GE HealthCare

cDAT: DaT SPECT quantification at your fingertips

Developed via collaboration between GE HealthCare and Combinostics, cDAT is an FDA 510(k) cleared and CE-marked cloud-based tool for quantifying DaT SPECT brain images.

## Next-generation of quantification

cDAT supports increased diagnostic confidence by providing precise quantification and comparison to reference data from healthy controls.[1]

With a user-friendly interface and fully automated image processing, cDAT improves collaboration and streamlines your clinical workflows.[2]

Cloud-based technology

Experience the power of using the cloud to get unparalleled flexibility and accessibility:

- Intuitive browser-based viewer
- No software installation needed: new users can get started instantly
- No restriction in number of simultaneous users
- Easy sharing of results with the referring physician
- Seamless updates: all users always have access to the latest version and most innovative features
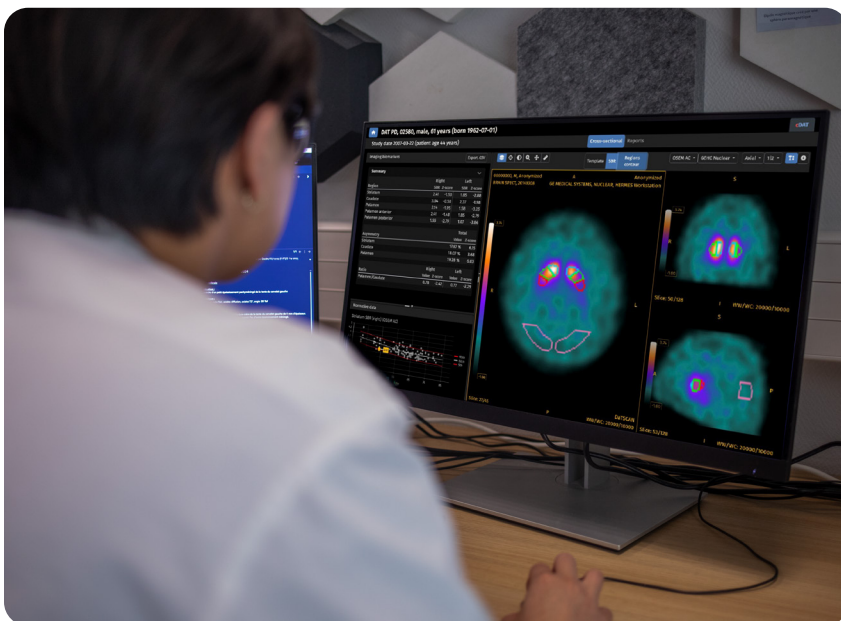
Key features

Access anywhere: Read cases where needed via the cloud-based cDAT viewer, regardless of the workstation and the scanner.

Comparison with GE HealthCare normal database: Quantified features are compared to age-matched healthy controls and z-scores are computed. You obtain plots showing patient's values versus normal reference data.

Adjunct to visual assessment: cDAT orients the image automatically for optimal visual assessment and removal of head-tilt artifacts.

Customizable reporting: Results are presented in a PDF report that can be saved to PACS. You can select which graphs to add in the report. When reviewing the report in PACS, the referrer can easily open the cDAT viewer by clicking a link in the report.

Combinostics

FAQs

How will cDAT be deployed?

cDAT is a cloud-based application using a website link for access. Images and results can be viewed using a standard web browser, without the need for any software to be installed. You just need internet connection.

How do images transfer?

cDAT supports a fully automated workflow where images can be sent directly from PACS and results can be accessed in PACS. Any PACS system is compatible. With the cDAT browser-based viewer, manual upload via DICOM® file is possible without any IT set-up.

How can I connect cDAT to my organization's PACS?

To use cDAT with an automated clinical workflow, a component called cNeuro Gateway must be installed. The cNeuro Gateway is a DICOM node that connects your PACS to the cNeuro platform where cDAT runs. Any modern computer which runs Windows® comfortably will be adequate for cNeuro.

Which reference regions are available?

cDAT computes striatal binding ratios of the caudate, striatum, putamen, anterior and posterior putamen. Putamen/caudate ratios and asymmetry indexes are provided as well. Quantification results are indicated for left and right sides.

What DaT tracers are supported?

cDAT provides accurate analysis of Ioflupane I-123 images.

What are the characteristics of the normal database of cDAT?

cDAT uses the same normal databases of DaTQUANT, developed by GE HealthCare using DaTscan images through the Parkinson's Progression Markers Initiative (PPMI) project.

Depending on the reconstruction method, four databases are available: attenuation corrected and non-corrected OSEM (Ordered Subset Expectation Maximization), and attenuation corrected and non-corrected FBP (Filter-Back Projection).

StarGuide-specific normal databases are automatically selected for images processed with StarGuide™ head-only gamma cameras: attenuation corrected (AC), computed tomography attenuation corrected (CTAC), non-corrected (NC).

What information do you have around the privacy, compliance and security of cDAT and cNeuro?

cDAT has FDA 510(k) clearance and is CE marked.

The cNeuro Gateway de-identifies all patient data before it is sent to the cloud for processing. Data that is uploaded to cNeuro will reside on the Microsoft® Azure® servers until it is removed by the user. Data are encrypted-at-rest, making them unreadable even in the case of hardware theft.

The same level of security is provided if cNeuro Gateway is not installed and images are manually uploaded. For more information about data security, please refer to the Technical Summary datasheet.

What are cDAT Indications for Use?[2]

cDAT enables visual evaluation and quantification of 123 Ioflupane (DaTscan) images. The software enables automated quantification of tracer uptake and comparison with the corresponding tracer uptake in healthy subjects as provided by normal population databases of 123 Ioflupane (DaTscan) images. cDAT assists in detection of loss of functional dopaminergic neuron terminals in the striatum, which is correlated with diseases associated with dopaminergic deficiencies, such as Parkinson disease (PD) or Dementia with Lewy Bodies (DLB).

How can I get software support?

For any software-related question or technical query, you can contact Combinostics at support@combinostics.com. For general issues related to image acquisition or SPECT procedures, you can contact your GE HealthCare application specialist.

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1. https://www.combinostics.com/cneuro-cpet/.

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