HOSPITAL RAJA PEREMPUAN ZAINAB II
ANTIBIOTIC INJECTION DILUTION AND STABILITY PROTOCOL UPDATED JUNE 2020

No	Generic Name	Brand / Manufacturer	Stability	Diluent	Dilution	Administration	Notes
1	ACYCLOVIR *250mg* injection (powder vial)	Zovirax (GSK) Acyclovir (Vaxcel)	12 hrs in RT (15˚C-25˚C) **Can't be refrigerated** 24hrs in RT	WFI, NS/QSD1	Reconstituted with 10ml WFI or NS **(25mg/ml).** IV infusion: Concentration **5-7mg/ml** Paediatrics: in at least 20ml diluent Adult: e.g. 500mg in 100ml diluent	IV infusion over 1 hr. **Rapid administration & concentrated dilution: risk of thrombophlebitis & extravasation.**	
2	AMPHOTERICIN B Store in a refrigerator (2°C – 8°C).	Amphotret *50mg/10ml* (Powder Vial) Conventional (Bharat Serums & Vaccines Limited) Ampholip (Lipid Complex) Ampoule Suspension 5mg/ml (50mg) Ambisome 50mg (Gilead Sciences)	Reconstitution stable 7 days in fridge (2-8˚C). **Lipid Complex single use** Dilution stable 24-48hrs in fridge (2-8˚C) **PROTECT FROM LIGHT** Shake the ampoule well for Lipid Complex.	WFI, D5% **Incompatible With:** The use of any solution other than those recommended or the presence of a bacteriostatic agent (e.g. **benzyl alcohol**) in the solution may cause precipitation.	Reconstituted with 10ml WFI into vial **(Concentration 5mg/ml).** Further dilute with D5. **Peripheral Line Dilution:** Concentration **0.2mg/ml** (1ml Amphotericin B in 20ml D5%). E.g. 250mg (50ml) in 1000ml D5% **Central Line Dilution:** concentration **2.0mg/ml** (1ml Amphotericin B in 2ml D5%) E.g. 250mg (50ml) in 100ml D5%	IV infusion over 2-6 hrs **(always shake the infusion pump every 2 hrs).** **Protect from LIGHT.** **Rapid administration & concentrated dilution may cause chills, rigors, fever, allergic reaction.** **Peripheral line has higher risk thrombophlebitis**	TEST DOSE: 1mg in 20ml D5%; infuse over 20-30min. Monitor for allergic/ anaphylactic reaction **Administration incompatible with NS and all electrolyte solutions.**

PHARMACY DEPARTMENT
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3	AMIKACIN *500mg/2ml* *250mg/2ml* injection (ampule)	Apalin (Duopharma)	24 hrs in RT	NS/D5% **Incompatible With:** - **Extemporaneous admixtures of penicillins and cephalosporins and aminoglycosides may result in inactivation.* - *Amphotericin B, cephalothin sodium, nitrofurantoin sodium, and sulfadiazine sodium, tetracycline.*	IM administration: for *PAEDIATRICS* require dilution. IV infusion: Concentration **2.5mg - 5 mg/ml** Paediatrics: in at least 10ml diluent Adult: in 100-200ml diluent	Adult: Slow intravenous infusion over 30-60 min Paediatrics: 1-2hrs	***1-2 hrs** administration interval between the drugs are advised.*
4	AMOXICILLIN + CLAVULANIC ACID *1.2g (Amoxycillin 1g/Clavulanic Acid 200mg)* & *600mg (Amoxycillin 500mg/Clavulanic Acid 100mg)* injection (powder vial)	Clavam 1.2g (ALKEM) Clavicin 600mg & 1.2g (Mylan) Co-Amoxiclav (Kartanaka Antibiotic) Moxied-CLV 1.2g (Astral) Moxied 600mg (Astral)	Freshly prepared (to administer within 20m:in) Reconstituted: within 4 hrs of recobnstituted.	WFI/NS **Incompatible With:** Should not be mixed with infusions containing **glucose, dextran or bicarbonate, blood, protein hydrolysates @ lipid emulsions, aminoglycosides.*	Reconstituted with 10-20ml WFI. IV Infusion: dilute in 50-100 ml	IV Slow Bolus 3-4min @ infusion over 30-40min (within 4 hrs of reconstituted)	***1-2 hrs** administration interval between the drugs are advised.*

