

Te Toka Tumai Adult Aminoglycoside Dosing and Monitoring

GENTAMICIN & TOBRAMYCIN

Gentamicin & Tobramycin Dosing

Ensure that the patient has not had IV gentamicin / tobramycin / amikacin in the last 24 hours
(check charts from A&E / theatres / critical care)

1. Document **height** (cm) and **weight** (kg) on drug chart
2. Dose using **ideal body weight** (IBW) unless the patient is obese (>120% IBW) then use **adjusted body weight** (AdjBW)
AdjBW (kg) = IBW + 0.4 (Actual weight – IBW) [Max 100kg dosing weight]
3. Calculate renal function

Round gentamicin and tobramycin dosing to the nearest 50 mg

Dosing in stable CrCL (including CKD)		Dosing in AKI	
CrCL (mL/min)	Dosing (max 500 mg)	CrCL (mL/min)	Dosing (max 500 mg)
> 40 mL/min	5 mg/kg q24h	AKI 2° to sepsis <i>Baseline CrCL >40 mL/min or unknown</i>	5 mg/kg STAT
20 - 40 mL/min <i>or endocarditis</i>	3 mg/kg q24h	Acute on CKD 2° to sepsis <i>Baseline CrCL <40 mL/min</i>	3 mg/kg STAT
< 20 mL/min	3 mg/kg STAT, then discuss with pharmacy	AKI and NO sepsis	Avoid If possible (or 3mg/kg STAT)

AMIKACIN

Amikacin Dosing

Ensure that the patient has not had IV gentamicin / tobramycin / amikacin in the last 24 hours
(check charts from A&E / theatres / critical care)

1. Document **height** (cm) and **weight** (kg) on drug chart
2. Dose using **ideal body weight** (IBW) unless the patient is obese (>120% IBW) then use **adjusted body weight** (AdjBW)
AdjBW (kg) = IBW + 0.4 (Actual weight – IBW) [Max 100kg dosing weight]
3. Calculate renal function

Round amikacin dosing to the nearest 50 mg

Dosing in stable CrCL (including CKD)		Dosing in AKI	
CrCL (mL/min)	Dosing (max 1500 mg)	CrCL (mL/min)	Dosing (max 1500 mg)
> 40 mL/min	15 mg/kg q24h	AKI 2° to sepsis <i>Baseline CrCL >40 mL/min or unknown</i>	15 mg/kg STAT
20 - 40 mL/min	7.5 mg/kg q24h	Acute on CKD 2° to sepsis <i>Baseline CrCL <40 mL/min</i>	7.5 mg/kg STAT
< 20 mL/min	7.5 mg/kg STAT, then discuss with pharmacy	AKI and NO sepsis	Avoid If possible (or 7.5mg/kg STAT)

Aminoglycoside Monitoring

Only required if needing > 2 doses or for those with AKI

Bayesian AUC₂₄ forecasting TDM (excluding dialysis patients) for ALL aminoglycosides

**Take a random aminoglycoside concentration
2-8 hours after the end of the infusion (post dose)**

Contact your clinical pharmacist (or on-call pharmacist after hours) before the next dose is due.
The pharmacist will be able to perform an AUC calculation and advise on ongoing doses.