

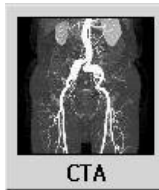
# CT Department Work Flow Tip Exam: CTA GATED CAP(TAVI/TAVR)

QDOC Exam Code: [CCHA+](#) & [CABPELA+](#)

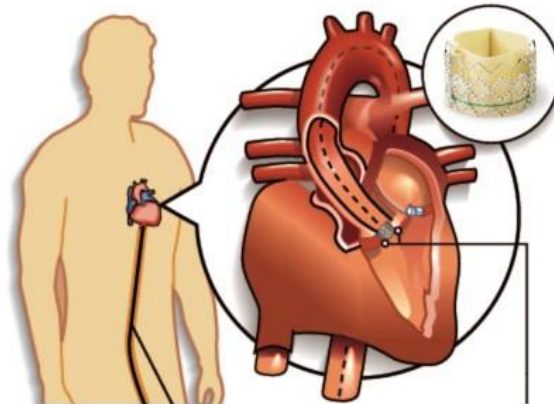
**Protocol not required(page 5)**

Systems: 64 slice to 256 slice

Protocol Location:



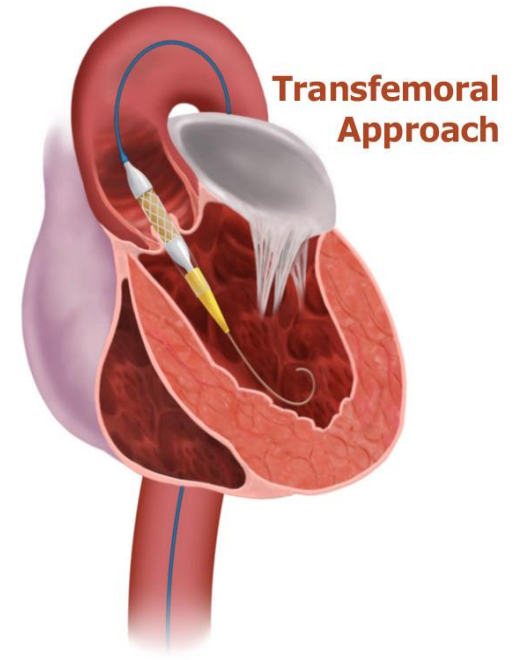
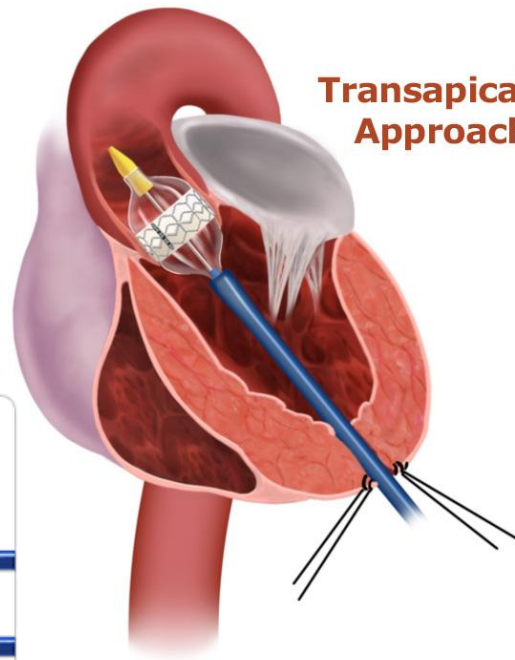
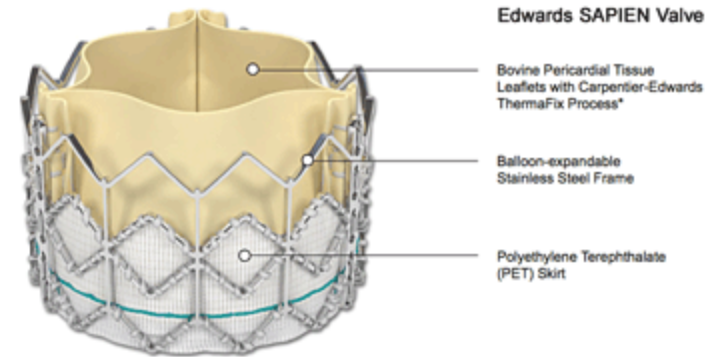
Exam:



