**Purpose**

Specimens received will include native hearts removed at the time of transplantation, and occasionally, allografted hearts removed at the time of re-transplantation.  Almost all of the heart explants will come with no atria, fragmented and with attached/detached grafts and/or lead wires.

**Procedure**

* Weigh and measure in aggregate.
* Photograph notable features.
* Describe the external surfaces and note any attached graft material.
* Describe coronary arterial anatomy in detail including degree of stenosis, extent and location. Try to probe the coronary ostia/arteries and make short, shallow incisions along each vessel to evaluate anatomy and gross abnormalities.
* Begin the internal evaluation of the heart with the right atrium (or whatever is left post transplant) and work your way through the flow of blood.
* Document thickness of right atrium (if present). Describe any internal or intramural abnormalities.
* Document internal circumference of tricuspid valve. Check all 3 leaflets and note any abnormalities.
* Document thickness of right ventricle. Describe any internal or intramural abnormalities. The apex may be disrupted due to LVAD removal/implantation.
* Document internal circumference of pulmonic valve. Check all 3 cusps and note any abnormalities.
* Document thickness of left atrium (if present). Describe any internal or intramural abnormalities.
* Document internal circumference of mitral valve. Check both leaflets and note any abnormalities.
* Document the thickness of the left ventricle. Describe any internal or intramural abnormalities.
* Document thickness and any abnormalities of septum.
* Document internal circumference of the aortic valve. Check all 3 cusps and note any abnormalities. Probe and document patency of both left and right ostia.
* Incompletely breadloaf ventricles and septum for accurate measurements and evaluation.
* Sample gross abnormalities (vessels, valves, myocardium).  If there are no focal abnormalities grossly, the myocardium should be carefully sampled, to include right and left ventricular free walls and septum.

***Sections of Histology***

* Sections of all coronary arteries and
* Sections of right and left atria (if present)
* Sections of right and left ventricles
* Section of interventricular septum
* If present, submit valve abnormalities

***Sample Dictation***

1. “Heart explant”, Received in a large container filled with formalin is a 378 gram, 13.0 x 12.4 x 7.8 cm (aggregate) atrial sparing heart explant. The epicardial surfaces are partially covered by extensive adhesions. The tricuspid valve has an internal circumference of 8.7 cm and contains 3 intact and pliable leaflets. The right ventricle is markedly thickened with a greatest wall thickness of 3.1 cm. A 1.1 cm focal area of intramural fibrosis is noted in the anterior aspect. The pulmonic valve has an internal circumference of 4.8 cm and contains 3 intact and pliable cusps. The mitral valve has an internal circumference of 9.3 cm and contains 2 intact leaflets. One leaflet is remarkable for a possible 0.4 cm vegetation. The left ventricle is dilated and has a greatest wall thickness of 1.9 cm. The interventricular septum is unremarkable with a greatest wall thickness of 1.8 cm. The aortic valve has an internal circumference of 4.9 cm and contains 3 intact, pliable leaflets. Both the right and left coronary ostia are patent. The right coronary artery is occluded 50%. The LAD, left coronary and circumflex arteries are occluded 10%. Photographs taken for future reference.

Cassette Summary:

A1. Right ventricle. 1ss

A2. Mitral valve vegetation. 1ns

A3. Left ventricle. 1 ss

A4. Interventricular septum. 1 ss

A5. Right coronary, left coronary, LAD and circumflex arteries. 1ss