TITLE: CARE OF SURGICAL SPECIMENS

PURPOSE: All surgical specimens removed from patients in the BMC Operating Room and Crane Center Ambulatory Surgery are prepared properly and transported to the Pathology Department.

APPLICABILITY: Operating Room and Ambulatory Surgery Staff and Physicians.

REFERENCES: 2005 AORN Standards and Recommended Practices for Perioperative Nursing

Laboratory Specimen Handling Policy BMC TX.A.7.4.


SPECIFICS:

I. SUBMISSION OF SPECIMENS

   A. All tissue and foreign material removed at any operation must be submitted to the Department of Pathology and Laboratory Services according to the medical staff rules and regulations of Berkshire Medical Center.

   B. Exceptions to this requirement will be determined and promulgated by the office of the Chief of Staff. Refer to Section X (Specimens Exempt from Submission to Pathology) of this policy for specifics.

   C. Other specimens sent to the Laboratory from the Operating Room may include blood, specimens for microbiology, specimens for cytology, etc.

II. SPECIMEN HANDLING/LABELING

   A. Follow bloodborne Pathogen precautions when handling specimens (do not handle specimens with bare hands).

   B. Be careful not to tear or damage specimens if instruments are used for handling.

   C. Specimens must be properly labeled, packaged in preservative as designated and identified as to the name of the patient, hospital account number, type and site of specimen.

   D. Containers for tissue specimens are provided by the Laboratory and may be unsterile unless otherwise noted, ie, microbiology, cytogenetics, etc. All lids must be tight-fitting and securely attached to prevent spillage of contents in either the Operating Room or the Laboratory.

   E. Labels must be attached to the side of the container not the lid.

   F. Specimen containers must be placed in a plastic bag and the requisition attached to the outside of the plastic bag.
G. Requisitions, either paper or on-line, must accompany all specimens and include patient name, date of service, surgeon, appropriate copy-to physicians, preoperative diagnosis, specific tests requested or tissues to be examined.

H. Information on the specimen container must correspond to information on the requisition.

I. Refer to BMCP TX.A.7.4 for specifics on the proper labeling and handling of laboratory specimens.

J. Send all specimens from the Operating Room to the Laboratory directly via the dumbwaiter. Specimens from the Crane Center are delivered by staff to the Laboratory.

### III. CARE AND RESPONSIBILITY

A. Proper handling of the surgical specimen is the shared responsibility of the scrub person who received the specimen directly from the surgeon and the circulating nurse who receives it from the scrub person.

B. All specimens must be properly labeled and numbered. The circulating nurse documents the specimen by number and description on the intraoperative record as well as the pathology requisition.

C. All specimens must be logged into the Pathology Log before they are sent to the Laboratory. The Laboratory will verify receipt of the specimens by initialing the Log when the specimen(s) are received in the laboratory.

D. Loss of a surgical specimen could result in termination of employment for the scrub and circulating nurse.

E. Improper handling of specimens, that is, no label, wrong label, etc, will result in disciplinary action. Patient identification band, intraoperative record label, and specimen must all match.

F. Specimens are to be documented in the area provided on the Operating Room Summary sheet.

### IV. TISSUE SPECIMENS – GENERAL INFORMATION

A. Pathological tissue specimens should not be allowed to dry out. Air-drying will ruin specimens and the smaller the specimen the more rapidly this will take place. Focused OR lamps and air currents are to be avoided.

B. Routine specimens – 10% neutral buffered formalin is the routine fixative. Fixation preserves tissues by stopping autolytic changes while allowing tissues to remain unchanged by subsequent treatment. The sooner the tissue is fixed the better the histologic preparation will be.

C. “Fresh” specimens – refers to tissues that cannot be fixed immediately. It is very important to keep the specimen moist. In the case of a small specimen, this can be achieved by placing it between saline-moistened telfa pads (not floating in saline). A large specimen can be placed in a sealed container.

