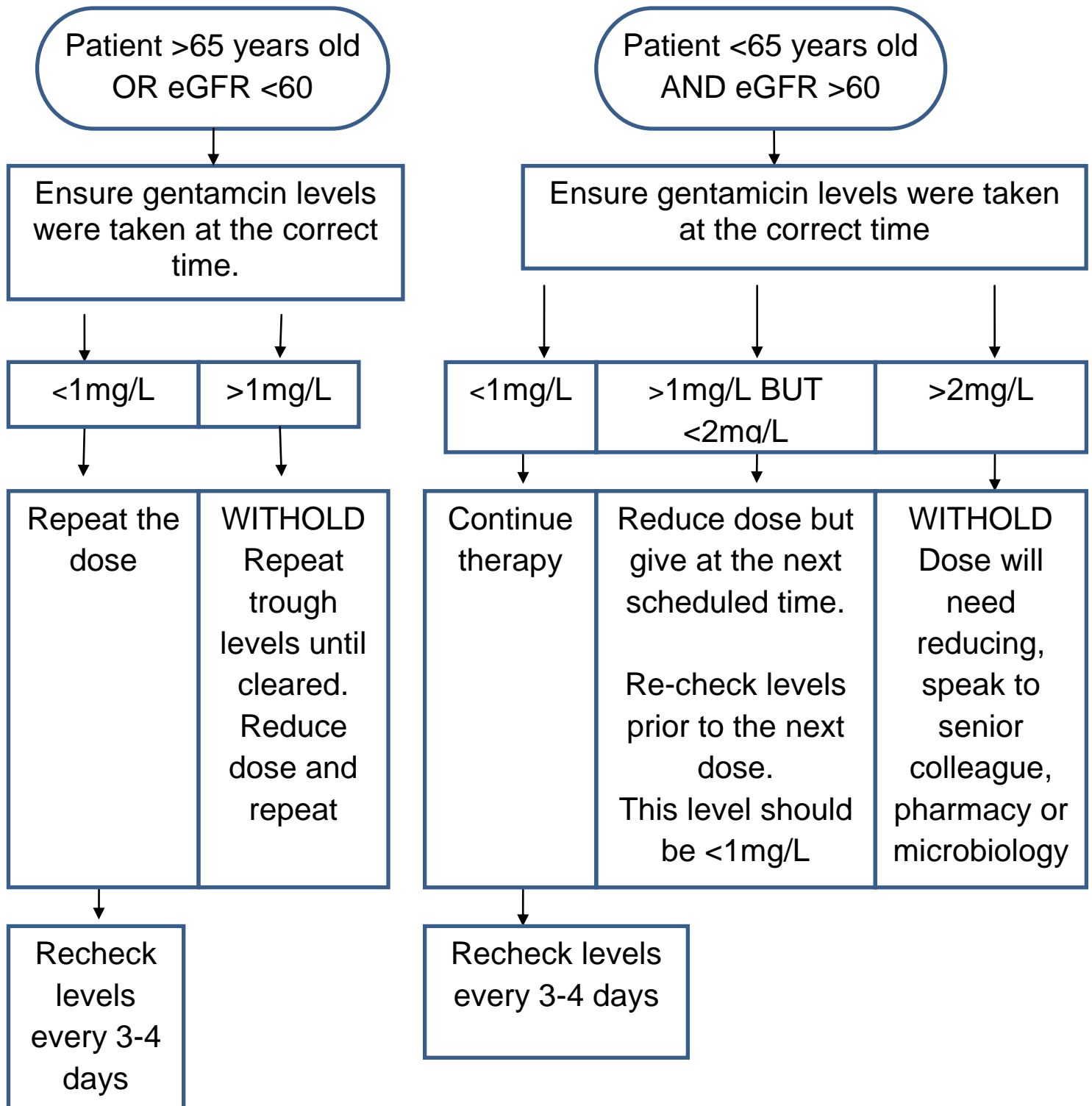


**Appendix 1. Clinical Guideline for Gentamicin Prescribing and Therapeutic Drug Monitoring.**

[Click here for the full guideline](#)



## The Guidance

- For indications refer to [Trust antimicrobial guidelines](#) on Trust intranet or Microguide app on mobile devices
- Gentamicin should be used as a single daily dose regime except for the treatment of bacterial endocarditis.
- Gentamicin has a potentially toxic side effect profile (nephrotoxicity and ototoxicity).
- Gentamicin should be used with caution in any patients with an impaired renal function. Due to a reduced rate of drug clearance and the potential for accumulation, this group of patients is particularly susceptible to the adverse effects of gentamicin therapy.
- Renal function should be determined using eGFR.
- When prescribing gentamicin be aware of the other risk factors [for AKI](#)
- These guidelines do not cover all scenarios e.g. If a patient's creatinine deteriorates during their illness (e.g. after the first dose or other doses of gentamicin) - it will be difficult to determine whether this is related to the systemic illness, or gentamicin toxicity, and it will also be difficult to determine whether the patient will benefit more from further gentamicin (to treat infection) or would benefit more from protecting renal function (and hence using an alternative antibiotic from that point onwards). Hence clinical decision making with advice from senior medical colleagues (including microbiology consultants if necessary) is recommended. The severity of the acute kidney injury will need to be taken into account.

## Monitoring

- Target trough levels are <1mg/L and should be taken 0 to 6 hours prior to next anticipated dose (i.e. 20-24 hours after the previous dose).
- Patients under 65 years of age with an eGFR >60mls/min should be given the second dose of gentamicin at the scheduled time regardless of whether the level has been reported.
- For patients undergoing renal replacement, those over 65 years of age or with an eGFR of less than 60ml/min, subsequent doses should be withheld until the trough level has been reported and is <1mg/L.
- See below for level monitoring algorithm.

## Timings of doses and administration.

- The first dose of gentamicin must be given as soon as possible and therefore at any time of day.
- To facilitate future gentamicin trough level taking (if indicated) the second dose may be given 20 to 36 hours after the first dose provided the first gentamicin trough level is within the recommended range.

## Dosing Information

Height		Age <65 years and eGFR >60mls/min		Age >65 years or eGRF <60mls/min	
		Dose 5mg/kg		Dose 3mg/kg	
Feet and inches	Centi-metres	Male	Female	Male	Female
5'	152.40	240mg	240mg	160mg	160mg
5'1"	154.94	240mg	240mg	160mg	160mg
5'2"	157.48	240mg	240mg	160mg	160mg
5'3"	160.02	320mg	240mg	160mg	160mg
5'4"	162.56	320mg	320mg	160mg	160mg

5'5"	165.10	320mg	320mg	240mg	160mg
5'6"	167.64	320mg	320mg	240mg	160mg
5'7"	170.18	320mg	320mg	240mg	240mg
5'8"	172.72	360mg	320mg	240mg	240mg
5'9"	175.26	360mg	320mg	240mg	240mg
5'10"	177.80	360mg	360mg	240mg	240mg
5'11"	180.34	360mg	360mg	240mg	240mg
6'	182.88	360mg	360mg	240mg	240mg
6'1"	185.42	440mg	360mg	240mg	240mg
6'2"	187.96	440mg	440mg	240mg	240mg
6'3"	190.50	440mg	440mg	240mg	240mg
6'4"	193.04	440mg	440mg	240mg	240mg
6'5"	195.58	440mg	440mg	240mg	240mg
6'6"	198.12	440mg	440mg	320mg	240mg
6'7"	200.66	440mg	440mg	320mg	240mg