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5	AMPICILLIN *500mg* Powder vial	Standacillin (Sandoz) Kampibiotic (Karnataka)	Freshly prepared	WFI, NS **Incompatible With:** **whole blood, plasma, inverted sugars or dextran* should be avoided.	Reconstituted with 5ml WFI IV infusion: add reconstituted solution to any amount of isotonic NS solution (>2g in 50-100ml)	IV Bolus: over 3- 5 minutes IV infusion: infuse over 15-20min. dose >2g run 1 hr.	***1-2 hrs administration interval between the drugs are advised.*
6	AMPICILLIN + SULBACTAM *1.5g* Powder vial	Sulbacin (Unichem)	8 hrs in RT (25˚C) /3 days in fridge (4˚C)	WFI, NS/D5% **Incompatible With:** **aminoglycosides* High doses may cause hypernatremia; suggest for QSD1 @ D5%.	Reconstituted with 5ml WFI. IV: diluted to a final concentration of 15 - 30 mg/ml. IV infusion: **To be diluted up to 100ml for dose more than 3g.** IM: can reconstituted with Lignocaine	Bolus: only for dose less than 3g. **Preferable for over 4 hrs infusion**	***1-2 hrs administration interval between the drugs are advised.* **Preferable for over 4 hrs infusion (EXTENDED INFUSION)**
		Ampicillin & Sulbactam 1.5g (Karnataka)	Freshly prepared				
7	ANIDULAFUNGIN *100mg* Injection (Powder vial) Store in a refrigerator	Eraxis (Pfizer) *No Data for paediatrics*	Stability 48 hrs at RT (25˚C) or frozen 72 hrs in freezer	WFI, NS/D5%	Reconstituted with 30ml WFI (at least 5 min time) (24 hrs at RT (25˚C)) IV Infusion **1mg/ml** Adult: 100mg in 100ml, 200mg in 200ml.	IV infusion for 100mg over 90 minutes, 200mg over 3 hrs	
8	AZITHROMYCIN *500mg* injection (powder vial)	Azomax (Pahang Pharmacy) Zithromax (Pfizer) Azithromycin (Vaxcel)	24 hrs in RT (below 25˚C) 7 days in fridge <5˚C	WFI, NS/D5/QSD1/ ringer solution **Incompatible With:** **Oxidizing agents*	Reconstituted with 5 ml of WFI to the 500mg vial. IV Infusion Concentration **1-2mg/ml** Adult: 500mg in 250-500ml diluent.	IV infusion: Minimum duration 1hr Concentration **Rapid administration of IV azithromycin may cause arrhythmia and seizure.**	***1-2 hrs administration interval between the drugs are advised.*

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9	BENZYL PENICILLIN 1MU (600mg) & 5MU (3g) Powder vial	Benzyl Penicillin (Karnataka)	2 days in RT/ 6 days in fridge	WFI **Incompatible With:** **Metal ions solution, amphotericin B, cimetidine, cytaradine, flucloxacilln, hydroxyzine, methy-lprednisolone, promethazine, aminoglycosides,*	Reconstituted with at least 2ml (1MUI) or 10ml (5MUI) WFI. Dose > 2.4mui to be diluted in 50-100ml.	Doses excess of 1.2g (2MU) should be given by slowly IV infusion (15-30min) to avoid irritation or electrolyte imbalance.	***1-2 hrs** administration interval between the drugs are advised.*
10	BENZATHINE BENZYL PENICILLIN 2.4 MU Powder vial	Sterile Penicillin G Benzathine (Karnataka)	Freshly prepared	WFI **Incompatible With:** **aminoglycosides*	IM: Reconstituted with 8ml WFI (IM injection usually 5ml, if pain occurs with 8ml, to inject 2 sites).	IM: Do not apply more than 2.4MU at one injection site.	***1-2 hrs** administration interval between the drugs are advised.*
11	CEFAZOLIN 1g Powder vial	Cefazolin (Sandoz)	Freshly prepared	WFI/NS **Incompatible With:** **Aminoglycosides, amobarbital sodium, ascorbic acid, bleomycin, calcium solution, cimetidine, colistin/ polymyxin, erythromycin, phenobarbital, tetracyclines.* pH 4.5-6 Content high Na content; suggest for WFI if high doses @ long duration.	Reconstituted with 4 ml (WFI for IV, Lignocaine for IM) IV: dilute with 50ml NS (dose >2 g with 100ml NS; max 3g per dose)	IV: Slow infusion 20-30 min	***1-2 hrs** administration interval between the drugs are advised.*
		Cefazolin-AFT (AFT Pharmaceutical)	WFI/NS/D5%: 12hrs in RT & 24hrs in fridge D10%, Lactate ringer/ QSD1: < 12hrs in RT & <24hrs in fridge.				
12	CEFEPIME 1g Powder vial	Cefepime (Kotrapharma) Verapime) Cefmex (Duopharma)	Stable 12 hrs in RT (<25˚C) and 24hrs in fridge 48hrs in fridge	WFI, NS/D5%	Reconstituted with 10ml WFI. IV: Minimum dilution concentration **100mg/ml** (10ml). IM: can used Lignocaine	IV Bolus: over 3-5min. IV infusion: at least 1 hr.	**Preferable for over 4 hrs infusion (EXTENDED INFUSION)**

