

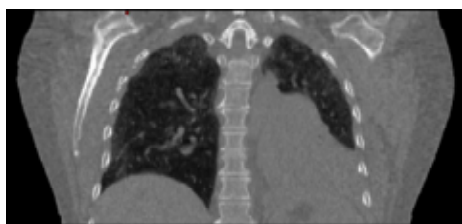
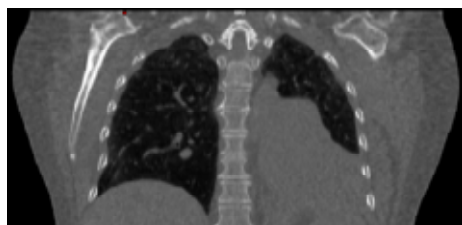
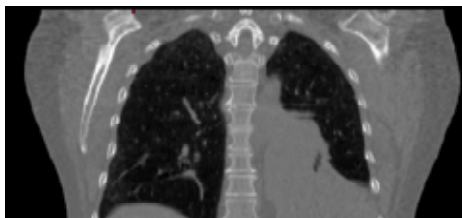
MotionFree

Addressing the biggest clinical challenge in PET/CT

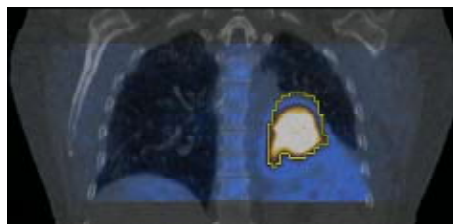
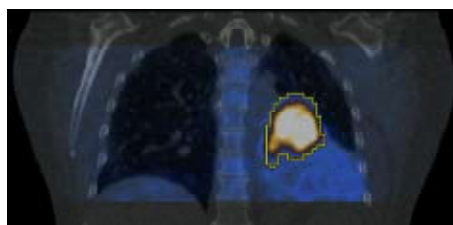
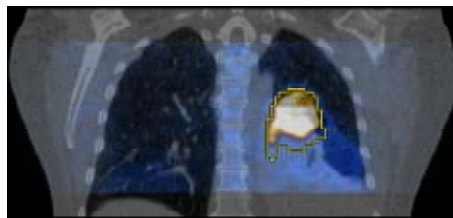
Radiation Treatment Planning: Plan with Precision

GE Healthcare's Discovery Dimension console in combination with the capability of MotionFree PET/CT simultaneously generates whole-body PET static and gated images, allowing you to visualize the complete respiratory cycle of the patient and full extent of tumor movement.

This capability results in better tumor delineation over CT alone and allows you to visualize the full range of tumor motion for tighter target volumes and more precise treatment plans.



4D CT Gated Study

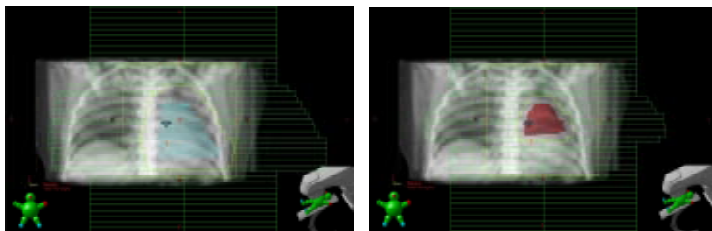


MotionFree PET/CT



Clinical and Patient Advantages

4D CT study demonstrated an unconfirmed definition between collapsed lung and lesion. Treatment field would have been defined according to standard protocol which would have included the entire lung volume as defined on CT. Treating this large amount of lung with radiation therapy potentially may have caused the collapsed lung to cease functioning.



Treatment plan based on CT image

Treatment plan with PET/CT image

MotionFree PET/CT characterizes lesion boundaries defined by metabolic activity and range of motion. Treatment field was reduced and margins redefined to target the active tumor as defined on the gated PET/CT.

After radiation therapy, the follow-up PET/CT revealed that the patient's primary tumor was reduced with re-aeration of the lung.

Institution: Holy Name Hospital
Patricia Lynch Regional Cancer Center
Doctor Name: Dr. Charles Vialotti
Title: Chief Medical Physicist
Location: Teaneck, New Jersey

Patient Details

Height:
5'2" (154.4 cm)

Weight:
165 lbs (74.8 kg)

Age:
63 years

Gender:
Female

Previous History of Cancer:
None

Methods

PET Scanner:
Discovery LS4

Injected Dose:
13.8mCi

Diagnostic CT Protocol?:
Non Contrast

PET/CT Protocol:
Gated PET/CT

2D/3D Acquisition:
2D

Minutes /Bed:
8 min

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