

Evidence Discussion (CH 2.3)

- CT Chest indicated for mediastinal abnormalities detected on chest x-ray or other non-dedicated advanced imaging. CT allows for further tissue characterization and can distinguish between calcium, macroscopic fat and water attenuation fluid (1). CT has higher contrast resolution than plain chest radiography. CT does carry with it the risk of both iodinated contrast exposure and ionizing radiation exposure.
- Asymptomatic, incidental mediastinal lymph nodes less than 15 mm (in the short axis) do not require follow up. Evison *et al* found that size was the greatest predictor of lymph node etiology with those less than 15 mm always found to be reactive (2).
- For mediastinal lymph nodes greater than or equal to 15 mm follow-up should be directed by suspected etiology. For those with low or no clinical suspicion for malignancy and no other thoracic abnormalities, follow up CT chest in 3-6 months is reasonable (2). If the lymph nodes have increased in size on follow-up imaging, PET/CT or tissue biopsy should be considered (2).
- For those with no explainable disease and mediastinal lymph nodes greater than or equal to 15 mm, PET/CT may be considered. However, PET/CT has well-documented false positive results in this setting given the overlap of increased FDG uptake in both oncologic and infection or inflammatory disease processes (2).

1. Expert Panel on Thoracic Imaging, Ackman JB, Chung JH, et al. ACR Appropriateness Criteria® Imaging of Mediastinal Masses. *J Am Coll Radiol*. 2021;18(5S):S37-S51. doi:10.1016/j.jacr.2021.01.007
2. Munden RF, Carter BW, Chiles C, et al. Managing Incidental Findings on Thoracic CT: Mediastinal and Cardiovascular Findings. A White Paper of the ACR Incidental Findings Committee. *J Am Coll Radiol*. 2018;15(8):1087-1096. doi:10.1016/j.jacr.2018.04.029