

## Normals Databases - GE Discovery 530c Alcyone

### Database Description

Gender specific normals databases were created for perfusion quantification based on Tc-99m SPECT image data acquired on GE Discovery 530c Alcyone camera system. Studies were reconstructed incorporating Evolution Iterative Reconstruction. The databases were created from patients with low-likelihood of coronary artery disease. The imaging protocols for which these databases apply are

- Stress or rest studies in a 2-day Tc-99m labeled radiotracer protocol.
- Stress or rest study in a 1-day rest/stress Tc-99m labeled radiotracer protocol.
- Stress or rest study in a 1-day stress/rest Tc-99m labeled radiotracer protocol.
- Stress study in a dual isotope protocol.
- Patient position supine or prone

Database Name		
	Supine	Prone
Female	V-Alcyone/TC/NC/F	V-Alcyone/TC/NC/F/P
Male	V-Alcyone/TC/NC/M	V-Alcyone/TC/NC/M/P

Patient Demographics	Female Mean	Male Mean
Age	49 yrs.	50 yrs.
Weight	Pending	Pending
Height	Pending	Pending
BMI	Pending	Pending
BSA	Pending	Pending

\* For GE Discovery 530c Alcyone databases, **IRNC**: must be added to the Resolution Recovery dataset matching strings to automatch in Corridor4DM v2012 and earlier. For additional guidance, refer to the 4DM User Guide, Chapter 9: User Preferences.

#### SPECT Imaging Protocol

Radiopharmaceutical	Tc-99m
Administration	IV
Acquisition Protocol	1 day Rest/Stress
ECG Gating Acceptance Window, Gating Frames	20% window, 8 Frames
Orientation	Supine or Prone
Acquisitions Duration	20 sec/Stop: 32 Stops/Head
NM Camera Make/Model	530c (Alcyone)
Camera Rotation	180° RAO-LPO

#### Stress Testing Parameters

Stress Protocol	Treadmill, Adenosine, Regadenson, Dobutamine, Persantine
Pharmaceutical Dose	Varies per stress agent
Administration Protocol	According to ASNC Guidelines

#### Reconstruction Parameters

Reconstruction Method	IR
Filter	Gaussian, FWHM
Matrix size	70x70
Pixel size (mm)	4.80x4.80

\* GE Discovery 530c Alcyone Database Properties continue on page 2.

**Supine Database Properties**

	Female	Male
<b>Date Created</b>	25-Feb-2013 11:27:53	22-Feb-2013 16:01:52
<b>Date Last Modified</b>	25-Feb-2013 13:38:05	25-Feb-2013 13:54:24
<b>Manufacturer</b>	GE Medical Systems	GE Medical Systems
<b>Model</b>	Alcyone	Alcyone
<b>Total Datasets in Database</b>	31	23
<b>Total Mean</b>	82.5 +/- 9.7 (39.1:95.4)	80.8 +/- 11.7 (36.7:95.4)
<b>Total StDv</b>	7.0 +/- 0.9 (4.7:9.7)	6.4 +/- 1.4 (3.2:10.8)

**Prone Database Properties**

	Female	Male
<b>Date Created</b>	25-Feb-2013 11:30:23	22-Feb-2013 16:03:29
<b>Date Last Modified</b>	25-Feb-2013 13:37:45	25-Feb-2013 13:54:36
<b>Manufacturer</b>	GE Medical Systems	GE Medical Systems
<b>Model</b>	Alcyone	Alcyone
<b>Total Datasets in Database</b>	31	23
<b>Total Mean</b>	81.9 +/- 9.5 (38.1:95.3)	81.6 +/- 10.2 (36.0:93.7)
<b>Total StDv</b>	7.1 +/- 1.0 (4.4:9.4)	6.6 +/- 1.1 (3.8:9.6)

## Normals Databases - GE Evolution (NC)

### Database Description

Gender specific normals databases were created for perfusion quantification based on Tc-99m SPECT image data without attenuation correction. Studies were reconstructed incorporating Evolution Iterative Reconstruction. The databases were created from patients with low-likelihood of coronary artery disease. The imaging protocols for which these databases apply are

- Stress or rest studies in a 2-day Tc-99m labeled radiotracer protocol.
- Stress or rest study in a 1-day rest/stress Tc-99m labeled radiotracer protocol.
- Stress or rest study in a 1-day stress/rest Tc-99m labeled radiotracer protocol.
- Stress study in a dual isotope protocol.
- Patient position supine

Database Name	
Female	V-Evolution/TC/NC/F
Male	V-Evolution/TC/NC/M

Patient Demographics	Female Mean	Male Mean
Age	54 yrs.	52 yrs.
Weight	Pending	Pending
Height	Pending	Pending
BMI	Pending	Pending
BSA	Pending	Pending

\* For GE Evolution (NC) databases, **IRNCRR**: must be added to the Resolution Recovery dataset matching strings to automatch in Corridor4DM v2016 and earlier. For additional guidance, refer to the 4DM User Guide, Chapter 9: User Preferences.

### SPECT Imaging Protocol

Radiopharmaceutical	Tc-99m
Administration	IV
Acquisition Protocol	1 day Rest/Stress 2 day Stress/Rest
ECG Gating Acceptance Window, Gating Frames	20% window, 8 Frames
Orientation	Supine
Acquisitions Duration	Stress: 10 Sec/Stop : 32 Stops/Head Rest: 15 Sec/ Stop : 32 Stops/Head
NM Camera Make/Model	GE Discovery NM630, Infinia
Camera Rotation	180° RAO-LPO

### Stress Testing Parameters

Stress Protocol	Treadmill, Regadenson
Pharmaceutical Dose	Varies per stress agent
Administration Protocol	According to ASNC Guidelines

### Reconstruction Parameters

Reconstruction Method	IR, 12 iterations, 10 subsets
Filter	Post Filter: Butterworth
Corrections	Resolution Recovery
Matrix Size	64x64
Pixel size (mm)	6.80x6.80

### Database Properties

	Female	Male
Date Created	03-Jul-2014 11:33:54	27-Jun-2014 14:38:22
Date Last Modified	03-Jul-2014 11:38:27	03-Jul-2014 11:28:40
Manufacturer	GE	GE
Model	Any	Any
Total Datasets in Database	23	22
Total Mean	83.6 +/- 8.5 (46.4:95.9)	80.4 +/- 12.0 (37.8:96.5)
Total StDv	7.1 +/-1.3 (4.3:11.0)	6.2 +/- 0.9 (3.8:8.6)