>Mini-Bag Plus</b> Usual diluents: NS, D5W
	600 mg		30 mg/mL			

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<b>Ceftazidime IV</b>	1 gm	10 mL SW or NS	100 mg/mL (total volume 10.8 mL)	24 hrs (PI)	<b>10 days (M)</b> 7 days (PI)	May attach to <b>Mini-Bag Plus</b> Usual diluents: D5W, NS
	2 gm	10 mL SW or NS	170 mg/mL (total volume 11.5 mL)			
<b>Ceftazidime IM</b>	1 gm	3 mL SW, 0.5 or 1% lidocaine	280 mg/mL	24 hrs (PI)	<b>7 days (PI)</b>	Dispense in <b>syringe</b>
<b>Ceftriaxone IV</b>	250 mg	2.4 mL SW or NS	100 mg/mL	NS, D5W 10-40 mg/mL = 48 hrs (PI)	NS, D5W 10-40 mg/mL = <b>10 days (PI)</b>	May attach to <b>Mini-Bag Plus</b> Light yellow to amber color Usual diluents: NS, D5W
	500 mg	4.8 mL SW or NS				
	1 gm	9.6 mL SW or NS				
	2 gm	19.2 mL SW or NS				
<b>Ceftriaxone IM</b>	250 mg	0.9 mL 1% lido	250 mg/mL	24 hrs (PI)	<b>3 days (PI)</b>	Dispense in <b>syringe</b>  Can use one of these diluents: 1% lido or SW or 0.9% NS or D5W
	500 mg	1 mL 1% lido	350 mg/mL			
	1 gm	2.1 mL 1% lido	350 mg/mL			
	2 gm	4.2 mL 1% lido	350 mg/mL			
<b>Cefuroxime</b>	1.5 gm	16 mL SW or NS	90 mg/mL	24 hrs (PI)	<b>7 days (PI)</b>	May attach to <b>Mini-Bag Plus</b> Usual diluents: NS, D5W
<b>Chlorothiazide</b>	500 mg	18 mL <b>SW</b>	28 mg/mL	24 hrs (HOID)	<b>24 hrs (HOID)</b>	Usual diluents: NS, D5W
<b>Chlorpromazine</b>	50 mg/2 mL	-	25 mg/mL	48 hrs (M)	-	Usual diluents: NS, D5W Dilute to 1 mg/mL or less <b>DO NOT REF</b>
<b>Cidofovir</b>	375 mg/5 mL	-	-	24 hrs (M)	5 days (M)	<b>Diluent: NS</b> Gray hazardous drug
<b>Cisatracurium</b>	20 mg/10 mL	-	2 mg/mL	4 days (M)	<b>10 days (M)</b>	Straight drug into <b>empty bag</b>
<b>Clindamycin</b>	300 mg/2 mL	-	150 mg/mL	4 days (PI)	<b>10 days (PI)</b>	Usual diluents: NS, D5W
	900 mg/6 mL					
<b>Dalbavancin</b>	500 mg	25 mL SW or D5W	20 mg/mL	48 hrs (PI)	<b>48 hrs (PI)</b>	<b>Diluent: D5W</b>
<b>Daptomycin</b> (Hospira specific)	500 mg	10 mL <b>NS</b>	50 mg/mL	Syringe (adults only), NS bag (pediatric patients) = 12 hrs (PI)	Syringe = <b>48 hrs (PI)</b> NS bag = 10 days (PI)	<u>Incompatible in D5W</u> <b>Use 21 gauge needle</b> <b>Swirl</b> , don't shake, during reconstitution (causes foaming)
<b>Dexamethasone</b>	10 mg/mL	-	10 mg/mL	4 days (ESPD) 24 hrs (PI)	<b>10 days (ESPD)</b>	Usual diluents: NS, D5W

