GUIDELINES FOR INTRA-OPERATIVE RADIOGRAPHS

On occasion, an incorrect count is obtained and under these circumstances or when indicated by OR policy an intra-operative radiograph is required. If a surgical item is missing this is an MSI.

1. A written request for a “STAT intraoperative image” will be generated by the circulating nurse in a specific operating room under the name of the surgeon listed in the operation record.

   The request will specify:
   1. The name of the surgeon,
   2. The region of interest being requested
   3. The kind or type of surgical item being looked for. Sponge, needle, name of instrument, other item.
   4. If a sponge is the missing item specify the type e.g. lap pad, raytex, towel
   5. The OR room number and the telephone number for that room
   6. The name of the circulating nurse or designated person in room to receive call back information
   7. If the radiograph is being obtained “in lieu of an instrument count” this information should be conveyed to the radiologist

2. Upon receiving the request a radiology technologist will take a radiograph of the appropriate site as outlined in the MSI radiographic exam guidelines. This should be accomplished expeditiously. More than one film may be required to cover the surgical field so multiple cassettes should be available.

3. The technologist taking the radiograph will call ahead to alert the radiologist on duty that a MSI film is being obtained. It may be useful to show the technologist a sample of the MSI.

4. The technologist will take radiographs that encompass the entire region of interest (ROI) and is expected to meet the standards for each ROI. Consideration should be given to obtain two views – AP and oblique. If there are questions about appropriate images or quality a radiologist should be immediately consulted.

5. The technologist will notify the radiologist when imaging is completed and return to the OR to take a hard-copy film to the OR if requested by the peri-operative care personnel in the OR or if requested to take additional views.

6. The radiologist on duty will review the film or the digital images of the radiographs and will call the specified OR with the results of their examination or with a request for additional views to be obtained. This should be accomplished expeditiously. The elapsed time should not be greater than twenty minutes.

7. In the event that the radiologist on duty should require additional assistance or consultation to establish a diagnosis, the OR should be notified that such a secondary review is underway.

8. The person who answers the phone in the operating room and receives the results must be a member of the operating team – nurse, surgeon or anesthesiologist. It is preferred that the radiologist speak directly with the surgeon. The results must have “read back” confirmation and the findings documented in the operative record.

9. The radiologist will dictate the report following verbal transmission of the findings. The name and identifying number of the individual to whom the information was provided must be on the report or if “read back” was provided, indicate as such. The radiologist will note the time the information was transmitted.

10. Performance audits can be conducted to determine if timeliness and image quality guidelines have been met.
### RADIOLOGY TECHNOLOGIST

**MISSING SURGICAL ITEM (MSI) – RADIOGRAPHIC EXAMS**

Upon identification of a missing surgical item, the Surgeon or Nurse will order STAT X-Rays for the specific region of interest (ROI) as listed below. The Radiology Technologist can use this guideline for planning optimal image quality.

<table>
<thead>
<tr>
<th>Exam</th>
<th>Views</th>
<th>ROI</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MSI Cranium</strong></td>
<td>AP &amp; Lateral (2V)</td>
<td>Top of Skull to below Mandible and bilateral skin borders.</td>
<td>Include Face and Neck if ENT surgery</td>
</tr>
<tr>
<td><strong>MSI Chest</strong></td>
<td>AP &amp; Oblique (2V)</td>
<td>Apices to Costophrenic Angles (CPA) and bilateral skin borders.</td>
<td>This may require more than one film for the AP projection. The Oblique may be a single 14x17 of the ROI</td>
</tr>
<tr>
<td><strong>MSI Abdomen/Pelvis</strong></td>
<td>AP &amp; Oblique (2V)</td>
<td>Diaphragm to Pubis and bilateral skin borders</td>
<td>This may require more than one film for the AP projection. The Oblique may be a single 14x17 of the ROI</td>
</tr>
<tr>
<td><strong>MSI Vagina</strong></td>
<td>AP &amp; Inlet (2V)</td>
<td>Inferior gluteus to above crest and bilateral skin borders. Inlet must show the pelvic ring.</td>
<td>Inlet: Place 14x17 vertical with 25 degree caudal angulation. Special attention needed to avoid grid cut-off</td>
</tr>
<tr>
<td><strong>MSI Spine</strong></td>
<td>AP/PA &amp; Lateral</td>
<td>C-spine: Neck T-spine: Chest L-spine: Abdomen</td>
<td>C-spine: 11x14 T-spine: 14x17 L-spine: 14x17</td>
</tr>
<tr>
<td><strong>MSI Extremity</strong></td>
<td>AP &amp; Lateral</td>
<td>Include above and below ROI and bilateral skin borders.</td>
<td>Use large films. Order must be specific to ROI: LUE or LLE RUE or RLE</td>
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</tbody>
</table>

Most portable units have a maximum kVp of 90 – 120 and maximum mAs of 320. The xray source must be set at the safest distance to preserve the sterile field. Because of these limitations adequate images may be impossible to obtain in the morbidly obese patient. Image quality should be discussed with a radiologist.