|  |  |
| --- | --- |
| Patient Name | <Full Name> |
| Patient ID1 (CR Number) | <Patient Id 1> |
| Date of Birth | <Date of Birth> |

**= QA checks done prior to plan approval**

**= QA checks done between plan approval and Physics Check**

**= Physics check prior to treatment approval by Physicist**

= **After Physics check and Treatment Approval**

**Parameters for Eclipse Dose Calculation**

**D P**

Labels agree in ARIA: Course type, Plan ID, Field IDs, Reference Point Labels\*

Gantry is 180E if applicable. (Ex. RT Lung where gantry must rotate counterclockwise for post field)

Body is a closed structure in treated areas. (If using vertex fields or if CT clips body surface)

Beams correspond to the same treatment unit.

Check against start date for the treatment unit in ARIA

Field shape is appropriate for all fields

Bolus is contoured correctly (thickness and extent) and linked to correct field(s)

Field ID is correct for gantry & couch angle.

If Breast Field-in-Field: skin flash 2 cm, sub-fields go big to small, abutting leaves outside field, smallest sub-field > 1 cm wide.

If DIBH Breast, “Use Gated” box is ticked in Plan Properties

Algorithm chosen is correct. Grid size is correct.

Inhomogeneity correction and field normalization is appropriate.

Calculation volume encompasses all structures needed for DVH’s.

Isodose levels in display are appropriate for this site.

MUREF reference point is entered, labeled and located correctly.

Dose and fractionation are correct.

Previous RT accounted for.

User Origin check.

DRR’s optimized.

**After RO Plan Review and Approval (Plan Parameters, Plan Scheduling, Reference Points)**

**D P**

Plan Approval done.

All signatures present / Treatment Prescription Complete.

Time per field is 1.0 min (3 min for DIBH breast)

Insert graticule / field aperture contour.

Ensure all reference fields and images are ready. (with correct shifts)

Tolerance table correct

Couch information entered. (Long = 100.0, Imager Vrt = 50.0)

Dose limits to Primary ref point and MUREF correct. (considering round off issues)

Dosimetry setup notes appropriate

Isocenter shifts and light field references documented properly.

Dynamic Documents Created, Approved.

**Inhomogeneity Factor for Second MU Calc Program IMSURE- Physicist or Dosimetrist**

**P**

**Method 1**: Using Eq. Path Length from the Eclipse Plan Report.

**(If method #1 gives differences in MU’s greater than 5% then use method #2.)**

**P**

**Method 2 (backup method)**: Using Eclipse to determine Inhomogeneity or Surface Correction

Inhomogeneity Correction: Reference plans created and recalculated with Inhomogeneities ON vs OFF **OR**

Surface Correction: Plan copied and Verification Plan created

**P D**

Patient and beam info data entered correctly in Excel Worksheet: “***User Factor for IMSURE***”

MU values entered correctly in User Factor worksheet

**Physics Plan QA**

Imaging : CT image quality, Registration accuracy, Image artifacts acceptable, Lapdata check.

Contours : Body ok, OARs ok, bolus ok if applicable, Targets correctly labeled.

Plan : Beam arrangement ok, Dose coverage / avoidance ok.

**IMSURE MU CALC - Physicist, Dosimetrist, Calc Room**

**P D RT**

Correct IMSURE mode used [“MU” for non-IMRT and “Q.A.” for IMRT (inc. Field-in-Field)].

Patient name, ID, Plan ID, Machine ID agree with Eclipse.

For each field: Field ID, Energy, Wedge, Tray, Gantry, Collimator, Table, Isocenter, X1,X2,Y1,Y2, Ref Pt ID, TPS MU, **all agree with Eclipse or RT Chart**.

**(Information on First page of IMSURE report)**

For each field: Dose per field matches the “Fraction Dose” for the reference point in Eclipse

For each field: Reference point for calc is MUREF. PSSD & Proj. Depth agree with Eclipse (not for calc)

**(Information on Second page of IMSURE report)**

For Breast Tangent Field in Field: SP Corr. Value is 0.88

Location of MUREF agrees with Eclipse.

MLC Pattern for each field agrees with Eclipse qualitatively. (Physicist only)

Inhomogeneity correction (method #1): Eff Depth for each field matches Eq. Path length in Eclipse report.

**OR**

Inhomogeneity or Surface correction (method #2): USER FACTOR in IMSURE matches Excel worksheet.

IMSURE MU is within 5% of Eclipse MU for all fields.

|  |  |  |
| --- | --- | --- |
| Date: |  | (DD/MMM/YYYY) |

Physics check completed by .

**After Physics QA**

**D P RT**

All physicists signatures present,Treatment Approval done.

Task Pad adjusted.

Care path verified and appropriate workload codes assigned.

Plans used for Inhomogeneity Correction Factor check have been deleted. (ex MUREF and Temp)

**RT Audit**

**D P RT**

**Exclude from RT Audit (Routine case; constraints met and no other concerns)**

**Note: ONLY those cases with Confidential Quality Assurance Peer Review of “No Changes Recommended will be eligible for exclusion from RT Audit**

**Comment**