

BREAST PATHOLOGY GROSSING GUIDELINES

THINGS TO CONSIDER:

- A. Please review ALL imaging and previous biopsies PRIOR to grossing any breast case.
 - a. It may be helpful to draw out your own guide to assist when grossing
- B. Faxitron your breast to look for clips and calcs. Make sure the clip location(s) correlates with imaging.
 - a. Place mastectomies into Faxitron with **POSTERIOR** surface down
- C. After sectioning your breast into levels, when evaluating the mass size, make sure the dimensions correlate with clinical findings (do not calculate the mass size based off the presence of a mass in certain levels, as this may give you an incorrect and overestimated size).
- D. If you receive a mastectomy with multifocal lesions, measure and document the distance between the lesions in your gross.
- E. Be descriptive in your cassette summary as this is useful when reviewing your slides the following day.
 - a. Document level and location of your sections:
 - i. Level 1- superior OR level 1- upper inner quadrant
 - ii. Level 13- parenchyma between lesion #1 and lesion #2
 - iii. Level 4- lesion #1 at closest approach to posterior margin
 - iv. Level 2- lesion #1 in relation to superior margin

FORMALIN FIXATION

Specimen collection time: The OR nurses record the collection time of all breast specimens in Beaker. This time indicates when the breast specimen has been removed from the patient. The OR staff will contact SurgPath personnel to pick up every breast lumpectomy and mastectomy to try and ensure the ischemic time is within the appropriate limits.

Ischemic time: Breast excisions/re-excisions/lumpectomies/partial mastectomies and all mastectomies (including prophylactic ones) are to be **immediately** (within 1 hour) weighed and placed in 10% neutral buffered formalin (NBF) once received or picked up from the OR. Ideally, this task will be performed by the personnel/technician prior to accessioning the case. The time the specimen was placed in 10% NBF will be written on the specimen container and documented in Case Notes in Beaker. The collection time and the time the specimen has been placed in 10% NBF will be used to calculate ischemic time:

(Time tissue placed in formalin) – (Collection time) = Ischemic Time

Due to CAP-recommended guidelines for ER, PR, and HER2/neu (including FISH) testing, as much as possible, specimens should be placed in formalin within one hour after surgery. Furthermore, the breast tissue should be in contact with formalin for 6-48 hours, not to exceed 72 hours. Therefore, when a specimen comes in late on Friday,

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gross the specimen such that you identify the tumor and submit sections of the tumor for the Friday late processor. If the specimen is still very fresh, then please submit the remaining sections (including lymph nodes) during the weekend such that they'll run on the Sunday processor.

When a specimen comes in on the weekend (occasionally on Saturdays), then please gross the entire specimen and submit sections for the Sunday processor. For such Saturday specimens, waiting until Monday to submit sections for the Monday processor will result in suboptimal testing conditions for breast biomarkers, since this will exceed the recommended 48-hour ideal formalin fixation time frame.

As always, RECORD THE ISCHEMIC TIME **AND** THE FORMALIN FIXATION TIME

Note: The exception to this is when the requisition states 'Rule out Lymphoma' or a prior core needle biopsy diagnosis was reported as lymphoma. In these cases, call for a lymphoma work-up and DO NOT fix the breast tissue in 10% NBF.

Calculating formalin fixation times

Monday – Friday

calculate fixation time until 12am

Saturday - Sunday

calculate fixation time until 8pm on Sunday

Holiday weekends

contact histology to ensure cassettes are transferred from formalin and placed into alcohol so as not to exceed the formalin fixation time (6-72 hours). The tissue is in formalin for 2 hours on the processor, so please be mindful of accounting for this when calculating fixation times!

Calculating formalin fixation times of Breast Biopsies:

Routine breast core (bx placed in formalin before 2pm) → calculate fixation time until 9pm

Late breast core (bx placed in formalin after 2 pm) → calculate time to 11pm

SURGICAL PATHOLOGY SPECIMEN RADIOGRAPHY: FAXITRON

Faxitron image(s) must be obtained and uploaded into Beaker for the following specimen types:

- 1) All excisional biopsy/lumpectomy/partial mastectomy specimens in order to verify microclip(s) and/or microcalcifications
- 2) All mastectomy specimens
- 3) Consider Faxitron imaging paraffin blocks of needle core biopsies as needed for microcalcifications (when initial 3 H&E sections do not show calcs and specimen radiography showed calcs)

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When an image is taken, an annotation of the patient's name and surgical case number must be included in each image. Any additional annotations that are relevant to the particular case should also be included, for instance, measurement(s) and relationships of specific anatomic locations to lesion(s), size of tumor, area of calcifications, location of suspicious area(s), summary of sections, etc.

Image(s) should be uploaded into the case in Beaker; this must be noted in the gross description for billing purposes. (i.e., "A Faxitron image was taken of the specimen.")

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Specimen Type: REDUCTION MAMMOPLASTY

Procedure:

1. Weigh in aggregate if fragmented
2. Measure (range and aggregate)
3. Document number of portions lined with skin (check for skin lesions/scars)
4. Describe cut surfaces (masses, cysts, %fibrous and %fatty tissue)

Gross Template:

MMODAL COMMAND: "INSERT REDUCTION"

It consists of multiple yellow-tan portions of fibroadipose tissue measuring [*measure in three dimensions*] cm in aggregate. The specimen weighs [***] grams in aggregate. [*All/ Provide # of portions****] of the portions are surfaced with [*tan unremarkable/describe lesion if present****] skin. Sectioning reveals [*yellow-tan cut surfaces/describe****]. The tissue consists of [*give percentage****] tan-yellow adipose tissue and [*give percentage****] white fibrous tissue. No lesions or masses are grossly identified. Representative sections are submitted in cassettes [***].

[*INSERT INK KEY FOR GYNECOMASTIA CASES/SEE GROSS MANUAL – OTHERWISE DELETE THIS SENTENCE*]

Cassette Submission: Submission is based on patient age, see below. **Include two sections of tissue in each cassette.** If NO skin lesions are clinically or grossly identified, there is no need to submit skin.

- Patient is 49 years or younger 3 cassettes, each with two pieces
- Patient is 50 years or older 5 cassettes, each with two pieces

If specimen is just breast skin (no fat) you may submit **one cassette with three representative cross sections.**

Sample Cassette Summary:

A1 – A3 Fibroadipose tissue

*Skin is only submitted if there is an obvious lesion clinically or grossly identified