

Watch Out *for...*

Gentamicin Toxicity Causing Acute Kidney Injury

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What Happened?

- Levels were checked twice in the first week and a 24hr dosing was appropriate
- The patient developed an AKI but gentamicin levels were not re-checked until 4 days later
- 24 hr dose intervals led to toxicity, exacerbating AKI
- Retrospective levels indicated we should have changed to 36 hr dose interval

17/11/2014 07:40 Serum		
Request Reason : Listeria bacteraemia		
Urea	4.0	mmol/L
Sodium	140	mmol/L
Potassium	3.8	mmol/L
Creatinine	44	umol/L
Gentamicin	1.4	mg/L

01/12/2014 u/k Serum		
Request Reason : sepsis		
Urea	16.4	mmol/L
Sodium	129	mmol/L
Potassium	5.1	mmol/L
Creatinine	258	umol/L
Gentamicin	3.5	mg/L

The Facts:

- Aminoglycoside antibiotics used to treat both gram negative and positive bacteria
- Aminoglycosides are nephrotoxic and must be monitored to prevent the development of
 - oto/vestibular toxicity
 - nephrotoxicity

Protect Your Patients:

If BMI is > 30, use ideal body weight (IBW)

- IBW tables can be found in the 'antibiotic serum level monitoring' section in the adult microguide (trust intranet home page & on CIS links)

Always monitor gentamicin levels after first dose

- Use the Urban & Craig nomogram

Monitor levels at least twice weekly even if patients renal function is stable

- Volume depletion and other drugs can affect gentamicin concentration, even with normal renal function

Use the CIS prompts on Ward round entries, consider ...

- Has renal function changed?
- When was the last gentamicin level measured?

Dosing for infective endocarditis is different

- refer to the microguide