CT Department Work Flow Tip
Exam: CTA GATED CAP(TAVI/TAVR)

QDOC Exam Code: CCHA+ & CABPELA+
Protocol not required(page 5)
Systems: 64 slice to 256 slice

Protocol Location:

Exam:

CTA GATED CAP(TAVI)

Revised: 06-20-12 BH
Transcatheter Aortic Valve Implantation (TAVI/TAVR)

The TAVR procedure enables the placement of a balloon expandable aortic heart valve into the body via the catheter-based transfemoral delivery system. The TAVR procedure is designed to provide an alternative treatment to patients in whom the traditional open-heart surgery can not be performed.

TAVR is performed in high-risk and inoperable patients with aortic stenosis. All patients are carefully evaluated to see if they are candidates for traditional surgical aortic valve replacement and then TAVR can be considered for treatment. The goal is to provide the best treatment for each individual patient.

Ref: Hartford Hospital - [http://www.harthosp.org/heart/tavr/default.aspx](http://www.harthosp.org/heart/tavr/default.aspx)
Patient Preparation – ECG Signal
Set up the ECG Monitor Prepare electrode contact sites
• Have the patient assume the posture for the scan; raise the hands above the head.
• Use the wet–gel electrodes pads (not dry) for better contact with the skin.
• Clean the contact sites thoroughly to ensure good electrode contact with the skin. *use soap and water, NOT alcohol*
• Attach the ECG leads to hairless area on the chest or back; shave area if necessary.
  * back of both triceps can be used as alternate location for RA and LA.

Place electrodes
• Right upper chest-below clavicle over intercostal space
• Left upper chest -below clavicle over intercostal space
• Left mid-abdomen
• Right mid-abdomen(iCT)

Connect leads to electrodes
• RA (right arm) lead to right upper chest
• RL (right leg) lead to right mid-abdomen(iCT)
• LA (left arm) lead to left upper chest
• LL (left Leg) lead to left mid-abdomen

Warning
Electrode placement over pectoral muscles or clavicles may cause noisy signal.

Use only electrode pads certified for medical use.
1. Scout: Dual 700-800mm
   Breath Hold: inspiration
2. Gating: Yes - Patient heart rate
3. Locator/tracker: 3cm Below Carina (first vertebral space) in the descending aorta.
4. CTA CAP: Helical (retrospective)
   a: CAP Thins: 5cm x 2.5cm Apex to Lesser Trocanter
   1. Coronal MPR: 5mm x 2.5mm
   b: Cardiac Recon: .8mm x .4mm
   c: Chest Lungs: 3mm x 1.5mm
5. IV access: 18g
6. PO Prep: None
7. Contrast: Isovue 370
   125cc @ 5.5cc per sec
   Saline Flush: 40cc @ 5.5cc per sec

Technique
<150lbs = 120kv @ 750mAs
150lbs – 200lbs = 120kv @ 850mAs
200lbs – 250lbs = 120kv @ 1050mAs
250lbs – 300lbs = 120kv @ 1250mAs
*explanation on page 5
Point of Contact
Cardiac Radiologist: Bardo, Dianna M MD(T,Th,Fr)       pager: 15171
Cardiologist: Shapiro, Michael D DO (M,W)       pager: 13616
Chest Radiologist: Fuss, Cristina MD       pager: 12055
Lead Cardiac: Bobby Hill (R)(CT)(R)       pager: 14083

Point of interest
• This is ordered as a CAP+ and will need to changed to a CTA Chest and a CTA Abdomen Pelvis, use CTA Chest accession when scanning. Description states TAVI and also Aortic Valve Transplant then this is a standard Protocol assigned primary to Dr. C. Fuss; secondary Dr. Bardo or Dr. Shapiro.

• Technique factors are based on a Retrospective Gated(helical) Cardiac protocol, which uses a extremely low pitch combined with a extremely fast Rotation to get the best Temporal Resolution in order to visualize the arteries of the heart. Any questions on this please contact Bobby to go over the physics of this.

• Prep: Contrast Questionnaire and Current Labs Needed, No Cardiac Meds required for this protocol.
• Complete exam in QDOC
  Billing: Contrast
    If you draw labs bill venipuncture, bun and creatine (CHH only bill venipuncture).
• For In-Patients Order and MAR all contrast once given.
• All THINS and Cardiac Recon sent to EBW 10th floor.

If there are any questions about Questionnaire, prep, IV Contrast, or Protocol contact the Protocoling Rad.