	essment and Intent
	Special Considerations for radiotherapy (e.g. pacemakers, ICDs, pumps, etc.)
	Previous radiotherapy treatments
Simulation	
	Physician directive for imaging technique, setup and immobilization (this may include: contrast, scanning orientation, immobilization device, etc.)
	Description of target location on physician planning directive (e.g. RUL Lung, H&N, L1-L4)
	Patient set up, positioning and immobilization: Appropriate and documented
	Image quality and usability: CT Scan Artifacts, range, FOV, etc.
	Motion management: 1) MD directive, 2) breath-hold parameters, 3) gating parameters, 4) 4D-CT parameters and data set
	Registration/Fusion of image sets (CT, PET, MRI, etc.)
	Patient Orientation - CT information matches patient setup
	Transfer and selection of image set in treatment planning system
Treatment P	lanning
	Contouring Checks
	Target/OAR contours - e.g., discernible errors, missing slices, mislabeling, gross anatomical deviations.
	PTV and OAR Margin - as specified in the chart and/or per protocol
	Body/External contour
	Density overrides applied as needed (e.g., High-Z material, contrast, artifacts, etc.)
	Consideration of Supporting Structures (e.g., couch, immobilization and ancillary devices, etc.)
	Prescription checks (physician intent/Rx vs. treatment plan)
	Final plan and prescription approval by physician
	Prescription (with respect to standard of care, institutional clinical guidelines or clinical trial is applicable)
	Site and laterality (incl. medical chart to confirm laterality)
	Prescription vs consult note (e.g., physician report in EMR on plans for treatment)
	Total dose, dose/fractionation, number of fractions
	Fractionation pattern and regimen (e.g., daily, BID, Quad Shot, regular plan follow by boost, etc.)
	Energy, modality, technique
	Bolus and/or additional shielding (e.g., eye shields, testicular shields, etc. as applicable)
	Standard operating procedures of practice followed or correctly used
	Treatment Technique (e.g. 3D, IMRT, VMAT, SBRT, etc.)
	Delivery System (e.g., standard linac, CyberKnife, Tomotherapy, etc. as applicable)
	Beam Arrangement
	Beam Deliverability
	MU, Energy, Dose Rate, Field Delivery Times
	Field Size and Aperture, Bolus Utilization, Beam Modifiers (e.g., wedges, electron and photon blocks, trays, etc.)
	Treatment plan warnings/errors
	Naming - Field ID or Name, Course and Plan ID
	Tolerance Table
	Potential for Collision
	Setup Shifts use standard SOP
	Physics consult (e.g., evaluation of dose to pacemaker, previous treatment, etc.)
	Dose distribution and overall quality of the plan
	Target Coverage and target planning objectives
	Sparing of OARs and OAR planning objectives
	Plan conforms to clinical trial (as applicable)
	Structures used during optimization
	Physician designed apertures
	Dose Distribution (e.g., gradients, hot spots, etc.)
	Reference Points and Plan Normalization
	Calculation Algorithm and Calculation Grid Size
	Prior Radiation accounted for in plan
	Plan Sum (e.g., Original plus boost plans)
	Dose verification
	Second calculation check and/or QA performed
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	Verification plan for patient specific QA measurement
	Request for in-vivo dosimetry
	Isocenter checks (documentation of isocenter location, e.g. shifts, multiple isocenters)
	Isocenter: Placement and consistency between patient marking and setup instructions
	Additional Shifts
	Multiple Isocenters
	Setup for image-guidance and ancillary systems
	Matching Instructions (e.g., 2D/2D, 3D, etc.) and MD directive for IGRT
	Matching Structures
	Reference CT
	Isocenter on reference image(s), 2D or 3D
	DRR Association and Image quality
	Imaging Technique and Regiment (e.g., daily, weekly, etc.)
	Parameters and setup for specialized devices (e.g., ExacTrac, VisionRT, RPM, etc.)
	Isocenter for specialized devices (e.g., VisionRT, ExacTrac, etc.)
	Task schedules
	Scheduling of safety-critical tasks (e.g., weekly chart checks, IMRT QA, etc.)
	Checks for a replan, adaptive plan or verification plan (i.e. original plan on new CT)
	Full Plan Check if New Plan Generated
	Old/New CT Registration
	Isocenter Placement
	Deformed or New Contours
	DVH comparison
	CTV/PTV Coverage
	<u> </u>
ш	Organs at Risk Dose Limits
	Organs at Risk Dose Limits
Deviations	Organs at Risk Dose Limits  Any unexpected deviations entered into incident learning system

## THE FOLLOWING SECTION IS RELEVANT FOR MULTI-VENDOR ENVIRONMENTS (TPS/OIS)

Data transfer from TPS to a 3rd party OIS (e.g., Eclipse to MOSAIQ, Pinnacle to ARIA, etc.)
Field ID or Name
Dose/Fraction, fractionation pattern, treatment regimen, number of fractions
Dose tracking, dose breakpoints
Treatment Technique
Treatment Machine
Beam Arrangement
Energy, gantry, collimator, couch, tolerance table, beam modifiers (e.g., wedges, trays)
Field size and aperature, MLC control points
MU, Dose rate, field delivery times
DRRs
Imaging sequence to be performed (if programmed in TPS)