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13	CEFTAROLINE 600mg	Zinforo (Facta Farmaceutici)	Stable up to 24 hrs at 2-8 ˚C	WFI, NS/D5/QSD1/ Lactated ringer solution	Reconstituted with 20 ml WFI (Administration should be done within 6 hrs after preparation in RT) IV Infusion **4-12mg/ml** Adult: dilute 50ml/100ml/250ml diluent	IV Infusion: Infuse over 1 hr	
14	CEFTAZIDIME 1g, CEFTAZIDIME 2g injection Powder vial	Vaxcel Cefobactam (Kotrapharma) Cefatum (Duopharma)	IV: 12 hrs in RT (below 25° C), 7 days in fridge. IM (Lignocaine 0.5%): 6 hrs below 25˚C, 4 days in fridge	WFI, NS/D5/ sodium lactate **Incompatible With:** **Sodium bicarbonate, aminoglycosides, vancomycin*	IV: reconstituted with 10ml WFI in 1@2g vial. IM: reconstituted with 3ml 0.5% Lignocaine in 1 gm vial IV Infusion: dilute up to 50 ml NS	IV: Bolus 3min or infusion 30 min- 1 hr IM: Inject at major muscle mass only if IV is not permissible.	**1-2 hrs administration interval between the drugs are advised.* **Preferable for over 4 hrs infusion (EXTENDED INFUSION)**
15	CEFOPERAZONE 1g Powder vial	Bicafar (Duopharma)	Stable 24 hrs in RT (below 25˚C), 5 days in fridge (2-8˚C), 5 weeks in freezer (–20° to –10°C)	WFI, D5%/NS/QSD1	IM: reconstituted with 4-5ml WFI; concentration **250mg/ml** IV Bolus: Reconstituted with 10ml WFI; concentration 100mg/ml IV Infusion: concentration **10-50mg/ml**; dilute 20-100ml/g with diluents (WFI not more than 20ml/g)	IV Bolus: at least 3-5 min (max dose 2g/day adult, paediatric 50mg/kg) IV infusion: over 15min-1 hr.	**Preferable for over 4 hrs infusion (EXTENDED INFUSION)**

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16	CEFOPERAZONE + SULBACTAM 1g Powder vial	Cefobactam 1g (Vaxcel)	24 hrs in RT (below 25˚C)	WFI, D5%/NS **Incompatible With:** **Aminoglycosides, lactated Ringer solution and lidocaine (not for reconstitution).*	Reconstituted with 3.4 ml diluent in 1gm vial. IV: Further dilute to 20ml with the same diluent. IM: can be further diluted with Lidocaine (require reconstitution with WFI first.	IV: administer over 15 - 60min. **High dose 4g: in 100ml NS over 4 hrs (extended infusion)**	**1-2 hrs administration interval between the drugs are advised.* **Preferable for over 4 hrs infusion (EXTENDED INFUSION)**
17	CEFOTAXIME 1g Injection Powder Vial	Rekaxime (Duopharma) Cefotaxime (Pharmaniaga)	24 hrs in 2-8 ˚C 24hrs at <25˚C	WFI, NS/D5% **Incompatible With:** **Alkaline solutions like Sodium bicarbonate and aminoglycosides.*	Reconstituted with 4ml of WFI IV Infusion: Dissolve vial in 40-100ml WFI or D10%	IV: inject over a period of 3 - 5 min IV infusion: infuse over 50-60min IM: inject deep into gluteus muscle. advisable not to inject >4ml into either side (if daily dose >2g, IV is preferred)	**1-2 hrs administration interval between the drugs are advised.* **Preferable for over 4 hrs infusion (EXTENDED INFUSION)**
18	CEFTRIAXONE 1g injection Powder vial	Unocef (Duopharma)	3 days in RT(25˚C), 10 days in fridge (4˚C)	WFI, D5%/NS **Incompatible With:** **Calcium solutions; Ringer solution, Hartman solution, aminoglycosides*	Reconstituted with 10ml WFI (**100mg/ml**). IM injection reconstituted with 3.5ml 1% Lignocaine. IV Infusion: dilute to 50 or 100ml.	IV infusion: over 30min- 1hr **Preferable for over 4 hrs infusion (EXTENDED INFUSION)**	**1-2 hrs administration interval between the drugs are advised.*

