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NeuViz 64 In/En /Y 17.01



# NeuViz 64 In/En

Flagship Product







# NeuViz 64 In/En Innovative Highlights



Low Dose

AVW, a POWERFUL Workstation for ADVANCED **Clinical Tools** 

> ClearView Iterative Reconstruction Technology

Comprehensive Support after the Sale

> Simple, Intuitive Workflow

# Quad-Sampling Technology

How does it work?



A high detector sampling rate (up to 4,640 views/rotation) provides high data sampling density. Simply put, this results in a market leading isotropic resolution of 0.32 mm and the ability to do a CLINICAL pitch up to 1.7.

# Dose Efficient Detector How does it work?

# Image: A standard of the stand

A patented manufacturing process reduces afterglow (<2 us) and maximizes dose efficiency (99.99%). This results in the lowest patient dose with the highest diagnostic quality.

# Clinical Benefits of Quad-Sampling & Dose Efficient Detector Technologies

High resolution scanning (1024 x 1024 matrix, small focal spot) provides the spatial resolution necessary to perform lung nodule and inner ear studies.

# 1024 Matrix Lung image

Multiplanar reformation showing a solitary pulmonary nodule in the left upper lobe. Nodule presents with irregular margins, lobulated sign and hollowed pleura. These are clinical indicators for carcinoma.

# High resolution inner ear

Coronal and axial multiplanar reformation showing the small structures of the inner such (cochlea, semicircular canals and acicular).









240 degree exposure Dose to the patient and Physician reduced.



Organ-Safe Reduces dose to radiosensitive organs Iterative Processing in projection & such as eyes, thyroid and breasts.



ClearView image spaces optimize dose efficiency.



Auto KV

The kV is AUTOMATICALLY adjusted to the optimum level based upon the patient anatomy. This reduces dose while insuring that the BEST kV for a given exam type is used.



New detector design

Modular design delivers 99.99% x-ray conversion efficiency, lowering the dose necessary to deliver exquisite image quality.



Pediatric Protocols

Not "scaled down" adult protocols. Designed specifically for pediatric anatomy.

# **O-Dose Platform**



# **O-Dose Platform** Focusing on Low Dose



### 3D dose modulation

Tube current modulated based on the anatomy in the scan field. Anatomically optimized dose.



### ECG dose modulation

Reduces tube current during non-imaging phases of the Cardiac Cycle to minimize patient dose.



### Dose Check

DoseCheck (NEMA XR-25) and SmartDose (NEMA XR-29) are fully implemented. Patient safety regarding x-Ray dose is insured.



# **ClearView Iterative Reconstruction** How does it work?

By performing iterative processing operations in both projection and image space, the noise and artifact associated with low dose imaging can be removed, while the diagnostic information is retained which yielding a study with high clinical value.

"Removes noise while preserving detail providing low-dose image quality that is superior to that of full-dose images."





ClearView operational schematic

ClearView transforms noisy, low-dose images in to high quality diagnostic studies. ClearView, bringing DIAGNOSTIC CONFIDENCE to low dose imaging.



400mA, full-dose image

260mA, reduced dose without ClearView

260mA, processed with ClearView



400mA, full-dose image



200mA, processed with ClearView

# Low Dose Cardiac Imaging How does it work?

By reducing the tube current during periods of the Cardiac Cycle where image data is not being acquired, patient dose can be significantly reduced. The kV can also be reduced to take advantage of the improved performance of contrast media at reduced tube potentials.

Using our iterative reconstruction algorithm ClearView, in combination with reduced tube current and kV, patient dose levels below 3mSv can be achieved.

# Clinical Benefits of Low Dose Cardiac Imaging

The NeuViz 64 In/En provides for superior Coronary Artery visualization as demonstrated in the 3D and MPR studies pictured below:







Delivering DIAGNOSTIC CERTAINTY to Cardiac Imaging

# Powerful Workstation(AVW)

Full range of clinical applications

### 1. Abdominal/Pelvis

Coronal MPR quickly and easily provides detailed clinical information.

## 3. CT run-off

Volume rendering (VR) study that takes advantage of the extended scanning range capability of the NeuViz 64 In/En.

### 5. ECG-gated Cardiac scan

3D reformats of a Low Dose Cardiac study. A powerful diagnostic tool for the diagnosis of coronary disease that is quick and easy to use.







# 2. Brain CTA

Volume Rendering of a low dose brain image demonstrating superior diagnostic quality.



4. Pulmonary embolism

A maximum intensity projection (MIP) reformat that provides clear, concise visualization of both a thrombosis and occlusion. 6. Brain Perfusion

Analysis of brain hemodynamics.

# 7. Lung Density

Advanced analytical software for the quantification of pulmonary function.



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Ratio 31.5 % 54.8 % 0.6 % 0



# 8. Dental

Powerful tool for the design of prosthetics based on life size tooth modeling capabilities.

# 9. Automatic Bone Removal

Using head/neck bone removal achieves the same result with a single scan compared with CT-DSA, reducing patient dose and saving time.



# Simple, Intuitive Workflow

Designed for the way YOU scan!



### Intuitive Operation:

The NeuViz 64In/En work space is designed to guide the technologist effortlessly through the patient study.

### Protocol Selection made easy:

Protocols are grouped by anatomical region. Recently used and favorite protocols are saved for quick access. Pediatric protocols are color coded for easy identification.



### Efficient post-processing:

Post processing is designed to optimize save time. Key strokes are minimized and process steps automated, streamlining workflow.



## Emergency examination without Waiting:

Patent self-feedback tube mode allows emergency scanning without preheat, save more time for patient rescue, decrease exposure time, guarantee the timeliness of emergency scanning.

## RSSF (Real-time System Status Feedback)

System status and ECG are clearly displayed. Breath hold commands are also communicated to the patient.



# Service and Logistics Support





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\* Not available in N.A.

# Neusoft Global Service & Logistics Network