

## **Routine Esophagram**

- AP, LAT, and LPO imaging upright with crystals and thick
- Supine RAO with thin via straw
- Evaluation for reflux
- Give Ba tablet if indicated

## **Modified USC Protocol Esophagram**

- Typically will be for Community Health surgeons, order will specify "USC protocol"
- Perform routine esophagram upright images.
- In the RAO supine position, administer 5 sequential 10cc bolus drinks. Use a syringe attached to extension tubing. Ask the patient to swallow each 10cc bolus at once. Wait 15 seconds between boluses. Image the cervical and mid esophagus without panning (savecine/fluoro loop not a full exposure) and then distal/GE junction for last 1-2 drinks.
- Evaluation for reflux
- Give Ba tablet if indicated
- Give 2 separate bites of a barium coated bagel in the upright position. Save cine/fluoroloop

Fluency has a very detailed template called "esophagus manometry alt" which has helpful terminology for the dictation. This can be added to any exam if a more detailed evaluation of motility would be helpful or beneficial for the patient.

## Marshmallow/bagel Esophagram for LINX device

- Post op LINX device placement
- Patient will drink 2-3 drinks of thin barium in the upright LPO position. Evaluate expansion of device
- Patient will then eat a bite of marshmallow or bagel that has barium paste. Evaluate for device expansion or lack of expansion. Lack of expansion indicates possible fibroticsleeve around the device.

\*\*\*If you have an order that says bagel study or marshmallow study, determine if the patient has a LINX device. If yes, perform an esophagram for LINX device exam. If not, perform the modified USC protocol esophagram.

## **Timed Esophagram**

- Must use 40% w/v green "modified" barium.
- Volume should be between 100-250mL (I have been using a 60cc syringe to draw up and giving the patient about 120mL)
- Patient in the LPO position.
- Must drink entire volume under 20 seconds
- Take upright LPO images at 1min, 2min, and 5min. If barium passes thru to stomach quickly (by 1min etc.), additional timed images are not needed
- Do not change magnification throughout imagining as it will skew the measurements
- Must give barium tablet to have unit of measure. I have found Ba tablet (13mm) is about 25 pixels. But still use your own measurements
- Measure height and width of barium column at each time interval. Exclude the "foamy" part of the column in the height measurements.
- Main purpose of the study is to be able to compare data serially as patient gets dilated etc. and see if they are responding to treatment.