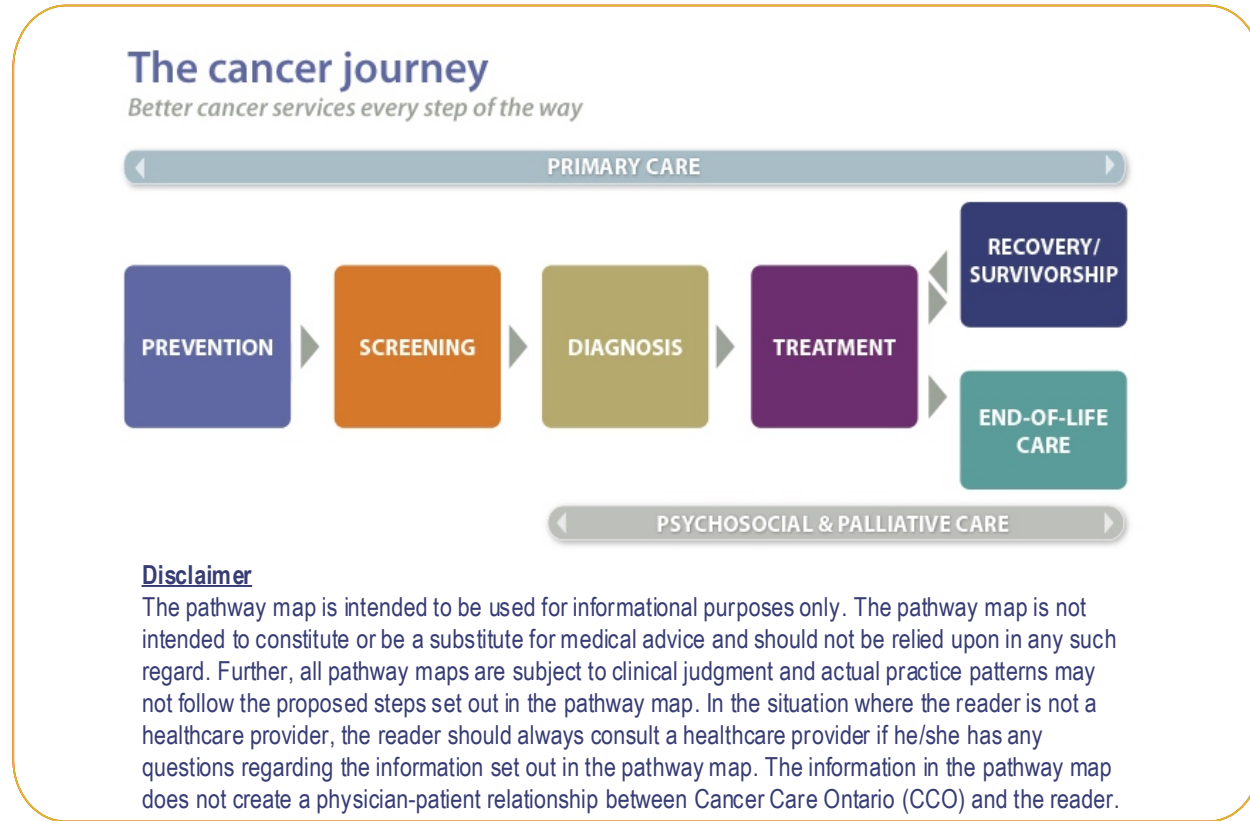


# Differentiated Thyroid Cancer Diagnosis Pathway Map

Version 2017.04



### Pathway Map Considerations

- Primary care providers play an important role in the cancer journey and should be informed of relevant tests and consultations. Ongoing care with a primary care provider is assumed to be part of the pathway. For patients who do not have a primary care provider, [Health Care Connect](#), is a government resource that helps patients find a doctor or nurse practitioner.
- Throughout the pathway map, a shared decision-making model should be implemented to enable and encourage patients to play an active role in the management of their care. For more information see [Person-Centered Care Guideline](#).
- Hyperlinks are used throughout the pathway map to provide information about relevant CCO tools, resources and guidance documents, including documents from CCO's Evidence-Based Series (EBS).
- We acknowledge that not all recommendations are congruent with the American Thyroid Association 2015 guideline; however, the experts on the Thyroid Cancer Pathway Map Working Group believe they are appropriate modification for use in Ontario.
- The term 'health care provider', used throughout the pathway, includes primary care providers and specialists, nurse practitioners, endocrinologists and emergency physicians.
- In Ontario, various specialties have taken on an expanded role in the management of differentiated thyroid cancers. Throughout the pathway, specialist referrals imply a physician with specific expertise in that particular aspect of the management of thyroid cancer.

