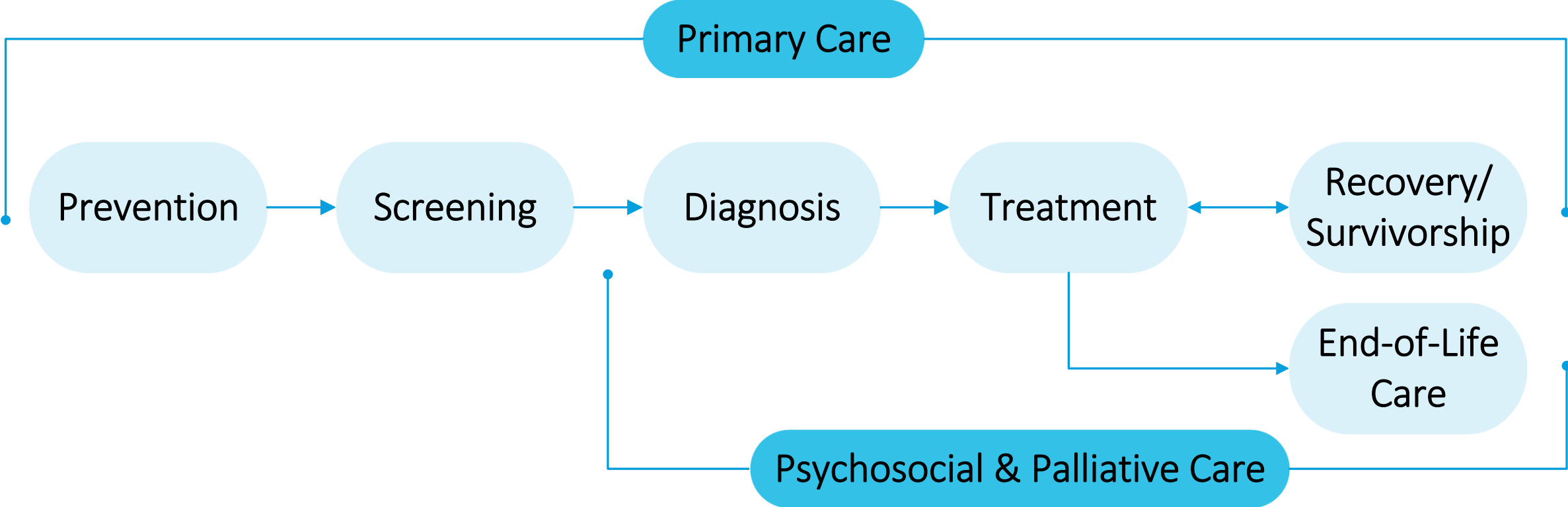


Thyroid Cancer Diagnosis Pathway Map

Version 2024.10



Disclaimer: 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 health care provider, the reader should always consult a healthcare provider if they have 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 Ontario Health (Cancer Care Ontario) and the reader.



Ontario Health
Cancer Care Ontario

Target Population

- Patients who present with signs or symptoms suspicious of thyroid cancer.

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 map. For patients who do not have a primary care provider, [Health811](#) is a government resource that helps patients find a doctor or nurse practitioner.
- Hyperlinks are used throughout the pathway map to provide information about relevant Ontario Health (Cancer Care Ontario) tools, resources and guidance documents.
- The term ‘health care provider’, used throughout the pathway map, includes primary care providers and specialists, e.g. family doctors, nurse practitioners, and emergency physicians.
- 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](#) and [EBS #19-2](#).*
- Clinical trials should be considered for all phases of the pathway map.
- 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 thyroid cancer management.
- The pathway was developed using ACR-TIRADS guidelines and Atlas for identification of nodules that are followed sonographically and/or require a biopsy. ACR-TIRADS sonographic follow up timelines vary. Corresponding malignancy risk for ACR-TIRADS categories:
 - TR1 (Benign) malignancy risk <2%,
 - TR2 (Not suspicious) malignancy risk <2%,
 - TR3 (Mildly suspicious) malignancy risk <5%,
 - TR4 (Moderately suspicious) malignancy risk 5-20%,
 - TR5 (Highly suspicious) malignancy risk >20%
- Psychosocial oncology (PSO) is the interprofessional specialty concerned with understanding and treating the social, practical, psychological, emotional, spiritual and functional needs and quality-of-life impact that cancer has on patients and their families. Psychosocial care should be considered an integral and standardized part of cancer care for patients and their families at all stages of the illness trajectory. For more information, visit [EBS #19-3](#).*

