

Blanchard Valley Health System

Blanchard Valley Hospital
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Laboratory Services

Collection of Fine Needle Aspiration Biopsy Specimens (LTR32725)

Revision: 2.09

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(09/01/2024)

Last Updated Time: 09/01/2024

Last Approved Time: 09/01/2024

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COLLECTION OF FINE NEEDLE ASPIRATION BIOPSY SPECIMENS

PRINCIPLE

Fine needle aspiration biopsy plays an important role in the timely diagnosis and management of cysts, inflammatory processes, and primary as well as metastatic neoplasms of subcutaneous structures (e.g. breast, thyroid, and lymph nodes).

POLICY

The following procedure provides guidelines for the proper collection, preservation, and transport of fine needle aspiration biopsy specimens to the Cytology Department. It pertains to specimens that are submitted for cytologic evaluation only. If other tests are required (e.g. cultures, chemistry), please refer to the Lab Collection Manual or contact the laboratory department concerned for instructions regarding their specific needs for specimen collection.

During second, third, weekend, or holiday shifts, the specimen should be taken to the main lab processing area.

SPECIMEN

Patient Preparation: Per attending Physician

Type: Fine needle aspiration biopsies of superficial lesions.

Handling Conditions:

1. For specimens collected within the BVH network, use *"orders +add"* in the main menu of Power Chart to request cytology testing. Enter *Pathology Cytology Request* in the search box and complete the required fields in yellow (i.e. Procedure, Clinical History, and Specimen Description) at the bottom of the screen. For specimen description, please include specimen laterality (i.e. right or left) when applicable. If additional special studies are required, these must be entered in the "Special Studies Requested" field. When finished, be sure to sign the order by using the *sign* button in the bottom right corner of the screen. Retrieve the specimen label from the designated printer and place it on the specimen container. If a specimen label is not available, please ensure that the following information appears on the specimen container: patient name, date of birth, collection date and time, collector's initials, and type of specimen (e.g. right neck mass FNA).

For specimens collected outside of the BVH network (e.g. non-BVH owned physician office), properly complete a non-gyn cytology requisition form and indicate the appropriate specimen type (including laterality when applicable) under the heading of NEEDLE ASPIRATION BIOPSY. If the specimen type is not among those listed under this heading,

please mark the OTHER category and indicate the site (including laterality when applicable) from which it was collected. Include the following information on the form: patient name, date of birth, address, social security number, collection date, and the name of the attending Physician. Also, please include a copy of the patient's insurance information and/or insurance card whenever possible.

Also, please provide as much pertinent clinical information as possible. Example: History, present complaint or diagnosis, previous radiation or chemotherapy, etc.

2. Identification Needed: All slides, containers and/or slide holders must be properly labeled (i.e. patient name, date of birth, date and time of collection, collector's initials, and specimen description). Slides and/or containers should also be appropriately labeled to indicate the source of the specimen (e.g. left thyroid). Please note that the patient's name and date of birth must always be written on the slide label regardless of whether or not it appears on the outside of the specimen container (e.g. cardboard slide holder or bottle of 95% ethanol).
3. Collected by: Attending Physician.
4. Transportation: Specimens should be sent by courier to the Cytology Department as soon as possible following collection.

EQUIPMENT AND MATERIALS

Equipment: FNA syringe handle (if available), Coplin jar (if required – see below)

Materials:

Available from the Cytology Department upon request: 20 ml disposable plastic syringe, 22 or 25 gauge needle, alcohol for skin preparation, clean glass microscope slides (preferably positively charged slides), spray fixative or 95% ethanol in a Coplin jar, vial of CytoLyt solution.

PROCEDURE

FINE NEEDLE ASPIRATION BIOPSY COLLECTION:

The Physician may choose to prepare fixed smears and rinse the needle into CytoLyt or to place the entire specimen into a vial of CytoLyt solution. Ideally, whenever possible two fixed smears should be prepared first, with the remainder of the specimen being rinsed in CytoLyt solution. Needle aspirations that yield scant cellular material or consist mainly of fluid should only be placed into CytoLyt solution. For cases that require an immediate evaluation, smears fixed in 95% ethanol must always be prepared.

- a. Label the vial of CytoLyt solution and the frosted end of the glass slides with the patient's name and date of birth. Also, please indicate the site from which the specimen is to be collected (including laterality when applicable), the date and time of collection, and the collector's initials.
- b. Sterilize the skin surface by using a simple alcohol swab for superficial lesions.
- c. Assemble the FNA syringe, the needle and the optional handle.
- d. Introduce the needle into the target lesion.

- e. Once inside the lesion, apply negative pressure move the needle back and forth with a slight change in direction during each motion. Three or four short strokes (less than 1 cm) are usually sufficient.
- f. Release negative pressure and withdraw the needle.

PREPARATION OF FIXED SMEARS USING GLASS MICROSCOPE SLIDES:

- a. Remove the needle from the syringe and proceed to draw air into the syringe barrel.
- b. Reattach the needle to the syringe barrel. Express one or two drops of specimen in the middle of a properly labeled plain glass slide. The open edge of the needle bevel should be directed downward to avoid spraying the specimen past the slide.
- c. Place a second labeled plain glass slide face to face with the first slide and allow the specimen to spread without applying pressure. If tissue fragments are present, they may be flattened with very slight pressure. Grasp the ends of the slides and pull them apart in opposite directions. The smears are to be spray fixed or placed into a container of 95% ethanol as quickly as possible.
- d. If the specimen clots, is very fluid-rich, or is bloody, too much specimen may be expressed. By touching other plain slides to the specimen pool, several slide pairs may be prepared.

PREPARATION OF SPECIMENS COLLECTED IN CYTOLYT SOLUTION:

- a. Remove the lid from the properly labeled vial of CytoLyt solution.
- b. Deposit the sample into the CytoLyt solution vial. Be sure to rinse the needle and syringe thoroughly by drawing CytoLyt solution into the syringe barrel and releasing it back into the vial.
- c. Replace the lid on the CytoLyt solution vial and tighten it completely to ensure that there will not be any leakage.

REPORTING RESULTS

Smears and cell blocks will be reported in the routine manner for Cytology and Surgical Pathology. Due to processing factors, reports are not routinely issued for a minimum of 24 hours after the specimen has been received by the department.

Please note that cell blocks are always made whenever possible. They do not need to be added to the specimen orders. Only the Cytology Department can determine if a cell block may be prepared.

If there are any questions, please feel free to call the Cytology Department at ext. 55814 and speak with a Cytotechnologist or a Pathologist regarding this procedure.

NOTE: Please refer to the **Transport of FNA Specimens to the Cytology Department Memo** for the steps that must be followed when transporting fine needle aspiration specimens to the Cytology Department. Syringes with needles attached are no longer acceptable.

REFERENCE

Ramzy, Ibrahim, Clinical Cytopathology and Aspiration Biopsy, pp 261-263, Appleton & Lange, East Norwalk, 1990.