### Pathway Map Notes

- Conversion factor for Tg ng/mL to pmol/L: 1 ng/mL Tg = ~1.515 pmol/L
- When measuring Thyroglobulin (Tg), include measurement of Thyroglobulin antibodies as well

### References

- [1] British Thyroid Association. Guidelines for the management of thyroid cancer. Clinical Endocrinology. 2014 Jul;81 Suppl 1:1-122. doi: 10.1111/cen.12515.
- [2] Society of Radiologists in Ultrasound. Management of thyroid nodules detected at US: Society of Radiologists in Ultrasound consensus conference statement. Radiology. 2005 Dec;237(3):794-800.

### Pathway Map Legend

#### Colour Guide

- Primary Care
- Palliative Care
- Pathology
- Diagnostic Assessment Program (DAP)
- Surgery
- Radiation Oncology
- Medical Oncology
- Radiology
- Multidisciplinary Cancer Conference (MCC)
- Endocrinology
- Nuclear Medicine
- Psychosocial Oncology

#### Shape Guide

- Intervention
- Decision or assessment point
- Patient (disease) characteristics
- Consultation with specialist
- Exit pathway
- Off-page reference
- Patient/Provider Interaction
- Referral
- Wait time indicator time point

#### Line Guide

- Required
- Possible

### Pathway Map Disclaimer

This pathway map is a resource that provides an overview of the treatment that an individual in the Ontario cancer system may receive.

The pathway map is intended to be used for informational purposes only. The pathway map is not intended to constitute or be a substitute for medical advice and should not be relied upon in any such regard. Further, all pathway maps are subject to clinical judgment and actual practice patterns may not follow the proposed steps set out in the pathway map. In the situation where the reader is not a healthcare provider, the reader should always consult a healthcare provider if he/she has any questions regarding the information set out in the pathway map. The information in the pathway map does not create a physician-patient relationship between Cancer Care Ontario (CCO) and the reader.

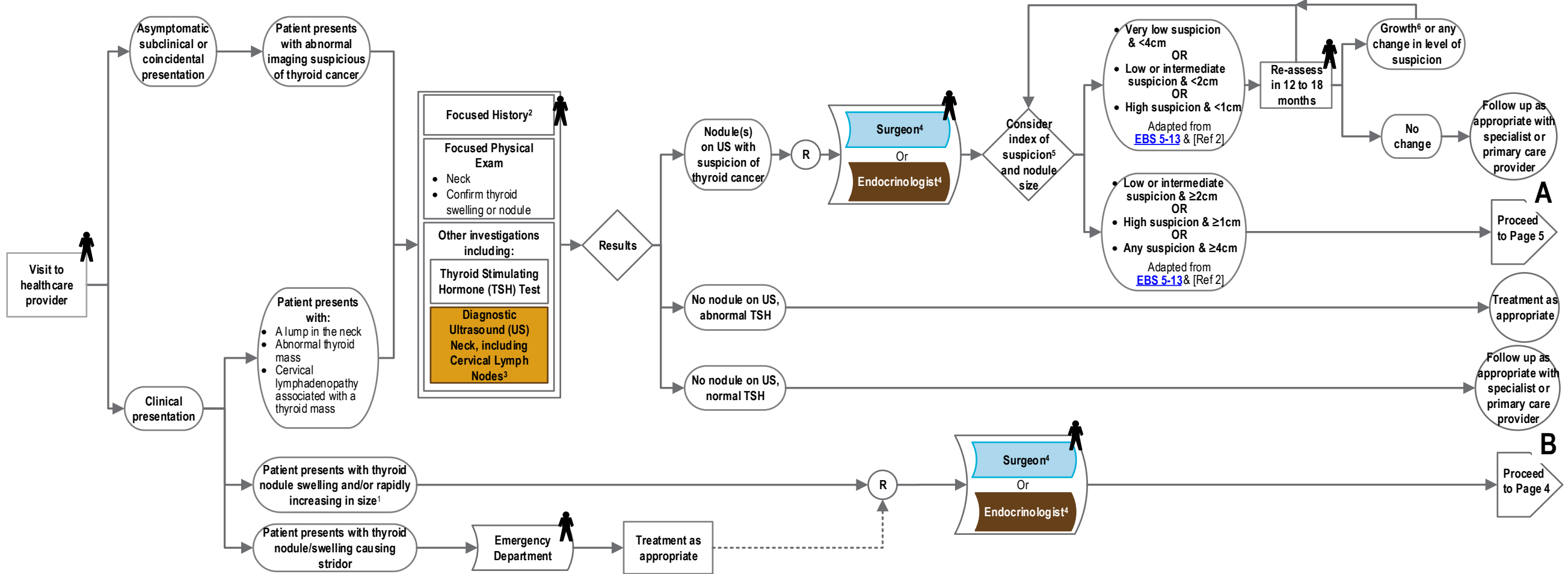
While care has been taken in the preparation of the information contained in the pathway map, such information is provided on an "as-is" basis, without any representation, warranty, or condition, whether express, or implied, statutory or otherwise, as to the information's quality, accuracy, currency, completeness, or reliability.

