This study supports implementing adoption of national guidelines by No Need for Improvement
9 (81.8)
1 (9.1)
1 (8.3)
3 (25.0)
9 (75.0)
6 (54.5)
Cooper DS, Doherty GM, Haugen BR, et al. Revised American Thyroid Association management

• In 2014, the authors conducted a quality improvement initiative in accordance with the hospitals interdisciplinary cancer committee.
• The authors explored awareness of the National Comprehensive Cancer Network (NCCN) and American Thyroid Association (ATA) guidelines for Utilization of FNA prior to thyroidectomy.
• Retrospective chart review in 2014 demonstrated FNA utilization in 53% of eligible cases.
• In 2015, a Systems wide in service presented an informational poster and fielded questions on quality improvement. Subsequent chart reviews from January 2015- July 2016 were preformed.
• The two data sets from before and after the initiative were compared with regard to preoperative thyroid US and FNA utilization to improve patient safety and quality.

Table 1. Characteristics of Thyroidectomies Performed at Doctor’s Hospital in 2014 and 2015, Overall and by Use of FNA

<table>
<thead>
<tr>
<th>Characteristics of Thyroidectomy, n (%)</th>
<th>Overall (n=23)</th>
<th>FNA Performed (n=12)</th>
<th>FNA Not Performed (n=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thyroid lobectomy</td>
<td>18 (78.3)</td>
<td>9 (75.0)</td>
<td>9 (81.8)</td>
</tr>
<tr>
<td>Hemithyroidectomy</td>
<td>13 (72.2)</td>
<td>9 (100.0)</td>
<td>4 (44.4)</td>
</tr>
<tr>
<td>Total thyroidectomy</td>
<td>5 (21.7)</td>
<td>3 (25.0)</td>
<td>2 (18.2)</td>
</tr>
<tr>
<td>Pathology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Papillary thyroid carcinoma</td>
<td>16 (69.6)</td>
<td>10 (83.3)</td>
<td>6 (54.5)</td>
</tr>
<tr>
<td>Follicular thyroid carcinoma</td>
<td>2 (8.7)</td>
<td>1 (8.3)</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>Medullary thyroid carcinoma</td>
<td>1 (4.3)</td>
<td>1 (8.3)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Multinodular goiter with areas of fibrosis, hyalinization, and calcification</td>
<td>1 (4.3)</td>
<td>0 (0.0)</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>No evidence of atypia or malignancy</td>
<td>1 (4.3)</td>
<td>0 (0.0)</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>No residual papillary thyroid carcinoma identified</td>
<td>1 (4.3)</td>
<td>0 (0.0)</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>Small adenomatoid nodules</td>
<td>1 (4.3)</td>
<td>0 (0.0)</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>FNA performed, n (%)</td>
<td>12 (52.2)</td>
<td>12 (100.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>FNA should have occurred/area for improvement, n (%)</td>
<td>5 (45.5)</td>
<td>--</td>
<td>5 (45.5)</td>
</tr>
<tr>
<td>Had pre-operative ultrasound, n (%)</td>
<td>16 (69.6)</td>
<td>10 (83.3)</td>
<td>6 (54.5)</td>
</tr>
<tr>
<td>FNA not performed, n (%)</td>
<td>4 (17.4)</td>
<td>3 (25.0)</td>
<td>1 (9.1)</td>
</tr>
</tbody>
</table>

*Among patients for whom an FNA was not performed (n=11)

Figure 1: NCCN Guideline Recommendations for FNA Threshold

Clinical Pathology

| Solid Nodule
| -- With suspicious sonographic features $\geq$ 1.0 CM
| -- Without suspicious sonographic features $\leq$ 1.0 CM
| Mixed cystic-solid nodule
| -- With suspicious sonographic features $\geq$ 1.5-2.0 CM
| -- Without suspicious sonographic features $\geq$ 2.0 CM
| Spongiform nodule $\geq$ 2.0 CM
| Simple cyst
| Not Indicated
| Suspicious cervical lymph node

Reference


Discussion

• National guidelines for FNA have been described, as have criteria for FNA.1 (Figure 1)
• A comprehensive paradigm for surgical intervention has been described that may be used to guide diagnostic and surgical decision making.2
• Clinician age and geographic location seems to have impact on FNA utility; showing that, increasing age and use were inversely proportional.3
• Clinician adoption of national guidelines have grouped physician adherence into clinician knowledge, attitude and behavior categories.4
• The most effective behavior change stems from the modification in knowledge and attitude.4
• Through our initial intradepartmental outreach it was evident that some of the surgeons had shed away from using FNA from misconceptions that the presence of calcifications in a nodule prevented the penetration of a fine needle. Misconceptions were addressed.
• We attribute the improvement in our institutions adherence to the NCCN guidelines to improvement in clinician awareness. (Figure 2)

Conclusions

• This study supports implementing adoption of national guidelines by establishing a departmental and hospital wide in-service to bolster clinician awareness.

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References


