# Division of Nuclear Medicine Procedure / Protocol University Hospital and The American Center

#### PARATHYROID SPECT PROCESSING Tc99m UPDATED: December 2019

CPT CODE: N/A

## Recon / Reformat Processing and Screen Captures for SPECT/CT

Reconstruction Options:	Infinia 1 (Rm E)	Infinia 2/3 & NM640 with Xeleris 3.x (RM A, C and TAC)
Reconstruction Type	OSEM/MLEM	OSEM
Number of OSEM	OSEM 2 MLEM 0	2
Max Number of Subsets	10	10
Correction Options:	-	
Corrections		Resolutions recovery correction & Attenuation Correction
Additional Set		Resolution Recovery Correction and Attenuation Correction
Filters:		
Pre-Filter	Butterworth	
Pre Critical Frequency	0.50	
Pre Power	10	
Post-Filter	Hann	Butterworth
Critical Frequency	1.2	0.50
Power	10.0	10.0

Infinia 1 with Xeleris 2.x (Rm E)	Infinia 2/3 & NM640 with Xeleris 3.x (RM A, C and TAC)				
1. Select the Patient and the following files	1. Select the Patient and the following files				
a. TOMOearlyHWKY	a. TOMOearlyHWKY				
b. CT TOMOearlyHWKY	b. CT TOMOearlyHWKY				
c. ATT MAP TOMOearlyHWKY	c. ATT MAP TOMOearlyHWKY				
2. Run VOLUMETRIX FOR HAWKEYE PARATHYROID processing icon	2. Run Parathyroid MI processing icon				
	a. Click Original				
	b. Click Proceed				
	c. Click Passed				
3. Select NM Transaxials	3. Select NM Transaxials				
	a. Change SUM:1 and STEP:1				
a. Create an 8 x 8 display grid	b. Create an 8 x 8 display grid				
<ul> <li>Center area of interest within the grid and adjust intensity accordingly</li> </ul>	c. Center area of interest within the grid and adjust intensity accordingly				
c. Annotate EARLY TRANS on display screen	d. Annotate EARLY TRANS on display screen				
d. SCREENCAP and save as EARLY NM TRANSAXIALS	e. SCREENCAP and save as EARLY NM TRANSAXIALS				

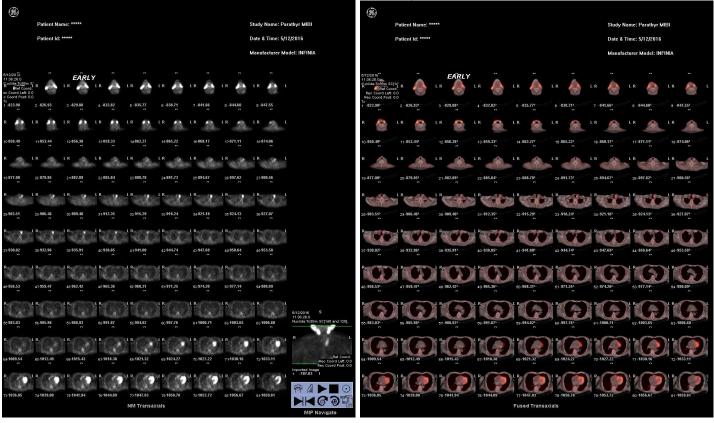
4. Repeat step 3 by selecting NM CORONALS and NM SAGITTALS. Annotate appropriately	4. Repeat step 3 by selecting NM CORONALS and NM SAGITTALS. Annotate appropriately
5. Select FUSED Transaxials	5. Select FUSED Transaxials
a. Create an 8 x 8 display grid	a. Create an 8 x 8 display grid
b. Center area of interest within the grid and	b. Center area of interest within the grid and
adjust intensity accordingly	adjust intensity accordingly
c. Annotate EARLY TRANS on display screen	c. Annotate EARLY TRANS on display screen
<ul> <li>d. SCREENCAP and save as EARLY FUSED TRANSAXIALS</li> </ul>	d. SCREENCAP and save as EARLY FUSED TRANSAXIALS
6. Repeat step 5 by selecting <b>FUSED CORONALS</b> AND <b>FUSED SAGITTALS</b> . Annotate appropriately	6. Repeat step 5 by selecting <b>FUSED CORONALS</b> AND <b>FUSED SAGITTALS</b> . Annotate appropriately
7. Click File and Save MIP	7. Click File and Save MIP
8. Click File then Save & Exit	8. Click File then Save & Exit
9. Select MIP and rename to EARLY MIP	9. Select MIP and rename to EARLY MIP
10. Select CT TOMOearlyHWKY	10. Select CT TOMOearlyHWKY
11. Run Convert CT to Hounsfield Units processing icon	11. Run Convert CT to Hounsfield Units processing icon
12. Click File and Exit	12. Click File and Exit
13. Select Tomolate	13. Select Tomolate
14. Run VOLUMETRIX FOR HAWKEYE PARATHYROID processing icon	14. Run VOLUMETRIX FOR HAWKEYE PARATHYROID processing icon
15. Click Resume	15. Click Resume
16. Choose NM Transaxial	16. Choose NM Transaxial
a. Select an 8 x 8 display grid	a. Select a 8 x 8 display grid
<ul> <li>Center area of interest within the grid and adjust intensity accordingly</li> </ul>	<ul> <li>Center area of interest within the grid and adjust intensity accordingly</li> </ul>
c. Annotate DELAY TRANS on display screen	c. Annotate DELAY TRANS on display screen
d. SCREENCAP and save as DELAY NM TRANSAXIALS	d. SCREENCAP and save as DELAY NM TRANSAXIALS
17. Repeat step 16 by selecting NM CORONALS and NM SAGITTALS. Annotate appropriately	17. Repeat step 16 by selecting NM CORONALS and NM SAGITTALS. Annotate appropriately
18. Click File and Save MIP	18. Click File and Save MIP
19. Click File and Save & Exit	19. Click File and Save & Exit
20. Select MIP and rename to LATE MIP	20. Select MIP and rename to LATE MIP
21. Select EARLY and LATE statics	21. Select EARLY and LATE statics
22. Run Parathyroid Imaging processing icon	22. Run Parathyroid Imaging processing icon
23. Adjust intensity accordingly	23. Adjust intensity accordingly
24. SCREENCAP and save as EARLY LATE STATICS	24. SCREENCAP and save as EARLY LATE STATICS
PACS Send all EARLY NM and FUSED SCREENCAPS, all DELAY NM SCREENCAPS, EARLY AND LATE MIPS, CT CORRECTED, EARLY and LATE STATIC SCREENCAP, IRAC OSEM and IROSEM to PACS.	PACS Send all EARLY NM and FUSED SCREENCAPS, all DELAY NM SCREENCAPS, EARLY AND LATE MIPS, CT CORRECTED, EARLY and LATE STATIC SCREENCAP, TOMOEARLY_IRACRR Transaxials and TOMODELAY_IRNC_Transaxials PACS.

