



July 2010

## Site Marking Recommendations and Guidance

*These recommendations are intended to provide guidance to improve the consistency of site marking across Minnesota hospitals and to address issues identified through the reporting of adverse surgical events. The recommendations are not intended as medical advice or medical opinion or as a replacement for a clinician's judgment, nor are they designed to address all The Joint Commission or other accreditation, state or federal regulatory surgical requirements.*

Issue	Recommendation <i>(Ctrl-click on links)</i>
<b>General</b>	
<p><b>1.</b> Who marks the site?</p>	<ul style="list-style-type: none"> <li>• Provider performing the procedure.</li> <li>• Patient should participate in the site marking process, as able, but should not mark the site.</li> </ul> <p>Suggestions for specific procedures:</p> <ul style="list-style-type: none"> <li>• Nurse administering dilating drops uses source documents to mark correct side with a dot next to correct eye and administers drops.</li> <li>• Person performing cataract procedure references source documents to mark correct side with his or her initials.</li> </ul>
<p><b>2.</b> What is used to mark the site?</p>	<p>Indelible marker.</p>
<p><b>3.</b> What notation is used to mark the site?</p>	<p>Provider initials (separate recommendation for notation used to mark anesthesia-related procedures). See <a href="#">Recommendation #16</a>.</p>

Issue	Recommendation <i>(Ctrl-click on links)</i>
<p><b>4.</b> How is mark verified before procedure?</p>	<ul style="list-style-type: none"> <li>• Mark must be visible when patient is positioned, prepped and draped.</li> <li>• OR: Scrub staff verbally verifies that they visualize the mark, if applicable, and where it is located during the time-out process immediately prior to procedure.</li> <li>• Non-OR: 2<sup>nd</sup> health care provider verifies that they visualize the mark, if applicable, and where it is located during the time-out process immediately prior to the procedure.</li> </ul>
<p><b>5.</b> What if mark cannot be visualized after draping?</p>	<p>An alternative method of indicating the procedure site must be used, for example:</p> <ul style="list-style-type: none"> <li>• A diagram that is marked by the provider performing the procedure and verified during the time-out process: <a href="#">[DOC]</a></li> <li>• An arm band placed on the correct side with the procedure indicated on the band and visually verified during the time-out process.</li> </ul>

Issue	Recommendation <i>(Ctrl-click on links)</i>
<p><b>6.</b> Which procedures should include site marking?</p>	<p>All procedures involving incision or percutaneous puncture or insertion: <a href="#">[PDF]</a> with the following exceptions:</p> <ul style="list-style-type: none"> <li>• Midline structures</li> <li>• Single organ cases</li> <li>• Endoscopies without intended laterality</li> <li>• Procedures where the insertion site is not predetermined.</li> <li>• C-Sections</li> </ul> <p>Some facilities are marking all sites with only the following exceptions:</p> <ul style="list-style-type: none"> <li>• C-Sections</li> <li>• Procedures where the insertion site is not predetermined.</li> </ul> <p>Rationale for marking all sites includes:</p> <ol style="list-style-type: none"> <li>(1) The site marking practice during pre-op is more consistent.</li> <li>(2) The team consistently has a site mark for verifying the site that needs to be prepped for the procedure.</li> <li>(3) During the Time Out the scrub person visualizes the site marking for all cases. If a mark is not present, it is more evident that re-verification needs to occur.</li> </ol>
<p><b>7.</b> Which procedures should include verification and time-out?</p>	<p>Minimally, all procedures included in the Table of Invasive, High-Risk or Surgical Procedures: <a href="#">[PDF]</a> regardless of whether site marking is required.</p>
<p><b>8.</b> How do you mark sensitive areas such as the scrotum or breast?</p>	<p>Mark above or directly lateral to the procedure site. If the mark cannot be visualized after draping, use an alternative method of indicating the procedure site. See <a href="#">Recommendation #5</a>.</p>
<p><b>9.</b> What do you do if the patient refuses site marking or does not cooperate with the site marking?</p>	<p>Use an alternative method of indicating the procedure site. See <a href="#">Recommendation #5</a>.</p>
<p><b>Specific Procedures</b></p>	

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10. Procedure involving laterality	The correct site is marked with initials. For anesthesia related procedures, see <a href="#">Recommendation #16</a> .
11. Midline or orifice entry with internal laterality	<ul style="list-style-type: none"> <li>• Incision site is marked with laterality noted.</li> <li>• A second pause, with verbal confirmation with the team, is conducted following entry to verify internal laterality.</li> <li>• For procedures done under radiologic image-guidance see <a href="#">Recommendation #20</a>.</li> </ul> <p>Suggestions for marking:</p> <ul style="list-style-type: none"> <li>• Mark incision site and indicate internal laterality side (i.e., mark incision site with initials and indicate side with arrow).</li> <li>• If internal laterality side cannot be marked externally, utilize alternative marking methods. See <a href="#">Recommendation #5</a>.</li> </ul>
12. Bilateral procedures	Both sites are marked; includes ear tubes.
13. Procedures involving levels	<ul style="list-style-type: none"> <li>• Informed consent indicates laterality and level.</li> <li>• Site marked to indicate: <ul style="list-style-type: none"> <li>○ Anterior or posterior approach</li> <li>○ General level/zone (e.g. cervical, thoracic, lumbar, rib number).</li> </ul> </li> <li>• Pre-operative imaging, of good quality, is present during the procedure.</li> <li>• Intra-operative imaging, of good quality, with opaque instruments marking the specific boney landmarks are taken and compared with pre-operative imaging.</li> <li>• Person performing the procedure should lead verbal confirmation with team prior to final approach to destination site. Confirmation should include consultation with imaging and informed consent documentation.</li> </ul>

