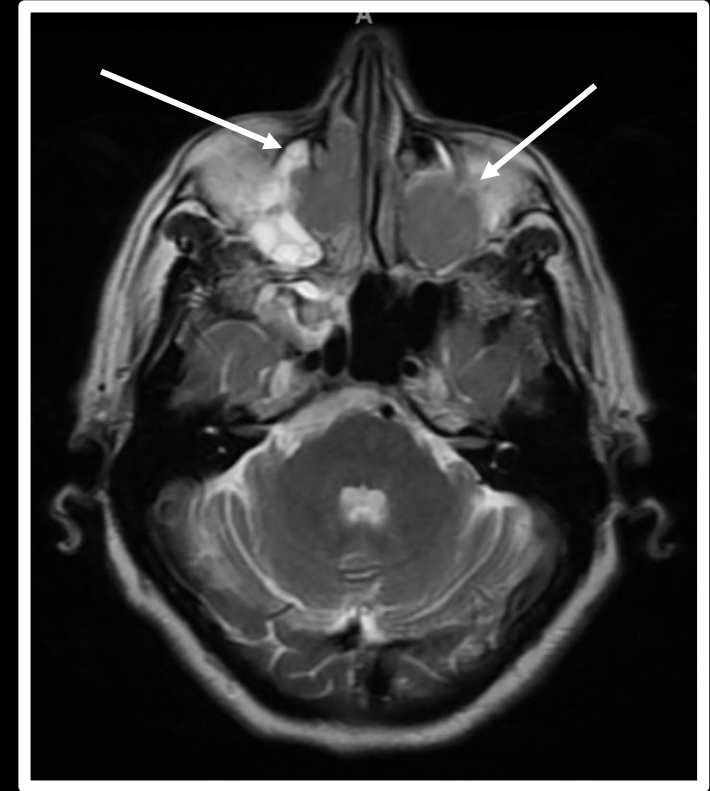
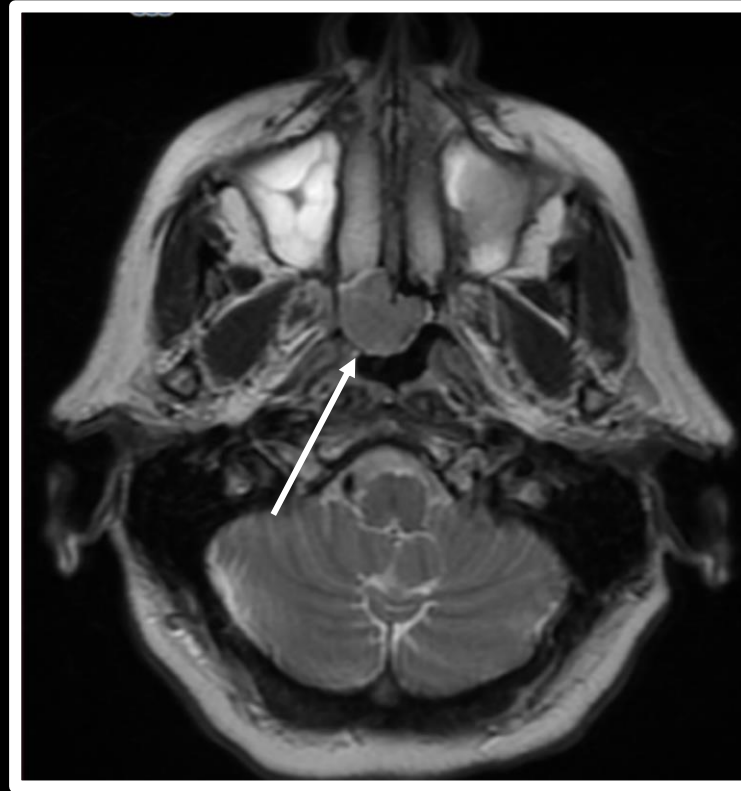


