Appendix A

Core Biopsy Supplies

- Ultrasound probe cover/condom
- Ultrasound gel
- Formalin
- Tissue sample container
- Ethanol/antiseptic solution
- Sterile drapes
- Non-sterile gloves
- Disposable 14 gauge core biopsy needle
- Lidocaine
- 20 cc syringe for lidocaine
- 21 gauge needle to draw lidocaine into syringe
- 23 gauge needle for lidocaine injection
- Adhesive bandage
- Scalpel blade for skin incision
- Sterilizable metal forceps
- Sterile gauze
- Antibiotic cream

Equipment Setup

1) On an equipment tray or table, place down a sterile drape. On the drape, place the above listed supply items with the exception of the tissue sample container and formalin, which can be placed on a non-sterile surface.

2) Turn on the ultrasound machine, select the linear transducer, and optimize settings for breast imaging

Patient Preparation and Biopsy Procedure

1) Obtain informed consent

2) Position the patient on their back with the arm on the side of the breast lesion over head and the other arm by the side. For lateral lesions, a foam wedge or towels under the ipsilateral shoulder can help flatten the breast as the patient rolls toward midline.
3) Scan the breast to confirm lesion location prior to cleaning (familiarize yourself with lesion location and nearby sensitive anatomy such as skin, pectoralis muscle, and large vessels)
4) Plan needle approach
   a. Shortest distance from skin to lesion is ideal
   b. Needle path should be parallel to chest wall
5) Clean the skin over the breast lesion with antiseptic solution and place sterile drape(s) around lesion
6) Draw up lidocaine into syringe
7) Place sterile ultrasound probe cover on probe
8) Place a small amount of ultrasound gel on breast over target lesion
9) Under ultrasound-guidance, make a small skin wheal with lidocaine and anesthetize tissues around target lesion
10) Make a small incision with scalpel blade at center of wheal
11) Under ultrasound-guidance advance coaxial trocar needle tip through incision to margin of lesion (ideal needle tip position will vary depending on lesion size – goal is for sample notch to traverse the lesion)
12) Remove trocar needle from cannula, making sure to hold cannula in place
13) Load biopsy needle into cannula
14) Prepare the patient (countdown, 1-2-3, etc.) then deploy needle with ultrasound-guidance making sure to visualize the needle in its entirety
15) Remove biopsy needle, holding cannula in place, and place sample into formalin with aid of sonographer
16) Repeat for a total of 3 cores
17) Remove both needles and hold pressure at skin entry site
18) Place Band-Aid at skin entry site
19) Dispose of sharps