

Definition of RT Objects

Query / Retrieve Keys

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The Problem

- ❑ RT Archive stores treatment planning data securely.
 - ❑ Need for RT specific Query keys to retrieve treatment planning data, treatment records etc for re-plan / reprocess / review or to provide for research on the data.
 - ❑ Very little keys are present in present day PACS to do data mining with special interest 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 search.
 - ❑ In RT clinic there could be multiple archives for clinical trials, teaching file, research. With Q / R mechanism in TPS it is becomes difficult to search on RT objects.
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How it should work

- ❑ With definition of RT objects specific Query parameters.
 - ❑ Building Query Retrieve mechanism in TPS for access to multiple archives fulfilling different roles.
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Benefits

- ❑ • With these keys defined, there is an ease 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 list of 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.
 - ❑ • Access to multiple archives could be done so to make use of clinical trials and teaching file export.
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