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Dexmedetomidine	200 mcg/2 mL	-	100 mcg/mL	48 hrs (M) 4 hrs (PI)	<b>48 hrs</b> (M) 24 hrs (PI)	Usual diluents: NS, D5W
Diltiazem	25 mg/5 mL	-	5 mg/mL	4 days (M) 24 hrs (PI)	<b>10 days</b> (M) 24 hrs (PI)	Usual diluents: D5W, NS
	125 mg/25 mL					
Diphenhydramine	50 mg/mL	-	50 mg/mL	4 days (ESPD)	<b>10 days</b> (ESPD)	Usual diluents: NS, D5W
Dobutamine	250 mg/20 mL	-	12.5 mg/mL	<b>24 hrs</b> (DAG)	-	Usual diluents: D5W, NS
<b>Dobutamine (pediatric/PALS)</b>	250 mg/20 mL	Remove 6.4 mL from 50 mL <b>D5W</b> bag, add 80 mg/6.4 mL drug	1600 mcg/mL	<b>24 hrs</b> (PALS DAG)	-	See PALS DAG for guidance on whether to dispense in bag or <b>BD, Monoject or Terumo</b> syringe
Dopamine	200 mg/5 ml	-	40 mg/mL	<b>24 hrs</b> (DAG)	-	Usual diluents: D5W, NS Standard conc = 1.6 mg/mL (400 mg/250 mL)
	400 mg/10 ml					
<b>Dopamine (pediatric/PALS)</b>	Use premade bag	-	1600 mcg/mL	<b>24 hrs</b> (PALS DAG)	-	See PALS DAG for guidance on which size <b>BD, Monoject or Terumo syringe</b> to dispense in
Doxycycline	100 mg	10 mL SW or NS or D5W	10 mg/ml	48 hrs (PI)	<b>3 days</b> (PI)	May attach with <b>Vial-Mate</b> to 250 mL bag Usual diluents: NS, D5W
Epinephrine	30 mg/30 mL	Remove drug volume then... <u>Standard</u> : add 4 mg to 250 mL bag <u>Concentrated</u> : add 16 mg to 250 mL bag	<u>Standard</u> drip = 16 mcg/mL  <u>Concentrated</u> drip = 64 mc/gmL	<b>24 hrs</b> (DAG)	-	Usual diluents: <b>NS</b> (DAG) or D5W
<b>Epinephrine (pediatric/PALS)</b>	1 mg/mL	Remove 0.8 ml from 50 mL <b>D5W</b> bag, then add 0.8 mg/0.8 mL	16 mcg/mL	<b>24 hrs</b> (PALS DAG)	-	See PALS DAG for guidance on whether to dispense in bag or <b>BD, Monoject or Terumo</b> syringe
Epoprostenol	1.5 mg	5 mL NS or SW	0.3 mg/mL	<b>Aerogen syringe</b> = 4 hours Bag = 8 hrs (PI)	Bag = 8 days (PI)	<b>Protect from light</b> Further dilute to 50 mL with the same fluid used to reconstitute vial
Ertapenem IV	1 gm	10 mL SW or NS	100 mg/mL	6 hrs (PI)	<b>24 hrs</b> (PI)	May attach to <b>Mini-Bag Plus</b> Do NOT use diluents containing Dextrose
Ertapenem IM	1 gm	3.2 mL 1% lidocaine	312.5 mg/mL	1 hr (PI)	-	Dispense in syringe <b>Shake</b> vial during reconstitution

