**OSATS Evaluation—Please Complete Immediately after Procedure**

Date of Procedure:  
Attending:  
Preop Dx:  
Resident:  
Postop Dx:  
Pt Initials & MRN:  
Procedure:  
EBL:  
OR Time:  
Disposition: (Admit vs Outpt):

Operative Complications:

<table>
<thead>
<tr>
<th>Initial Exposure</th>
<th>Score</th>
<th>X If Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement of fundus grasper</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Placement of body grasper</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Retraction of fundus cephalad</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Retraction of body anterolateral</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initial Dissection</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Start dissection at body infundibular junction</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Identification of the cystic duct</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Circumferential dissection of duct</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cystic Duct Dissection</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate length of duct (enough for clips and catheter)</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Proximal clip</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Distal clip/ligation placement</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Division of duct</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cystic Duct Cannulation (skip if cholangiogram not performed)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ductotomy</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Catheter placement</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Secure catheter</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Remove catheter</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cystic Artery Dissection</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify cystic artery</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Circumferential dissection</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Adequate length (enough for clips and transection)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Proximal clip</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Distal clip</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Transection of artery</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gallbladder Fossa Dissection</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Areolar tissue division</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Inspect liver bed</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS

Residents were listed as the surgeon in 28 procedures. One third of residents were in their second year of training, another third were in their third year, and fourth- and fifth-year residents were the last third. Only two procedures were listed as being performed by attending surgeons. The average time to perform a laparoscopic cholecystectomy was 65 min.

Figure 2. Error sheet used to calculate error points assessed during laparoscopic cholecystectomy. CBD = common bile duct.

<table>
<thead>
<tr>
<th>Error</th>
<th>Error points</th>
<th>Frequency</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gallbladder</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gallbladder Injury, Mechanical or Cautery (no bile spilled)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unintentional Release of the Gallbladder with Grasper</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gallbladder Injury (bile or stones spilled)</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Liver</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liver Injury (including cautery) without Bleeding</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liver Injury with Bleeding</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Vascular Injury (other than cystic artery)</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD, Hepatic Duct Injury</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cystic Duct</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Attempt at Clip/Ligature Placement on Duct</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Attempt at Ductotomy</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Attempt at Cystic Duct Cannulation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misplaced Clip or Ligature on Cystic Duct</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unintentional Removal of Cholangiogram Catheter</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unintentional Cystic Duct Transection</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure to Cannulate Patent Cystic Duct (only mark once)</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cystic Artery</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Attempt at Clip Placement on Artery</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Attempt at Cutting Cystic Artery</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misplaced Clip on Cystic Artery (clip on clip, partial occlusion, and so forth)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mistaking Artery for Duct (or Duct for Artery)</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cystic Artery Tear</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injury to Other Abdominal Viscus</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prolonged Operative Time (&gt;90 minutes, excluding cholangiogram)</td>
<td>10 pts/15 min</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Instructions: Immediately complete the evaluation and return it to the resident, who will then submit it to Amy Albright. Questions or comments can be sent to Dr. Baerg (jbaerg).