



***Accelerate***<sup>®</sup>  
CONCENTRATING SYSTEM



BONE MARROW  
CONCENTRATE

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**Preparation Technique**

# PREPARATION TECHNIQUE

## 1 Clotting Prevention

**Step 1:** Rinse the 60mL VacLok™ syringe with 10mL of heparin (1000 units per mL). Be sure to aspirate all the way back to the 60mL mark and completely empty syringe into medicine cup.

**Step 2:** Flush the Bone Marrow Aspirate (BMA) needle and Accelerate® tube with heparin.

**Step 3:** Fill the syringe with 8mL of Anticoagulant Citrate Dextrose Solution (ACD-A).

## 2 Bone Marrow Aspiration

**Step 1:** Position the BMA needle at the harvest site (Figure A).

**Step 2:** Advance the needle 4 to 6cm into the iliac crest. Tap the needle into the bone while rotating in an alternating clockwise/ counterclockwise motion (Figure B).

**Note:** You may need to use a hammer when inserting the needle into the bone.

**Step 3:** Once the needle is in place, remove the stylet and attach the VacLok syringe to the needle (Figure C).

**Step 4:** Aspirate 8-10mL of BMA. Withdraw the needle 1cm while rotating, then aspirate another 8-10mL. Continue this step until 52mL of BMA is obtained (Figure D). (Note: BMA + ACD-A=60mL)

**Step 5:** Gently mix the BMA and ACD-A by rotating back and forth 10 times.

## 3 BMA Filtration

**Step 1:** It is recommended to filter the BMA, because it may contain solid debris and fat.

**Step 2:** Attach the VacLok syringe to the sterile filter provided (Figure E).

**Step 3:** Close the port that is not connected to the VacLok syringe (Figure F).

**Step 4:** Run the BMA through the filter and collect it in another syringe (Figure G).

**Step 5:** Open the closed port and aspirate the remaining BMA in the filter.

## 4 BMA Separation/Concentration

**Step 1:** Fill the Accelerate tube with the filtered BMA and place in the centrifuge (Figure H).

**Step 2:** Centrifuge the tube at 2400rpm for 12 minutes (Figure I).

**Step 3:** Mount the Bone Marrow Concentrate (BMC) tube on an IV pole with the clamp provided.

Continued on back side.

Figure A



Figure B



Figure C



Figure D



Figure E



Figure F

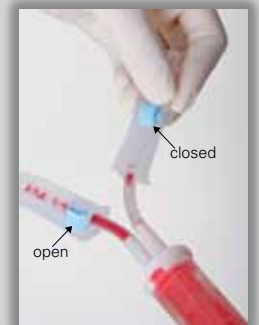


Figure G



Figure H



Figure I



**5****BMC Extraction in the Sterile Field**

Remove the Accelerate tube and harvest the buffycoat (2mL above the interface and 4mL below the interface) as follows:

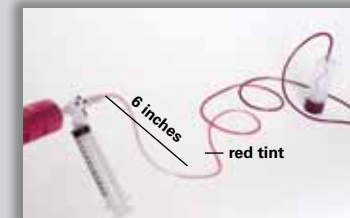
**Step 1:** Connect one end of the transfer line to the three-way stopcock valve assembly that is attached to a 60mL syringe and a 12mL syringe.

**Step 2:** Connect the other end of the extension line from the sterile field to the blood-separating tube.

**Step 3:** With the stopcock valve closed to the 12mL syringe, SLOWLY draw plasma into the 60mL syringe. This will draw down the aspiration disc inside the blood tube (*Figure J*).

**Step 4:** Stop when the buffycoat (red tint) appears about 6 inches from the three-way stopcock valve (*Figure K*).

**Step 5:** With the stopcock valve closed to the 60mL syringe, SLOWLY draw 6mL of the buffycoat (2mL above the interface and 4mL below the interface) into the 12mL syringe (*Figures L and M*).

**Figure J****Figure K****Figure L****Figure M**

Accelerate® Bone Marrow Concentrate is manufactured by EmCyte Corporation and is distributed by

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BIOLOGICS

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