Appendix 1

Adult Parenteral Synergistic Gentamicin (NHSB): Administration & Monitoring Chart

Adapted with permission from GGC Antimicrobial Management Team. NHSB AMT 07/25, Review Date 08/26

ADULT PARENTERAL SYNERGISTIC GENTAMICIN (NHSB): ADMINISTRATION & MONITORING CHART

Refer to the 'Synergistic Gentamicin for Endocarditis in Adults' guideline for more information. All patients with suspected or proven endocarditis should be discussed with an infection specialist.

NHS Borders

Patient name: .....

Date of birth: .....

CHI no.: .....

Affix patient label

The prescriber should issue the gentamicin **adult patient information leaflet** (PIL) to the patient/carer as soon as possible (unless this is considered to be inappropriate).

PIL issued to: patient ❑ Other: .....

Reason(s) for non-issue: .....

Date of issue: ..... Signature: .....

Signs of gentamicin toxicity

Renal: ↓urine output/oliguria or ↑creatinine

Oto/vestibular: NEW tinnitus, dizziness, poor balance, hearing loss, oscillating vision

Toxicity may occur irrespective of gentamicin concentration

STEP 1 Calculate the initial dose of synergistic gentamicin from the dosage table below:

	Patient Actual Body Weight				
Creatinine Clearance* (Do NOT use eGFR)	**<45 kg**	**45-65 kg**	**66-85 kg**	**86-110 kg**	**>110 kg**
<25 ml/min	40 mg	60 mg	80 mg	100 mg	120 mg
	Take a sample after 24 hours. Do not give a further dose until the concentration is <1 mg/L Discuss with microbiology or ID if CrCl <21ml/min (see cautions)				
25-44 ml/min	40 mg 24 hourly	60 mg 24 hourly	80 mg 24 hourly	100 mg 24 hourly	120 mg 24 hourly
>44 ml/min	40 mg 12 hourly	60 mg 12 hourly	80 mg 12 hourly	100 mg 12 hourly	120 mg 12 hourly

**If creatinine is not known: give 1 mg/kg gentamicin (maximum 120 mg) and seek advice from pharmacy.*
***DO NOT use eGFR:** creatinine clearance must be calculated using Adjusted Body Weight or, if actual body weight ≤ideal body weight use actual body weight*

STEP 2 Prescribe the initial dose of gentamicin on the medicine chart, ensuring that the gentamicin dose, frequency and dosage time are clear

- This chart must NOT be used as a prescription chart; doses and dose times must be prescribed on the medicine chart and amended on the medicine chart if the dose regimen is altered.

STEP 3 Administration & gentamicin monitoring (record using the chart overleaf)

- Administer each synergistic gentamicin dose as an intravenous bolus injection over 3-5 minutes and record the exact time of ALL gentamicin doses overleaf on this monitoring chart. Ensure that the medicine chart is also signed for each dose administered.
- Record the exact time of ALL gentamicin samples overleaf on this monitoring chart AND ensure that all TrakCare sample requests are printed at the time of sample collection.
- Take a 'peak' sample 1 hour after the first gentamicin bolus dose. The recommended target peak is 3-5 mg/L.
- Take a 'trough' sample just before the second gentamicin dose is due (i.e. at the end of the dosage interval) but **DO NOT** await the result before re-dosing unless there are concerns about deteriorating renal function. The recommended target trough is <1 mg/L.
- Thereafter repeat a gentamicin trough concentration at least every 2 days, or daily if renal function deteriorates or if measured concentrations are not within target range.
- Seek advice from pharmacy if you are unsure how to interpret the result or if the concentrations measured are not within the recommended ranges above.
- If the prescribed dose or dose frequency is altered ensure this is updated on the medicine chart.

STEP 4 Assess daily: the ongoing need for gentamicin and for signs of toxicity

- Issue the NHSB 'Information for adult patients about intravenous gentamicin' leaflet to the patient and record this in the relevant box above.
- Gentamicin can cause renal toxicity (see above). Monitor & record creatinine daily on the monitoring chart. Discuss with Consultant Microbiologist if renal function is worsening.
- Gentamicin can cause ototoxicity (see above). Ask patients about signs of ototoxicity regularly and document this in the case notes. Refer patients to audiology for assessment and re-discuss the case with microbiology/ID if gentamicin continues for >7 days. Stop therapy and discuss with microbiology/ID if ototoxicity is suspected.

Patient name: …………………………………………………. **CHI no.:** ………………………………………………………………..

TOXICITY **(see overleaf)** **Renal** & **Oto-vestibular Function** should be reviewed daily	**Synergistic Gentamicin Administration Record**				**Synergistic Gentamicin Monitoring Record**				
	Complete each time gentamicin is administered (**in addition to Medicine Chart**)				To be completed by ALL staff taking blood for gentamicin concentration monitoring **Record ALL sample dates/times accurately below**				
	Date given	Gentamicin dose (mg) ***Bolus over 3-5 mins***	Time given (24 hour clock)	Given by	Date of sample	Time of sample (24 hour clock)	Blood sample taken by PRINT name and status	Result (mg/L)	Action/ Comment
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