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
- Adverse histopathological features: angioinvasion (excluding lymphatic invasion), tall cell (>30%), hobnail cell (>30%), columnar cell change in >30% of tumor, solid growth (>30%), widely invasive growth, any level of dedifferentiation, intrathyroidal psammomatous

References

- British Thyroid Association. Guidelines for the management of thyroid cancer. Clinical Endocrinology. 2014 Jul;81 Suppl 1:1-122. doi: 10.1111/cen.12515.
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- Tessler, F. N., Middleton, W. D., Grant, E. G., Hoang, J. K., Berland, L. L., Teefey, S. A., Stravros, A. T. (2017). ACR Thyroid Imaging, Reporting and Data. ACR Thyroid Imaging, Reporting and Data System (TI-RADS): White Paper of the ACR TI-RADS Committee, 14(5), 587-595. doi:10.1016/j.jacr.2017.01.046
- American College of Radiology. (2015). Thyroid Imaging Reporting & Data System. Retrieved from ACR TI-RADS Atlas

* Note. [EBS #19-2](#) and [EBS #19-3](#) are older than 3 years and are currently listed as ‘For Education and Information Purposes’. This means that the recommendations will no longer be maintained but may still be useful for academic or other information purposes.

Pathway Map Legend

Colour Guide	Shape Guide	Line Guide
 Primary Care	 Intervention	 Required
 Palliative Care	 Decision or assessment point	 Possible
 Pathology	 Patient (disease) characteristics	
 Endocrinology	 Consultation with specialist	
 Surgery	 Exit pathway	
 Radiation Oncology	 Off page reference	
 Medical Oncology	 Referral	
 Radiology		
 Multidisciplinary Cancer Conference (MCC)		
 Genetics		
 Psychosocial Oncology (PSO)		

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.