ILROG Mini-Atlas: Sinus Location

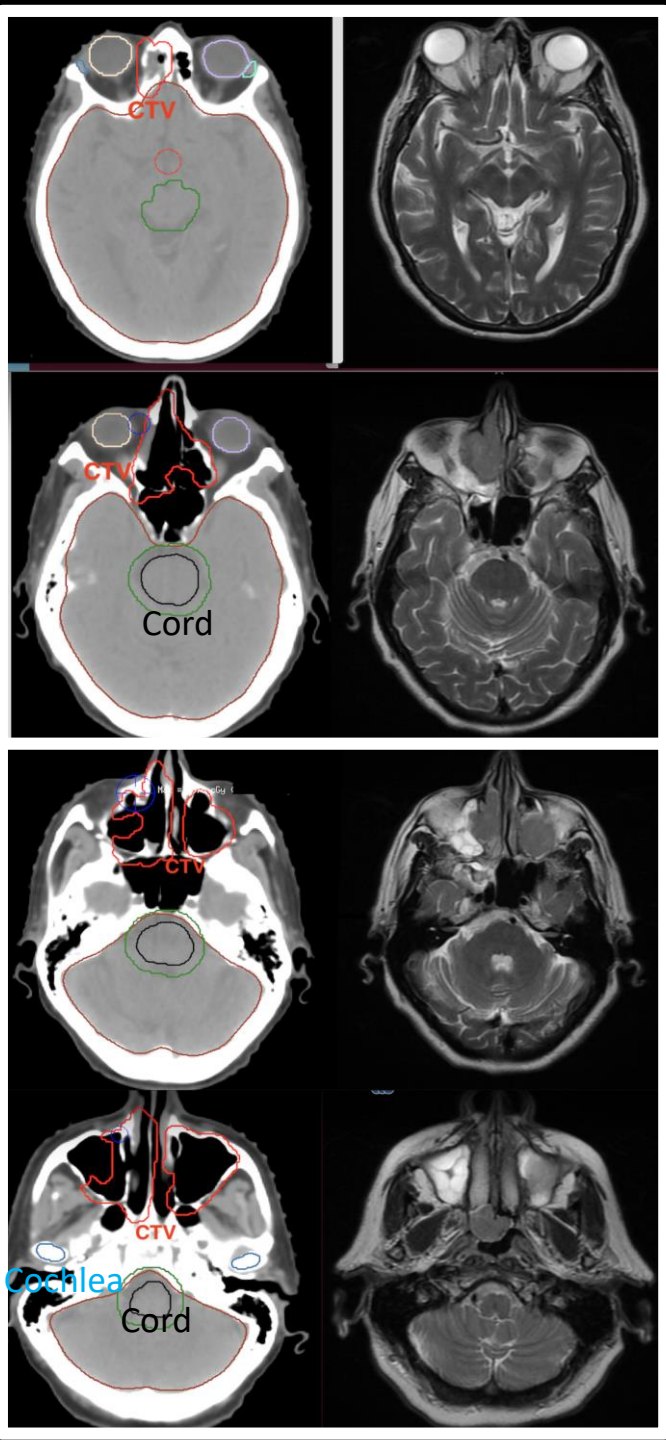
56-year-old female, presenting with diffuse large B cell lymphoma involving the bilateral maxillary and right ethmoid sinuses (arrows).

Received 6 cycles of R-CHOP (Rituxan, cyclophosphamide, doxorubicin, vincristine, and prednisone) with a complete response to therapy (Deauville score of 2 on post-chemotherapy PET-CT imaging)

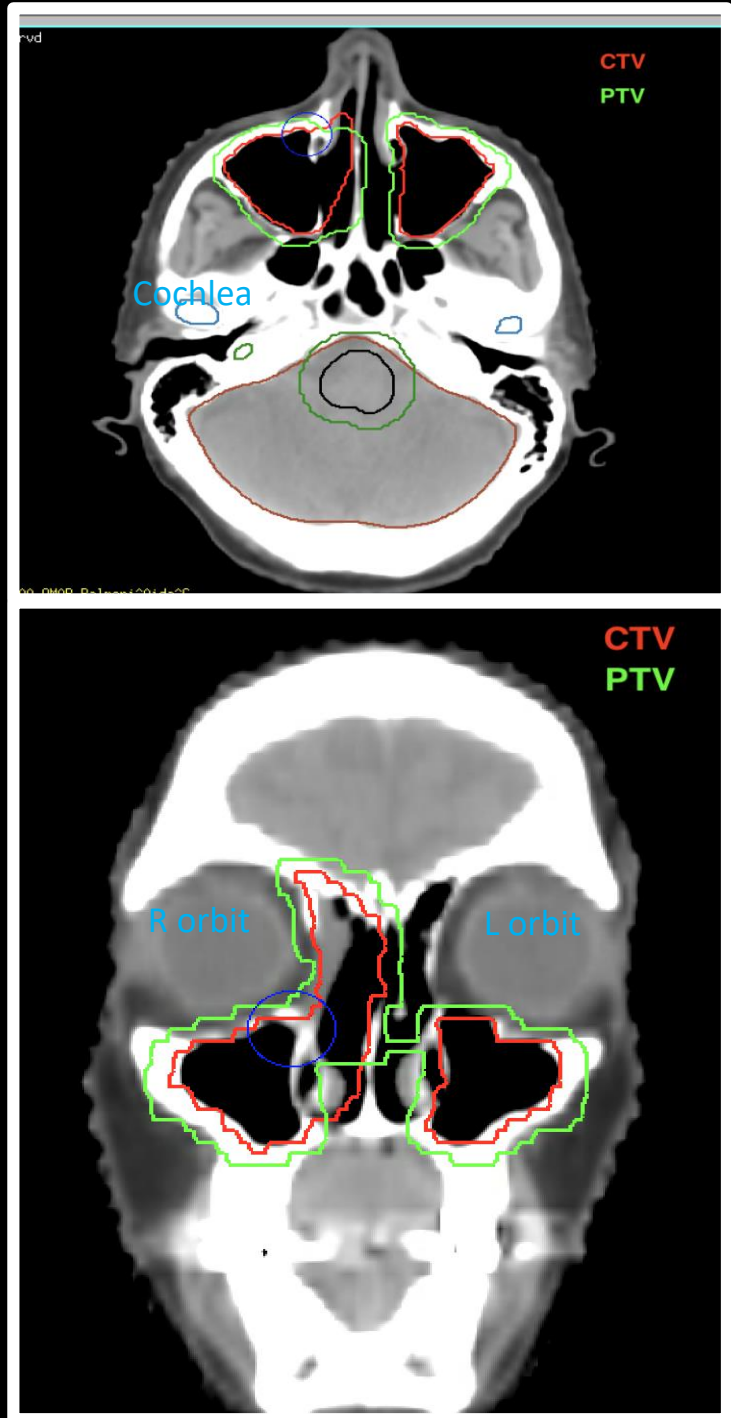
Plan: Consolidation radiation using ISRT to 30 Gy¹.



