

LABORATORY COLLECTION MANUAL	BLEEDING TIME
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I. PRINCIPLE

The bleeding time is defined as the time between the making of a small incision and the moment when the bleeding stops. It is one of the best tests of platelet function. Surgicutt® is a sterile disposable device used to make a uniform incision for the bleeding time test. Surgicutt® provides a standardized incision with its ultrasharp blade that delivers a clean incision, thus reducing trauma to the skin and potential scarring. A stopwatch is started as the incision is made. The blood from the incision is blotted at 30 second intervals. The time required for the bleeding to cease is estimated to the nearest half minute.

II. SUPPLIES

- A. Syphgmomanometer
- B. Stop watch
- C. Surgicutt® Bleeding Time Blotting paper.
- D. Surgicutt®, or Surgicutt® Jr., or Surgicutt® Newborn.
- E. Antiseptic swab

III. DIFFERENCE IN EQUIPMENT DUE TO AGE OF PATIENT:

- A. For newborns up to the age of four months, the Surgicutt® Newborn device is used for the procedure.
- B. For children from five months to 15 years of age, the Surgicutt® Jr. device is used for the procedure.
- C. For any patient older than 15 years of age, the regular Surgicutt® device is used.

IV. PROCEDURE

- A. Place the patient's arm on a steady support with the volar surface exposed. The incision is best performed over the lateral aspect, volar surface of the forearm, parallel to, and 5 cm below the antecubital crease. Avoid surface veins, scars, bruises, and edematous areas. **DO NOT PERFORM TEST MORE THAN TWO TIMES.**
- B. Place the syphgmomanometer cuff or the pediatric cuff on the upper arm. Inflate the cuff to 40 mm Hg.
(Or use the following:)
 - 20 mm Hg for infants weighing 1,000 grams or less (This is approximately 2 pounds, 3 ounces.
 - 25 mm Hg for infants weighing 1,000 grams--2,000 grams (This is approximately 2 pounds, 3 ounces to 4 pounds, 6 ounces.)
 - 30 mm Hg for infants weighing 2,000 grams or more (This is approximately 4 pounds, 6 ounces or greater)
 - For infants older than 5 months use 40 mm Hg.
- C. Remove the Surgicutt®, or the Surgicutt® Jr., or the Surgicutt® Newborn from the blister pack, being careful not to contaminate the instrument by touching or resting the blade-slot end on any unsterile surface.
- D. Remove safety clip from Surgicutt®. **Do not** push the trigger or touch the blade slot.
- E. Disinfect site using a 70% alcohol pad or comparable disinfectant. Allow the site to dry before continuing.
- E. Hold device securely between the thumb and the middle finger.
- F. Gently rest the device on the patient's forearm and apply minimal pressure so that both ends of the instrument are lightly touching the skin. The incision is best performed over the lateral aspect, volar surface of the forearm, parallel to and 5 cm below the antecubital crease. This technique is the most sensitive.
- G. Gently push the trigger and start the stopwatch simultaneously. The blade will make an incision in the arm according to size of each device.
- H. Remove the Surgicutt®, the Surgicutt® Jr., or the Surgicutt® Newborn device from forearm immediately after triggering.

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- I. The blade protracts down, sweeps across and retracts automatically back into the device. The blade does not remain exposed, eliminating the variable of how and when the blade is removed from the patient's forearm. Most important, the retracting blade eliminates possible injury from an exposed blade contaminated with blood.
- I. After 30 seconds, touch the flow of blood with filter paper. Bring the filter paper close to the incision, but **DO NOT** touch the paper directly to the incision, so as not to disturb the formation of a platelet plug.
- J. Touch the blood every 30 seconds thereafter until blood no longer stains the paper. Stop the timer. Bleeding time is determined to the nearest 30 seconds. **DO NOT PROCEED WITH THE TEST AFTER 15 MINUTES. STOP THE TEST AND PROPERLY BANDAGE THE PATIENT'S ARM.**
- K. The bleeding time blotting paper is sterilized to minimize contamination of the paper surface. Because the paper comes into close contact with an open wound, product sanitation can help prevent infection.
- L. Remove the sphygmomanometer cuff and cleanse the incision site with an antiseptic swab. Potential scarring can be reduced by approximating the skin edges with a non-allergic wound closure strip for 24 hours.
- M. Discard the used Surgicutt®, Surgicutt® Jr., or the Surgicutt® Newborn into a sharps container.

V. **REPORTING OF RESULTS**

- Report the Bleeding Time in minutes to the closest ½ minute.
- If the test was stopped at 15 minutes, report >15 minutes.
- If greater than 15 minutes, this is considered a critical result and physician or nursing unit must be notified. Please use the normal protocol for reporting Critical results.
- This notification must be documented in the computer with the results, per the Critical Result notification protocol.
- **Always notify the physician when the test cannot be performed properly after two tries and document this notification in the computer.**

V. **REFERENCE RANGE**

Normal: 2.0 minutes - 8.0 minutes

VI. **LIMITATIONS OF PROCEDURE AND PROCEDURE NOTES:**

- The bleeding time test is a *screening test*. Results of this test alone are not sufficient to diagnose specific conditions. A prolonged bleeding time, however, may indicate the need for further testing (i.e., Platelet count, Platelet Aggregations studies, etc.).
- Bleeding Time test results should always be evaluated with respect to the patient's clinical history.
- If the incision fails to bleed or if a small vein is cut, disregard the bleeding time of the incision and repeat the test. Do not perform the test more than 2 times. Notify the physician that test can not be performed properly.
- For patients who only bleed under the skin, repeat test one time only. If the test still does not work properly, notify the physician and report out in comments unable to perform test due to capillary fragility.
- Bleeding times should not be performed on infants or small children that may be unable to remain still during the procedure and thereby spuriously alter the results.

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VII. INTERFERING SUBSTANCES

The following is a list of drugs capable of inducing a prolonged bleeding time in the presence of a normal platelet count:

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| 00000000• Aspirin | • Nafcillin |
| • Indomethacin | • Nitrofurantoin |
| • Naproxen | • Penicillin |
| • Dextran | • Piperacillin |
| • Heparin | • Ticarcillin |
| • Prostacyclin | • Aminocaproic acid |
| • Ampicillin | • Ethanol |
| • Azlocillin | • Halothane |
| • Carbenicillin | • Nitroglycerin |
| • Mithramycin | • Radiographic contrast agents |
| • Moxalxtam | |

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APPROVED BY: Martin F. Belli, M.D. DATE: 10-94

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APPROVED BY: Martin F. Belli, M.D. DATE: 8-96, 3-98, 4-99, 1-2002, 5-2002, 2-2006

See original policy in the Laboratory for all documented annual reviews.

Reference:

Surgicutt® Package Insert, International Technidyne Corporation.