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19	CEFUROXIME 750mg and 1.5g injection Powder vial	Anikef (Duopharma) Cefuroxime (Pharmaniaga)	5 hrs in RT (<25˚C), 48 hrs in fridge	WFI, NS/D5% **Incompatible With:** **Aminoglycosides*	Reconstituted with WFI; IM (1ml for 250mg & 3ml for 750mg); IV: 2ml for 250mg, 6ml for 750mg, 15ml for 1.5g (**ANIKEF**) and 8ml for 750mg, 16ml for 1.5g (**PHARMANIAGA**). IV Infusion: Dissolve 1.5gm in 50-100ml	IV bolus injection over 3-5min IV Infusion: Infuse over 30 minutes	**1-2 hrs administration interval between the drugs are advised.*
20	CIPROFLOXACIN 200mg/100ml injection vial bottle	Ciproxol (AinMedicare)	Single use only	No diluent	No reconstitution	Infuse over 60 minutes	
21	CLINDAMYCIN 150mg/ml injection powder/ solution vial	**Tidact (YSP)** Dalacin (Pfizer): in fridge	24 hrs at room temperature For brand **TIDACT** with **BLUE COVER** need to be stored in **FRIDGE (2-8°C);** after reconstituted can be stored in room temperature up to 24 hrs.	WFI, NS, D5% **Incompatible With:** **ampicillin, phenytoin, barbiturates, aminophylline, calcium gluconate, ceftriaxone sodium, ciprofloxacin and magnesium sulphate.*	The concentration of clindamycin in diluent for infusion should not exceed **18mg/ml**. **INFUSION RATES SHOULD NOT EXCEED 30mg/min.** *300mg: 50ml NS run 10 min* *600mg: 50ml NS run 20 min* *900mg: 100ml NS run 30min* *1.2g: 100ml NS run 40min* *Dose > 1.2g, run > 1hr* Pfizer: IM: undiluted; dose not > than 600mg.	Infusion rate should not exceed **30mg per min.** **Rapid administration of high dose IV clindamycin may cause hypotension and cardiac arrest.**	**1-2 hrs administration interval between the drugs are advised.*

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22	CLOXACILLIN 500mg and 250mg Powder vial	Cloxacillin Sodium (Karnataka)	Freshly prepared	WFI, NS **Incompatible With:** **aminoglycosides* High doses may cause hypernatremia; suggest to be diluted in WFI if possible.	Reconstituted with WFI (concentration **50mg/ml** @ **100mg/ml**; 5-10ml) IM: concentration **125mg/ml @ 250mg**/ml; 2-4ml) Dilute up to 25-100ml depend on dose given.	Can be given bolus @ infusion; highly advise for infusion (30min-1 hr). High doses may cause thrombophlebitis; suggest for **central line**.	**1-2 hrs administration interval between the drugs are advised.*
23	COLISTIMETHATE SODIUM 1 MU (80mg) injection Powder Vial	Colomycin Xellia Pharmaceutical APS	24 hrs in fridge (2-8˚C)	WFI, NS	Reconstituted with 2ml WFI, then dilute with 50-100ml WFI/NS.	IV infusion: infuse over 1-2 hrs (rapid administration and concentrated dilution can cause neurotoxicity)	
24	ERYTHROMYCIN LACTOBIONATE 500mg Powder vial	Erythromycin Lactobionate (Pharmatex Italia-Milano)	Freshly prepared	WFI, NS/D5% **Incompatible With:** **inorganic salt solution, sodium bicarbonate*	Reconstitute with WFI. IV infusion: dilution to a concentration of **1mg/ml** (maximum concentration **5mg/ml);** at least 100ml of diluent should be used per vial.	Infuse over 60 min. Longer infusion required in patients with risk factors or previous evidence of arrhythmias.	**1-2 hrs administration interval between the drugs are advised.*