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Erythromycin	500 mg	10 mL SW	50 mg/mL	8 hr (PI)	24 hrs (M)	May attach to <b>Mini-Bag Plus</b> Usual diluent: <b>NS</b>
Ferric Carboxymaltose	750 mg/15 mL	-	50 mg/mL	3 days (PI)	-	For infusion: dilute 750 mg in no more than 250 ml of <b>NS</b>
Fluconazole RTU	Various	-	20 mg/mL	24 hrs (HOID)	-	<b>Gray hazardous drug</b> Pool large doses in empty bag
Folic Acid	5 mg/mL	-	-	24 hrs (PI)	24 hrs (PI)	Usual diluents: NS, D5W
Fomepizole	1.5 gm/1.5 mL	Add dose to 100 mL NS	1 gm/mL	24 hrs (PI, DAG)	24 hrs (PI)	Solidification does not affect the efficacy, safety, or stability
Fosaprepitant	150 mg	5 mL <b>NS</b> , then add to 100 mL bag	30 mg/mL	24 hrs (PI)	24 hrs (M)	Usual diluents: NS, D5W
Fosphenytoin	100 mg PE/2 mL	-	50 mg/mL	4 days (ESPD, M) 48 hrs (PI)	10 days (ESPD, M)	Dispense doses <u>250 mg or less in syringe</u> Usual diluents: NS, D5W <b>Gray hazardous drug</b>
	500 mg PE/10 mL					
Furosemide	100 mg/10 mL	Remove 20 mL from 100 mL NS or D5W bag then add 200 mg/20 mL to bag	Final conc = 2 mg/mL	NS = 4 days (ESPD, M) D5W = 24 hrs (M)	D5W = info lacking (M) NS = 10 days (ESPD, M)	PI = do not refrigerate Do not use if solution is discolored
Ganciclovir	500 mg	10 mL SW	50 mg/mL	12 hrs (M)	24 hrs (M)	Remove drug volume from 100 mL NS or D5W bag then add drug to bag Max final conc 10 mg/mL <b>Gray hazardous drug</b>
Gentamicin (baby)	20 mg/2 mL	Dilute 2 mL gent with 2 mL <b>NS</b>	Final conc = 5 mg/mL	24 hrs (M)	10 days (ESPD)	Dispense in syringe
Gentamicin	80 mg/2 mL	-	40 mg/mL	48 hrs (M)	10 days (M)	PI lacks stability info
	800 mg/20 mL					
Heparin (NICU) <b>*PRESERVATIVE FREE*</b>	10 Units/mL	-	10 Units/mL	4 days (PI)	10 days (PI)	Draw 5 Units/0.5 mL into 1 mL syringe
Ibutilide	1 mg/10 mL	Add to 50 mL of NS or D5W, total volume 60 mL	Final conc = 0.017 mg/mL	24 hrs (PI, DAG)	48 hrs (PI, DAG)	
Immune Globulin (Gammunex Liquid)	Various		100 mg/mL	Start infusion within 8 hours	-	Pool vials in empty IV bag (HOID)
Infliximab	100 mg	10 mL SW	10 mg/mL	Start infusion within 3 hours	-	Remove drug volume before adding drug to 250 mL <b>NS bag</b> . If dose > 10 vials use 500 mL bag Use a <b>21 gauge</b> or smaller needle

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<b>Insulin (Humulin R)</b>	100 Units/mL	Add 1 mL to 100 mL <b>NS</b>	Final conc = 1 Unit/mL	48 hrs (M)	<b>10 days</b> (M)	
<b>Insulin (pediatric/PALS)</b>	100 Units/mL	Remove 0.5 ml from 50 mL <b>NS</b> bag, then add 0.5 mL drug	Final conc = 1 Unit/mL	48 hrs (PALS DAG)	<b>7 days</b> (PALS DAG)	See PALS DAG for guidance on whether to dispense in bag or <b>BD</b> , <b>Monoject</b> or <b>Terumo</b> syringe
<b>Iron Sucrose</b>	100 mg/5 mL	-	-	Syringe = 4 days (PI) IV Bag (NS) = 4 days (PI)	Syringe = 7 days (PI)	<b>Do NOT dilute to concentration below 1 mg/mL</b>
<b>Isoproterenol</b>	1 mg/5 mL	Add 1 mg to 250 mL bag	Final conc = 4 mcg/mL	24 hrs (M)	<b>24 hrs</b> (M)	Do not use if pink or brown Usual diluents: NS, D5W
<b>Ketamine IV</b>	various	-	IV Push = 50 mg/mL or less IVPB = 2 mg/mL or less	NS = 4 days (HOID)	<b>NS = 6 days</b> (HOID)	Usual diluent: NS D5W manufacturer recommended solution but no stability info in PI
<b>Labetalol</b>	200 mg/40 mL	Add 200 mg to 160 mL of NS or D5W	Final conc = 1 mg/mL	<b>24 hrs</b> (DAG)	24 hrs (PI)	Usual diluents: NS, D5W
<b>Lacosamide</b>	200 mg/20 mL	-	20 mg/mL	<b>4 hrs</b> (PI)	-	Usual diluents: NS, D5W
<b>Levetiracetam</b>	500 mg/5 mL	-	100 mg/mL	<b>4 hrs</b> (PI)	-	Usual diluents: NS, D5W
<b>Lidocaine (pediatric/PALS)</b>	Use premade 2 gm/250 mL bag	-	8 mg/mL	<b>24 hrs</b> (PALS DAG)	-	See PALS DAG for guidance on which size <b>BD</b> , <b>Monoject</b> or <b>Terumo syringe</b> to dispense in
<b>Lorazepam continuous infusion</b>	20 mg/10 mL	Add 20 mg/10 mL to 190 mL NS or D5W Total volume = 200 mL	0.1 mg/mL	<b>24 hrs</b> (DAG) 4 days (M)	<b>7 days</b> (M)	Usual diluents: NS, D5W  Must be in <b>Braun bag</b>
<b>Magnesium Sulfate</b>	1 gm/2 mL	-	500 mg/mL	<b>4 days</b> (M)	-	<b>DO NOT REF</b> – may precipitate
	5 gm/10 mL					
<b>Meropenem</b>	500 mg	10 mL SW or NS	50 mg/mL	NS = 1 hour (PI)	NS = <b>15 hrs</b> (PI)	May attach to <b>Mini-Bag Plus</b> Limited stability in D5W
	1 gm	20 mL SW or NS				
<b>Methylprednisolone Sodium Succinate</b>	500 mg	4 mL diluent	125 mg/mL	48 hrs (PI)	<b>48 hrs</b> (PI, ESPD)	Usual diluents: NS, D5W
	1 gm	8 mL diluent				

