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Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

Note: Consider Clinical Trials as treatment options for eligible patients.



TSH = thyroid stimulating hormone FNA = fine needle aspiration

¹ For patients with a low TSH who are taking thyroid hormone supplementation (*e.g.*, levothyroxine, desiccated thyroid

extract, liothyronine), consider exogenous thyrotoxicosis before proceeding to perform a thyroid uptake and scan

² Detection of abnormal lymph nodes warrants FNA of the lymph node

³ Reference the American College of Radiology Thyroid Imaging, Reporting and Data System (TI-RADS) for FNA criteria

⁴ Reference the American Thyroid Association (ATA) guidelines for ultrasound criteria

⁵ Refer to ATA guidelines regarding drainage of a simple cyst for symptomatic or cosmetic reasons

MDAnderson Thyroid Nodule Evaluation Cancer Center

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CLINICAL PATHOLOGIC FINDINGS

TREATMENT AND SURVEILLANCE



³Consider observation for nodules stable in size

⁴ If repeat FNA is nondiagnostic, consider surgery or follow-up as benign pathology with risk factors

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Department of Clinical Effectiveness V7

Approved by the Executive Committee of the Medical Staff on 03/18/2025

MDAnderson Thyroid Nodule Evaluation

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SUGGESTED READINGS

- Ali, S. Z., Baloch, Z. W., Cochand-Priollet, B., Schmitt, F. C., Vielh, P., & VanderLaan, P. A. (2023). The 2023 Bethesda system for reporting thyroid cytopathology. *Thyroid*, 33(9), 1039-1044. doi:10.1089/thy.2023.0141
- Baloch, Z. W., Cibas, E. S., Clark, D. P., Layfield, L. J., Ljung, B.-M., Pitman, M. B., & Abati, A. (2008). The National Cancer Institute thyroid fine needle aspiration state of the science conference: A summation. *CytoJournal*, 5(6), 1-17. doi:10.1186/1742-6413-5-6
- Ezzat, S., Sarti, D. A., Cain, D. R., & Braunstein, G. D. (1994). Thyroid incidentalomas: Prevalence by palpation and ultrasonography. *Archives of Internal Medicine*, 154(16), 1838-1840. doi:10.1001/archinte.1994.00420160075010
- Gharib, H., Papini, E., Garber, J. R., Duick, D. S., Harrell, R. M., Hegedüs, L., ... Vitti, P. (2016) American Association of Clinical Endocrinologists, Associazione Medici Endocrinologi, and European Thyroid Association medical guidelines for clinical practice for the diagnosis and management of thyroid nodules 2016 update. *Endocrine Practice: Official Journal of the American College of Endocrinology and the American Association of Clinical Endocrinologists, 22*(5), 622-639. doi:10.4158/EP161208.GL
- Haugen, B. R., Alexander, E. K., Bible, K. C., Doherty, G. M., Mandel, S. J., Nikiforov, Y. E., ... Wartofsky, L. (2016). 2015 American Thyroid Association management guidelines for adult patients with thyroid nodules and differentiated thyroid cancer: The American Thyroid Association guidelines task force on thyroid nodules and differentiated thyroid cancer. *Thyroid*, 26(1), 1-133. doi:10.1089/thy.2015.0020
- Hegedüs, L. (2004). The thyroid nodule. New England Journal of Medicine, 351(17), 1764-1771. doi:10.1056/NEJMcp031436
- National Comprehensive Cancer Network. (2024). Thyroid Carcinoma (NCCN Guideline Version 4.2024). Retrieved from https://www.nccn.org/professionals/physician_gls/pdf/thyroid.pdf
- Ron, E., Lubin, J. H., Shore, R. E., Mabuchi, K., Modan, B., Pottern, L. M., ... Boice Jr, J. D. (1995). Thyroid cancer after exposure to external radiation: A pooled analysis of seven studies. *Radiation Research*, 141(3), 259-277. doi:10.2307/3579003
- Schneider, A. B., Bekerman, C., Leland, J., Rosengarten, J., Hyun, H., Collins, B., ... Gierlowski, T. C. (1997). Thyroid nodules in the follow-up of irradiated individuals: Comparison of thyroid ultrasound with scanning and palpation 1. *The Journal of Clinical Endocrinology & Metabolism*, 82(12), 4020-4027. doi:10.1210/jcem.82.12.4428
- Tessler, F. N., Middleton, W. D., Grant, E. G., Hoang, J. K., Berland, L. L., Teefey, S. A., ... Stavros, A. T. (2017). ACR thyroid imaging, reporting and data system (TI-RADS): White paper of the ACR TI-RADS Committee. *Journal of the American College of Radiology*, 14(5), 587-595. doi:10.1016/j.jacr.2017.01.046

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DEVELOPMENT CREDITS

This practice consensus statement is based on majority opinion of the Endocrine Center Faculty workgroup at the University of Texas MD Anderson Cancer Center for the patient population. These experts included:

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Page 4 of 4