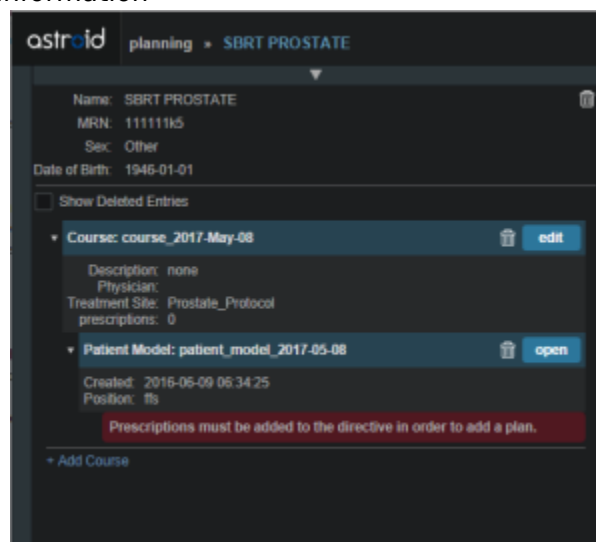# Courses

Overview

The Astroid patient data model uses a hierarchy of items to model the real world workflow patterns of the radiotherapy treatment process. Please refer to the **Heirarchy (Data Model) page** if you are not familiar with these concepts.

During patient creation (i.e. Importing) a patient record is created containing a *Course* and a *Patient Model*. During Import the required data for the Course and Patient Model are entered, however, the Course remains incomplete. The Course will still require physician directive information including the breakdown of the treatment *Prescriptions* and (optionally) the specification of *Clinical Goals*. Before creating a *Plan* this information must be entered. Once the Prescription is complete, plans can be created. The following sections provide a walk through for completing the *Course* information.

Prescriptions are cumulative. For example: when adding a second prescription, it is assumed that the highest dose from the first Rx has already been delivered to the target for the second prescription. Therefore, the total dose to all targets in the second prescription will have the first prescription's highest dose added.

Completing the Course Prescription

1. From the *Patient list*, select a patient to be opened by clicking the patient row
2. The patient will open to the *patient overview* task and a message will appear telling the user to complete the Prescription information

3. The Prescription information is part of the Course, which can be edited by clicking on the blue *edit* button beside the Course label in the patient overview
4. The *Course* Prescription information is **mandatory** to fill out in order to proceed with planning and at a minimum one Prescription must be created (Clinical Goals are optional)
5. The *Course* contains some basic information as well as two blocks of data: *Clinical Goals* and

Prescriptions

6. *Clinical Goals* are used fill in the "goals" (objectives) the physician would like to see achieved by the plan
    1. To add a goal, simply select click *Add Structure* and select a desired structure (the choices in the structure drop down will be set by the treatment site template) to which goals should be added
    2. The user can create goals for tumor volumes as well as Organs at Risk (OAR) and can specify minimum dose, maximum dose, mean dose, and volume based (DVH) goal types
    3. The *Clinical Goals* will be used for reporting purposes to describe the physician's intent for the treatment; these do not affect the calculation or plan directly
7. The second major part of the *Course* are the *Prescriptions*
    1. This is where the user will fill in the number of fractions and the prescription dose that specified by the physician
    2. Note that a prescription **must** be created in order to start the planning process

8. Click *New Prescription* under *Prescriptions* to create a new empty phase 🔧 **Fix Me!** - do we need to add a note about the yellow "warning" if the chosen structure is not imported?
    1. The *Prescription* label and description are free text fields that the user can enter to help identify a particular phase as needed
    2. A color may be selected for the Phase to aid in identification as well
    3. The number of fractions to be treated should entered and at least one *Prescription* value must be added (the choices available in the structure drop down will be only the targets from the selected treatment site template) 🔧 **Fix Me!** new pic

4. Once all Prescription information has been entered, click the blue *Add* button to complete the Prescription
9. Additional prescriptions may be added at this point if needed (for example, for a treatment needing a base treatment and a boost)
10. The *Course* should now be complete
    1. Click on the *Done* button to return back to the *Patient Overview*