# Recon / Reformat Processing and Screen Captures for SPECT ONLY (no CT)

Infinia 1 with Xeleris 2.x (Rm E)	Infinia 2/3 & NM640				
	with Xeleris 3.x (RM A, C and TAC)				
1. Select patient and the following files	1. Select patient and the following files				
a. TOMOearlyHWKY	a. TOMOearlyHWKY				
2. Run VOLUMETRIX FOR HAWKEYE PARATHYROID processing icon	2. Run Parathyroid MI processing icon				
	a. Click Original				
	b. Click Proceed				
3. Select NM Transaxials	3. Select NM Transaxials				
a. Create an 8 x 8 display grid	a. Create an 8 x 8 display grid				
<ul> <li>b. Center area of interest within the grid and adjust intensity accordingly</li> </ul>	<ul> <li>Center area of interest within the grid and adjust intensity accordingly</li> </ul>				
c. Annotate EARLY TRANS on display screen	c. Annotate EARLY TRANS on display screen				
d. SCREENCAP and save as EARLY NM TRANSAXIALS	d. SCREENCAP and save as EARLY NM TRANSAXIALS				
4. Repeat step 3 by selecting NM CORONALS and NM SAGITTALS. Annotate appropriately	4. Repeat step 3 by selecting NM CORONALS and NM SAGITTALS. Annotate appropriately				
5. Click File and Save MIP	5. Click File and Save MIP				
6. Click File then Save & Exit	6. Click File then Save & Exit				
7. Select MIP and rename to EARLY MIP	7. Select MIP and rename to EARLY MIP				
8. Select Tomolate	8. Select Tomolate				
9. Run VOLUMETRIX FOR HAWKEYE PARATHYROID processing icon	<ol> <li>Run VOLUMETRIX FOR HAWKEYE PARATHYROID processing icon</li> </ol>				
10. Click Resume	10. Click Resume				
11. Choose NM Transaxial	11. Choose NM Transaxial				
a. Select an 8 x 8 display grid	a. Select a 8 x 8 display grid				
<ul> <li>Center area of interest within the grid and adjust intensity accordingly</li> </ul>	<ul> <li>Center area of interest within the grid and adjust intensity accordingly</li> </ul>				
c. Annotate <b>DELAY TRANS</b> on display screen	c. Annotate <b>DELAY TRANS</b> on display screen				
d. SCREENCAP and save as DELAY NM TRANSAXIALS	d. SCREENCAP and save as DELAY NM TRANSAXIALS				
12. Repeat step 11 by selecting NM CORONALS and NM SAGITTALS. Annotate appropriately	12. Repeat step 11 by selecting NM CORONALS and NM SAGITTALS. Annotate appropriately				
13. Click File and Save MIP	13. Click File and Save MIP				
14. Click File and Save & Exit	14. Click File and Save & Exit				
15. Select MIP and rename to LATE MIP	15. Select MIP and rename to LATE MIP				
16. Select EARLY and LATE statics	16. Select EARLY and LATE statics				
17. Run Parathyroid Imaging processing icon	17. Run Parathyroid Imaging processing icon				
18. Adjust intensity accordingly	18. Adjust intensity accordingly				
19. SCREENCAP and save as EARLY LATE STATICS	19. SCREENCAP and save as EARLY LATE STATICS				
PACS Send all EARLY NM and FUSED SCREENCAPS, all DELAY NM SCREENCAPS, EARLY AND LATE MIPS, CT CORRECTED, EARLY and LATE STATIC SCREENCAP, IRAC OSEM and IROSEM to PACS.	PACS Send all EARLY NM and FUSED SCREENCAPS, all DELAY NM SCREENCAPS, EARLY AND LATE MIPS, CT CORRECTED, EARLY and LATE STATIC SCREENCAP, TOMOEARLY_IRACRR Transaxials and TOMODELAY_IRNC_Transaxials PACS.				