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<b>Metoclopramide</b>	10 mg/2 mL	-	-	24 hrs (PI)	D5W=48 hrs (PI) NS= <b>10 days</b> (ESPD)	Usual diluents: NS, D5W
<b>Metronidazole RTU</b>	500 mg/100 mL	-	5 mg/mL	24 hrs	-	<b>DO NOT REF</b>
<b>Micafungin</b>	50 mg	5 mL NS or D5W Swirl – do NOT shake	10 mg/mL	<b>4 days</b> (M) 24 hrs (PI)	D5W= 4 days (M) NS = <b>7 days</b> (ESPD)	<b>Protect from light</b> <b>Do NOT use Mini-Bag Plus</b> Usual diluents: 100 mL bag of NS or D5W
	100 mg		20 mg/mL			
<b>Midazolam 1 mg/ml continuous infusion</b>	50 mg/10 mL	Remove 10 mL from bag, add 50mg/10 mL drug	1 mg/mL	24 hrs (DAG) 4 days (M)	<b>10 days</b> (M)	Usual diluents: NS or D5W
<b>Milrinone</b>	10 mg/10 mL	-	-	4 days (M)	<b>10 days</b> (M)	Dilute each 10 mL with 40 mL to = 200 mcg/mL Usual diluents: NS, D5W
<b>Milrinone (pediatric/PALS)</b>	Use premade 20 mg/100 mL bag	-	200 mcg/mL	48 hrs (PALS DAG)	-	Premade bag is D5W, can make in ½NS, or NS if unavailable See PALS DAG for guidance on which size <b>BD, Monoject or Terumo syringe</b> to dispense in
<b>Morphine Infusion (pediatric/PALS)</b>	2 mg/mL	Remove 2.5 mL from 25 mL <b>NS</b> bag, then add 2.5 mL/5 mg drug	200 mcg/mL	24 hrs (PALS DAG)	24 hrs (PALS DAG)	See PALS DAG for guidance on which size <b>BD, Monoject or Terumo syringe</b> to dispense in
<b>Multivitamins</b>	10 mL (Vial 1 + Vial 2)	-	-	24 hrs (PI)	24 hrs (PI)	Add 10 ml (Vial 1+ 2) to minimum of 500 ml NS or D5W
<b>Nafcillin</b>	1 gm	3.4 mL SW or NS	250 mg/mL	<b>3 days</b> (ESPD) 24 hrs (PI)	<b>10 days</b> (ESPD) 7 days (PI)	May attach to <b>Mini-Bag Plus</b>
	2 gm	6.6 mL SW or NS				
<b>Naloxone</b>	2 mg/2 mL	-	10 mg/mL	24 hrs (PI)	-	Usual diluents: NS, D5W
<b>Nicardipine</b>	25 mg/10 mL	Remove 25 mL from 250 mL of D5W or NS then add 25 mg/10 mL drug to bag	0.1 mg/mL	24 hrs (PI)	-	Usual diluents: NS, D5W
<b>(Sodium) Nitroprusside</b>	50 mg/2 mL	Add 50 mg (standard) or 100 mg (concentrated) to 250 mL <b>D5W</b> bag	Final conc = 0.2 mg/mL (standard) or 0.4 mg/mL (concentrated)	<b>24 hrs</b> (PI, DAG) 48 hrs (M)	-	<b>Protect from light;</b> reddish brown color is normal <b>Diluent: D5W</b>



