Pathologist Directed US Biopsy

FNA SAMPLES
1984 – 2005* (N = 102,053)

SITE 2005 % 1984-2005* %

<table>
<thead>
<tr>
<th>SITE</th>
<th>2005</th>
<th>%</th>
<th>1984-2005*</th>
<th>%</th>
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<tbody>
<tr>
<td>BREAST</td>
<td>725</td>
<td>14</td>
<td>30162</td>
<td>30</td>
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<tr>
<td>THYROID</td>
<td>3272</td>
<td>63</td>
<td>40608</td>
<td>40</td>
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<tr>
<td>SOFT/LN</td>
<td>901</td>
<td>17</td>
<td>22952</td>
<td>22</td>
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<tr>
<td>SALIVARY</td>
<td>141</td>
<td>3</td>
<td>4255</td>
<td>4</td>
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<tr>
<td>PROSTATE</td>
<td>0</td>
<td>0</td>
<td>2980</td>
<td>3</td>
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<tr>
<td>MISC</td>
<td>130</td>
<td>3</td>
<td>1096</td>
<td>1</td>
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<td></td>
<td>5,169</td>
<td></td>
<td>102,053</td>
<td></td>
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</table>

Pathologist US Guided FNA & Core Bx

** US = 3D Palpation = GPS for FNA **

- Illustrative Cases
- Equipment
- Basic Technique
- Billing
- & Reimbursement
- Learning Models
- & References

U/S = Palpation in 3rd Dimension

Pathologist US Guided Benefits

- Deep Palpation & Bx
  - Posterior Thyroid
- Edges
  - Carotid / Trachea
- False Physical Image
- Patient Communication
- Better Sample Than Radiologist
- Market Forces - TTHALTS
Case 1

- 59 y/o male
- 4 x 2 cm distal thigh mass
- Hard, enlarging

Case 2

- 81 y/o female
- L Br 2:30, 31 x 26mm
- Targeting US = WNL
- Just lateral -> 9mm shadow

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Case 3

- 59 y/o female
- 20 yr hx thyroid nodules
- 39 x 31mm dom nodule
- US = Large Rt cyst, “vascular solid component on the wall”
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**Cyst Drainage – Tension Cyst**

**Cyst Aspiration**

Baxter I.V. Extension 34” Male Luer
4cc Catalogue 2C6227
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Cyst Drainage

Sonosite Corp
21919 30th Drive SE
Bothell, WA 98021-3904
(888) 482-9449
www.sonosite.com

Sonosite: Accessory Monitor

Proper Neck Position before U/S

Find Nodule

Center Bx Site with Pen Shadow
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Anesthesia: 30 Gauge

Cutaneous Mark

CUTANEOUS ANESTHESIA

CUTANEOUS ANESTHESIA

AREOLAR ANESTHESIA

John S. Abele, MD
Pathologist Directed US Biopsy

Dry Skin, Needle in, Probe on, Biopsy

US Gel Obscuration - Heavy

U/S Phantom

U/S Side: Centered

http://www.pharminnovations.com
http://www.bluephantom.com

U/S End Bx

Instrument View *
Monitor View **

Needle Image High ...
Hub Higher

**Parallel U/S Plane
**Perpendicular U/S Plane w/ Patient’s Left = Monitor Left
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How Core Benefits Br FNA

- Prove Invasion
- Material for Special Studies
- Mobile / Soft Target
  - FAD / Low Tension Cyst
- FAD vs. Circumscribed CA
  - Colloid / Medullary / Met CA
- Backup to FNA
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FNA Push, Not Bx

Breast Mass

11mm Throw

Core Biopsy Materials

Monopty Instrument, 11 or 22 mm

Jennifer M. Smith
Product Manager
Bard Biopsy Systems
1415 West 3rd Street
Tempe, AZ 85281
480-303-2781 Phone
480-449-2570 Fax

www.bardbiopsy.com
Pathologist Directed US Biopsy

- Cocked (Yellow) - Ready
- Fired - 11mm Throw ...
- Fired - Core Cut – Remove Instrument
- Open 1 Click – Extract Core
- Close w/2ed Click - Ready
- 20g Breast Core Biopsy
Core Bx: Relative Sizes

No 20g Core Situations

- Excluding Ca
- Calcifications
- Vague Asymmetry

DIAGNOSIS
diagnosko (dee-ag-in-d'-sko)
da = "by means of"
ginosko (ghin-oce'-ko) = "to know"

"to know by means of"
"to know thoroughly"

U/S Image Documentation for 76942

http://www.cortexmed.com
2107 Elliott Avenue, Suite 201
Seattle, WA 98121
Judith Krebs (jkrebs@Cortexmed.com)
206-828-5032 or 800.278.4845
## Pathologist Directed US Biopsy

### Table 1: Recommendations for Thyroid Nodules 1 cm or Larger in Max Diameter

<table>
<thead>
<tr>
<th>US Feature</th>
<th>Recommendation</th>
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</thead>
<tbody>
<tr>
<td>Solitary nodule</td>
<td></td>
</tr>
<tr>
<td>Microcalcifications</td>
<td>Strongly consider US-guided FNA if ≤ 1 cm</td>
</tr>
<tr>
<td>Solid (or almost entirely solid)</td>
<td>Consider US-guided FNA if ≤ 1.5 cm</td>
</tr>
<tr>
<td>Malignant solid and/or solid with solid component</td>
<td>Consider US-guided FNA if ≤ 2 cm</td>
</tr>
<tr>
<td>Nodules above but substantial growth</td>
<td>US-guided FNA more likely to be malignant</td>
</tr>
<tr>
<td>Almost entirely solid and none of the above</td>
<td>Strongly consider US-guided FNA</td>
</tr>
<tr>
<td>Any substantial growth (or no prior US examination)</td>
<td>More likely to be malignant</td>
</tr>
<tr>
<td>Multiple nodules</td>
<td>Consider US-guided FNA of one or more nodules with selection prioritized on basis of size and lesion characteristics for solitary nodule</td>
</tr>
</tbody>
</table>

**Note:** In Solitary nodules, if the thyroid gland contains multiple nodules of similar US appearance without intervening parenchyma, presence of abnormal lymph nodes overrides US features of thyroid nodule(s) and should prompt US-guided FNA or biopsy of lymph node and/or isolated nodule.

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### Table 2: Management of Thyroid Nodules Detected at US: Society of Radiologists in Ultrasound Consensus Conference Statement

<table>
<thead>
<tr>
<th>CPT</th>
<th># Billed</th>
<th>Paid</th>
<th>Range</th>
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<tr>
<td>10201</td>
<td>434</td>
<td>151.00</td>
<td>108.69 - 144.63</td>
</tr>
<tr>
<td>10202</td>
<td>278</td>
<td>175.00</td>
<td>121.99 - 160.57</td>
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<tr>
<td>76942*</td>
<td>327</td>
<td>150.00</td>
<td>116.74 - 150.72</td>
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<tr>
<td>88173</td>
<td>1988</td>
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<td>118.33 - 155.56</td>
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<td>88172</td>
<td>29</td>
<td>175.00</td>
<td>53.72 - 56.45</td>
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<tr>
<td>76536*</td>
<td>123</td>
<td>150.00</td>
<td>95.99 - 135.70</td>
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<td>76645*</td>
<td>29</td>
<td>150.00</td>
<td>72.27 - 86.49</td>
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<td>76880*</td>
<td>15</td>
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<td>110.76 - 125.89</td>
</tr>
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</table>

*Requires Permanent Image & Written Report

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**Brant WE.** The core curriculum: Ultrasound. 2001 Thy = 10 of 509.
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