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Screen for psychosocial needs, and assessment and management of symptoms. [Click here for more information about symptom assessment and management tools](#)



<sup>1</sup> Urgent referral if thyroid swelling presents with any of the following: solitary nodule that is rapidly increasing in size, unexplained hoarseness/voice change, enlarging cervical nodes (Adapted from [Ref 1]). Fine Needle Aspiration (FNA) may be considered in clinic while waiting for imaging appointment.

<sup>2</sup> Focused history includes: history of childhood head and neck irradiation, total body irradiation for bone marrow transplant, family history of thyroid carcinoma, or thyroid cancer syndrome (i.e. Cowden's, familial polyposis, Carney complex, multiple endocrine neoplasia 2 (MEN 2), Werner syndrome) in a first degree relative, exposure to ionizing radiation from fallout in childhood or adolescence, and rapid growth and hoarseness (EBS 5-13).

<sup>3</sup> Synoptic reporting of US results are strongly recommended, and the radiologist should provide a recommendation for risk category [Consensus]. Ultrasound report should include: nodule size, nodule location, description of nodule's sonographic features (including composition (solid, cystic proportion, or spongiform), echogenicity, margins, presence and type of calcifications, and shape if taller than wide, and adenopathy), and an assessment of the cervical lymph nodes (Adapted from EBS 5-13).

<sup>4</sup> Patient should be referred to an endocrinologist or surgeon with thyroid cancer treatment expertise.

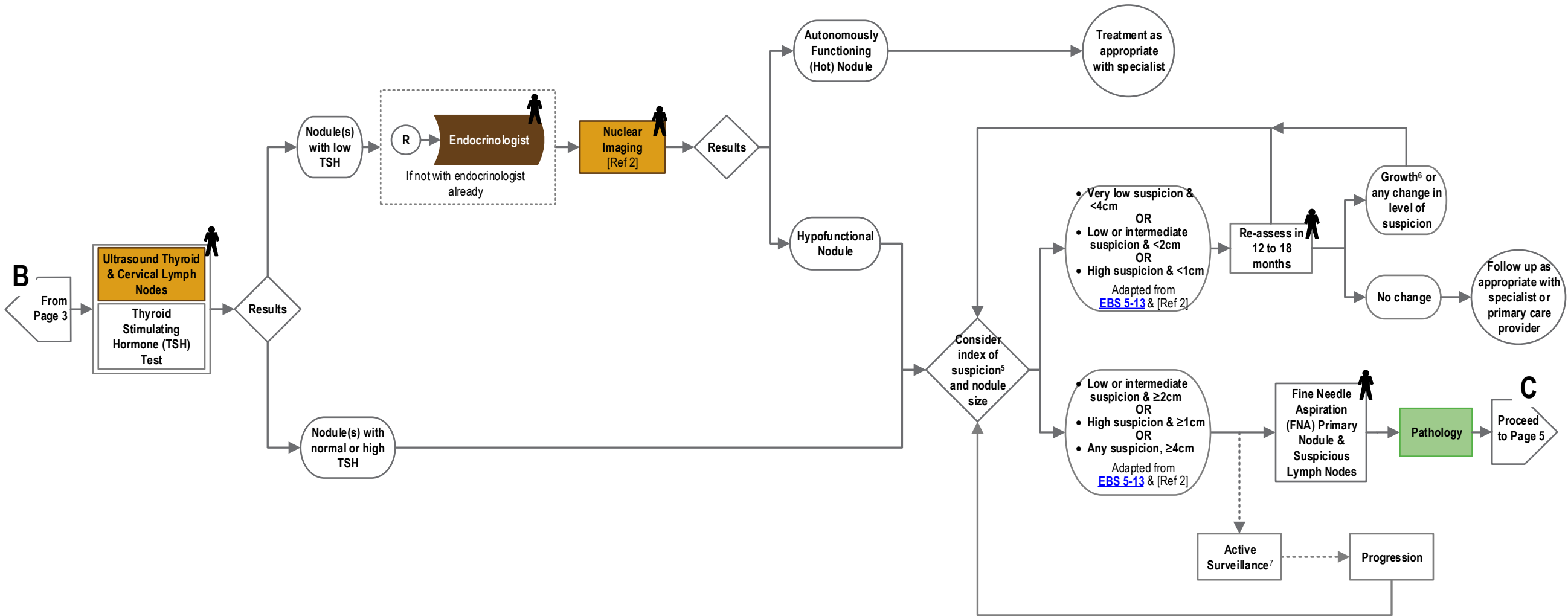
<sup>5</sup> Sonographic suspicion (EBS 5-13):