#### Screen Cap Samples

#### Early Transaxial

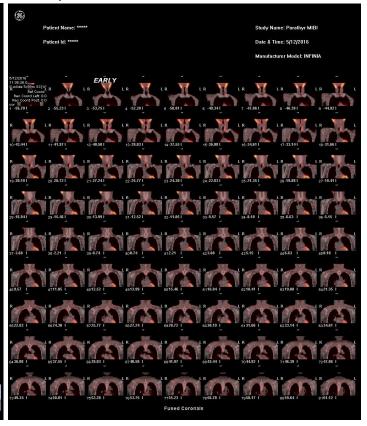


#### Early Coronal

æ							
Patie	ent Name: *****					Study Name: Par	rathyr MIBI
Pati	ent ld: *****					Date & Time: 5/1	2/2016
						Manufacturer Mo	del: INFINIA
5/12/2016 11/36/26.0 11/2011de:TcS9m S( R Ref Coord: sc Coord Left: 0.0 c Coord Post: 0.0	LR	LR LR	LR T	LR	LR	LR L	
cor 1 -113.40 2 -110.	.45 3 -107.51	4 -104.56 5 -1	01.62 6 -98.67	7 -95.72	8 -92.78	9 -89.83	
R LR	UR UR	LR 🐨 LR	🐨 LR 🖤	LR 🐨	LR 🖤	LR 🖤 L	
10-86.89 1+83.9	M1⊱81.00	1278.05 147	5.11 16.72.16	1∈69.22	17-66.27	1∈63.33	
R 🖤 LR	🖤 lr 🖤	LR 🏆 LR	LR V	LR V	lr 🕎	LR 🔰 L	
16-60.38 20-57.4	13 21-54.49	2551.54 254	8.60 24-45.65	25-42.71	2E-39.76	27-36.82	
RLR	LR	LR LR	LR	LR	LR	LR L	
26-33.87 28-30.9	13 3C-27.98	31-25.84 32-2	2.89 35-19.14	3416.20	35-13.25	36-10.31	
R LR	LR	LR LR	LR	LR	L R	LR L	
37-7.361 36-4.42	351.471	4cl.47   414	42   427.36	4:10.311	4413.251	4216.201	
R	LR	LR LR	LR -	LR	L R	LR	
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R LR	LR	LR LR	LR	LR	LR	LR L	
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5645.651 5648.60	01 6751.54I	5654.491 5657	.431 6d60.381	6 16 3.331	6266.271	6369.221	11:35:26.0 Nuclide:Tc99m SC(140 and 120
RLR	LR	LR LR	L R	LR	LR	LR L	R
6472.161 6475.11	11 6£78.051	6781.001 6:83	k.94I 6⊴86.89I	7(89.831	7 192.781	7:95.721	Ref Coo
R LR	J J	LR LR	LR J	LR	LR	IR L	Rec Coord Post Imported Image
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7:98.671 7:4101.0	52 7 <del>.</del> 104.56		10.45 7g113.40	75116.34	8C119.29	81122.23	NKGOE
		NN	1 Coronals				MIP Navigate

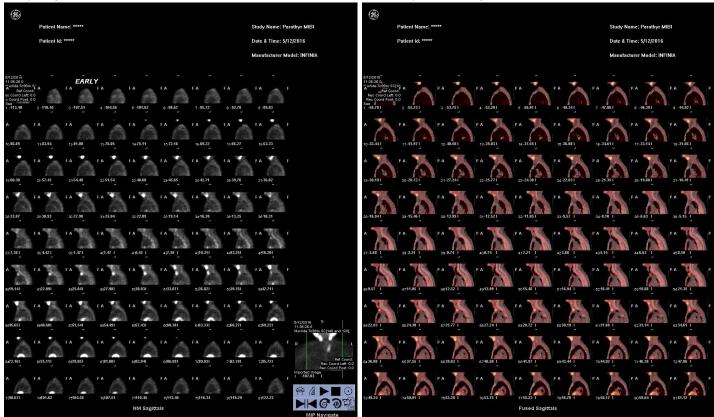
#### Early Fused Coronal

Early Fused Transaxial

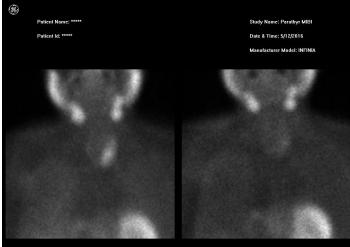


## Early Sagittal

#### Early Fused Sagittal



#### Statics Early and Delayed



arly MIBI

Late MIBI

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