DICOM Patient Import

In order to begin designing boluses in the decimal Bolus Designer App you must first have patient imaging captured, structure geometries defined, and a treatment plan ready. This information is brought in the Bolus Designer App by importing DICOM CT, Structure Set, and Plan files.

Default Import Directory

The default import directory can be set in the app settings by navigating to View → Settings. This directory will always be the default directory when importing a patient. Users can then further refine the import folder as needed starting from this default level.

Importing a New Patient

If you have a set of CT Images, structures, and a plan you can import them directly into a new patient through the "Import Patients" menu.
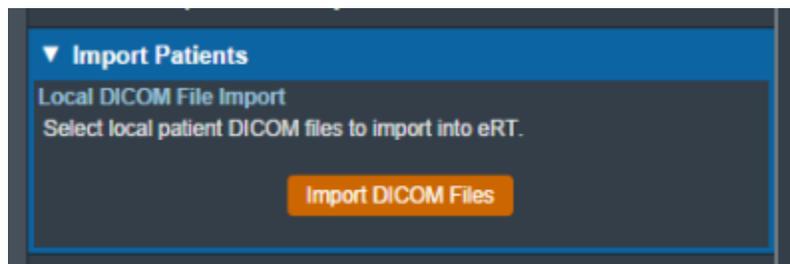

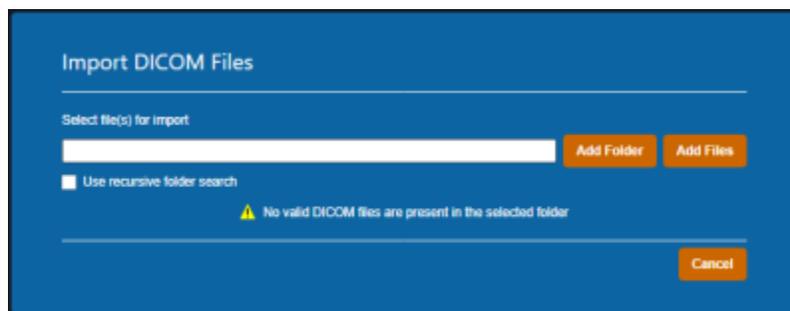Fig. 3: Import in the Main App Page

Fig. 4: Import Directory Input

The Import DICOM Files option allows you to either browse your computer or copy the path to the folder that contains the CT images and structures you wish to import. The following options are available for browsing for local files:

- **Add Folder:** Browse for an entire folder of DICOM files to import into a patient

- Use recursive folder search: This option can be selected prior to adding a folder to reclusively search and add all DICOM files within the selected folder and all sub-folders.
  - **Add Files:** Browse for individual DICOM file(s) to import into a patient. Note: this option does not make use of the recursive folder search option.

A list of selected DICOM files for import will be displayed and you can choose to add more files for the selected patient or remove any files as desired.

Refer to the Processing Imports section once files have been selected to import.

Processing Imports

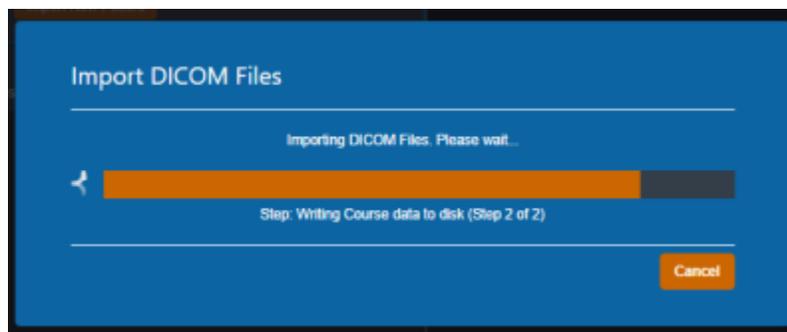Clicking the Import button will start processing the selected files.

Fig. 5: Import Loading screen

When importing a new patient, the DICOM plan file must have the proper UIDs that reference the structure set in order for the plan to be successfully imported. If there are no Errors while importing you will be taken to the Electron Machine Definition page.
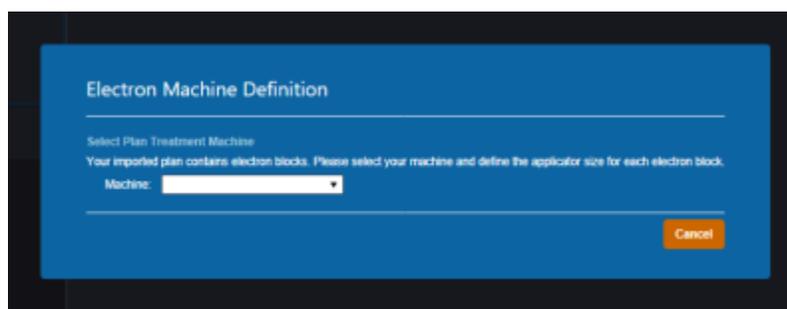

Fig. 6: Electron Machine Definition

If there are errors, please refer to the Common Errors section below for further details.

