# $PROJ\_Breathhold\_FDG\_PET\_5.MlAdult\_PET5$

30. maj 2013

# Indhold

CT 2.1 2.2 2.3	Lung Routin Scan	ne															•	•	•	•	•	•	•						•			1
_	2.3.1 2.3.2	s										 																				1 1 2 2 2
Pau	se																															2
PET 4.1 4.2 4.3	Routin Scan	ne	•									  																				2 3 3 3 4
Pau	se																															4
<b>PE</b> 7 6.1 6.2 6.3	Routin Scan	ne	•									  																				4 4 5 5 5 5 6
Pau	se																															6
<b>PE</b> 7 8.1 8.2 8.3	Routin Scan Recon 8.3.1 8.3.2	ne										 																				6 6 6 7 7 7
	PET 4.1 4.2 4.3 Pau PET 6.1 6.2 6.3 Pau PET 8.1 8.2	4.1 Routin 4.2 Scan 4.3 Recon 4.3.1 4.3.2 4.3.3  Pause  PET Lung 6.1 Routin 6.2 Scan 6.3 Recon 6.3.1 6.3.2 6.3.3  Pause  PET Lung 8.1 Routin 8.2 Scan 8.3 Recon 8.3.1 8.3 Recon 8.3.1 8.3.2	PET Lung  4.1 Routine	PET Lung  4.1 Routine	PET Lung  4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung  4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung  8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung  4.1 Routine 4.2 Scan  4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung  8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons 8.3 Recons 8.4 Recons 8.5 Recons 8.6 Recons 8.7 Recons 8.8 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons 8.3 Recons 8.4 Recons 8.5 Recons 8.6 Recons 8.7 Recon 1 8.8 Recons	PET Lung  4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung  4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons 8.3 Recons 8.3 Recons 8.3.1 Recon 1 8.3.2 Recon 2	PET Lung  4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung  4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung  4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons 8.3.1 Recon 1 8.3.2 Recon 2	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons 8.3.1 Recon 1 8.3.2 Recon 2	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons	PET Lung 4.1 Routine 4.2 Scan 4.3 Recons 4.3.1 Recon 1 4.3.2 Recon 2 4.3.3 Recon 3  Pause  PET Lung 6.1 Routine 6.2 Scan 6.3 Recons 6.3.1 Recon 1 6.3.2 Recon 2 6.3.3 Recon 3  Pause  PET Lung 8.1 Routine 8.2 Scan 8.3 Recons 8.3.1 Recon 1 8.3.2 Recon 2				

# 1 Topogram

## 1.1 Routine

mA: 35kV: 120

• Topogram length: 0 mm

• Tube position: Top

## 1.2 Scan

mA: 35kV: 120Delay: 4s

Topogram length: 0 mmDirection: Craniocaudal

• Tube position: Top

API: NoneKernel: 80s shar

• Window: Topogram Body

# 2 CT Lung

### 2.1 Routine

• Eff. mAs: 225

• kV: 120

• CARE Dose4D: On

• CareDoseType: CareDoseAEC

CTDlvol: 15.1475mGyScan time: 14.840 s

Delay: 4.000 sSlice: 3.00 mm

• No. of images: Samme som i foerste recon, slet?(y/n)

• Tilt: 0.0 grader

## 2.2 Scan

• Quality ref. mAs: 225

• Eff. mAs: 225

• kV: 120

Scan time: 14.840 sRotation time: 0.500 s

Delay: 4.000 sSlice: 3.00 mmPitch: 1.2000000

• Direction: Craniocaudal

## 2.3 Recons

#### 2.3.1 Recon 1

- Series description: AC CT
- Slice: 3.00
- Kernel: B19f PET very smooth
- Window: Mediastinum
- Extended FoV: On
- FoV: 700
- Center X: 0
- Center Y: 0
- Mirroring: None
- Extended CT scale: Standard
- Recon job: Axial
- Recon Axis: Axial
- Image order: Craniocaudal
- Recon increment: 3.000
- No. of images: 324

#### 2.3.2 Recon 2

- Series description: CT Lung 3.0 B30f
- Slice: 3.00
- Kernel: B30f medium smooth
- Window: Mediastinum
- Extended FoV: Off
- FoV: 500
- Center X: 0
- Center Y: 0
- Mirroring: None
- Extended CT scale: Standard
- Recon job: Axial
- Recon Axis: Axial
- Image order: Craniocaudal
- Recon increment: 3.000
- No. of images: 324

## 3 Pause

# 4 PET Lung

## 4.1 Routine

• Isotope: F-18

- Pharm.: FDG
- Inj. Dose: 1 MegaBequerels
- Scan mode: Sinogram
- Scan range: Match CT FOV
- No. of beds: 1
- Scan duration/bed: 20 Seconds

### 4.2 Scan

- Autoload: On
- Rebinner LUT: Off
- Scan output: Sinogram
- Sinogram mode: Trues
- Input trigger signal: None
- LLD (keV): 435
- ULD (keV): 650

