

ตารางการปรับขนาดยาต้านจุลชีพที่ใช้บ่อยสำหรับผู้ป่วยไตบกพร่อง

Drugs	รูปแบบยาใน รพ.	Normal renal functions	CrCl 50-90 ml/min	CrCl 10-50 ml/min	CrCl < 10 ml/min	HD / CAPD
Penicillins						
Ampicillin	500 mg/vial 1 g/vial	250 mg-2 g q 6 hr	250 mg-2 g q 6 hr	250 mg-2 g q 6-12 hr	250 mg-2 g q 12-24 hr	HD: dose after HD CAPD: 250 mg q 12 hr
Amoxicillin/ Clavulanate	2 g+200 mg ต่อ 1 vial	2 g/200 mg q 12 hr	100%	8-20 mg/kg/dose q 12 hr	8-20 mg/kg/dose q 24 hr	HD: as for CrCl<10 extra dose after HD
Ampicillin/ Sulbactam	1+0.5g/vial 2+1g/vial	1/0.5 g q 6 hr 2/1 g q 6 hr	1/0.5 g q 6 hr 2/1 g q 6 hr	1/0.5 g q 8-12 hr 2/1 g q 8-12 hr	1/0.5 g q 8-12 hr 2/1 g q 24 hr	HD: dose after HD CAPD: 2/1 g q 24 hr
Penicillin G	1mu/vial 5mu/vial	0.5-4 mU q 4 hr	100%	75%	20-50%	HD: dose after HD
Piperacillin/ Tazobactam	4+0.5g ต่อ 1 vial	4.5 g q 6-8 hr	4.5 g q 6-8 hr	CrCl < 20 ml/min 4.5 g q 12 hr	2.25 g q 8 hr	HD: dose for CrCl<10 + 0.75 g after HD CAPD: 4.5 g q 12 hr
Aminoglycosides						
Gentamycin	80 mg/2 ml	Daily dose 5 mg/kg q 24 hr Multiple dose 1.7 mg/kg q 8 hr	4 mg/kg q 24 hr 100% of q 8 hr	2.5-3.5 mg/kg q 24 hr 100% q 12-24 hr	2 mg/kg q 72 hr 100% q 48 hr	HD: ½ of normal renal function dose after HD CAPD: 3-4 mg lost per litre dialysate/day
Amikacin	500 mg/vial	Daily dose 15 mg/kg q 24 hr Multiple dose 7.5 mg/kg q 12 hr	12 mg/kg q 24 hr 7.5 mg/kg q 12 hr	4-7.5 mg/kg q 24 hr 7.5 mg/kg q 24 hr	3 mg/kg q 72 hr 7.5 mg/kg q 48 hr	HD: ½ of normal renal function dose after HD CAPD: 15-20 mg lost per litre dialysate/day
Kanamycin	1 g/vial	7.5 mg/kg q 12 hr	7.5 mg/kg q 12-24 hr	7.5 mg/kg q 24-72 hr	7.5 mg/kg q 48-72 hr	HD: ½ of normal renal function dose after HD CAPD: 15-20 mg lost per litre