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25	ERTAPENEM 1gm Powder vial	INVANZ (Merck)	After reconstitution stabile for 6 hrs (IV) and within 1 hr (IM). 6 hrs at RT (25˚C), 24 hrs in fridge (use within 4 hrs after removal from fridge)	WFI/NS **Incompatible With:** **fluids containing dextrose*	Reconstitute with 10 ml Further dilute to 50 ml NS. IV: dilute up to 50ml. For Age 3months - 12 years old; Dilution to a final concentration 20mg/ml. IM: Reconstitute with 3.2ml of 1.0% or 2.0% Lidocaine HCL injection.	IV: Infuse over 30min (highly advice for 4 hrs infusion for extended infusion) **Preferable for over 4 hrs infusion (EXTENDED INFUSION)**	**1-2 hrs administration interval between the drugs are advised.*
26	FLUCONAZOLE 2mg/ml injection 50ml vial bottle	DIFLUCAN (Pfizer)	Single use only			IV infusion: Infuse 200mg/hr (2 bottles per hr); 10ml/min	
27	GENTAMYCIN SULPHATE 80mg/2ml ampoule	GARASENT (Duopharma)	Single use only	NS/D5% **Incompatible With:** **Penicillin*	IV: Dilute in 100-200ml with NS or D5 (concentration **1mg/ml**) IM: undiluted	IV Bolus: administer slowly over a period of 2-3min IV infusion: should be infuse over a period of 30min-1hr	**1-2 hrs administration interval between the drugs are advised.*
28	IMIPENEM + CILASTIN 500mg Powder vial	TIENAM (MSD) Imipenem/ Cilastin Kabi (Fresennius)	4 hrs in RT (<25˚C), 24 hrs in fridge 24hrs in <5 ˚C	NS/D5 **Incompatible With:** **Solutions that contain lactate*	Reconstitute with 10 ml. Dilute to final concentration **5mg/ml** (500mg in 100ml)	Dose ≤500 mg: Infuse over 20-30 min Dose > 500 mg: Infuse over 40-60 min	**1-2 hrs administration interval between the drugs are advised.* **Preferable for over 4 hrs infusion (EXTENDED INFUSION)**

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29	KANAMYCIN 1g ampoule 1g/3ml	KANAMYCIN SULFATE (Thai Meiji)		Freshly prepared	IM; max 1g per site.		
30	LEVOFLOXACIN 500mg injection 100ml vial bottle	Cravit (Ranbaxy) Levofloxol (Ain Medicare) Glevo I.V (Glenmark)	Single use only (IV only)	**Incompatible With:** **Heparin, alkaline solution (sodium hydrogen carbonate)*	May be given alone or with one of the following solutions: NS, D5.	IV infusion: dose **250mg (30 min), 500mg (1 hr) and 750mg (1 hr 30min).** Rapid administration: hypotension & tachycardia	**1-2 hrs administration interval between the drugs are advised.*
31	LINEZOLID 600mg/300ml solution pack	Zyvox (Pfizer)	Single use only **PROTECT FROM LIGHT**	**Incompatible With:** **Amphotericin B Chlorpromazine Diazepam Pentamidine isethionate Phenytoin sodium, Erythromycin lactobionate Trimethoprim-sulfamethoxazole. ceftriaxone sodium*		IV: infuse over 30 - 120min **PROTECT FROM LIGHT**	**1-2 hrs administration interval between the drugs are advised.*
32	MEROPENEM 500mg/1g powder vial	Nuronem (Ranbaxy) Meropenem (Hospira Pty.Ltd.)	**NS**:8 hrs (25˚C), 48 hrs (4˚C). **D5%, Mannitol, Potassium chloride**: 3 hrs (25˚C), 14 hrs (4˚C) **sodium bicarbonate, D10%:** 2 hrs (25˚C),8 hrs (4˚C)	WFI, NS/D5%/ Mannitol/Potassium chloride/ sodium bicarbonate	Reconstituted with 10-20ml WFI. IV infusion: Further dilute the reconstituted solution with 50-200ml of compatible solutions.	IV bolus: inject over 5min IV infusion: infuse over 15-30min.	**Preferable for over 4 hrs infusion (EXTENDED INFUSION)**

