

Robotic Radical Nephrectomy

Dr. Stephen Lukasewycz



Open on
phone

WHAT IS THIS PROCEDURE?

A **radical nephrectomy** removes the whole kidney, usually for cancer, along with the fat around it.

Robotic: the surgeon works through several small ports in the side and abdomen using the robot. The abdomen is inflated with gas to make working room.

Removing the kidney: the kidney's artery and vein are sealed and cut, the kidney is placed in a bag, and it comes out through one slightly larger incision.

KEY POINTS

- **Dr. Lukasewycz is present for all positioning.** He marks the midline before positioning; have a skin marker ready.
- **Lateral, operative side up**, flank over the bed's flex point. Have several rolls of tape ready.
- **Counted procedure.**
- **AirSeal** for insufflation in all robotic surgery suites.

PORTS

- **8 mm da Vinci ports ×4**
- **12 mm AirSeal port ×1**
- **Assistant port: 5 mm or 12 mm depending on the case. Ask the surgeon which.**
- **Right kidney only: 5 mm port for the liver retractor.** Not used on the left.
- **First (camera) port: blunt black reusable obturator** from the robot set. Ports are placed using the da Vinci scope.
- Obese patient: long 8 mm da Vinci ports and long 12 mm AirSeal trocar.
- 1% lidocaine plain for port sites.

ROBOTIC INSTRUMENTS

Open

- Monopolar curved scissors
- Fenestrated bipolar
- ProGrasp
- Large needle drivers ×2
- 0° robotic scope

Available in room, open only if asked

- 30° robotic scope

ASSISTANT (PA) INSTRUMENTS

Open

- Suction irrigator (Surgiflex)
- Laparoscopic scissors
- 10 mm laparoscopic spoon (Snowden Pencer)
- Weck Hem-o-lok 10 mm applier ("purple") with large clips
- **Echelon stapler (45 or 60 mm) with white vascular reloads**, usually used for the hilum. Have several reloads available.

Available in room, open only if asked

- Weck Hem-o-lok XL applier ("gold") with XL clips
- Lapra-Ty clips

SUTURES AND CLOSURE

- 0 looped PDS CTX ×1 for the extraction (mini-open) incision.
- 0 Vicryl UR-6 for port fascia.
- 4-0 Vicryl PS-2 for skin; Dermabond on port sites.

OTHER SUPPLIES

Open

- General pan and robot pan
- Large Endocatch specimen bag
- Foley 16 Fr temperature-sensing tray
- Skin marker; 3-inch tape ×5 rolls
- Towels with skin stapler, lap chole drape, CHG loban strips
- Warm saline for the irrigator

Available in room, open only if asked

- Surgicel 4×8 and Surgicel powder with lap applicator

GLOVES: MD AND PA

MD

- Port placement: single 7.5 white.
- Closing: double glove, 7.5 blue under 7.5 white.

PA

- Aimee: 7 blue, 6.5 white
- Carras: 7 blue, 6.5 white
- Heather: 6.5 micro ×2
- John: 7.5 blue, 7 white
- Olivia: 7 blue, 6.5 white

ROOM SETUP

- Robot bed in regular set-up (no diving board), with head piece.
- Robot on the operative side, approaching over the patient's back.
- Vision tower on the same side as the robot; AirSeal; boom suction at the patient's left shoulder, by anesthesia.
- Erbe settings: coag 3, cut 5, bipolar 3.
- To pair the bed to the robot: press Pair on the bed remote, then the button that appears on the robot tower monitor.

ANESTHESIA

- General anesthesia.
- Perioperative antibiotics: cefazolin (Ancef) 2 g IV, unless otherwise noted or allergy.
- SCDs on and running before induction.
- Foley after induction, secured to the thigh opposite the operative side.

POSITIONING

- Midline marked by the surgeon before positioning.
- Lateral, operative side up, flank over the flex point.
- Rolled bath blankets (one single, one double roll) rolled into the draw sheet, front and back.
- Foam axillary roll; arm across the chest on a CV armboard.
- Pillows ×2–3 between the legs; bottom leg flexed, top leg straight; small foam donuts at the lateral knee and ankle.
- Seat belt across the hips. After the table is flexed, blue towels over hips, shoulders and legs, taped.

PREP AND DRAPE

- Clip hair if needed.
- ChloraPrep: operative flank, nipples to pubis/hip bone, bedside to bedside.
- The surgeon may want the abdomen lifted during the prep, with a sterile towel placed under it by the scrub.
- Towels secured with skin staples, lap chole drape, CHG loban strips.

SPECIMENS

- Kidney to pathology in formalin.
- Wound class: II (clean-contaminated).