Rat Saphenous & Femoral Bleeds

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Common Equipment Set Up

- Clippers to remove hair over site
- Restraint device (rigid commercial ‘tube’ best)
- Gauze for hemostasis
- Puralube
  - Applied over vessel to prevent blood clotting in hair and to assist with visualization of vessel
- 20-23g needle
- Collection tube
Restraint

- Depending on size of the animal:
  - Rat is loaded normally and the “donut” or stopper is not used
  - Donut is positioned in a manner to stop the animal from advancing full length
- Positioning within the restrainer should provide access to the rats hind quarters

Large rat = no ‘donut’

Small rat = used as a stopper
Positioning and Preparation

- Place in restrainer so hindquarters extend beyond device
  - Able to grasp the leg and ‘lock’ the knee in a forward position
- Clip/remove hair over vessel of interest
Positioning the Leg

• Grasp the upper leg with the thumb and index finger just above the knee in a “pinching” manner

• The index finger is just above the knee to help lock it in an extended position
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• Apply PuraLube over site to better visualize

Vein to left of line
Tip of needle at point of insertion (marked with ‘x’)
Puncture of the Saphenous

- Use of a 20g or smaller needle is recommended
- The needle should be inserted as if doing an injection to prevent hematoma formation
  - The needle is inserted into the lumen, given a small twist and removed
  - Just the bevel is introduced
Collection of Sample

- Upon removal the blood should flow freely over the lubricated area
- Tube should be positioned against the skin just below puncture site
Femoral Approach

• Animal is positioned in the same manner

• Inner leg area is prepped
  – Hair removal
  – PuraLube applied over puncture site
Occlusion of Femoral

- Thumb and index finger are again used to stabilize the leg and fix the knee
- Occlusion if via the thumb over the femoral
- Needle is introduced bevel up into the lumen of the vessel
- Blood should flow freely into the collection tube
- Serial bleeds can be accomplished by alternating leg and vessel
  - e.g.: left saphenous, right saphenous, left femoral, right femoral
  - Must remain cognizant of total volume taken in time period