**Thyroid Nodule Evaluation**

**INITIAL EVALUATION**

- Thyroid nodule found on palpation or imaging
  - Check serum TSH and consider referral to Endocrine Center at MD Anderson
  - TSH low?
    - Yes
      - Perform thyroid uptake scan
      - Hot nodule?
        - Yes: Assess and treat for thyrotoxicosis as indicated
        - Consider referral to Endocrine Center at MD Anderson
        - No: Ultrasound-guided FNA
          - Yes: See Cytopathological Findings on Page 2
          - No: See Benign Pathologic Findings on Page 2
    - No: Neck ultrasound
      - Neck ultrasound clinically indicated by ultrasound criteria?*
        - Yes: See Cytopathological Findings on Page 2
        - No: Check serum TSH and consider referral to Endocrine Center at MD Anderson

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**ADDITIONAL EVALUATION**

- TSH = thyroid stimulating hormone
- FNA = fine needle aspiration

1. Detection of abnormal lymph nodes should lead to FNA of the lymph node as well
2. Reference the American Thyroid Association (ATA) guidelines

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**TREATMENT**

- Ultrasound-guided FNA
  - Yes: See Cytopathological Findings on Page 2
  - No: See Benign Pathologic Findings on Page 2

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*Note: Consider clinical trials as treatment options for eligible patients.*

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.
Thyroid Nodule Evaluation

**Note:** Consider clinical trials as treatment options for eligible patients.

### Clinical Pathologic Findings

<table>
<thead>
<tr>
<th>Cytopathological findings on FNA</th>
<th>Malignant/suspicious for malignancy</th>
<th>Follicular/Hürthle cell neoplasm</th>
<th>Atypical cells of undermined significance (ACUS)/follicular lesion</th>
<th>Non-diagnostic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk factors present?</td>
<td>Consider referral to Endocrine Center at MD Anderson</td>
<td>Consider lobectomy</td>
<td>Observation with repeat ultrasound in 6-12 months</td>
<td>Repeat ultrasound guided FNA within 3-6 months</td>
</tr>
<tr>
<td>Yes</td>
<td>Consider lobectomy</td>
<td>Consider repeat FNA</td>
<td>Lobectomy as clinically indicated</td>
<td>Repeat ultrasound and TSH in 12-36 months</td>
</tr>
<tr>
<td>No</td>
<td>Consider repeat FNA</td>
<td>Discharge to community provider</td>
<td>Consider repeat FNA</td>
<td>Repeat ultrasound and TSH in 12-36 months</td>
</tr>
</tbody>
</table>

### Treatment

- Risk factors: Family history of thyroid cancer, history of radiation exposure to the head/neck, suspicious ultrasound features, childhood cancer survivor, familial adenomatous polyposis, Cowden syndrome

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1. Surgery can be extended to total thyroidectomy for bilateral disease or high risk, which includes family history of thyroid cancer, radiation exposure, unilateral nodule greater than or equal to 4 cm, especially in men, or patient’s preference.
2. For patients who underwent lobectomy, thyroid function tests (TFT) should be repeated at 4 to 8 weeks, 6 months and 12 months post-op to rule out hypothyroidism.
3. If repeat FNA is nondiagnostic, consider surgery or follow-up as benign pathology with risk factors.
4. Consider referral to Endocrine Center at MD Anderson.
SUGGESTED READINGS


Thyroid Nodule Evaluation

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