Netilmycin	100 mg/2ml	Daily dose 6.5 mg/kg q 24 hr Multiple dose 2 mg/kg q 8 hr	5 mg/kg q 24 hr 100% of q 8 hr	2.5-4 mg/kg q 24 hr 100% of q 12-24 hr	2 mg/kg q 72 hr 100% q 48 hr	HD: ½ of normal renal function dose after HD CAPD: 3-4 mg lost per litre dialysate/day
Streptomycin	1 g/vial	15 mg/kg q 24 hr	15 mg/kg q 24 hr	15 mg/kg q 24-72 hr	15 mg/kg q 72-96 hr	HD: ½ of normal renal function dose after HD CAPD: 20-40 mg lost per litre dialysate/day
Carbapenem						
Doripenem	ไม่มีใน ร.พ.	500 mg q 8 hr	500 mg q 8 hr	CrCl 30-50 : 250 mg q 8 hr CrCl 10-30 : 250 mg q 12 hr	No data	No data
Ertapenem (Invanz) ยา เฉพาะราย	1g/vial	1 g q 24 hr	1 g q 24 hr	500 mg q 24 hr	500 mg q 24 hr	HD: dose as CrCl<10; if dosed <6 hr prior to HD, give 150 mg after HD
Imipenem	500 mg/vial	500 mg q 6 hr Max 4 g/ day imipenem	250-500 mg q 6-8 hr	250 mg q 6-12 hr	125-250 mg q 12 hr	HD: dose after HD CAPD: CrCl<10
Meropenem	1g/vial	1 g q 8 hr Max 6 g/ day	1 g q 8 hr	1 g q 12 hr	0.5 g q 24 hr	HD: dose after HD CAPD: CrCl<10
Cephalosporin						
Cefazolin	1g/vial	1-2 g q 8 hr	1-2 g q 8 hr	1-2 g q 12 hr	1-2 g q 24-48 hr	HD: extra 0.5-1 g after HD CAPD: 0.5 g q 12 hr
Cefditoren pivoxil (Meiact)	100 mg/tab	200-400 mg q 12 hr	200-400 mg q 12 hr	200 mg q 12 hr CrCl< 30: q 24 hr	200 mg q 24 hr	HD: dose for CrCl<10
Ceftriaxone	1g/vial	2 g q 24 hr	2 g q 24 hr	2 g q 24 hr	2 g q 24 hr	
Cefotaxime	1g/vial	2 g q 8 hr	2 g q 8-12 hr	2 g q 12-24 hr	2 g q 24 hr	HD: extra 1 g after HD CAPD: 0.5-1 g q 24 hr
Cefoxitin ยาเฉพาะราย	1g/vial	1-2 g q 6-8 hr	1-2 g q 6-8 hr	1-2 g q 8-12 h	1-2 g q 24-48 hr	HD: extra 1 g after HD CAPD: 1g q 24 hr
Ceftazidime	1g/vial	2 g q 8 hr	2 g q 8-12 hr	2 g q 12-24 hr	2 g q 24-48 hr	HD: extra 1 g after HD CAPD: 0.5 g q 24 hr
Cefepime	1g/vial	2 g q 8 hr	2 g q 8 hr	2 g q 12-24 hr	1 g q 24 hr	HD: extra 1 g after HD CAPD: 1-2 g q 48 hr

