###### Purpose

To provide a procedure for the gross description of a limb for a traumatic amputation.

1. **Principle**

To describe the gross findings so that a gross report can be made by a Pathologist. If litigation is suspected, photographs must be taken.

###### Equipment

1. Ruler
2. Forceps
3. Scalpel
4. Scissors
5. Large Knife
6. Stryker Saw
7. **Safety**
8. **PPE** should be worn.
9. The **STRYKER SAW** should be used with caution.
10. **Supplies and Reagents**
11. 10% Neutral Buffered Formalin (pH range 6.9 – 7.2)
12. **Quality Control**

The specimen should be kept refrigerated and a stock jar of tissue in formalin should be retained if further sections need to be taken.

1. **Limitations/ Notes**

The following may influence the validity of test results:

1. If the specimen is not grossed upon receipt in the lab, it should be refrigerated to prevent autolysis.
2. Bone sections should be fixed in formalin before being decalcified.
3. Prolonged decalcification will affect the histologic detail and the preservation of some nuclear antigens.
4. **Procedure**
5. Orient and measure the amputation specimen using anatomic landmarks (ex for leg: surgical margin to condyle, condyle to malleolus, and foot length).
6. Document all anatomic structures that are present (fingers, toes, hardware, etc.).
7. Describe the traumatic injury and how it involves the four main components of the specimen (skin, soft tissues, bone, and vasculature). Mention any involvement of the tissue at the surgical margin.
8. Describe any other abnormalities that are identified (scars, ulcers, grafts, etc.).
9. Dissect the main vascular bundles (ex leg: anterior neurovascular bundle and posterior neurovascular bundle). Describe the cut surfaces of the vascular lumens, including the presence/absence of occlusion of the lumen and a percentage of occlusion, if applicable.
10. If no other abnormalities are identified (besides the traumatic injury) the specimen can be processed as a gross only.
11. If gross findings consistent with skin ulcer, osteomyelitis, or tumor are identified, see appropriate procedure (i.e. Amputation Non-Tumor, Amputation Digits Non-Tumor, or Amputation Tumor) as to how to process and submit sections.
12. **Related Documents**
13. Amputation Non-Tumor – RA.SP.PR.GR.AM.01
14. Amputation Tumor – RA.SP.PR.GR.AM.03
15. Amputation Digits Non-Tumor – RA.SP.PR.GR.AM.04
16. **References**

Hruban RH, Westra, WH, Phelps, PH, & Isacson, C: Surgical Pathology Dissection An Illustrated Guide, New York, NY, Springer-Verlag Inc., 1996.

Lester, SC: Manual of Surgical Pathology, New York, NY, Churchill

Livingstone, 2001.

1. **Authorized Reviewers**
2. Medical Director, Anatomic Pathology
3. Chief, Surgical Pathology

##### Document Control

##### Location of Master: Master electronic file stored on the Beaumont Laboratory server under

S:\AP\_Grossing\_Manual

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##### Document History

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| *Ali-Reza Armin, MD* | 12/10/2008 | **r00** |  |  |
| *Anne R. Tranchida,PA(ASCP)* | 10/20/2009 | **r00** |  |  |
| *Ali-Reza Armin,MD* | 10/20/2011 | **r00** |  |  |
| *Ali-Reza Armin,MD* | 04/02/2013 | **r00** |  |  |
| *Mitual B. Amin,MD* | 02/14/2015 | **r00** |  |  |
| *Zhenhong H. Qu, MD* | 03/11/2015 | **r00** |  |  |
| *Kurt Bernacki, MD* | 10/27/2017 | **r00** |  |  |
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| *Jawwad Arshad, MD* | 3/20/2023 | **r01** |  |  |
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