

Audit Template

Audit Title: Therapeutic drug monitoring	
Lead Auditor: Emily Leach	Audit date(s): May 2025 Presented 02/06/25
Please indicate if Local / Regional / National Audit Please indicate which hospital & location or region Regional audit of the Southern Region/Thames Audit Group	Report Author: Name: Emily Leach Email: Emily.leach@nnuh.nhs.uk

Aims of the Audit: To review requesting and reporting practices across the region and to ensure evidence base for therapeutic ranges and consistency in reporting.

Audit Method and Outcome(s):

The questionnaire was prepared by the lead auditor after review of relevant guidelines and approved by the audit committee. It was circulated to members of the Thames Audit Group and the Southern region of the Association of Laboratory Medicine. 16 responses were received within the time frame that were included, and a further 2 during the analysis period which were not included.

This covered a number of different aspects of TDM, but not all. These were classified as cardiac, anti-epileptic, immunosuppressants and antibiotics. The ranges, units, collection protocols, requesting patterns and comments were reviewed. There was wide variation among certain groups such as immunosuppressants and antibiotics and therefore had to be largely excluded as there was clearly a local clinical requirement. For the cardiac and anti-epileptics there was a clear discrepancy in therapeutic ranges quoted despite common sources. There was also a need to update the sources quoted for certain assays.

Audit Recommendations / Standards:

- 1. Digoxin- review sources and ensure there is clear evidence base
- 2. Digoxin- If pathology harmony is preferred to use the later updated extended range
- 3. For all anti-epileptics the ranges were limited to adults only, and consideration should be given to paediatric ranges where appropriate

- 4. Clonazepam- Most responses listed the same referral site but there was an obvious difference in reported units and ranges. Consider contacting your referral site to check reporting units and ranges.
- 5. Phenobarbital- review source of ranges and ensure there is clear evidence base
- 6. Phenytoin- review source of ranges and ensure there is clear evidence base
- 7. Valproate- there is a division of whether to report a range. Consider the latest evidence base and discuss with local clinical teams.

Please indicate to whom and when audit presented &/or circulated&/or published:

Results were presented at the Thames Audit Group meeting held 2nd June 2025. Standards were circulated to members of the Thames Audit Group following the meeting.

Audit recommendations / standards ratified by ... and when:

Agreed by the attendees of the Thames Audit Group meeting held 2nd June 2025.

Date of audit report: 09/06/25

Audit documents for upload to http://www.labmed.org.uk/

Please include as attachments with this Audit Summary form if authors and the organising committee would like information to be publicly accessible on the LabMed website Audit section.





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