Supplement Section

To assess if the 5 field beam arrangement performed the best dosimetrically for TMI a test cases were created using alternative beam arrangement based on current methodology for CSI treatments. A single posterior beam was placed along the patient’s spine. Supplement Figure 1a displays the layout for a single posterior TMI beam plan with Figure 1bdisplaying the DVH. The single posterior beam plan had the D80 for the PTV (30%), skull (20%), and ribs (23%) reduced compared to 5 field TMI. Additionally, the brain and heart mean dose increased by 13% and 8% respectively.