Drug	Vial Size	Reconstituting Diluent	Concentration	Stability (after further dilution)		Other Comments
				Room Temperature (RT)	Refrigerated (REF)	
<b>Norepinephrine</b>	4 mg/4 mL	Add 4 mg ( <b>standard</b> ), 8 mg ( <b>concentrated</b> ), or 16 mg ( <b>quad strength</b> ) to 250 mL bag	16 mcg/mL ( <b>standard</b> ), 32 mcg/mL ( <b>concentrated</b> ), 64 mcg/mL ( <b>quad strength</b> )	<b>24 hours</b> (PI, DAG) 4 days (M)	<b>10 days</b> (M)	Usual diluents: D5W or NS
<b>Norepinephrine (pediatric/PALS)</b>	Use premade 4 mg/250 mL D5W bag		16 mcg/mL	<b>24 hrs</b> (PALS DAG)	-	See PALS DAG for guidance on which size <b>BD, Monoject or Terumo syringe</b> to dispense in
<b>Octreotide</b>	50 mcg/mL	Add to 500 mL bag (standard) or 250 mL bag (concentrated)	1 mcg/mL (standard)	<b>24 hrs</b> (DAG) NS = 48 hrs (M)	<b>24 hrs</b> (PI)	Usual diluents: NS, D5W If using ampule use filter needle
	100 mcg/mL		2 mcg/mL (concentrated)			
	500 mcg/mL					
<b>Ondansetron</b>	4 mg/2 mL	-	-	4 days (M) 48 hrs (PI)	<b>10 days</b> (M)	Usual diluents: NS, D5W
	40 mg/20 mL					
<b>Pamidronate</b>	30 mg/10 mL	-	-	D5W = 4 days (M) D5W, NS, ½NS = 24 hrs (PI)	D5W = 10 days (M) D5W, NS, ½NS = 24 hrs (PI)	Usual diluents: D5W, NS, ½NS <b>Gray hazardous drug</b>
<b>Pantoprazole</b>	40 mg	10 mL NS	4 mg/mL	4 days (M) 24 hrs (PI)	<b>10 days</b> (M)	Usual diluents: NS, D5W
<b>Penicillin G Potassium</b>	5,000,000 units (u)	18.2 mL SW or NS	250,000 u/mL	24 hrs (PI)	<b>7 days</b> (PI)	<b>Bold = standard dilution</b>  5 Million Unit vial can be attached to <b>Mini-Bag Plus</b>  Usual diluents: NS, D5W
		<b>8.2 mL SW or NS</b>	<b>500,000 u/mL</b>			
		3.2 mL SW or NS	1,000,000 u/mL			
	20,000,000 units (u)	75 mL SW or NS	250,000 u/mL			
		<b>33 mL SW or NS</b>	<b>500,000 u/mL</b>			
	11.5 mL SW or NS	1,000,000 u/mL				
<b>Phenylephrine</b>	10 mg/1 mL	Add 20 mg (standard) or 100 mg (concentrated) to 250 mL bag	Final conc = 0.08 mg/mL (standard) or 4 mg/mL (concentrated)	30 hrs (DAG) 4 days (M) D5W, NS = 4 hrs (PI)	<b>4 days</b> (M) D5W, NS = 24 hrs (PI)	Usual diluents: NS, D5W
	50 mg/5 mL					
<b>Phenylephrine (pediatric/PALS)</b>	Use premade 20 mg/250 mL NS bag		80 mcg/mL	30 hrs (DAG)	-	See PALS DAG for guidance on which size <b>BD, Monoject or Terumo syringe</b> to dispense in

