

ABDOMINAL SIMULATIONS

Policy:

The department will provide staff with guidelines regarding clinical procedures for simulating abdominal cases. Physician will prescribe treatment plan prior to simulation. Therapist will be responsible for obtaining documentation of CT, x-ray, and prescription.

Procedure:

1. Abdominal simulation to localize the bowel.
 - a. Supplies needed:
 - Kelly clamps
 - Gloves
 - Lubricant
 - Rectal catheter
 - 60 cc irrigation syringe
 - Contrast Media
 - 30 to 60 cc - Gastrografin (to inject into rectum)
 - 2 bottles 37% organically Bound Iodine Gastrografin (120 ML EACH)

**GASTROGRAFIN is to be used if possible bowel obstruction or if possible perforation exist.

2. Simulation
 - a. Put patient in lateral position.
 - b. Prepare patient for placement of rectal catheter
 - c. Have patient turn to supine position.
 - d. Inject contrast in catheter balloon and clamp off valve or inject gastrografin into sigmoid colon. Take scout film using treatment SAD.
 - e. Get AP/PA and Lat separations.
 - f. Place isocenter through Lat reference points and AP center.
 - g. Table top measurement to be taken at lat. reference point.
 - h. Have patient void bladder and evacuate rectum when simulation is completed.
3. Treatment planning:
 - a. Notify physicist of proper SAD.
 - b. Made proper template for blocking or films for cut block if MLC cannot be generated
 - c. Place CT sheet in chart.
5. Dose calculations for 4 fields weighted by applied dose to determine total dose.
 - a. Take separations at field centers.

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- b. Position patient for SAD setup.
- c. Get SSD readings at all field center.
- d. Using SSD's and depths from separations, calculate %D.D.'s (physician is to determine depths to use) Use weighting formula to find applied dose from each field. After determining T.D.'s, use the T.D.'s to calculate M.U.'s.

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