

## **Cardiac CTA, Protocol for the ED Patient with Chest Pain**

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### Criteria for Cardiac CTA

Patient with chest pain felt to be low to intermediate pretest likelihood of having coronary ischemia as a cause of their chest pain.

### Appropriate Indications for Cardiac CTA

- Chest pain in low to intermediate risk patient
- Chest pain in low to intermediate risk patient with borderline or mildly abnormal ETT
- Patient with possible coronary anomaly
- Patient with need for definition of anatomy prior to EP ablation
- Patient with need for definition of anatomy prior to surgery

### IV Access

18g preferred, 20g min

Order of location preference:

- Right AC
- Right mid forearm
- Left AC
- Left mid forearm

All other locations are unacceptable for contrast bolus delivery.

Other lines or catheters must be approved by the Cardiac Imaging Team or the radiologist/resident on call.

### Contraindications for Cardiac CTA

- Inability to hold breath or cooperate
- Cardiac CTA performed within the last year
- Increased cardiac enzymes
- Creatinine level > 1.8.
- Acute EKG changes
- Pregnancy
- History of severe contrast reaction
- Arrhythmia
- Renal insufficiency
- Multiple myeloma
- Sickle cell anemia
- Pheochromocytoma

### Beta Blocker Administration

100mg oral beta blocker—or until target heart rate of 66 bpm is met.

- The ED will report to CT the time that the beta blocker was given
- The Cardiac CTA should be done 1 hour after the patient receives oral beta blocker or when target heart rate of 66 bpm is met.

Ordering Cardiac CTA

- Chest Pain ED will place order in the proper ordering system
- Chest Pain ED will contact CT charge technologist by phone
- Chest Pain ED will be notified by CT charge technologist if delay of greater than 1 hour is expected

The Chest Pain ED will verify that the patient meets the criteria listed above and provide

- Pt Name
- MR Number
- Age
- Sex
- History
- Heart Rate
- IV access location and size
- Serum Creatinine level

CT will verify the availability of the AquilionONE or the Aquilion 64.

Calcium Score

- For calcium score values below 600, the contrast scan will be completed and the patient returned to the ED
- For calcium score values above 600, the contrast scan may be cancelled by radiology
- The ED will be notified by the cardiac team or the radiology resident on call of this change
- The calcium score will be reported to the ED by the cardiac team or the radiology resident on call as per the reporting method declared below

Reporting of Results

Weekdays

Monday – Friday, 0800 – 1600 hrs.....1 hour: full report available

Monday – Friday, 1600 – 0800 hrs.....1 hour: preliminary report with calcium score\*

After 0800: .....full report available

Weekends

Friday 1600 hrs – Monday 0800 hrs.....1 hour: preliminary report with calcium score\*

Full report available after daily read-out

\* The preliminary report document named “After Hours Cardiac CTA Preliminary Report” will contain the calcium score and will be faxed to the ED.