D. Special Handling – Some diagnostic techniques cannot be performed following formalin fixation. Some examples include flow cytometry, cytogenetics,
immunofluorescence, etc. The general recommendation in these instances is to submit the specimen to the Histology Lab in the “fresh” state and be certain the clinical history and pre-operative diagnosis is stated on the pathology requisition so that the specimen can be properly triaged.

E. **Contact either the Histology Lab at x2586 or the pathologists at x2570 if there is any uncertainty about the proper handling of laboratory specimens.**

V. **TISSUE SPECIFICS**

A. **“Fresh” Specimens (without fixative)**

1. Place fresh specimen on a saline moistened telfa pad in a labeled container.

2. Immediately send to the Laboratory.

3. Indicate “fresh” specimen on the requisition.

B. **Frozen sections**

1. Notify the pathologist in advance, when possible, that a frozen section is requested. Call beeper #0076 or x2586 or x2575 if the beeper is unavailable. This is the responsibility of the circulating nurse or designee, ie, unit coordinator. After hours (4pm – 8am and on weekends and holidays), the RN is responsible to notify the Lab for contact of the on-call pathologist prior to the start of the case.

2. The specimen will be handed from the operative field on a piece of saline-moistened telfa in a covered container. Send the specimen to Histology via the dumbwaiter. Document in the Pathology Log.

3. The specimen container and the requisition must be appropriately labeled. The OR room number must be documented on the pathology requisition for communication of the diagnosis.

4. The pathologist will communicate their findings to the attending surgeon via the Stryker system or the telephone. Alert the pathologist if the patient is awake so that he/she will not announce the results over the speaker.

C. **LYMPH NODE BIOPSY (To rule out lymphoma, leukemia, etc)**

1. Immediately send fresh specimen on saline moistened-telfa to the laboratory in a properly labeled container.

2. Pathology requisition must have appropriate clinical history/pre-operative diagnosis.

D. **SENTINEL LYMPH NODES**

Submit tissue in 10% formalin in a properly labeled container.
E. BREAST BIOPSIES

1. Needle localizations
   Needle localization specimens are placed on a piece of saline-moistened
telfa in a covered container with an appropriate identification label
on the side of the container (not the lid). The specimen is
transported to the mammography unit at the Women's Imaging
Center prior to being sent to Pathology unless the surgeon requests
otherwise. The Pathology requisition and x-rays should accompany
the specimen to Pathology.

2. Stereotactic and other biopsies should be sent in 10% formalin to
   Pathology.

3. Important Note: Breast receptor analysis tests are now performed on
   formalin-fixed, paraffin embedded tissue. Fresh tissue is no longer
   required.

F. MUSCLE BIOPSIES

1. Surgeon is responsible for notifying Histology x2586 at least 24 hours in
   advance of the muscle biopsy to allow the Laboratory to obtain liquid
   nitrogen from the supplier. If no one is reached at x2586, please call
   x2570.

2. Send the specimen immediately to the Laboratory in the special muscle
   clamp. Place the clamp with the tissue between moist, but not wet, telfa
   pads in a properly labeled closed container with a completed pathology
   requisition.

G. AMPUTATED EXTREMITIES

1. Extremities are double red-bagged and sealed with tape before sending
   them to Pathology.

2. Sharp bone edges from an amputated limb should be padded before
   being placed into a red bag to prevent an exposure to an employee.

3. Specimen must be properly labeled (ie. patient name, account number,
   surgeon, and specific site).

4. Pathology requisition and a copy of the disposal permit must accompany
   the specimen. The original disposition permit stays in the patient’s
   chart.

5. Place the specimen in the dumbwaiter or transport to Pathology if the
   specimen is too large. Communicate to Lab at x2586 or 2575.

H. PLACENTAS

Placentas that require pathological examination are sent to Pathology.
Place the fresh specimen in a large, properly labeled plastic
container with the appropriate information on the requisition.
I. FETUS:

1. Live Birth:
   A birth in which the fetus shows signs of life regardless of size and gestational age is a live birth requiring an autopsy permit and death certificate prior to pathology examination. Tag and refrigerate.

