



Department of Chemical Pathology

**From:** Prof CWK Lam  
Hon Chief of Service  
Department of Chemical Pathology

**To:** All COSs,  
All Ward Managers  
All House Officers  
& All Units  
NTE Cluster Hospitals

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**Date:** 23 December 2002

**NTE Cluster-Wide Thyroid Function Test (TFT) Request Protocol  
Implementation Date: 16 January 2003**

Please note that with effect from 16.1.2003, a NTE cluster-wide laboratory-test request protocol for diagnosis and investigation of thyroid dysfunction will be introduced in our department.

As discussed and agreed upon in the NTEC Joint Endocrinology and Chemical Pathology Meeting dated 17.10.2002, this laboratory-test request protocol is clinical-scenario based, by which the most appropriate first-line thyroid function test(s) [TFT] will be performed according to the clinical information provided for the request. The usually encountered clinical conditions and their respective TFT offered are summarized in the following table for your reference.

Clinical Condition	First Line Thyroid Function Test(s) offered
? Primary hypo / hyperthyroid	TSH
? Central hypothyroid	FT4
Hyperthyroid (post RAI / Sx or on ATD) - Suspected thyrotoxic or euthyroid	FT4
Hyperthyroid (post RAI /Sx or on ATD) - Suspected hypothyroid	TSH
Hyperthyroid (post RAI / Sx or on ATD) - Uncertain status	FT4
Primary hyperthyroid in remission - Routine re-assessment	FT4
Primary hypothyroid, on Thyroxine	TSH
T3 toxicosis or on T3 treatment	FT3
CA thyroid	TSH, FT3
Congenital hypothyroidism (Paediatrics)	TSH, FT4
Thyrotoxicosis in pregnancy	TSH, FT4

**1. Request for TFT**

- (1) Via Laboratory Request System (LRS)  
Please **click the selection box** for choosing the appropriate clinical condition displayed on the Clinical Management System (CMS) screen.
- (2) Using a Laboratory Request Form  
Please **select one of the pre-set clinical conditions** as listed above, and write it down clearly on the Laboratory Request Form. It is not necessary to indicate the test requested since appropriate first-line TFT will be registered accordingly.

Note. The TFT panel printed on the NDH Laboratory Form will become obsolete, and will be superseded by the above diagnosis and investigation protocol.

## 2. Reflex (Add-On) Tests


For provision of more useful results, second-line TFT will be automatically added as a reflex response for the request, e.g.

- (1) If TSH < 0.3 mIU/L ==> FT4 will be added
- (2) If FT4 < 9.5 pmol/L ==> TSH will be added

In summary, our department will continue to collaborate closely with clinical colleagues for improving our service. We would appreciate your support by providing us with the **appropriate clinical information** that will be essential for successful implementation of the new TFT request protocol.

In case there is any clinical situation that has not been covered by the above-said conditions, but warrants the investigation of thyroid dysfunction, or if there is any enquiry on the forthcoming arrangements, please contact our Duty Biochemist (at 2632 2685 or 2632 2331, or page through PWH Operator at 2632 2211) for discussion of any alternative arrangement.

Thank you for your kind attention and best wishes for the Christmas season.



Prof CWK Lam

Encl: Two Flow Charts for Diagnosis and Management; Table of LRS Request Options.

Copy to:  
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CWKL/lcwl