



EXTERNAL RADIATION PLANNING
VERIFICATION

HN:

Patient name:

Intent: ☐Curative ☐Palliative Simulation date: Contouring date:
Diagnosis: Stage: Radiation Oncologist:
Treatment Unit: Energy: Medical Physicist:

Planning Technique: ☐2D ☐Electron ☐3DCRT ☐FIF ☐IMRT ☐VMAT ☐SRS/T ☐SBRT

Boost Technique: ☐Non-Boost ☐Sequential Boost ☐Simultaneous Integrated Boost (SIB)

Field/Target Volume	Dose Prescription				Remark (Depth)
(1):	Total	Gy	Gy/F	F	
(2):	Total	Gy	Gy/F	F	
(3):	Total	Gy	Gy/F	F	
(4):	Total	Gy	Gy/F	F	
(5):	Total	Gy	Gy/F	F	

Treatment remark: Setup remark: RT1: RT2:

Planning Verification

Check/Plan name										
Planning Report:										
Patient identification	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Planning image	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Set user origin	☐		☐		☐		☐		☐	
Add couch for calculation	☐		☐		☐		☐		☐	
Prescribed and Tech.comment	☐		☐		☐		☐		☐	
Plan & Course plan	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Prescription (Dose x Fraction)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Field & MU properties	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Machine	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Energy	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
DRR/Setup field	☐		☐		☐		☐		☐	
Jaw & MLC Agreement	☐		☐		☐		☐		☐	
Accessory:										
Wedge	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cut out	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bolus/Bolus verify	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Total Dose Limit:	☐		☐		☐		☐		☐	
Remark:										
	MP	RTT	MP	RTT	MP	RTT	MP	RTT	MP	RTT

Planning QA:						
Gantry survey	☐	RTT	☐	RTT	☐	RTT
Manual calculation (2D)	☐	MP	☐	MP	☐	MP
Field shape (2D,3D,Electron)	☐	RTT	☐	RTT	☐	RTT
Pt.QA (Adv.Tech.): Tool:.....	☐	MP	☐	MP	☐	MP

Peer Review:	Contour	☐		☐		☐		☐	
	Dose	☐		☐		☐		☐	

Peer review remark: Radiation Oncologist:.....Date:.....

Dose summary: Medical Physicist:.....Date:.....

Critical Organ Dose Tolerance Table				
Organ	Constrains (%Volume/Dose)		Q: From Quantec	Remark
Head & Neck				
Temporal lobes	Maximum: 60Gy	1% of PTV can't > 65 Gy		
Brain stem	Q,Maximum: 54Gy	1% of PTV can't > 60 Gy	Q,D1-10cc<59	Add 1 mm
Eye	Mean<35Gy			
Lens	Maximum: 10Gy	as low as possible		
Optic Nerves	Maximum: 54Gy	1% of PTV can't > 60 Gy	Q,Maximum: 55Gy	
Optic chiasm	Maximum: 54Gy	1% of PTV can't > 60 Gy	Q,Maximum: 55Gy	Add 1 mm
Parotid gland	Mean< 26Gy (least 1 gland)	Least 20cc of total<20Gy	50%<30Gy (least 1 gland)	
Spinal cord	Maximum: 45Gy	1 cc of PTV can't > 50 Gy	Q,Maximum: 50Gy	Add 5 mm from cord
Mandible&TM joint	Maximum: 70Gy	1 cc of PTV can't > 75 Gy		
Submandibular	Reduce the dose as much as possible			
Sublingual glands				
Oral cavity	Mean dose < 40 Gy (excluding PTV's)			
Tongue	Maximum: 55Gy	1% of PTV can't > 65 Gy		
Cochlea & IAC	Q,Mean<45Gy			
Glottic larynx	Mean<45Gy	Q,Maximum: 66Gy	Q,Mean<44Gy	
Mucosa	< target dose	as low as possible		
Constrictor M.	Maximum: 50Gy			
Brain	Q,Maximum: 60Gy			
Pharynx	Q,Mean<50Gy			
Thorax & Abdomen				
Brachial plexus	Dmax < 66Gy	V60<2cc		
Esophagus	100% no hot	Q,Mean<34Gy		
Heart	50% <30Gy	Q,30% <46Gy	40% <40Gy	Q,Mean<26Gy
Lung	Mean <20Gy, V5<65	35% <20Gy (For Chemo.)	40% <20Gy(For RT alone)	Q,30%<20Gy
Spinal cord	Maximum: 45Gy			
Kidney	50% <23Gy	Max: 15Gy (least 1 gland)	Q,Mean <15-18Gy	
Liver-GTV	33.3% <50Gy	If 33.3%>45Gy,Remaining 66.7% < 24Gy		Q,Mean < 30-32Gy (Metastasis)
Stomach&duodenum	66.7% <50Gy	Q,D100<45	Dmax<54	Q,Mean < 28Gy (primary)
Small bowel	Q,120cc<15Gy	Q,195cc<45Gy	Dmax<54	
Pelvis				
Rectum	17% <65Gy # 35% <40Gy	Q,50%<50Gy** 35%<60Gy**25%<65**20%<70Gy**15%<75Gy		
Bladder	25% <65Gy # 50% <40Gy	Q,Maximum<65Gy**50%<65Gy**35%<70Gy**25%<75**15%<80Gy		
Femoral Heads	10% for each <50Gy			
Penile bulb	Mean <52Gy	Q,Mean 95% <50Gy	Q,90% <50Gy	

Q: From Quantec

Treatment Prescription