Electron Machine Definition

Users must select an electron treatment machine from the current site when importing a new plan into the Bolus Designer app. After a machine is selected, an applicator must be assigned to each beam in the
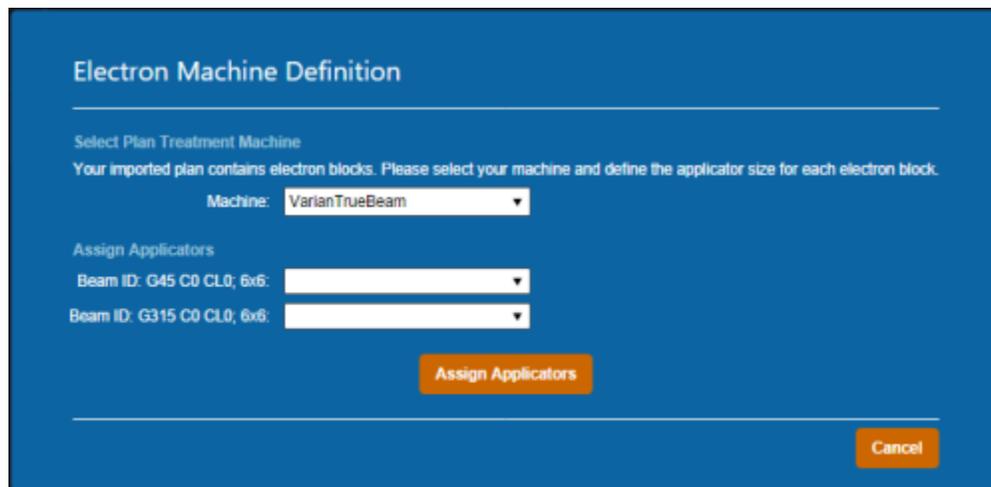
plan.

Fig. 7: Assigning Applicators

After every beam has an applicator assigned to it, the import can finish and you will be taken to a confirmation page for your import.

Common Errors

Structures Skipped During Import

Structures can be skipped during Structure Set import if the structures meet the following criteria:

- Non closed planar (e.g.: points or structures where slices are not fully closed)

Structures that are skipped will be denoted at the end of the DICOM import as shown in figure 8.
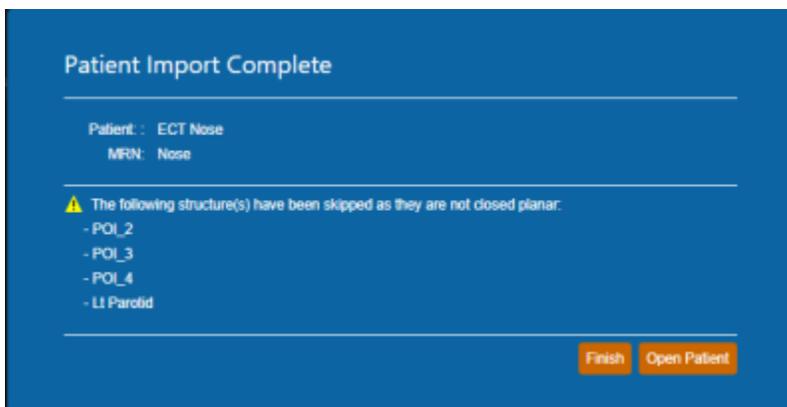

Fig. 8: Import Finalized

Missing CT Images, Structure Set, or Plan File

If the files you have selected to import do not include CT images, a structure set, and a plan file you will receive this error message.
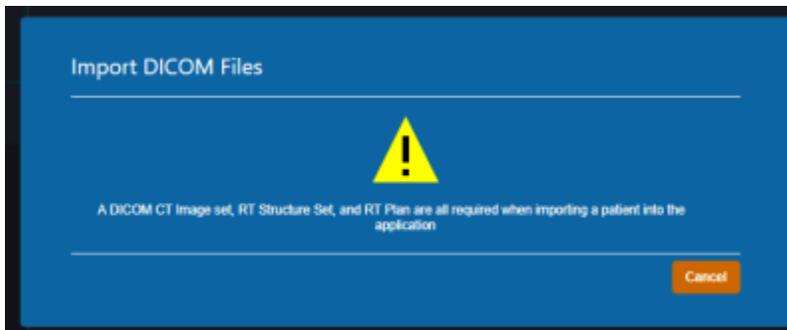

Fig. 9: Missing DICOM Files

You must re-start the DICOM import process and select the all the required files in order to successfully import a treatment plan.