Radiation Therapy (RT) uses radiation for treatment of malignant disease.

- Delivering commonly 6 Mega Voltage (MV) X-ray beam for treatment purpose.
- Careful treatment plans, daily verification of treatment positioning and monitoring of dose.
RT PACS – Treatment Plan (Breast)
<table>
<thead>
<tr>
<th>Object</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial registration</td>
<td>Stores the relation between the frames of reference of two image sets (image registration)</td>
</tr>
<tr>
<td>RTSTRUCT</td>
<td>Structures contoured on images. Enclosed the target volume or critical organs to be avoided. Contains no pixel (image) data.</td>
</tr>
<tr>
<td>RTPLAN</td>
<td>Rx delivery details and geometry. Contains no pixel (image) data.</td>
</tr>
<tr>
<td>RTDOSE</td>
<td>Dose delivered by a specified plan.</td>
</tr>
<tr>
<td>RTIMAGE</td>
<td>Planar simulator images, digitally reconstructed radiographs (DRR) of portal images acquired during treatment. It contains more geometric information.</td>
</tr>
<tr>
<td>RTRECORD</td>
<td>Record of single session or summary of Rx.</td>
</tr>
</tbody>
</table>
RT PACS

Storage
- CT reference data set: 50-75MB each
- CBCT (Elekta): 80MB each
- CBCT (Varian/Siemens): 35MB each
- EPID: 0.3 - 3MB
- OBI: 1.5 – 3MB
- DRR 6MB
- Patient setup photo: 0.1 – 0.8 MB
- Treatment Plan: 0.02-0.5MB
- Total disk space for 3 yrs of growth (1200 patients annually): 2 TB
Bibliography

THANK YOU!