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33	METRONIDAZOLE 500mg injection 100ml vial bottle	Metronol (Ain Medicare)	Single use only	**Incompatible With:** **cefamandole nafate, cefoxitin sodium, dextrose 10% compound sodium lactate injection, penicillin G potassium.*		IV infusion: over 20-30 min	**1-2 hrs administration interval between the drugs are advised.*
34	Micafungin 50mg Injection Powder Vial	Mycamine (Astella)	24hrs in 30 ˚C	NS/D5%	Reconstituted with 5ml WFI/NS/D5%. Dilute further up to 100ml	IV infusion: over 1-2 hrs	
35	PIPERACILLIN + TAZOBACTAM 4.5mg (4g/0.5g) Powder vial	Tapicin (YSP) Aurotaz-P (Aurobindo)	24 hrs at 25˚C & 7 days in fridge 24hrs in fridge	WFI (max 50ml), NS/ D5% **Incompatible With:** **Aminoglycosides, lactated ringer solutions, sodium bicarbonate, blood products, albumin hydrolysates*	Reconstituted with 10-20ml. IV infusion: Further dilute the reconstituted solution to 50-150ml diluents. **Content high Na level; for hypernatremia pts; suggest for QSD1 @ D5%)**	IV bolus: inject over 3-5min (not advised). **IV infusion: over 3-4 hrs (extended infusions especially for TDS dosing)**	**1-2 hrs administration interval between the drugs are advised.*
36	POLYMYXIN B 500,000ii (50mg) Powder vial	Poly-MxB Lyophilized (Bharat)	72hrs in fridge after dilution.	D5% (more preferable), WFI, NS	Reconstituted with 5-10ml. Further dilute up to 300-500ml. For fluid restriction and dose less than 1MUI can be diluted to at least 100-200ml.	Infuse for 1-2 hrs. Rapid administration and concentrated dilution have higher risk of neurotoxicity.	
37	STREPTOMYCIN SULFATE 1g Powder vial	Streptin (SM Pharma.)	24 hrs in fridge (2-8˚C)	WFI/NS **Incompatible With:** **Acid, alkaline, beta lactam antiobiotic, aminoglycoside, antimyasthenics, infometacin, polymycin*	IM: reconstituted with 4.5 ml of diluent in 1g vial (**200mg/ml**) or add 3.5ml diluent in 1g vial (**250mg/ml**). IV: dilute up to 100ml	IV infusion: for poor Muscle Mass patients @ patients can't tolerate IM; infusion 1 hr.	**1-2 hrs administration interval between the drugs are advised.*

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38	SULFAMETHAZOLE 400mg and TRIMETHOPRIM 80mg Concentrate injection BP Powder vial	DBL Bactrim (Hospira) Bactrim ® (Roche)	24 hrs at RT	NS/D5% **Content 40% propylene glycol (vehicle); metabolize by liver to lactate and pyruvate: lactate acidosis. Risk factors: renal and/or liver insufficiency @ concomitant exposure to other drugs with propylene glycol.**	Reconstituted with 5ml diluent. Then dilute in ratio **1 ampoule (5ml) to 125ml (1:25). > 3 ampoule (15ml) to 500ml. Concentrated dilution (<0.64mg/ml) only stabile 2 hrs in RT.**	IV infusion: 30min-1.5 hr. **Fluid restriction: may be diluted to at least 100-200ml but beware of any particulate matter (> concentrated dilution less stability duration)**	
39	TIGECYCLINE 50mg injection Powder Vial	Tygacil (Pfizer, Wyeth Lederle S.r.l)	Reconstituted solution: 24 hrs at or below 25˚C. diluted: 48 hrs at 2˚C to 8˚C	NS/D5% **Incompatible With:** **Amphotericin B, amphotericin B lipid complex, diazepam, esomeprazole, omeprazole*	Reconstituted with 5.3 ml diluent (concentration: **10mg/ml**), withdraw 5ml and add to 100ml NS/D5%	IV infusion: over 30 - 60 min	**1-2 hrs administration interval between the drugs are advised.*
40	VANCOMYCIN 500mg Powder vial	Vancomycin (Hospira) Porcine Vivocin (Gland Pharma) Bovine Vancotex (Fisiopharma) Celovan (Mylan)	14 days in fridge (diluent NS @ D5%; other diluents 96hrs in in fridge) 14 days at 2-8ºC Freshly prepared 48hrs < 25ºC 2-8ºC	NS/D5% **Incompatible With:** **Anaesthetic agents, amphotericin B, aminoglycosides, Polymyxin, beta lactam*	Reconstituted with 10ml WFI. Further dilute at least up to 100ml (**dose more 1g require 200ml; max per dose 2g**). In fluid restricted, up to concentration of **10mg/ml (50ml per vial).**	Infusion rate not more than 10 mg/min. IV Infusion: **1 hr for dose <1g. Dose >1g infuse over 1.5-2hrs.** Rapid administration: **RED MAN SYNDROMES**	**1-2 hrs administration interval between the drugs are advised.*

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ANTIBIOTIC INJECTION DILUTION AND STABILITY PROTOCOL UPDATED JUNE 2020

No	Generic Name	Brand / Manufacturer	Stability	Diluent	Dilution	Administration	Notes
41	Voriconazole 200mg Injection Powder Vial	VFEND (Pfizer; Pharmacia & Upjohn Company)	24 hrs in 2˚C to 8˚C.	WFI, NS/D5% **Incompatible With:** **Blood products, concentrated electrolytes (even from separate IV lines), TPN; require separate line from other infusions.*	Reconstitute with 20ml WFI (**10mg/ml**). IV Infusion concentration: **0.5-5mg/ml** Paediatric: dilute up 20-50ml Adult: dilute up to 50-100ml	IV Infusion: over 1-3hrs. maximum infusion rate 3mg/kg/hr	**1-2 hrs administration interval between the drugs are advised.*
42	Zidovudine 200mg Solution vial (10mg/ml)	RETROVIR (Glaxo Wellcome)	48hrs in fridge (dilution concentration 2mg/ml) and 48hrs in RT (concentration 4mg/ml)	D5%	Solution to be diluted up to 2mg/ml @ 4mg/ml if dose 300mg; dilute up to 75-150ml D5%.	Depend on indication; usually 1hr (2mg/kg) loading then continuous infusion (1mg/kg) (*prevention of maternal-foetal transmission)**	**Viral load less than 1000 copies*