- High Suspicion (malignancy risk >70-90%): Solid hypoechoic nodule or a solid hypoechoic component in a partially cystic nodule with one or more of the following features: irregular margins (specifically defined as infiltrative, microlobulated, or spiculated), microcalcifications, taller than wide shape, disrupted rim calcifications with small extrusive, hypoechoic soft tissue component, or evidence of extrathyroidal extension
- Intermediate Suspicion (malignancy risk 10-20%): Hypoechoic solid nodule with a smooth regular margin, but without microcalcifications, extrathyroidal extension, or taller than wide shape
- Low Suspicion (malignancy risk 5-10%): Isoechoic or hyperechoic solid nodule, or partially cystic nodule with eccentric uniformly solid areas without microcalcifications, irregular margin or extrathyroidal extension, or taller than wide shape
- Very Low Suspicion (malignancy risk ≤3%): Spongiform or partially cystic nodules without any of the sonographic features described in low, intermediate, or high suspicion patterns

<sup>6</sup> Growth defined as: 20% increase in at least 2 nodule dimensions, or 50% change in volume

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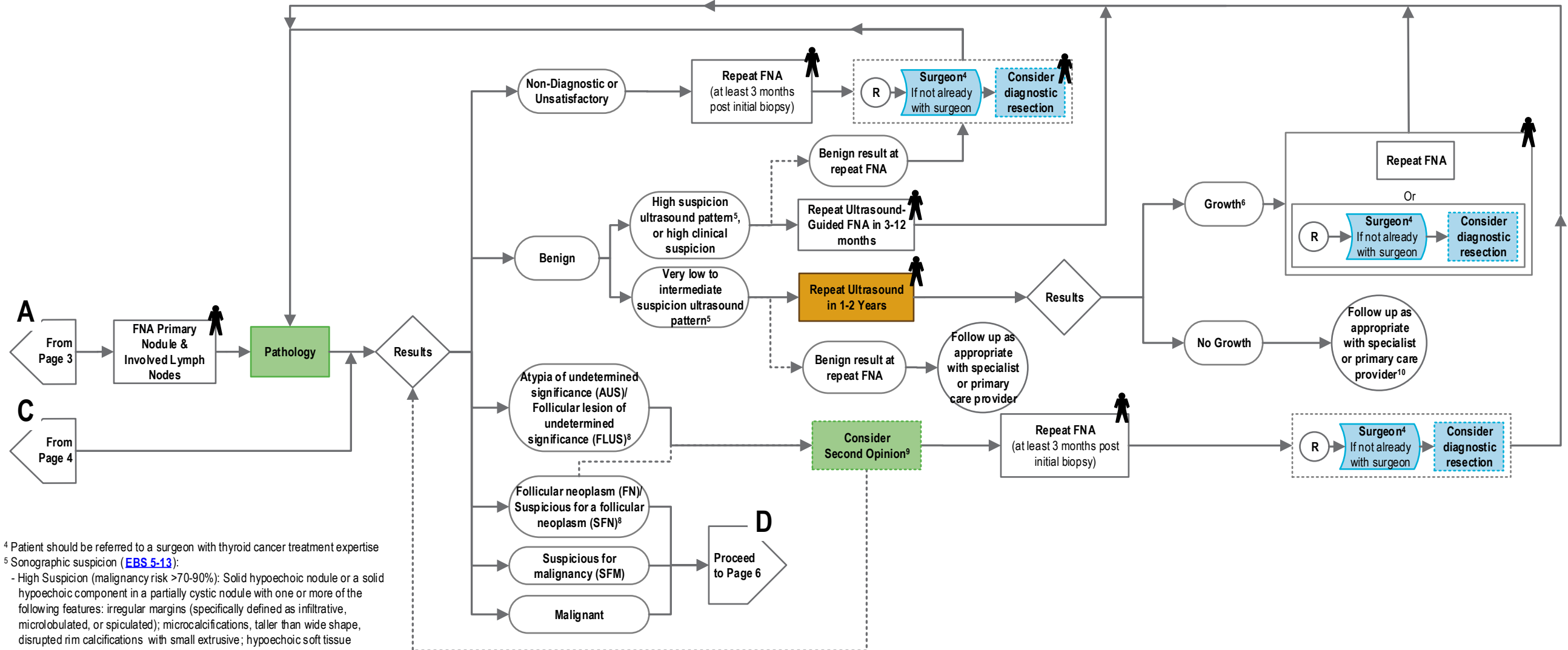
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<sup>6</sup> Growth defined as: 20% increase in at least 2 nodule dimensions, or 50% change in volume