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<p><b>14.</b> Multiple sites on same anatomical location</p>	<ul style="list-style-type: none"> <li>• Multiple digits — each involved digit should be marked.</li> <li>• Lesions — suggestions:               <ul style="list-style-type: none"> <li>○ Indicate each lesion on informed consent.</li> <li>○ Circle each lesion and initial once, or</li> <li>○ Circle and initial each lesion.</li> </ul> </li> </ul>
<p><b>15.</b> Injections</p>	<p>Mark injection site and conduct time-out unless procedure site is not pre-determined.</p>
<p><b>16.</b> Anesthesia procedures</p>	<ul style="list-style-type: none"> <li>• Person performing the procedure marks the procedure site.</li> <li>• Recommend marking the site with a capital “A” with a circle around the “A.”</li> <li>• For procedures involving levels, refer to <a href="#">Recommendation #7</a> — the general level and site involved should be marked if predetermined.</li> </ul>
<p><b>17.</b> Eye procedures</p>	<p>The skin next to the operative eye is marked with the initials of the person performing the procedure. See MN Patient Safety Alert <a href="#">[PDF]</a>.</p>
<p><b>18.</b> Dental procedures</p>	<p>A dental diagram or x-ray is marked by the provider performing the procedure and verified during the time-out process: <a href="#">[PDF]</a></p>
<p><b>19.</b> Site marking for procedures done under radiologic image-guidance – insertion site <i>not</i> predetermined.</p>	<ul style="list-style-type: none"> <li>• Site marking does not need to occur.</li> <li>• A time-out prior to procedure start is conducted.</li> <li>• Person performing the procedure should lead verbal confirmation with team prior to final approach to internal destination site. Confirmation should include consultation with imaging and informed consent documentation.</li> </ul>

Issue	Recommendation <i>(Ctrl-click on links)</i>
<p><b>20.</b> Site marking for procedures done under radiologic image-guidance – insertion site is predetermined.</p>	<ul style="list-style-type: none"> <li>• Site marking of insertion site should occur.</li> <li>• If site mark cannot be visualized during the time-out, an alternative method of indicating the procedure must be used, see <a href="#">Recommendation #5</a>. A time-out prior to procedure start is conducted.</li> <li>• Person performing the procedure should lead verbal confirmation with team prior to final approach to internal destination site. Confirmation should include consultation with imaging and informed consent documentation.</li> </ul>
<p><b>21.</b> Site marking for diagnostic procedures followed by intervention with no change in team or procedure location.</p>	<ul style="list-style-type: none"> <li>• A time-out prior to diagnostic procedure start should be conducted.</li> <li>• Following diagnostic procedure; prior to intervention, the person performing the intervention procedure should lead verbal confirmation with the team with consultation with informed consent documentation.</li> </ul>
<p><b>22.</b> Continuous attendance of physician</p>	<p>Continuous attendance criteria can be applied to procedures in which:</p> <ul style="list-style-type: none"> <li>• Individual performing the procedure is in continuous attendance with the patient, from the time of consent through conducting the procedure.</li> <li>• This individual needs to remain in the room in which the procedure is to be performed, e.g., clinic exam room; procedure room.</li> <li>• If this individual leaves the room, then the site must be marked prior to leaving the patient.</li> </ul> <p>If the continuous attendance criteria is met:</p> <ul style="list-style-type: none"> <li>• Site marking does not need to be completed.</li> <li>• Pre-procedure verification of correct patient, procedure and site is still completed.</li> <li>• A time-out prior to procedure start is still conducted.</li> </ul>

<b>Issue</b>	<b>Recommendation</b> <small>(Ctrl-click on links)</small>
<p><b>23.</b> Site marking for spinals and epidurals involving levels.</p>	<ul style="list-style-type: none"> <li>• If the level is not pre-determined, continuous attendance criteria (<a href="#">Recommendation #22</a>) can be applied.</li> <li>• If the level is pre-determined, the process for marking procedures involving levels (<a href="#">Recommendation #13</a>) should be followed.</li> </ul>
<p><b>24.</b> Implantable device procedures</p>	<ul style="list-style-type: none"> <li>• If the site is pre-determined, site marking needs to be completed. Examples of devices that may require site marking (if site is pre-determined) include: ports, pacemakers (due to patient preference or other issues) and defibrillators.</li> <li>• If site is not predetermined, a verbal confirmation must be conducted with team prior to final approach to internal destination site, e.g. left vs. right.</li> <li>• A time-out prior to the procedure start must still be conducted for procedures regardless of site marking.</li> </ul>