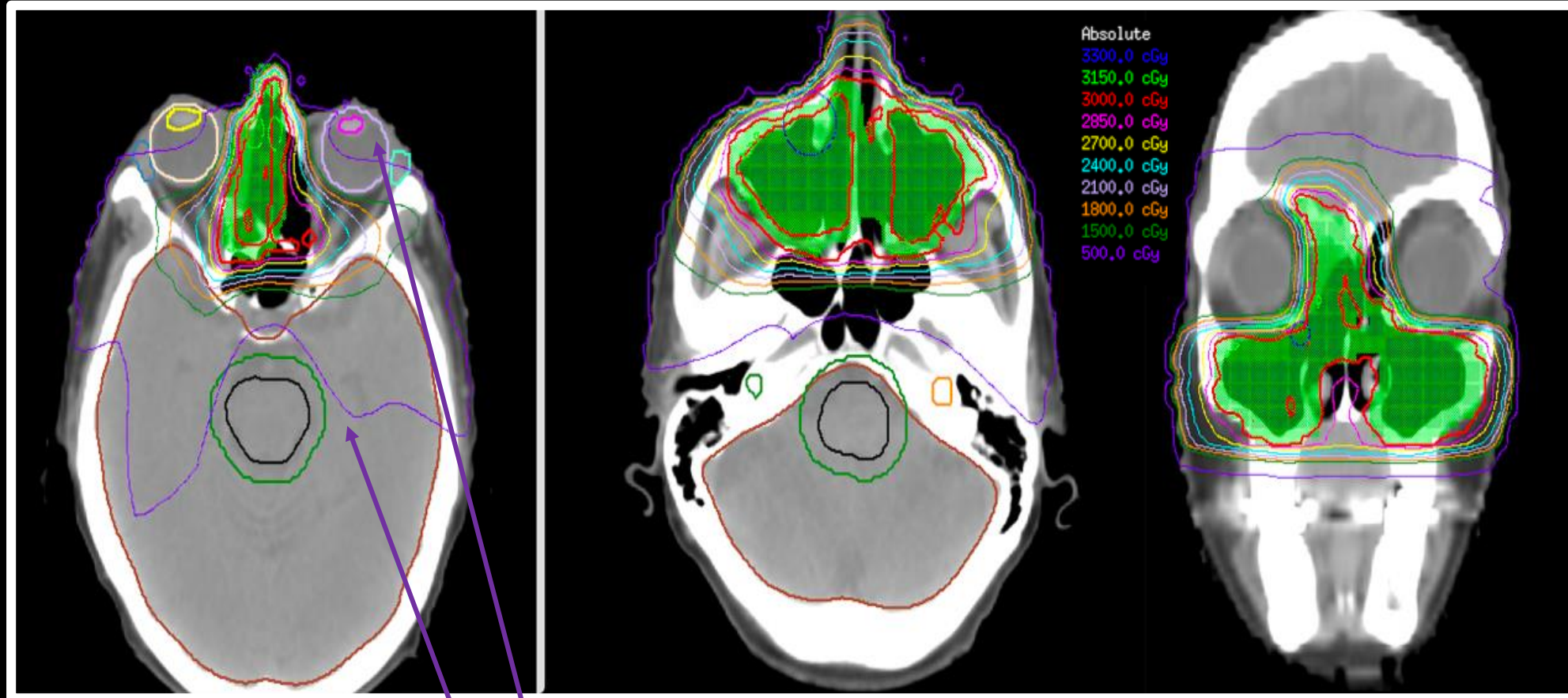
Axial images showing contours of CTV (red) on the using the CT simulation scan (left) fused to the pre-chemotherapy MRI (right).