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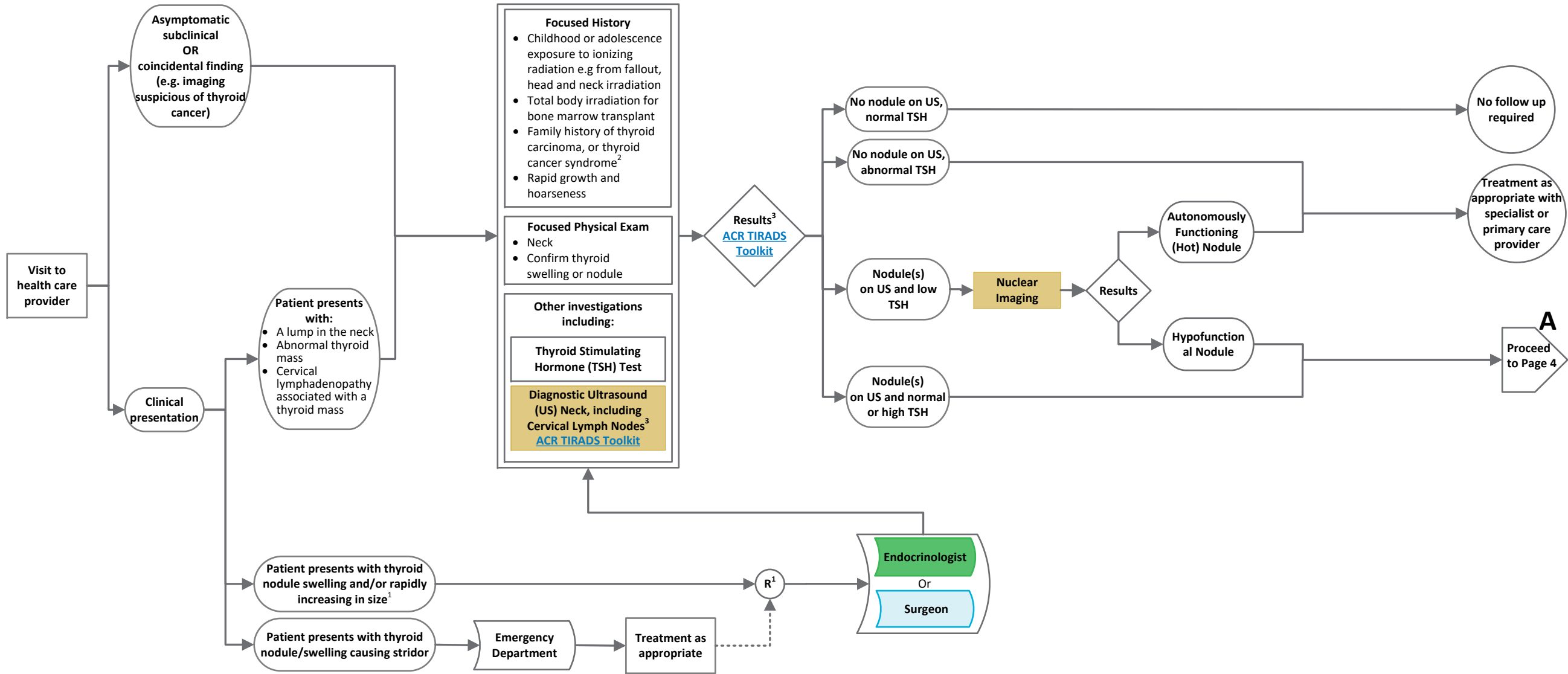
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This pathway map may not reflect all the available scientific research and is not intended as an exhaustive resource. Ontario Health (Cancer Care Ontario) and its content providers assume no responsibility for omissions or incomplete information in this pathway map. It is possible that other relevant scientific findings may have been reported since completion of this pathway map. This pathway map may be superseded by an updated pathway map on the same topic.

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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](#)



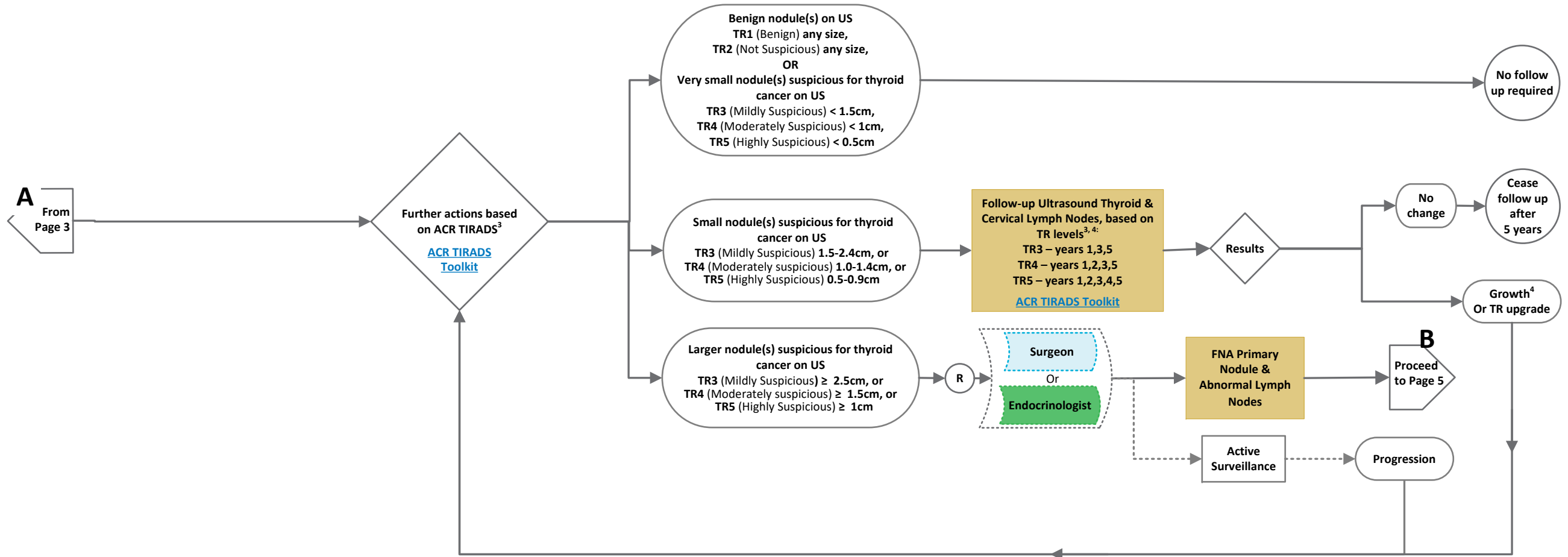
¹ Urgent referral if thyroid swelling presents with any of the following: solitary nodule that is rapidly increasing in size, unexplained hoarseness/voice change, enlarging cervical nodes (Adapted from [Ref 1]). Fine Needle Aspiration (FNA) may be considered in clinic while waiting for imaging appointment.