2. Stillborn:
   A premature birth defined by a gestational age of 28-37 weeks, weight 1000-2499 grams. An autopsy permit is obtained if permission is granted. Tag and refrigerate.

3. Stillborn, Immature:
   A birth defined by a gestational age of 20-28 weeks at 500-999 grams. An autopsy permit is obtained if permission is granted. Tag and refrigerate.

4. Aborted Fetus:
   Less than 20 weeks in gestation and below 500 grams. Place on a damp (Saline) gauze in container and transport to Pathology. The disposal of a fetus (immature or premature) is at the discretion of the parent. Indicate the parents wishes on the surgical consent form; use the section for disposal of tissue.

J. STONE ANALYSIS

Stones are placed in a dry labeled container and sent as fresh specimens with completed pathology slip to prevent dissolving.

K. TISSUE SPECIMENS FOR FLOW CYTOMETRY
   Specimens must be received fresh on saline-moistened telfa and should be at least 0.5 cm³ in size. Do not allow specimens to dry out. Specimens exposed to alcohol or formalin are unacceptable for flow cytometry.

L. CHROMOSOME ANALYSIS:
   The tissue is placed in a sterile labeled container without preservative and sent fresh immediately to the lab. Note the request for chromosome analysis on the pathology form. The Circulator or designee will call the Lab at 2586 or 2575.

M. SPECIMENS FOR FLOW CYTOMETRY:
   Specimens must be received fresh. Tissue specimens should be at least 0.5 cm³ in size. Do not allow specimens to dry out. Submit on saline-moistened telfa pads. Specimens exposed to alcohol or formalin are unacceptable for flow cytometry.

N. SPECIMENS FOR IMMUNOFLUORESCENCE:
   Do not place tissues for immunofluorescence in formalin. Submit tissue in Michel's transport medium which can be obtained from the Histology Lab 2586.
VI. FOREIGN BODIES:

A. Routine Foreign Bodies

1. Submit non-biologic material, eg. splinters, coins, glass etc dry in a labeled specimen container.

2. Submit biologic material, eg. chicken bone, skin with splinter, etc in formalin in a labeled specimen container.

3. Refer to Section X - “Specimens Exempt from Submission to Pathology”.

B. Forensic Foreign Bodies, e.g. Bullets

1. Place bullet into labeled specimen cup on cotton or gauze and cover with telfa or gauze.

2. NOTE: At no time should any forensic specimen be unattended until cleared by law enforcement. If specimen is given to Pathology, it must be delivered in person to avoid breaking chain of custody. The chain of custody must be maintained.

3. Bullets may be given directly in the chain of custody to law enforcement representatives.

4. If appropriate the policeman should be directed to Pathology (contact Pathologist during off hours).

VII. CYTOLOGY SPECIMENS:

A. Specimens for Cytology should be fresh specimens with no additives and should be delivered to the Laboratory immediately via the dumbwaiter. If there is any delay in delivery to the Lab, the specimen should be refrigerated. The specimen should be transported in a tightly closed, leak-proof container which should be labeled with the patient's name, type of specimen and site.

B. The specimen should either be ordered in Meditech or should be accompanied by a requisition form properly filled in.

C. Shared specimens, such as a specimen going to Cytology AND Microbiology, should be clearly marked as a shared specimen.

VIII. MICROBIOLOGY

A. All specimens must be sent to the Laboratory immediately upon being obtained. Do not leave any specimens in the O.R. overnight. After hours call the lab to confirm receipt. (4575)

B. Each specimen must be properly labeled with the patient’s name and hospital number and the specimen source and description. Specimens to be shared should be clearly marked.

C. Specific examination is requested in the Meditech computer. For example:

1. TISC: Tissue culture (biopsy/tissue)
2. WDC: Wound culture (swabs)
3. FLDC: Body fluid culture (pleural, synovial, etc)
4. CSFC: CSF culture  
5. ANER: Anaerobic culture

D. Criteria for rejection includes any specimen received unlabeled or in an unsatisfactory transport system or condition (i.e., leaking). All specimens should be transported bagged and sealed.

