Position statement of the Endocrine Surgery Group of the Canadian Society of Otolaryngology-Head and Neck Surgery for the reporting of thyroid fine needle aspirates:

Endorsement of The Bethesda System for Reporting Thyroid Cytopathology

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The Bethesda System for Reporting Thyroid Cytopathology (TBSRTC), the second edition of which was published in 2018, has been widely implemented worldwide, including in Canada; it is also endorsed by the American Thyroid Association. By the current position statement, the Endocrine Surgery Group of Canadian Society of Otolaryngology-Head and Neck Surgery (CSOHNS) confirms that it endorses TBSRTC, which should be used for reporting the diagnostic findings of thyroid fine needle aspirates (FNAs) in Canada. The current position statement, along with the one from the Canadian Society of Cytopathology, can be used as a tool to encourage the use of TBSRTC by pathologists not yet adhering to it.[1]

TBSRTC was created to provide a uniform, tiered reporting system with standardization of cytologic diagnostic criteria and terminology, which should ultimately translate into improved patient diagnosis and care. The second edition of TBSRTC (TBSRTC II) was adjusted to reflect new evidence-based data since publication of its first edition in 2010, including a) the incorporation of the Non-Invasive Follicular Thyroid Neoplasm with Papillary-like Nuclear Features (NIFTP), requiring a more conservative approach to the cytologic diagnosis of Papillary Thyroid Carcinoma (PTC), b) revised Risk of Malignancy (ROM) for each diagnostic categories, and c) updated American Thyroid Association management guidelines for thyroid nodule and cancer.

The following is a short summary of the diagnostic terminology of TBSRTC; explanations of the diagnostic criteria, and illustrations can be found in TBSRTC atlas.[2]

Each thyroid FNA report should include one of six diagnostic categories: (I) Nondiagnostic or Unsatisfactory, (II) Benign; (III) Atypia of Undetermined Significance (AUS) or Follicular Lesion of Undetermined Significance (FLUS); (IV) Follicular neoplasm or Suspicious for follicular neoplasm; (V) Suspicious for malignancy; and (VI) Malignant. Of note, although the numerical diagnostic categories (i.e. I to VI) can be listed in the cytologic report, they cannot be used as “stand alone”. Also, although, there is a choice of two different names for categories I, III and IV, a laboratory should adopt only one wording for each category in order to minimize confusion.

For most categories, providing subcategorization (see Table I) is encouraged as it can provide clinically relevant information that can better guide management; however, this is optional. Additional comments, listing of ROM and suggested clinical management are also optional, left to the discretion of the (cyto)pathologist, depending on local practices. (see Table II)

Although the second edition of TBSRTC is the version that should be used at the time of publication of the current position statement, it is anticipated that a third edition with further modifications will be published in the future, and that practice should be adapted accordingly.

References

1. https://cytopathology.ca/wp-content/uploads/2019/07/Bethesda-system-memo.pdf

2.Ali SZ, Cibas ES. The Bethesda System for reporting thyroid cytopathology: definitions, criteria and explanatory notes. 2nd ed. New York, NY: Springer 2018, 236p.

Table I: Classification with subclassifications suggested for each of the diagnostic categories

I. Nondiagnostic or Unsatisfactory Cyst fluid only Virtually acellular specimen Other (obscuring blood, air drying artefact, etc)
II. Benign Benign follicular nodule (includes nodular hyperplasia, colloid nodule, etc) Lymphocytic thyroiditis Granulomatous thyroiditis Other
III. Atypia of Undetermined Significance (AUS) or Follicular Lesion of Undetermined Significance (FLUS) AUS with architectural atypia AUS with nuclear (cytological) atypia AUS with architectural and nuclear (cytological) atypia AUS Hürthle cell type

AUS, other
IV. Follicular neoplasm <u>or</u> Suspicious for follicular neoplasm Specify if oncocytic (Hürthle cell) type (i.e. Hürthle cell neoplasm)
V. Suspicious for malignancy Suspicious for papillary thyroid carcinoma Suspicious for medullary thyroid carcinoma Suspicious for metastatic carcinoma Suspicious for lymphoma Other
VI. Malignant Papillary thyroid carcinoma Medullary thyroid carcinoma Anaplastic thyroid carcinoma Metastatic malignancy Lymphoma Other

Table II. TBSRTC terminology with implied ROM and recommended clinical management

Diagnostic category	Risk of malignancy taking in consideration NIFTP (%)	Usual management
Non-diagnostic or Unsatisfactory	5-10	Repeat FNA with ultrasound guidance
Benign	0-3	Clinical and sonographic follow-up
Atypia of Undetermined Significance or Follicular Lesion of Undetermined Significance	6-18	Repeat FNA, lobectomy or molecular testing
Follicular neoplasm or Suspicious for follicular neoplasm	10-40	Lobectomy or molecular testing
Suspicious for malignancy	45-60	Near-total thyroidectomy or lobectomy
Malignant	94-96	Near-total thyroidectomy or lobectomy