REMARK: hr= hour, RT= Room Temperature, fridge = temperature 2-8°C, WFI = Water for Injection, IV = Intravenous, IM = Intramuscular, D5% = Dextrose 5%, NS = Sodium Chloride 0.9%, TPN= Total Parenteral Nutrition, QSD1 = Sodium Chloride 0.18% Dextrose 4%**ALL RECONSTITUTION AND DILUTION PROCEDURE MUST BE DONE UNDER ASEPTIC TECHNIQUE. THE DILUENTS BALANCE MUST BE DISPOSED IMMEDIATELY AFTER USAGE. * *Incompatible With** *means admixture of the drugs inside same syringe @ IV lines before go to blood stream can cause interactions between the drugs such as haziness, precipitation, oxidation (colour change) which means the drugs are no longer safe and effective to the patients. Refer Appendix.*

suggest for Extended @ Continuous Infusion required >1hr infusion required >100ml diluent for dilution. Protect from light

PHARMACY DEPARTMENT
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Compatibility of IV Antibiotics

	acyclovir	amikacin	ampicillin	unasyn	anidulafungin	azithromycin	caspofungin	cefepime	cefotaxime	ceftazidime	ceftriaxone	ciprofloxacin	clindamycin	fluconazole	gentamicin	imipenem	levofloxacin	linezolid	meropenem	metronidazole	micafungin	penicillin G	tazocin	tmp-smx	vancomycin
acyclovir		C	C	I	C	N	N	I	C	C	C	I	C	C	N	C	I	C	N	C	N	C	I	C	C
amikacin	C		N	N	C	I	C	C	C	C	C	C	C	C	C	C	C	C	N	C	N	C	C	I	C
ampicillin	C	N		N	C	N	I	N	N	N	N	N	C	I	I	N	C	C	N	C	N	I	N	I	N
unasyn	I	N	N		C	N	I	C	I	N	N	I	N	N	N	N	C	C	N	C	N	N	N	I	N
anidulafungin	C	C	C	C		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	N	N	C	C	C
azithromycin	N	I	N	N	C		N	N	I	I	I	I	I	N	I	C	C	C	C	C	N	N	C	C	C
caspofungin	N	C	I	I	C	N		I	I	I	I	C	I	C	C	C	C	C	C	N	N	N	I	I	C
cefepime	I	C	N	C	C	N	I		N	N	N	I	C	C	N	C	C	C	N	C	N	N	C	C	C
cefotaxime	C	C	N	I	C	I	I	N		I	C	N	C	N	N	C	N	C	N	C	N	C	N	I	N
ceftazidime	C	C	N	N	C	I	I	N	I		C	C	C	N	N	C	C	C	N	C	N	C	N	I	N
ceftriaxone	C	C	N	N	C	I	I	N	C	C		N	I	N	N	I	C	N	N	C	N	C	N	I	N
ciprofloxacin	I	C	N	I	C	I	C	I	N	C	N		I	C	C	N	N	C	N	C	N	N	I	N	N
clindamycin	C	C	C	N	C	I	I	C	C	C	I	I		N	C	C	C	C	N	C	N	C	C	I	C
fluconazole	C	C	I	N	C	N	C	C	N	N	N	C	N		C	N	C	C	C	C	N	C	C	I	C
gentamicin	N	C	I	N	C	I	C	N	N	N	N	C	C	C		C	C	C	C	C	N	C	N	I	C
imipenem	C	C	N	N	C	I	C	C	C	C	I	N	C	N	C		C	C	N	C	N	C	N	I	C
levofloxacin	I	C	C	C	C	N	C	C	N	C	C	N	C	C	C	C		C	N	C	N	N	I	C	C
linezolid	C	C	C	C	C	N	C	C	C	C	N	C	C	C	C	C	C		C	C	N	N	C	N	C
meropenem	N	N	N	N	C	N	C	N	N	N	N	N	N	C	C	N	N	C		C	N	N	N	N	C
metronidazole	C	C	C	C	C	N	N	C	C	C	C	C	C	C	C	C	C	C	C		N	N	C	C	C
micafungin	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		N	N	N	N
penicillin G	C	C	I	N	N	N	N	N	C	C	C	N	C	C	C	C	N	N	N	N	N		N	I	N
tazocin	I	C	N	N	C	I	I	C	N	N	N	I	C	C	N	N	I	C	N	C	N	N		C	N
tmp-smx	C	I	I	I	C	N	I	C	I	I	I	N	I	I	I	I	C	N	N	C	N	I	C		I
vancomycin	C	C	N	N	C	N	C	N	N	N	N	N	C	C	C	C	C	C	C	C	N	N	N	I	

