CLP 015
MAY 1997

Guidelines for the Use of Serum Tests to Detect Thyroid Dysfunction

1. Background

The use of serum tests in the detection of thyroid dysfunction has been addressed by the Ontario government's Task Force on the Use and Provision of Medical Services (the Scott Task Force) which made several recommendations. The Ministry of Health and the Ontario Medical Association issued a joint guideline, *Recommended Approach to Thyroid Function Testing*, which incorporated those recommendations, in 1993.

In July, 1996, the OAML issued a Communiqué to physicians reiterating the recommendations of the Scott Task Force and informing physicians that the check off box for sTSH would be removed from the OHIP requisition.

The development of ever more sensitive thyroid tests has made it possible for the physician, in community practice, to investigate patients for subclinical disease. One result of this development has been the increasing use of testing to screen asymptomatic patients for thyroid dysfunction. The current guideline is designed to provide physicians with information supportive of their decision-making and guidance as to when specific thyroid function testing is appropriate.

Guidelines, by their nature, are generally focussed and cannot apply in every clinical situation. Nor can they serve as a substitute for sound clinical judgement. This guideline will address the use of testing to diagnose dysfunction. A companion guideline, *Guidelines for the Use of Serum Testing in the Management of Thyroid Dysfunction by Thyroxine Replacement* (CLP 016) is available from the OAML.

2. Limitations

In the presence of an abnormal TSH result, patients should be further investigated to establish their thyroid status. Definitive diagnosis may require repeat TSH testing and assessment of free thyroxine levels and of thyroid antibodies.

3. Indications

Screening of asymptomatic patients who are not among those populations identified as being at higher risk is not indicated.

For patients with a single, non-specific symptom, who are not among identified high risk populations, testing is seldom rewarding.

Among those populations identified as being at higher risk; i.e.,

- elderly

- postmenopausal
- postpartum
- strong family history of disease

physicians should maintain a higher index of suspicion. If thyroid dysfunction is suspected, testing is indicated.

For patients who manifest multiple symptoms consistent with thyroid dysfunction, the physician should order sTSH as an initial test to confirm thyroid dysfunction. For patients with diagnosed but untreated subclinical hypothyroidism, the appropriate testing interval is annually.

4. Recommendations

For patients who are asymptomatic and who are not among populations identified as high risk, it is recommended that thyroid testing not be undertaken.

For patients with a single, non-specific symptom who are not among populations identified as high risk, it is recommended that thyroid testing not generally be undertaken.

For high risk populations, the physician will want to maintain a higher index of suspicion and, in cases where thyroid dysfunction may be suspected, it is recommended that the physician first assess sTSH levels.

For patients manifesting multiple symptoms of thyroid dysfunction, it is recommended that the physician assess sTSH levels.

For patients with diagnosed but untreated subclinical hypothyroidism, it is recommended that testing be undertaken no more often than once annually.

5. References

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The Ontario Association of Medical Laboratories

The Ontario Association of Medical Laboratories (OAML) represents the community-based laboratory sector in Ontario.

Its mission is to promote excellence in the provision of laboratory services and, as an essential component of the health care system, to contribute to shaping the future of health care in Ontario.

The OAML encourages the highest level of professional and ethical integrity and technical excellence among laboratory owners, operators and staff in the provision of laboratory services for the benefit of the people of Ontario.

Guidelines for Clinical Laboratory Practice

The OAML, through its Quality Assurance and Clinical Laboratory Practice Committee, co-ordinates the development and dissemination, implementation and evaluation of Guidelines for Clinical Laboratory Practice.

A proposed Guideline is developed by a working group of the Committee with the participation of outside experts. The proposed guideline is then submitted to the Committee as a whole and to a Professional Advisory Group who provide an overall review of the document. The comments of the Committee and the Professional Advisory Group are incorporated into a revision of the guideline and this draft is submitted to laboratory Medical

There may be additional educational materials produced, if it is thought that they might be useful, and these are distributed with the guideline.

The comments of end users are essential to the development of guidelines and will encourage adherence. You are strongly encouraged to submit your comments on this or on any other OAML Guideline to:

Chair
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Directors, professional associations and other representatives of end users for additional comment. The document is revised in light of these comments and submitted to the OAML Board of Directors for approval. **Approved guidelines** are distributed to Community-based Laboratories and by them to their client physicians.	M2N 6L9 Tel: (416) 250-8555 Fax: (416) 250-8464 E-mail: oaml@oaml.com Internet: http://www.oaml.com

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