Drug	Vial Size	Reconstituting Diluent	Concentration	Stability (after further dilution)		Other Comments
				Room Temperature (RT)	Refrigerated (REF)	
Phytonadione	10 mg/mL	-	-	24 hrs (HOID) "Administer immediately" (PI)	-	USE FILTER NEEDLE <b>DO NOT REF</b> Protect from light
Piperacillin/ tazobactam	2.25 gm	10 mL SW or NS	194 mg/mL (172 mg piperacillin/ 22 mg tazobactam per mL)	3 days (M) 24 hrs (PI)	10 days (M) 48 hrs (PI)	May attach to <b>Mini-Bag Plus</b>
	3.375 gm	15 mL SW or NS				
	4.5 gm	20 mL SW or NS				
Potassium chloride	20 mEq/10 mL	-	-	24 hrs (M)	24 hrs (M)	Usual diluents: D5W, NS
	40 mEq/20 mL					
	<b>+/- lidocaine</b>					
Potassium phosphate	45 mmol/15mL	-	3 mmol/mL	48 hrs (M)	10 days (HOID) 48 hrs (M)	
Prothrombin Complex (Balfaxar)	500 Units	20 mL SW for 500 Unit vial	~2 Units/mL	<b>Balfaxar</b> = Use within 8 hrs	-	Add drug to empty bag
	1000 Units	40 mL SW for 1000 Unit vial				
Rifampin	600 mg	10 mL SW	60 mg/mL	<b>*M recommends shorter dating (12 hours)*</b> NS = 24 hrs (PI) D5W = 4 hrs (PI)	<b>*M recommends shorter dating (12 hours)*</b> NS = 24 hrs (PI) D5W = 4 hrs (PI)	Reddish brown color
Rituximab	100 mg/10 mL	Remove drug volume before adding to 500 mL bag	-	8 hrs (PI)	24 hrs (PI)	Usual diluents: D5W, NS  Do NOT Shake
	500 mg/50 mL					
Sodium bicarbonate continuous infusion	50 mEq/50 mL	-	1 mEq/mL	24 hrs (HOID)	24 hrs (HOID)	Inject 5 vials (250 mEq / 250 mL) into empty bag
Sodium bicarbonate	50 mEq/50 mL	-	-	24 hrs (M)	50 mEq/L = 3 days (M) 100-150 mEq/L= 7 days (M)	Usual diluents: D5W, SW
Sodium ferric gluconate complex	62.5 mg/5 mL	Add 62.5 mg or 125 mg to 100 mL NS		24 hrs*	7 days*	Usual diluent: NS *Curr Med Res Opin. 2011 Dec;27(12):2241-3.
Sodium phosphate	45 mmol/15mL	-	-	4 days (HOID)	10 days (HOID)	Usual diluents: D5W, NS

Drug	Vial Size	Reconstituting Diluent	Concentration	Stability (after further dilution)		Other Comments
				Room Temperature (RT)	Refrigerated (REF)	
<b>Sodium thiosulfate</b>	250 mg/50 mL		250 mg/mL	4 hrs		Add 100 mL to empty bag with 100 mL NS, or remove 150 mL from a 250 mL NS bag and add 100 mL drug <a href="#">*Sodium thiosulfate   CHEO ED Outreach</a>
<b>Sufentanil continuous infusion</b>	500 mcg	Remove 10 mL from 250 mL <b>NS</b> bag then add 500 mcg/10 mL drug to bag	2 mcg/mL	24 hrs (HOID)	-	Usual diluents: NS (DAG), D5W
<b>Sulfamethoxazole/ Trimethoprim</b>	800 mg/10 mL- 160 mg/10 mL	-	-	5 mL/125 mL <b>D5W</b> = 6 hrs 5 mL/100 mL <b>D5W</b> = 4 hrs 5 mL/75 mL <b>D5W</b> = 2 hrs (all 3 per PI)	-	<b>DO NOT REF</b> Usual diluent: <b>D5W</b> Stability in NS bag has conflicting data
<b>Tenecteplase (TNKase)</b>	50 mg	10 mL SW (supplied)	5 mg/ml	-	<b>8 hrs</b> (PI, DAG)	
<b>Thiamine</b>	200 mg/2 mL	-	-	24 hrs (M)	<b>24 hrs</b> (M)	Usual diluents: D5W, NS
<b>Tobramycin</b>	1.2 gm	30 mL SW	40 mg/mL	24 hrs (PI)	<b>4 days</b> (PI)	
<b>Tranexamic Acid</b>	1 gm/10 mL	-	-	D5W, NS = 24 hrs (HOID)	NS = 7 days (HOID) D5W = 24 hrs (HOID)	Usual diluents: D5W, NS
<b>Valproate Sodium</b>	500 mg/5 mL	-	-	<b>48 hrs</b> (M)	-	<b>Should be diluted with at least 50ml of D5W, NS</b> Gray hazardous drug <b>DO NOT REF</b>
<b>Vancomycin</b>	500 mg	10 mL SW or NS	50 mg/mL	4 days (ESPD)	<b>10 days</b> (M)	Usual diluents: D5W, NS
	750 mg	15 mL SW or NS				
	1000 mg	20 mL SW or NS				
	1250 mg	25 mL SW or NS				
	1500 mg	30 mL SW or NS				
<b>Vasopressin</b>	20 units/mL	Add to 100 mL bag	0.2 Units/mL	<b>18 hrs</b> (HOID, DAG)	24 hrs (HOID)	Usual diluents: D5W, NS

