**Brain Death or Cerebral Blood Flow Scan**

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| **Exam Time:** | 20-30 minutes |
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| **Patient Preparation** | * None Necessary. Some facilities put a rubber band or tourniquet around the head just above the ears to help diminish scalp blood flow. This should not be done in patients with a history of head trauma. Patient should be normally ventilated. |
| **Patient Positioning** | Sitting or Supine |
| **Radiopharmaceutical:** | (99m Tc) technetium diethylene triamine pentaacetic acid (DTPA) or gluoheptomate, Brain specific agents such as 99m Tc hexamethylpropyleneamine oxime (HMPAO) single photon emission computed tomorgraphy (SPECT) scan and 99m Tc)ethyl cysteinate dimer (ECD), also called Tc-Bicisate, can be used, but there is no clear evidence that they are more accurate. **They do obviate the need for a good bolus injection.** |
| **Method of Administration**  **Normal Adult administered Activity** | * Bolus IV Injection * 15 to 30 mCi (555 MBq to 1.11 G Bq) |
| **Injection to Imaging Time**  **Conflicting exams and medications**  **Acquisition Protocol** | * Immediate * None * Collimator – high resolution or ultrahigh-resolution; field of view (FOV) should include form the level of the common carotids to the skull vertex * **Dynamic flow imaging time** Blood flow images: 1-3 seconds/frame for at least 60 seconds. Flow images should start before the arrival of the bolus in the neck. * **Routine Views** Immediate blood pool anterior and anterior image at 5 minutes each. * **Posterior and both lateral views.** * **If brain specific images are obtained, initial images as described above are obtained as well as planar and SPECT images obtained after 20 minutes.** |
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