

GUNDERSEN/LUTHERAN ULTRASOUND DEPARTMENT POLICY AND PROCEDURE MANUAL

SUBJECT: Lymphadenopathy Evaluation for Possible Metastasis
SECTION: Radiology Ultrasound
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Purpose: Lymphadenopathy is defined as an abnormality in the size or character of one or more lymph nodes. It is caused by the invasion or propagation of either inflammatory or tumor cells into the node(s). Sonographic evaluation of the area(s) in question may be able to identify lymph nodes that are suspicious for metastatic involvement. Please refer to the attached diagrams of lymph nodes of the head and neck, axillary, and inguinal regions and the regions/structures that the lymph nodes drain.

Imaging Protocol: The sonographic exam will include the palpable mass and/or surgical scar and the circular area within a 10 cm radius around the mass/scar. The area between the primary tumor location and its regional lymph node chain should also be evaluated as follows:

- Ipsilateral inguinal nodes for primary lesions in the lower extremities
- Ipsilateral axillary nodes for primary lesions in the upper extremities
- Bilateral cervical nodes for primary lesions in the head or neck
- Bilateral axillary and inguinal nodes for primary melanomas of the trunk

Gray scale images should include longitudinal and transverse measurements with the location of the mass/node labeled. If there is more than one mass/node in the same area please number the masses on the images.

Color Doppler images should be obtained of each mass/node to look for vessels within the mass/node. Power Doppler may be more sensitive but color Doppler will provide information about the flow direction in any vessels seen. High frequency harmonic linear-array transducers with color/power Doppler parameters optimized for superficial lesions and slow flow are suggested.

References:

1. Calvo Lopez, MJ and Vallejos Roca, E. *Ultrasound Seeks Out Metastatic Melanoma*. Diagnostic Imaging Europe; May 1, 2007.

2. Bazemore, A and Smucker, D. *Lymphadenopathy and Malignancy*. American Family Physician 2002; 66 (11).