Our answer to COVID-19 and other pulmonary infections providing users with automated lung segmentation and opacity quantification.

This document is intended to provide you with all relevant information regarding the CE-labeled Pulmonary Density Plug-In*, that has also been approved under the FDA enforcement policy during the 2020 COVID-19 pandemic and is based on the CT Pneumonia Analysis prototype published in March 2020.

Which features are provided?

- Fully automatic segmentation and quantification of ground-glass opacities and high densities in the lung
- Quick & Easy overview of the lung with a complementary color-coded pictogram and key
- VRT (Volume Rendering) for additional overview of opacity spatial distribution
- 2D axial views - overlaid with delineations of the opacities and the lungs

*A Plug-In is provided through syngo.CT Extended Functionality (medical device).
The AI-Rad Companion, syngo.via, syngo.via View&GO, syngo.CT Extended Functionality (of which the Pulmonary Density Plug-In is a part) are not yet available in all countries. Due to regulatory reasons, future availability cannot be guaranteed. Please contact your local Siemens Healthineers organization for further information. The CT Pneumonia Analysis prototype and syngo.via Frontier are Research Only. Not for Clinical Use.

Measuring GGOs and Densities

The plug-in provides users with various tabulated measurements, i.e. relative (“percentage of opacities”) and absolute volume of opacities, mean and standard deviation of HU values between lung parenchyma and the detected opacities which are exportable.

Certain parts of this plug-in were used in the “CT Pneumonia Analysis” prototype Siemens Healthineers offered to fight COVID-19, to analyze ground-glass opacities and consolidations. High opacity abnormalities were shown to correlate with lungs of COVID-19 patients.

All quantifications listed in one report and the color-coded pictogram offers a quick overview of affected lung lobes.

For which deployments is the Plug-In available?

- syngo.via VB50B and higher and syngo.via VB30B (available soon)
- syngo.via View&GO VA26 and higher
- AI-Rad Companion Chest CT (current version)

Accessing the Pulmo Density Plug-In

For syngo.via the Plug-In is now available in MM Reading where it can be found in the “Favorites Toolbar” the same counts for syngo.via View&GO. A download from the Digital Marketplace is no longer necessary. For the AIRC Chest CT, the new software version is rolled out to all AI-Rad Companion Chest CT users and is part of all new orders automatically.

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