# 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.



## Patient Preparation – ECG Signal

Set up the ECG Monitor Prepare electrode contact sites

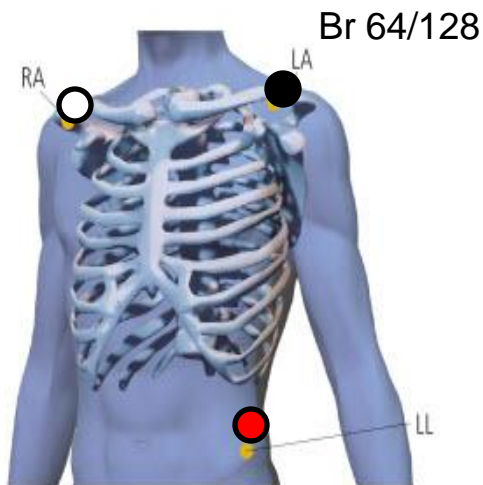
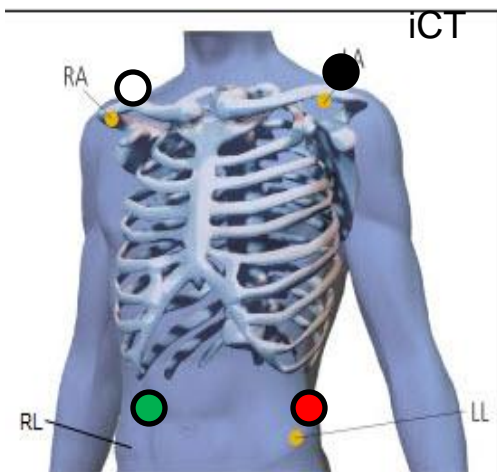
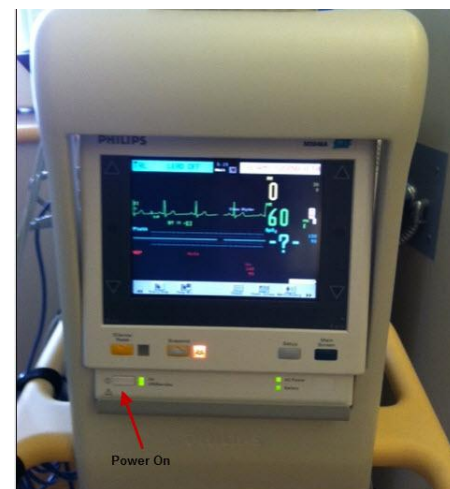
- Have the patient assume the posture for the scan; raise the hands above the head.
- Use the wet-gel electrodes pads (not dry) for better contact with the skin.
- Clean the contact sites thoroughly to ensure good electrode contact with the skin. \*use soap and water, NOT alcohol\*
- Attach the ECG leads 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



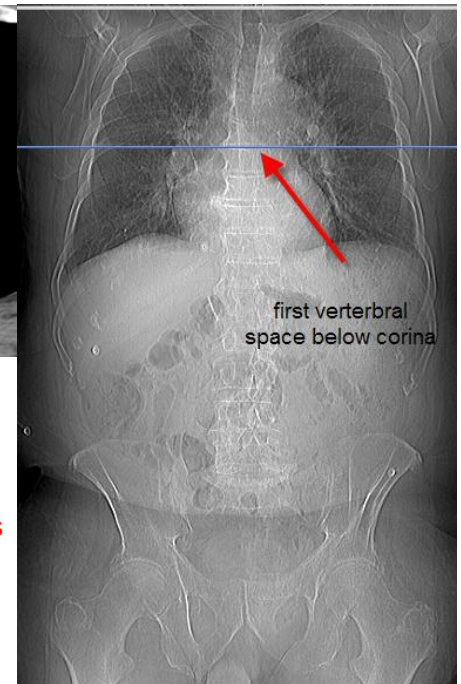
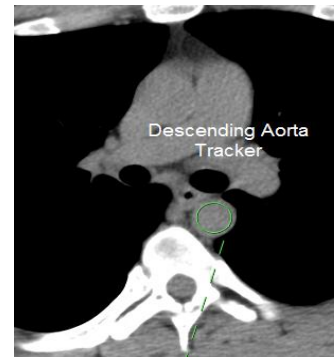
## Warning

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

Use only electrode pads certified for medical use.



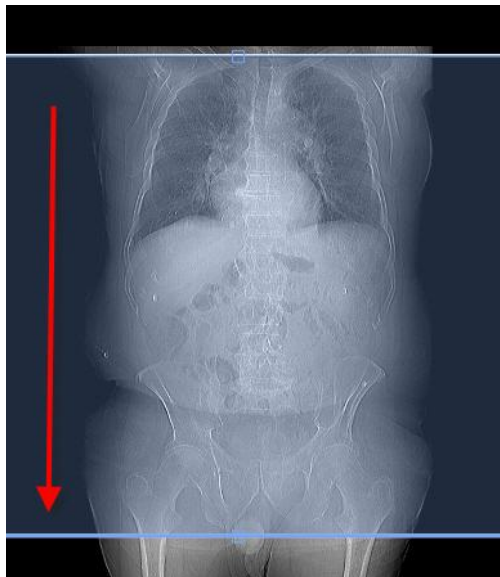
1. Scout: Dual 700-800mm  
Breath Hold: inspiration
  2. Gating: **Yes** - Patient heart rate
  3. Locator/tracker: 3cm Below Carina(first vertebral space)  
in the descending aorta.
  4. CTA CAP: Helical(retrospective)  
5cm x 2.5cm Apex to Lesser Trochanters
    - a: CAP Thins: 1.5mm x .75mm
      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: Iovue 370  
125cc @ 5.5cc per sec  
40cc @ 5.5cc per sec
- Saline Flush:



### Technique

- <150lbs = 120kv @ 750mAs
  - 150lbs – 200lbs = 120kv @ 850mAs
  - 200lbs – 250lbs = 120kv @ 1050mAs
  - 250lbs – 300lbs = 120kv @ 1250mAs
- \*explanation on page 5

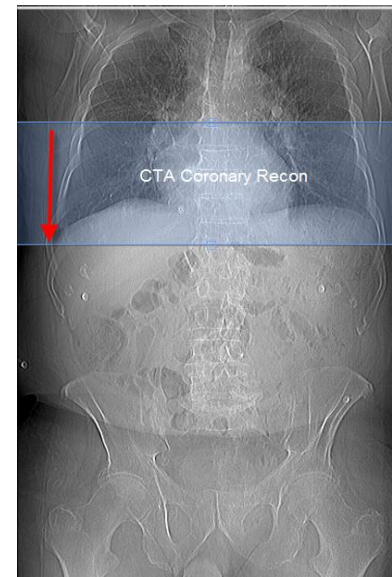
CTA CAP ACQ



Thins Recon



CTA Cardiac Recon



Lung Recons



## 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 be 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 an extremely low pitch combined with an 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 10<sup>th</sup> floor.

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