² Family history of thyroid carcinoma in a first degree relative, or thyroid cancer syndromes include malignancies related to Cowden's, familial polyposis, Carney complex, multiple endocrine neoplasia 2 (MEN 2), Werner syndrome in a first degree relative.

³ Synoptic reporting of US results using ACR TIRADS for assessment and recommendation for risk category is strongly recommended. An ultrasound reporting template has been developed by OH-CCO and is available [here](#).

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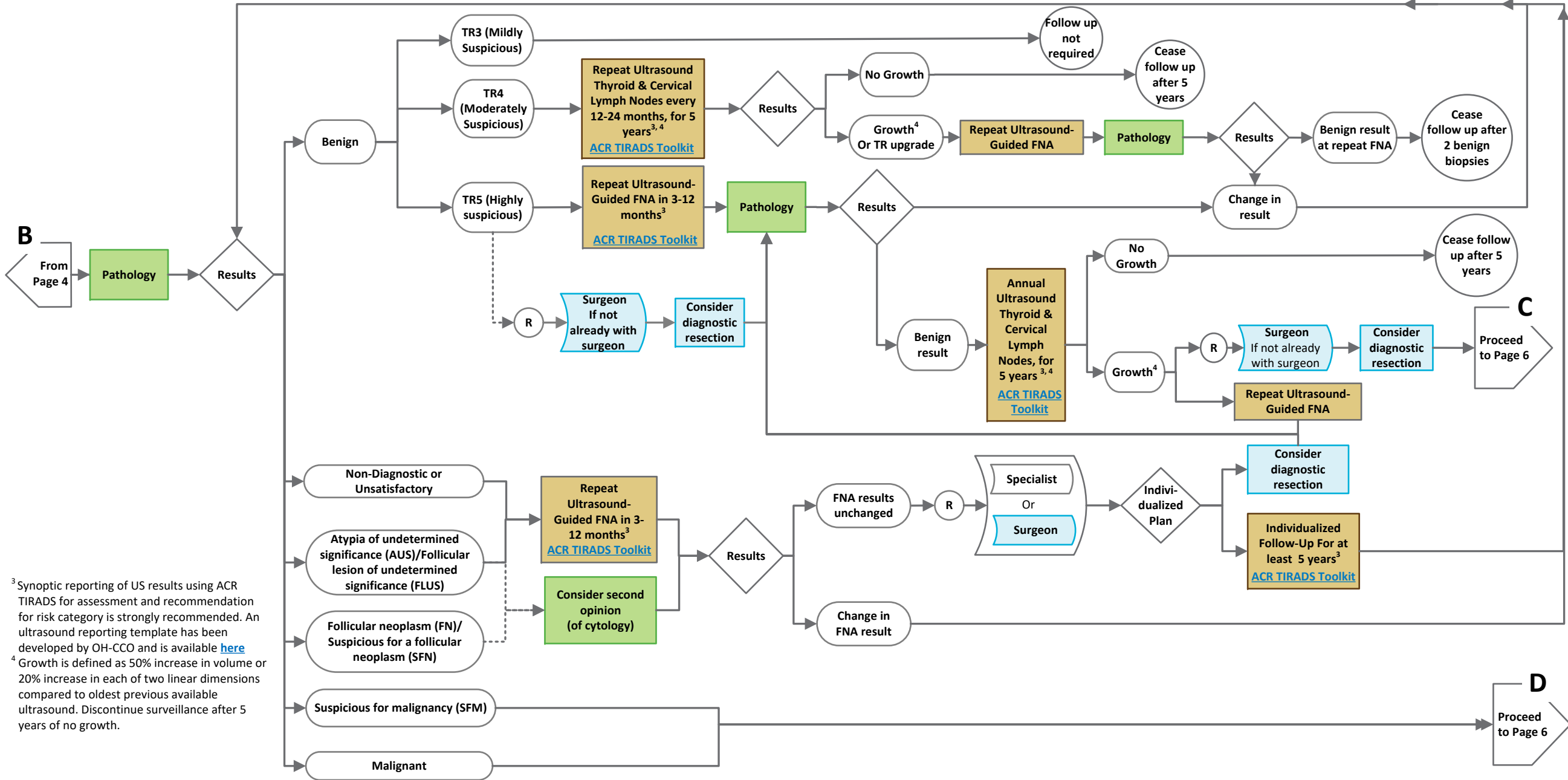


