

**TABLE 3: Application of the Structured Vocabulary**<sup>1</sup>**a) Laparoscopic Electrosurgical Tubal Sterilization**

Step 1: **EXPLORATION** (visual)

Inspect under camera vision to expose the uterine fundus and the Fallopian tubes and ovaries bilaterally, defining the AROSI (anatomic region of surgical interest)

Step 2: **EXPLORATION** (visual and haptic)

Inspect (explore) each Fallopian tube, first visually, and then haptically by stroking with a blunt probe, establishing the tubes' mobility, and consistency, and looking for adhesions or other pathology. Ask the assistant to move the organ to each side to assist your exploration. Push the uterus forward as necessary to facilitate the inspection. Look at the peritoneum of the culdesac

Step 3: **EXPLORATION** (visual and haptic)

Identify the surgical site in the isthmic portion of the Fallopian tube where you will cauterize it. Confirm the identification by sliding the probe laterally along the posterior edge of the tube until the fimbria can be identified

Step 4: **EXPLORATION** (visual and haptic)

Choose a bipolar forceps, and grasp the left Fallopian tube two cm lateral to the cornu of the uterus

Step 5: **EXPLORATION** (visual and haptic)

Rotate the forceps, visually inspecting to determine that the entire diameter has been grasped. If not, repeat. Gently stretch the tube, elevating it away from other structures

Step 6: **SCARIFICATION**

Activate the electro-surgical current, set at 100 watts blended current, with the foot pedal

Step 7: **EXPLORATION (visual)**

Continue observing for a change in color (pink to brown) as the current is applied. Look for the surface epithelium to generate bubbles and smoke

Step 8: **EXPLORATION** (visual and haptic)

Release the grasper, exercising care to avoid touching other tissues temporarily because of the heated instrument

Step 9: **EXPLORATION** (visual and haptic) **and SCARIFICATION**

Repeat this process 1-2 cm. laterally on the left tube.

Step 10: Repeat the Steps 4 for-9 the right adnexa

Step 11: Remove the grasper and the camera.

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<sup>1</sup>For this procedure, assume two pre-cannulated ports, an umbilical port with a camera, and a suprapubic, midline port. Also assume that a uterine elevator is in place, and an assistant is elevating the uterus toward the abdominal wall.

**TABLE 3: Application of the Structured Vocabulary**  
**b) Laparoscopic Cholecystectomy with Cholecystogram**

Step 1: **EXPLORATION** (visual)

Inspect under camera vision to expose the sub-hepatic region surrounding the gall bladder, defining the AROSI (anatomic region of surgical interest);

Step 2: **EXPLORATION** (visual and haptic)

Select a blunt grasper, grasp the dome of the gall bladder, and retract upward, elevating to expose the hilum of the gall bladder. Fix it in this position;

Step 3: **INCISION, EXPLORATION** (visual and haptic)

Select a blunt grasper to elevate the peritoneum or adhesions, and a curved scissors and sharply dissect any adhesions. Inspect the peritoneum, and tissues of the hilum;

Step 4: **INCISION, EXPLORATION** (visual and haptic), **CLOSURE**

Skeletonize the cystic artery and duct, and ligate the cystic artery with two clips;

Step 5: **CLOSURE** Clip the cystic duct at the base of the gall bladder;

Step 6: **EXPLORATION** Use an ultrasound probe to establish that the lumen of the duct is open distally;

Step 7: **INCISION** Alternatively, incise the duct about 0.5cm from the clip, making an opening into the duct for doing a cholecystogram;

Step 7: **INSERTION** Insert a cholecystogram catheter into the incision, advancing it about 2cm. Fix the catheter in place with a hemostat;

Step 8: **INJECTION** Inject about 3-4ml of radio-opaque dye (25%) into the catheter, and direct an X-radiogram to be taken and developed;

Step 9: **INSERTION / EXTRACTION** If stones are present, insert a guidewire into the incision until the stone is reached, and introduce a balloon catheter over the guide until the stone is reached. Inflate the balloon to nearly to the diameter of the lumen and pull the balloon out, dilating the duct;

Step 10: **INSERTION /EXTRACTION** Insert a choledochoscope with a wire basket until the stone is reached, and rotate and advance the basket until the stone is trapped, and withdraw both instruments from the duct, extracting the stone;

Step 11: **INSERTION /EXTRACTION** Replace the choledochoscope with a grasper holding a retrieval bag; open the bag, inserting the stone into it, rotating the basket to drop the stone. Repeat for other stones, and extract the bag through the incision;

Step 12: **CLOSURE, INCISION** Clip the cystic duct distal to the incision, and add two additional clips on the artery. Cut the duct and artery between the clips;

Step 13: **EXPLORATION, INCISION, EXCISION** (visual and haptic); Grasp the gall bladder dome, and retract it downward, stretching the bladder away from the liver. Bluntly dissect it from the liver bed, using a curved scissors, as necessary, to incise tissue connections, to excise the bladder from the liver;

Step 14: **CLOSURE, INSERTION, EXTRACTION**, Close any defects in the bladder wall with pre-tied loops. Insert a grasper holding a retrieval bag into the field; open the bag, inserting the gall bladder. Pull the bag containing the gall bladder from the abdominal cavity;

Step 15: **IMPLANTATION, EXPLORATION, ASPIRATION** Introduce a 1cm Jackson-Pratt drain into the bed of the operative site, and observe for bleeding. Irrigate the site, applying suction to the drain externally;

Step 16: **EXTRACTION** Remove the instruments and the camera;

Step 17. **CLOSURE** Close the wound with skin staples.

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<sup>1</sup>For this procedure, assume three pre-cannulated ports, an umbilical port with a camera,.