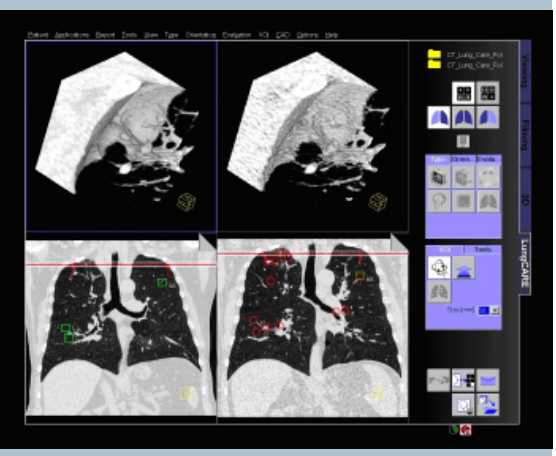

syngo LungCARE CT and *syngo* Lung CAD*

syngo® LungCARE CT is designed to support the physicians in conforming the presence or absence of lung lesions, regular-size ground glass nodules (GGN), and small-size ground glass opacities (GGO). It allows for volumetric analysis of pulmonary lesions, aiding the user to assess nodule changes in their growth.

syngo LungCARE CT offers:

- Computer-guided localization of pre-marked lesion
- Close-up inspection of suspected lesion with the rotating MPR mode
- Automatic segmentation and volumetry measurements of lung lesions
- Visualization of the segmented lesions with perspective VRT displays or MPR techniques
- Dedicated and flexible reporting of all findings

The *syngo* LungCAD device is a computer-aided detection (CAD) tool designed to assist radiologists in the detection of solid pulmonary nodules.

* Only available on *syngo* MultiModality Workplace and on SOMATOM® Definition

syngo LungCARE CT and *syngo* Lung CAD

Computer-aided detection and follow-up support of pulmonary nodules

Answers for life.

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Prerequisites

A contiguous high resolution volume dataset acquired with low dose technique.

Image Display

- 4-segment screen layout with:
  - 3D slab display for cine mode in MPR, MIP or VRT technique
  - Slice reference image
  - MPR slab reference image
  - Volume-of-Interest display for the selected nodule

Workflow

- Identification of lesions in the 3D slab segment by scrolling through the data with cine mode
- Marking of a lesion with one mouse click
- Close-up inspection of the lesion with a magnified rotating MPR around its axis to distinguish lung nodules from vessels
- Visualization of the segmented nodule in perspective rendering technique together with the original data
- Interactive viewing by rotating and zooming the volume rendered lung nodule
- Automatic calculation of the volume and diameter of the nodule
- Documentation and reporting
- Automated nodule matching in follow-up studies
- Automated dataset synchronization
  - "Get counterpart" functionality
  - History graphs

Automated Segmentation Tools

- Nodule visualization in VRT or MPR technique using advanced rendering algorithms which are integrated into the software
- New: Segmentation algorithm for solid lesions of all sizes
- New: Segmentation algorithm for sub-solid lesions (Segments regular-size ground glass nodules, GGN, and small-size ground glass opacities, GGO)

Quantitative Analysis

- Calculation of
  - Volume
  - Diameter in all three axes
  - Max/Min diameter of the nodule
  - HU histogram of the nodule
  - Average and standard deviation of the density in HU

Documentation and Reports

- Specific details such as the location, morphology, and characteristics of each lesion can be entered together with two images from the screen
- All information entered is saved as DICOM SR data
- Straightforward reporting with different output formats (e.g. PDF and html) and *syngo* Filming can be used for documentation

syngo Lung CAD – Computer-aided Detection of Lung Nodules*

- *syngo* Lung CAD is an enhancement to the *syngo* LungCARE software package that supports the physician by providing an automated workflow

It is Designed

- Second reader tool for thoracic CT
- To increase diagnostic confidence by automatically displaying markers on pre-identified pulmonary lesions

It Offers

- Low-dose, high resolution CT imaging of suspicious pulmonary nodules
- Automated nodule segmentation
- DICOM compatible structured report functionality
- Computer-aided detection of lung nodules

* Only available on *syngo* MultiModality Workplace and on SOMATOM Definition

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