1. Urine cultures: Sterile, leak proof container with a tight-fitting lid, bagged and sealed.
2. Sterile fluids (CSF, pleural, synovial, etc): Aspirates in sterile syringe (needle removed) or in sterile tubes, bagged and sealed.
3. Tissues: Tissue portion in a sterile container
4. Anaerobic cultures: Tissues and fluids in sterile containers are the preferred specimens for anaerobic cultures.
5. Swab specimens: Swab specimens are generally inadequate and their use should be discouraged and minimized. Use only when more representative tissue or fluid specimens cannot be obtained. Both aerobic and anaerobic swab transport systems are available.
7. TB specimens: Sterile, leak proof container, bagged and sealed.

IX. BLOOD

A. All blood samples must be sent to the Laboratory promptly and are placed in a plastic bag.

B. Each specimen of blood must be properly labeled with the patient's name, hospital number, date, and time drawn, and the name or initials of the person who drew the specimen. Type and cross blood specimens are initialed by 2 licensed personnel as per BMC policies TX.A.7.3 and TX.A.2.1.

C. Specific examination is requested in the Meditech computer.

D. Arterial blood gases are sent to Respiratory Therapy Department for analysis in ice in a plastic bag. Indicate patient's temperature and percentage of O2 being administered. Call beeper #013 and inform them that you are dropping off blood gases.

X. SPECIMENS EXEMPT FROM SUBMISSION TO PATHOLOGY:

Specimens included on the following list do not need to be routinely submitted to Pathology. Any specimen or device not submitted to pathology for examination will be documented on the interoperative record including specimen type, area taken from, and disposition (sales rep, M.D. patient or disposal).

A. Bone donated to the bone bank.
B. Bone fragments removed as part of corrective or reconstructive orthopedic procedures (e.g., rotator cuff repair, synostosis repair) excluding large specimens such as femoral heads and knee, ankle, or elbow reconstructions.
C. Cataracts removed by phacoemulsification.
D. Dental appliances.
E. Fat removed by liposuction.
F. Foreign bodies such as bullets or other medicolegal evidence given directly to law enforcement personnel.
G. Foreskin from circumcisions of newborns.
H. Intrauterine contraceptive devices without attached soft tissue.
I. Medical devices such as catheters, gastrostomy tubes, myringotomy tubes, stents, and sutures that have not contributed to patient illness, injury or death.
J. Middle ear ossicles.
K. Orthopedic hardware and other radio-opaque mechanical devices provided there is an alternative policy for documentation of their surgical removal.
L. Placentas from uncomplicated pregnancies that appear normal at time of delivery (do not meet institutionally specified criteria for examination).
M. Rib segments or other tissues removed only for purposes of gaining surgical access, provided the patient does not have a history of malignancy.
N. Saphenous vein segments harvested for coronary artery bypass.
O. Therapeutic radioactive sources.
P. Normal toenails and fingernails that are incidentally removed.

XI. SAFE MEDICAL DEVICES ACT

Refer to BMC Policy EC.F.7, “Safe Medical Devices Act (SMDA) of 1990/Compliance Procedure” for information regarding the removal of any failed medical devices that may have contributed to patient injury, any failed device for which litigation is pending or likely, and for devices subject to tracking under the Safe Medical Devices Act of 1990.

ATTACHMENT:
Chart for “Submitting Tissues to the Laboratory”.

Approved By: __________________________
Daniel J. Carter, MD
Chief of Anatomic Pathology

______________________________
Diana Vallone, RN, CNOR
Surgical Services Product Line Administrator

DATE: ________________
March 20, 2006

DATES REVIEWED: ________________
11/8/96, 3/6/97, 1/8/01, 1/1/04

REPLACES: ________________
Policy dated 2/21/95

or_POL draft 2 /pathology