ตารางการปรับขนาดยาต้านจุลชีพที่ใช้บ่อยสำหรับผู้ป่วยไตบกพร่อง

Drugs	รูปแบบยาใน รพ.	Normal renal functions	CrCl 50-90 ml/min	CrCl 10-50 ml/min	CrCl < 10 ml/min	HD / CAPD
Cefoperazone/Sulbactam	1g+ 0.5 g ต่อ 1 vial	1.5-3 g q 6-12 hr (max 4 g sulbactam/day)	1.5-3 g q 6-12 hr (max 4 g sulbactam/day)	CrCl 15-30: 1.5-3 g q 12 hr (max 2 g sulbactam/day)	CrCl < 15: 1.5 g q 12 hr (max 1 g sulbactam/day)	
Cefpirome	1g/vial	1-2 g q 12 hr	1-2 g q 12 hr	loading 1-2 g 0.5-1 g q 12 hr	loading 1-2 g 0.5-1 g q 24 hr	HD:250-500 mg after HD
Fluoroquinolone						
Ciprofloxacin	200 mg /100ml	400 mg q 12 hr (Max 400 mg q 8 hr)	400 mg q 12 hr	200 mg q 12 hr	200 mg q 12 hr	HD: 200 mg q 12 hr CAPD: 200 mg q 8 hr
Levofloxacin	500 mg/vial 750 mg/vial	750 mg q 24 hr	750 mg q 24 hr	750 mg q 48 hr	750 mg then 500 mg q 48 hr	HD/CAPD: 750 mg then 500 mg q 48 hr
Macrolide						
Azithromycin	500 mg/vial	500 mg q 24 hr	500 mg q 24 hr	500 mg q 24 hr	500 mg q 24 hr	
Clarithromycin	250 mg/tab	0.5-1 g q 12 hr	100%	75%	50-75%	HD: dose after HD CAPD: none
Other groups						
Colistin (Colistimethane sodium)	150 mg/vial	75-150 mg q 8 hr (2.5-5 mg/kg/day)	150 mg q 12 hr	150 mg q 24 hr or 75 mg q 12 hr	150 mg q 36 hr	HD: 75 mg after HD
Fosfomycin	2 g/vial	General dose: 1- 2 g IV q 12 hr Meningitis: 2-4 g IV q 6-8 hr Osteomyelitis: 4 g IV q 12 hr	General dose: 1- 2 g IV q 12 hr Meningitis: 2-4 g IV q 6-8 hr Osteomyelitis: 4 g IV q 12 hr	CrCl 40-50 ml/min 500 mg-1 g IV q 12 hr CrCl 20-30 ml/min 250-500 mg IV q 12 hr	HD: Repeat dose after HD	
Tigecycline ยาเฉพาะราย	50 mg/vial	100 mg then 50 mg q 12 hr	100 mg then 50 mg q 12 hr	100 mg then 50 mg q 12 hr	100 mg then 50 mg q 12 hr	
Vancomycin (trough level 15-20)	500 mg/vial	1 g q 12 hr	1 g q 12 hr	1 g q 24-96 hr	1 g q 4-7 days	HD/CAPD: dose CrCl<10
Trimethoprim /Sulfamethoxazole	80/400 mg 5 ml/amp	5-20 mg/kg/day q 6-12 hr (dose of TMP)	5-20 mg/kg/day q 6-12 hr	CrCl 30-50 : 5-7.5 mg/kg q 8 hr CrCl 10-30 : 5-10 mg/kg q 12hr	Not recommended If necessary:5-10 mg/kg OD	Not recommended If necessary: 5-10 mg/kg OD
Antifungal						
Amphotericin B	50 mg/vial	0.4-1 mg/kg/day OD	0.4-1 mg/kg/day OD	0.4-1 mg/kg/day OD	0.4-1 mg/kg/day OD	No dose adjustment
Liposomal Amphotericin B ยาเฉพาะราย	50 mg/vial	5 mg/kg/day	5 mg/kg/day	5 mg/kg/day	5 mg/kg/day	No dose adjustment
Fluconazole	200 mg/cap	100-400 mg q 24 hr	100%	50%	50%	HD: 100% of recommended dose after dialysis CAPD: dose for CrCl<10
Itraconazole	100 mg/cap	100-200 mg q 12 hr	100%	100%	50%	HD/CAPD: 100 mg q 12-24 hr
Voriconazole ยาเฉพาะราย	200 mg/inj, 200 mg/tab	6 mg/kg q 12 hr x 2 then 4 mg/kg q 12 hr	Same as normal renal function	Switch to oral form		
Antiviral						
Acyclovir	250 mg/inj	5-12.4 mg/kg q 8 hr	100% q 8 hr	100% q 12-24 hr	50% q 24 hr	HD: dose after HD CAPD: dose for CrCl<10
Oseltamivir	30,45, 75 mg/tab	75 mg po q 12 hr	75 mg po q 12 hr	CrCl 30-50 : 75 mg po q 12 hr CrCl 10-30 : 75 mg OD	No data	HD: 30 mg non dialysis days CAPD: 30mg 1-2 times/wk
หมายเหตุ รายการยาสีแดง = Restricted Antibiotics รายการยาสีม่วง = รายการยาเฉพาะราย						

เอกสารอ้างอิง

1. The Sanford Guide to Antimicrobial Therapy 2009, 39th edition. 2. Drug Prescribing in Renal Failure 2007, 5th edition 3. Pocket insert