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⁴ Growth is defined as 50% increase in volume or 20% increase in each of two linear dimensions compared to oldest previous available ultrasound. Discontinue surveillance after 5 years of no growth.

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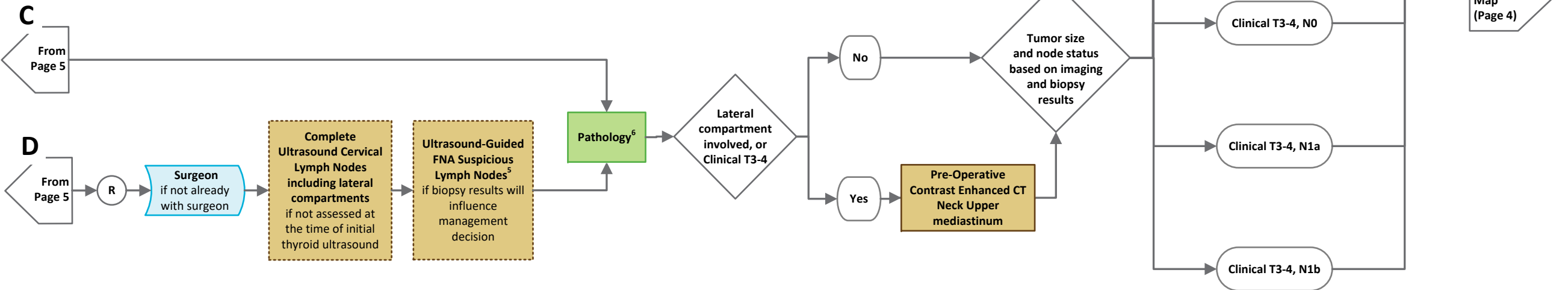
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Staging of Papillary & Follicular Thyroid Carcinoma

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 8th edition
UICC The TNM Classification of Malignant Tumours, 8th Edition



⁵ 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.

⁶ Consider thyroglobulin washout if available.

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