Axial image (top panel) and coronal image (bottom panel) demonstrating the CTV volume (red) with a 5 mm margin to create the PTV (green).

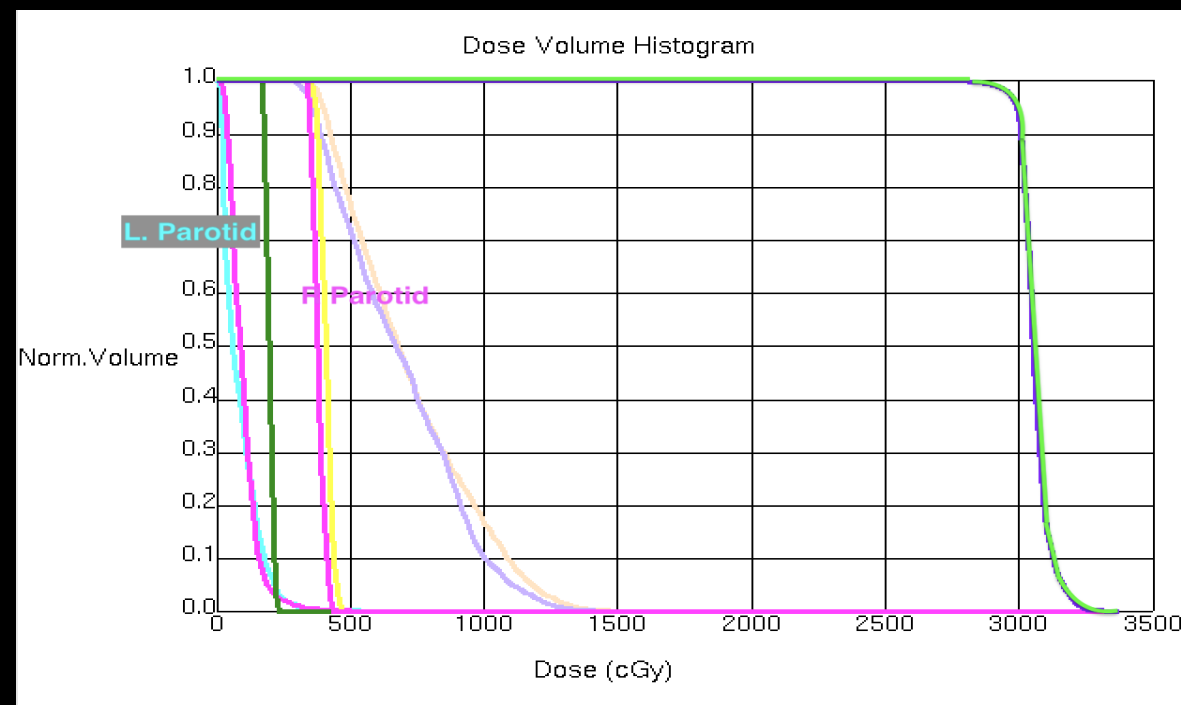


Planning using VMAT with efforts to limit the dose to the bilateral parotid glands, bilateral eyes, lacrimal glands, and brain.



Note the 500cGy line off the majority of the orbits and brain

Dose volume histogram illustrating low doses to organs at risk (especially the salivary glands)¹



ROI Statistics						
Line Type	ROI	Min.	Max.	Mean	Std. Dev.	
<input type="radio"/>	Parotid_L	14.3	532.0	84.2	67.9	
<input type="radio"/>	Parotid_R	24.7	506.9	97.6	54.3	
<input checked="" type="radio"/>	Cochlea_R	171.6	230.1	195.9	12.2	
<input type="radio"/>	Eye_R	286.2	1471.3	720.9	249.1	
<input type="radio"/>	Eye_L	267.1	1412.7	687.4	240.7	
<input type="radio"/>	R Lens	381.5	462.9	407.9	23.3	
<input type="radio"/>	L Lens	343.5	440.9	380.2	21.1	
<input type="radio"/>	pPTV3000	2367.1	3313.5	3059.0	55.9	

Take home message:

Treating head and neck sites using IMRT can achieve plans with minimal doses to critical organs.

Plan evaluation should include assessment of the 5 Gy line in an effort to minimize RT doses to organs at risk.