

Guidance notes for Non-CF tobramycin prescribing, administration & monitoring chart



PRESCRIBERS

Tobramycin is an aminoglycoside antibiotic and is prescribed, administered and monitored in exactly the same way as gentamicin. The treatment dose can be calculated using the “gentamicin” calculator (available on NHST antibiotic website or [Right Decision Service](#)) or by using the formula on the back of the customised tobramycin prescription, administration and monitoring chart.

The guidance does not apply to tobramycin use in the following:

- o patients receiving haemodialysis or haemofiltration
- o major burns > 20% body surface
- o ascites >20% body weight
- o age < 16 years
- o cystic fibrosis (refer to local guidelines)
- o pregnancy (discuss with infection specialist)
- o Decompensated Liver Disease
- o Myasthenia Gravis
- o Renal Transplant
- o Acute Kidney Injury (AKI 3) on dialysis or eGFR <20ml/min
- o End stage renal failure on dialysis with residual kidney function

On the tobramycin prescription chart:

1. Complete the patient's name, DOB and CHI or attach an addressograph label.
2. Record the patient's age, sex, weight, height and serum creatinine (i.e. record all the parameters needed for dose calculation)
3. The preferred method to calculate the dose is the online calculator which can be found on NHST antibiotic website or [Right Decision Service](#) App. If using the App, ensure that you have selected NHS Tayside to access the correct calculator.
4. Document the initial dose. **Tick the box to indicate how this was calculated.**
5. If the online calculator is not used to calculate the dose, then ensure the calculations for the dose are documented in the space provided on the tobramycin prescribing chart.
6. Prescribe the initial dose of tobramycin in the prescription section of the chart.
7. Prescribe Tobramycin on HEPMA as PRN to maintain full digital record of medicines prescribed.
8. Store tobramycin chart with other paper documentation relating to the patient that is easily accessible.

ALWAYS CHECK IF PREVIOUS DOSES OF AMINOGLYCOSIDES HAVE BEEN ADMINISTERED (e.g. in A&E, surgical prophylaxis-once only section) AND DOCUMENT ON CHART TO ENSURE COMPLETE TREATMENT RECORD

TOXICITY Before prescribing each dose check renal function	Tobramycin Prescription Record				Administration Record			Monitoring Record (samples 6-14 hours after start of infusion)			
	Date to be given	Time to be given 24 h clock	Tobramycin Dose (mg)	Prescriber's signature, PRINTED name and STATUS	*Infuse over 60 mins* Date given Time started 24 h clock		Given by	Date of sample	Time of sample 24 h clock	Tobra level (mg/L)	Action/ Comments (please initial action to be taken)
Cr = 79 micromol/L											24 hourly <input type="checkbox"/> 36 hourly <input type="checkbox"/> 48 hourly <input type="checkbox"/> Stop <input type="checkbox"/> Details/other:
Cr = 79 micromol/L											24 hourly <input type="checkbox"/> 36 hourly <input type="checkbox"/> 48 hourly <input type="checkbox"/> Stop <input type="checkbox"/> Details/other:
Cr = micromol/L											24 hourly <input type="checkbox"/> 36 hourly <input type="checkbox"/> 48 hourly <input type="checkbox"/> Stop <input type="checkbox"/> Details/other:

Prescribe each dose individually, NOT normally >24hr in advance

If antibiotic therapy is to continue beyond 3 days consider oral switch. Review microbiology results and sensitivities and prescribe targeted therapy where possible
 If IV therapy is still indicated discuss with ID/Micro
 Discuss with an infection specialist if tobramycin required for more than 72hrs

On HEPMA:

Tobramycin should be prescribed as a PRN medication on HEPMA "As charted". Do not prescribe a specific dose or administration time on HEPMA.

