

NORTH THAMES CLINICAL CHEMISTRY AUDIT & QA GROUP

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North Thames Sweat Test Audit – January 2004

Summary

A questionnaire based on the summary of recommendations in the National Guidelines for Sweat Testing was distributed to 73 sites and replies were received from 42 laboratories which undertake sweat tests for the diagnosis of cystic fibrosis.

Overall, compliance with the recommendations was good. Particular areas of non-compliance and of concern were as follows:

1. Patient information could be improved by a) providing details of when and how the results of the test will be relayed to the patient/carer and b) providing details of the risk involved in sweat testing.
2. Informed consent is rarely obtained in a formal manner.
3. There is considerable variation in the criteria used to identify patients who are not suitable for sweat testing.
4. The laboratory definition of adequate sweat collection volume is frequently greater than that defined by an adequate sweat rate and may be related to sweat volume required for analysis. There is evidence that some laboratories are using analytical methods which require a relatively large volume of sweat and this can lead to a high failure rate in the collection of adequate sweat. Consideration should be given to local collection of sweat and transport to other laboratories for analysis using methods requiring minimal volumes of sweat.
5. 5 laboratories do not measure sweat chloride. The majority of laboratories continue to measure sweat sodium in addition to sweat chloride.
6. A number of laboratories do not use internal quality control material with analyte concentrations in the appropriate range. 4 labs are not in an EQA Scheme although this is readily available.
7. The majority of laboratories do not participate in external audit of sweat testing in conjunction with clinical colleagues.
8. Reference ranges for sweat analytes vary between laboratories and there is evidence that this leads to misinterpretation of results. The range of results defined as 'intermediate' in the National Guidelines is frequently referred to as 'equivocal', a term which was deliberately avoided in the guidelines because it has different implications.
9. The majority of laboratories do not have a system for validating staff who undertake sweat collection.