### 4.3 Recons

#### 4.3.1 Recon 1

- Series description: PET 1 Lung Corrected
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: Iterative
- Iterations: 4
- Subsets: 8
- Image size: 168
- Zoom: 1
- Filter: Gaussian
- FWHM (mm): 4
- Offset X: 0 mm
- Offset Y: 0 mm
- Attenuation correction: On (1)
- Scatter correction: On
- Match CT slice location: On
- Save intermediate data: Off

#### 4.3.2 Recon 2

- Series description: PET 1 Lung Corr True X 2 mm
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: TrueX
- Iterations: 3
- Subsets: 21

- Image size: 336
- Zoom: 1
- Filter: Gaussian
- FWHM (mm): 2
- Offset X: 0 mm
- Offset Y: 0 mm
- Attenuation correction: On (1)
- Scatter correction: On
- Match CT slice location: On
- Save intermediate data: Off

#### 4.3.3 Recon 3

- Series description: PET 1 Lung Corr OSEM
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: Iterative
- Iterations: 4
- Subsets: 8
- Image size: 256
- Zoom: 1
- Filter: Gaussian
- FWHM (mm): 4
- Offset X: 0 mm
- Offset Y: 0 mm
- Attenuation correction: On (1)
- Scatter correction: On
- Match CT slice location: On
- Save intermediate data: Off

## 5 Pause

# 6 PET Lung

## 6.1 Routine

- Isotope: F-18
- Pharm.: FDG
- Inj. Dose: 1 MegaBequerels
- Scan mode: Sinogram
- Scan range: Match CT FOV
- No. of beds: 1
- Scan duration/bed: 20 Seconds

## 6.2 Scan

- Autoload: On
- Rebinner LUT: Off
- Scan output: Sinogram
- Sinogram mode: Trues
- Input trigger signal: None
- LLD (keV): 435
- ULD (keV): 650

#### 6.3 Recons

## 6.3.1 Recon 1

- Series description: PET 2 Lung Corrected
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: Iterative
- Iterations: 4
- Subsets: 8
- Image size: 168
- Zoom: 1
- Filter: Gaussian
- FWHM (mm): 4
- Offset X: 0 mm
- Offset Y: 0 mm
- Attenuation correction: On (1)
- Scatter correction: On
- Match CT slice location: On
- Save intermediate data: Off

#### 6.3.2 Recon 2

- Series description: PET 2 Lung Corr True X 2 mm
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: TrueX
- Iterations: 3
- Subsets: 21
- Image size: 336
- Zoom: 1
- Filter: Gaussian
- FWHM (mm): 2
- Offset X: 0 mm
- Offset Y: 0 mm
- Attenuation correction: On (1)

- Scatter correction: On
- Match CT slice location: On
- Save intermediate data: Off

#### 6.3.3 Recon 3

- Series description: PET 2 Lung Corrected OSEM
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: Iterative
- Iterations: 4
- Subsets: 8
- Image size: 256
- Zoom: 1
- Filter: Gaussian
- FWHM (mm): 4
- Offset X: 0 mm
- Offset Y: 0 mm
- Attenuation correction: On (1)
- Scatter correction: On
- Match CT slice location: On
- Save intermediate data: Off

## 7 Pause

# 8 PET Lung

## 8.1 Routine

- Isotope: F-18
- Pharm.: FDG
- Inj. Dose: 1 MegaBequerels
- Scan mode: Sinogram
- Scan range: Match CT FOV
- No. of beds: 1
- Scan duration/bed: 20 Seconds

### 8.2 Scan

- Autoload: On
- Rebinner LUT: Off
- Scan output: Sinogram
- Sinogram mode: Trues
- Input trigger signal: None
- LLD (keV): 435
- ULD (keV): 650

## 8.3 Recons

#### 8.3.1 Recon 1

- Series description: PET 3 Lung Corrected
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: Iterative
- Iterations: 4
- Subsets: 8
- Image size: 168
- Zoom: 1
- Filter: Gaussian
- FWHM (mm): 4
- Offset X: 0 mm
- Offset Y: 0 mm
- Attenuation correction: On (1)
- Scatter correction: On
- Match CT slice location: On
- Save intermediate data: Off

#### 8.3.2 Recon 2

- Series description: PET 3 Lung Corr True X 2 mm
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: TrueX
- Iterations: 3
- Subsets: 21
- Image size: 336
- Zoom: 1
- Filter: Gaussian
- FWHM (mm): 2
- Offset X: 0 mm
- Offset Y: 0 mm
- Attenuation correction: On (1)
- Scatter correction: On
- Match CT slice location: On
- Save intermediate data: Off

#### 8.3.3 Recon 3

- Series description: PET 3 Lung Corrected OSEM
- Recon range (bed): -1 to -1
- Output image type: Corrected
- Recon method: Iterative

Iterations: 4 Subsets: 8

• Image size: 256

• Zoom: 1

Filter: GaussianFWHM (mm): 4Offset X: 0 mmOffset Y: 0 mm

• Attenuation correction: On (1)

• Scatter correction: On

• Match CT slice location: On

• Save intermediate data: Off