Drug	Vial Size	Reconstituting Diluent	Concentration	Stability (after further dilution)		Other Comments
				Room Temperature (RT)	Refrigerated (REF)	
<b>Vasopressin (pediatric/PALS)</b>	20 Units/mL	Remove 6 mL from 25 mL NS bag, then add 20 Units/1 mL drug	1 Unit/mL	18 hrs (PALS DAG)	-	See PALS DAG for guidance on whether to dispense in bag or <b>BD, Monoject or Terumo</b> syringe
<b>Vecuronium (pediatric/PALS)</b>	10 mg	10 mL D5W or NS	1 mg/mL	-	24 hrs (PALS DAG)	See PALS DAG for guidance on whether to dispense in bag or <b>BD, Monoject or Terumo</b> syringe
<b>Voriconazole</b>	200 mg (powder)	19 mL SW	10 mg/mL	24 hrs (ESPD)	<b>9 days (ESPD)</b> 24 hrs (PI)	Usual diluents: D5W, NS Gray hazardous drug
	200 mg/20 mL	-	-			
<b>Zoledronic Acid</b>	4 mg/5 mL	-	-	24 hr (PI)	<b>24 hrs (PI)</b>	Usual diluents: D5W, NS Gray hazardous drug

NS = 0.9% Sodium Chloride; SW = Sterile Water; D5W = 5% Dextrose in Water; LR = Lactated Ringer; PI = package insert; M = Micromedex; ESPD = Extended Stability of Parenteral Drugs; HOID = Handbook on Injectable Drugs (ASHP); DAG = Drug Administration Guidelines

	Room Temperature (20°C to 25 °C)	Refrigeration (2°C to 8°C)
Immediate use (not more than 3 <u>different</u> sterile products)	4 hours	N/A
Category 1 CSPs (STAT hood)	12 hours	24 hours
Category 2 CSPs	4 days	10 days

United States Pharmacopeial Convention. General chapter pharmaceutical compounding—sterile preparations. USP-NF 2023, Issue 1, November 1, 2022, official as of November 1, 2023

**\*\*It is the responsibility of the technician and pharmacist to ensure proper beyond-use dating be used in accordance with USP Chapter <797> based on the appropriate risk level for each compounded preparation\*\***

Container Type	Beyond-Use Date
Single dose ampules	Do not store for any time period
Single dose vial (SDV)	12 hours if opened in ISO Class 5
Multiple dose vial (MDV)	28 days after initial puncture or per manufacturer
Pharmacy bulk package	Per manufacturer, must be opened in ISO Class 5
Point-of-care activated systems (after removal from overwrap)	MINI-BAG Plus <u>50 ml</u> = 15 days      VIAL-MATE Adaptor <u>50 ml</u> = 15 days MINI-BAG Plus <u>≥ 100 ml</u> = 30 days      VIAL-MATE Adaptor <u>≥ 100 ml</u> = 30 days ADD-Vantage (all sizes) = 30 days

- 1) ADD-Vantage drug delivery system and shelf life of assembled system (data on file). Pfizer. 2018 April 12.
- 2) Mini-Bag plus (data on file). Baxter. 2018 May 24.
- 3) United States Pharmacopeial Convention. General chapter pharmaceutical compounding—sterile preparations. USP-NF 2023, Issue 1, November 1, 2022, official as of November 1, 2023