CT Department
Work Flow Tip
Exam: Calcium Score

QDOC Exam Code: **CCACS**
Protocol required
Systems: 64 slice to 256 slice

Protocol Location:

Exam:

Revised: 11-25-11
Calcium Score Prep and Set up

Pt Prep.
  • No Caffeine 24hrs prior to exam.
  • Check Pt. BMI before Exam (technique is BMI based).
    • [http://www.nhlbisupport.com/bmi/](http://www.nhlbisupport.com/bmi/)

<table>
<thead>
<tr>
<th>BMI Range</th>
<th>Technique Settings</th>
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</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>120kv @ 55mAs</td>
</tr>
<tr>
<td>20 - 25</td>
<td>120kv @ 70mAs</td>
</tr>
<tr>
<td>25 - 30</td>
<td>120kv @ 80mAs</td>
</tr>
<tr>
<td>30 - 35</td>
<td>120kv @ 100mAs</td>
</tr>
<tr>
<td>35 - 40</td>
<td>120kv @ 120mAs</td>
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</table>

Range for technique from 55-120mAs. Any parameter outside of this will cause the Calcium Score Application not work correctly.

  • Pt dressed in gown opening to back, t-shirt expectable if a nonprint.

Patient Position/Centering
  • Pt is positioned on table so that heart is in Isocenter with arms above head. Center Pt to mid-heart and Anterior Axillary Line, pt will feel off center on table.
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.

**Place electrodes**

- (RA white) Right upper chest - below clavicle over intercostal space
- (LA black) Left upper chest - below clavicle over intercostal space
- (LL red) Left mid-abdomen
- (RL green) Right mid-abdomen (iCT)

Connect leads to electrodes

- Optimal heart rate 60 – 70bpm, since this is a nonmedicated exam, do your best to try and get the pt to relax with calm breathing before starting exam.
1. **Scout:** AP(180) 350mm – 400mm  
   (Center Patient’s heart Isocenter on Table)

   **Breath Hold:** inspiration

2. **Calcium Score:** 2.5mm x 2.5mm  
   Axial Gated  
   From Corina to Apex of Heart.

3. **Recons Lung Thins:** 1.5mm x .75mm  
   **MPR:**  
   Axial 3mm x 1.5mm  
   Coronal 3mm x 1.5mm  
   Sagittal 3mm x 1.5mm

4. **Technique:** 120kv @ 55-120mAs  
   *see previous slide*

5. **IV access:** None

6. **PO Prep:** None

7. **Contrast:** None

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**Calcium Score/Axial Lungs**

**Coronal Lungs**

**Sag Lungs**
Point of Contact

Cardiac Radiologist: Bardo, Dianna M MD (T, Th, Fr)  pager: 15171
Cardiologist: Shipiro, Michael D DO (M, W)  pager: 13616
Lead Cardiac: Bobby Hill (R)(CT)(R)  pager: 14083

• Exams are not protocoled before hand, if order states prepay $100 then this is a Calcium Score protocol as such.
• Contact Protocoling Cardiologist/Cardiac Radiologist with any questions on protocol.
• When completed send Calcium Score to Workstation for Scoring. Send all others to PACS, except Lung Thins.
• Page Reading Rad when Exam is completed.