<sup>7</sup> A conservative approach of active surveillance management may be appropriate as an alternative to FNA in selected patients. These may include: patients at high surgical risk or those with a relatively short life span expectancy in whom the benefits of intervention may be unrealized ([EBS 5-13](#)).

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<sup>8</sup> Consider diagnostic lobectomy or close follow-up depending on risk associated with surgery

<sup>9</sup> A second opinion review of the cytopathology slides by a high-volume cytopathologist may be considered ([EBS 5-13](#))

<sup>10</sup> Cease follow up after 2 benign biopsies or 5 years, whichever comes first.

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### Staging of Papillary & Follicular Thyroid Carcinoma

#### Age <55 years old

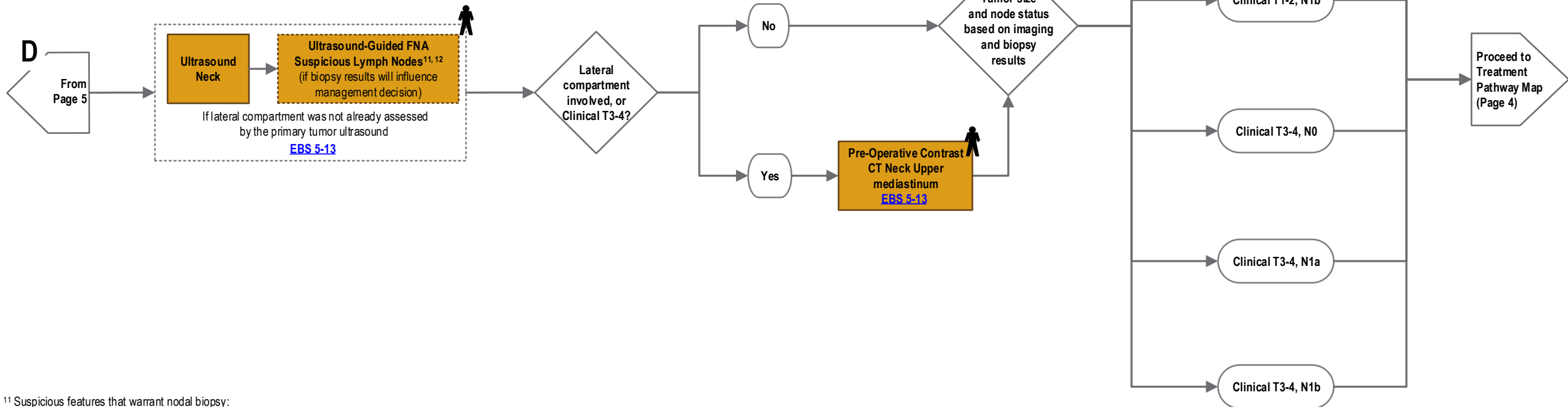
Stage I	Any T	Any N	M0
Stage II	Any T	Any N	M1

#### Age >55 years old

Stage I	T1a, T1b, T2	N0	M0
Stage II	T3	N0	M0
	T1-3	N1	M0
Stage III	T4a	Any N	M0
Stage IVA	T4b	Any N	M0
Stage IVB	Any T	Any N	M1

AJCC Cancer Staging Manual 8<sup>th</sup> edition

UICC The TNM Classification of Malignant Tumours, 8<sup>th</sup> Edition



<sup>11</sup> Suspicious features that warrant nodal biopsy:

- On ultrasound: rounded shape, hypoechoic, cystic, small foci of calcification, or central necrosis
- On CT: rounded shape, enhancement, cystic, small foci of calcification, or central necrosis

- Size: size is **only** of consideration if there are suspicious features present, there is no need to biopsy on size alone. In presence of suspicious features, biopsy is recommended if the shortest dimension in the axial plane is >8mm.

<sup>12</sup> Consider thyroglobulin washout if available.