

Definition of RT Object related Query / Retrieve Keys

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The Problem

- ❑ An RT Archive stores RO treatment data securely.
 - ❑ Need for RT specific Query keys to retrieve treatment planning, records etc for re-planning / reprocessing / review.
 - ❑ Very little keys are existent in present days PACS to do data mining with special interests in RT.
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How it currently works

- ❑ Many treatment planning systems do not have a DICOM Query / Retrieve mechanism to get treatment planning data based on basic query keys.
 - ❑ Data is transferred to TPS from external PACS interfaces.
 - ❑ External PACS interfaces have very basic parameters on which RT data could be searched.
 - ❑ In a RT clinic there could be multiple archives for clinical trials, teaching file & research. With Q / R mechanism not present in the TPS it is becomes difficult to search RT objects from multiple archives.
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How it should work

- ❑ With definition of RT objects specific Query parameters.
 - ❑ Building Query Retrieve mechanism in the TPS for accessing multiple archives that fulfill different roles like teaching file, clinical trials etc.
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Benefits

- ❑ With these keys defined, it becomes easy to retrieve only the desired objects for a patient. So for example, with these keys we could get only the approved plans from the archive that has a many approved and unapproved plans.
- ❑ For research, having such keys is critical in order to do data mining and report results on a large number of patients. Also this could aid in searching of treatment planning data that exceeds the tolerance parameters set by the users.
- ❑ Access to multiple archives could be done so as to make use of clinical trials and teaching file export.