TOBRAMYCIN Infusion - AS PER PAPER CHART

Communication zone

DRUG SEARCH

CLINICAL DRUG INFORMATION

HELP

Drug Notes

Formulary

Drug Conflicts

Order Entry

Confirmation

Tobramycin as charted

All Routes

Title

Tobramycin as charted

Modified

09-Feb-2024

Route

All Routes

Status

Active

Author

Iain Hewitt

This should only be used outwith CF.
Tobramycin level should be taken 6-14 hours after administration of first dose.
This level should be reviewed prior to prescribing the remainder of the tobramycin course as per local guidance

[<Tobramycin Prescribing Chart.pdf \(scot.nhs.uk\)>](#)

All tobramycin should be prescribed on the tobramycin prescription chart. A placeholder should be prescribed on HEPMA as an as required prescription with "1 dose" documented for the dose and no default frequency. The prescription will default to this. Nursing staff should document all administrations on the tobramycin prescription chart and on HEPMA system.

DRUG SEARCH

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Confirmation

Legend

The following orders will be added

View Opening

Pharmacy Open

PRN

NON STOCK

TOBRAMYCIN Infusion - AS PER PAPER CHART

PRN order with no defined frequency

Dose

480 Dose

Route

Intravenous Intermittent Inf...

Frequency

Rx on

09-Feb-2024 12:22

Stop on

BNF

Aminoglycosides

Prescriber

Heather Kennedy (NMP)

Dose and dose time will be on tobramycin prescribing chart

Monitoring

1. Obtain blood sample prior to printing off label **6-14** hours after the start of the IV infusion. Record sample date, time, and level in the monitoring section of the chart.
2. Review and document the following:
 - a. the tobramycin concentration result
 - b. the patient's renal function (daily)
 - c. any signs of ototoxicity

3. Tick the relevant box to indicate if you wish to continue every 24, 36 or 48 hours, stop or other (give details). *Note that full guidance on interpreting concentrations is on the reverse of the prescription chart.*

ALWAYS CHECK IF PREVIOUS DOSES OF AMINOGLYCOSIDES HAVE BEEN ADMINISTERED (e.g. in A&E, surgical prophylaxis - once only section) AND DOCUMENT ON CHART TO ENSURE COMPLETE TREATMENT RECORD

TOXICITY Before prescribing each dose check renal function	Tobramycin Prescription Record				Administration Record			Monitoring Record (samples 6-14 hours after start of infusion)			
	Date to be given	Time to be given 24 h clock	Tobramycin Dose (mg)	Prescriber's signature, PRINTED name and STATUS	Date given	Time started 24 h clock	Given by	Date of sample	Time of sample 24 h clock	Tobra level (mg/L)	Action/ Comments (please initial action to be taken)
Cr = 89 micromol/L	01/05/21	0800	420mg	/ <i>FIXEM</i> FIXEM FY1	01/05/21	0800	JM/HK	01/05/21	1625	2.4	24 hourly <input checked="" type="checkbox"/> 36 hourly <input type="checkbox"/> 48 hourly <input type="checkbox"/> Stop <input type="checkbox"/> Details/other:
Cr = micromol/L	02/05/21	0800	420mg	/ <i>FIXEM</i> FIXEM FY1							24 hourly <input type="checkbox"/> 36 hourly <input type="checkbox"/> 48 hourly <input type="checkbox"/> Stop <input type="checkbox"/> Details/other:
Cr = micromol/L											24 hourly <input type="checkbox"/> 36 hourly <input type="checkbox"/> 48 hourly <input type="checkbox"/> Stop <input type="checkbox"/> Details/other:

If antibiotic therapy is to continue beyond 3 days consider oral switch. Review microbiology results and sensitivities and prescribe targeted therapy where possible
If IV therapy is still indicated discuss with ID/Micro
Discuss with an infection specialist if tobramycin required for more than 72hrs

4. Prescribe the next dose on the following line of the chart.
5. If renal function is stable, further tobramycin levels are not required within the **72hr** treatment duration. To minimise the risk of toxicity, duration of treatment should be limited to 72 hours. All tobramycin prescriptions that continue beyond this **must** be discussed and agreed with microbiology or an infection specialist.
6. Repeat steps 2 - 5 for all subsequent doses of tobramycin.
7. When stopping therapy, the tobramycin prescription must be discontinued on both HEPMA **AND** the tobramycin chart.

For further advice please contact your ward pharmacist or antimicrobial pharmacist on bleep 4732.