C = Compatible **I** = Incompatible **N** = Information on Compatibility Is Not Available or Inadequate

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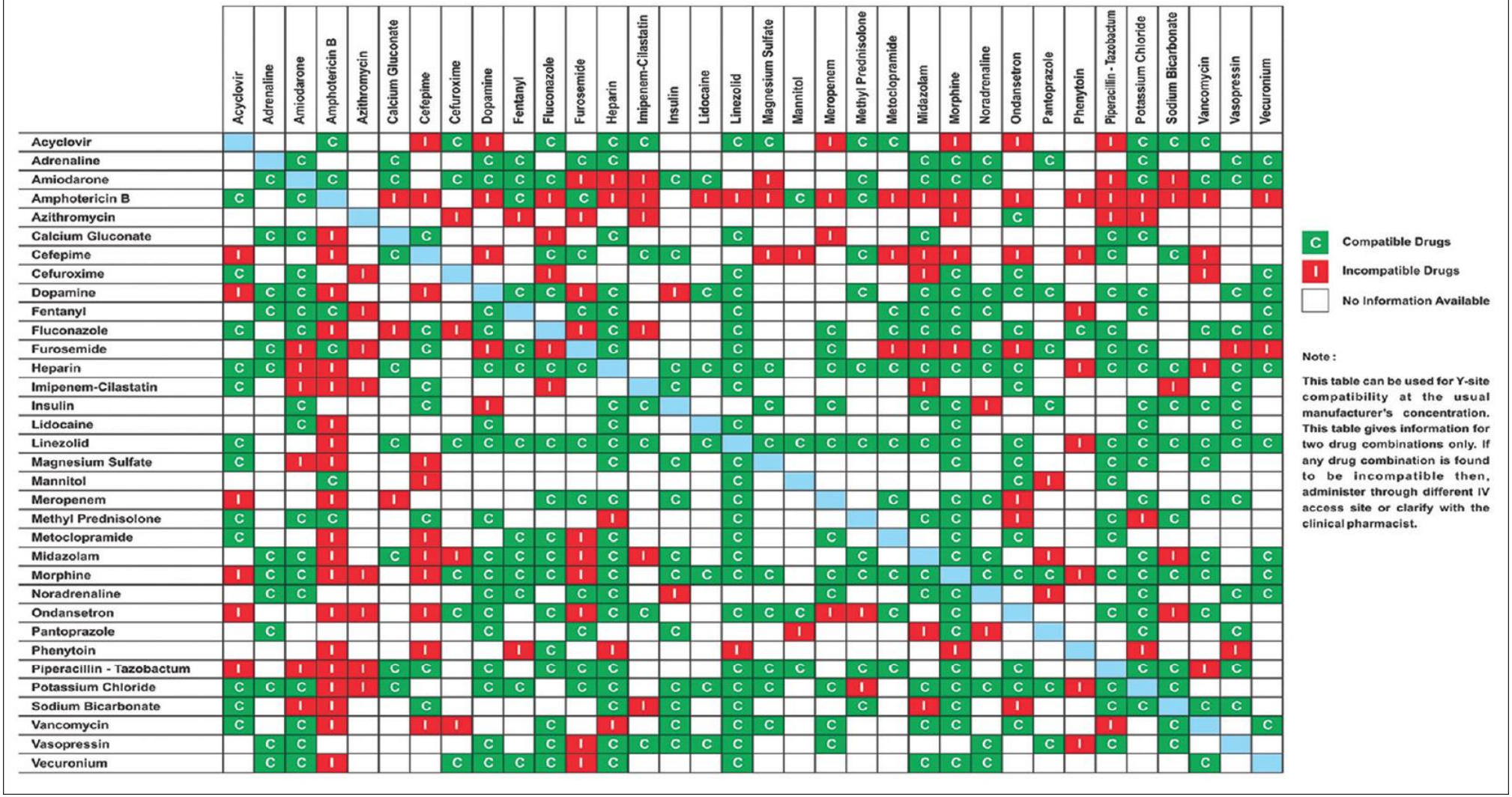
Y - SITE DRUG COMPATIBILITY CHART



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