CONSENSUS ULTRASOUND SURVEILLANCE PROTOCOL
AFTER POSITIVE SENTINEL LYMPH NODE BIOPSY FOR MELANOMA

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1. Indications
   a. Patients with melanoma ≥0.8mm (> T1b disease as per AJCC 8th edition and ASCO guidelines) sent for SLNB and SLN positive
   b. Patient not able or willing to receive adjuvant medical therapy
   c. Baseline PET-CT negative for metastases (i.e. No evidence for stage IV disease)
   d. Suitable body habitus / geographic location for US surveillance.
   e. Patient chooses surveillance over CLND.
   f. Surveillance will be performed by specialist (Surgeon or Oncologist)

2. Details Required on Referral
   a. Date of SLNB and PET-CT
   b. LN basin to be examined (with diagram if possible).
   c. Name of original Pathology Lab used for SLNB
   d. Requested examination - US +/- biopsy

3. Frequency of US imaging
   a. 3 monthly for 2 years, then;
   b. 6 monthly for 3 years (i.e. up to 5 years with clinical review at each time point).
   c. Annual clinical review thereafter with US at referrer’s discretion.
   d. No further US surveillance if CLND is performed for any reason during follow up; or metastatic disease is discovered elsewhere.

4. US Scanning Technique
   a. Experienced sonographers with specific knowledge of criteria below.
   b. High quality US machine, with appropriate probes for the area to be examined.
   c. Reproducibility is paramount and LNs identified should be numbered and referenced to anatomical landmarks (e.g. bone, vessels etc.) with measurements accurately documented and images saved.
   d. US report to clearly state findings, conclusion and recommendations.
   e. US preferably performed with the same imaging provider (ideally same site, sonographer and US machine)
5. **US Criteria for Suspicious Nodes**
   a. Shape - rounded shape, particularly with length/width ratio of <2.
   b. Hilum - loss or displacement of echogenic hilum / hypoechoic centre.
   c. Cortex - focal thickening, necrosis, heterogeneity, matting, or perinodal halo or oedema.
   d. Vascularity - absence or displacement of hilar vessels, multiple hilar pedicles, asymmetrical or aberrant distribution of central vessels, peripheral vessels penetrating cortex, and peripheral accessory vessels. (as assessed by Power or Colour doppler)

6. **Region to be Examined**
   a. LN Basin - specified by referrer on first request depending on SLNB. A diagram on the request form would be useful.
   b. Assessment of other sites (including primary resection site and lymphatic tract) only performed if clinical examination is abnormal and suspicious for satellite nodule or in-transit metastasis.

7. **US Scan Result**
   a. Normal - Routine follow up surveillance as indicated in point 3 above.
   b. Abnormal - Imaging findings to guide recommendations including:
      i. Proceed to Bx (either immediate or delayed and usually after consultation). Bx technique may be FNA or core Bx as deemed clinically appropriate by radiologist.
      ii. Further investigation may be recommended depending on abnormality detected (eg. suspected seroma, fatty replacement of LN) and could include CT, PET-CT or open biopsy.

8. **Post Biopsy Strategy**
   a. Positive Bx -PET/CT followed by re-discussion at WAKMAS TO DETERMINE whether CLND or systemic treatment is appropriate.
   b. Negative Bx -Refer to clinician- Repeat biopsy in 4-6 weeks +/- PET/CT +/- open Bx (+/- Hookwire localisation)
   c. Suboptimal Bx - Repeat Bx
      [See Flow Chart below]

9. **Timeframe for Review**
   a. Protocol can be reviewed and updated at any time, but formal review to ensure currency should be performed every two years.
10. Flow Chart

US

NORMAL
- Routine Surveillance

ABNORMAL
- Bx (FNA or Core)
- Other Ix (CT, PET-CT)

POSITIVE
- PET
  - Re discuss at WAKMAS

SUBOPTIMAL
- Discuss with referring clinician

NEGATIVE
- Repeat biopsy in 4-6 weeks
- +/- PET/CT
- +/- open biopsy (+/- hookwire localisation)