**TG119**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume** | **Dose metric** | **Tolerance** | **Static, 4°**  **1.9 min** | **Static plan**  **recalc** | **Static plan recalc, rescale** | **Dynamic optimized**  **2.0 min** |
| PTV | *D*95% | >50 Gy | 50.0 Gy | 49.3 Gy | 50.0 Gy | 50.0 Gy |
|  | *D*10% | <55 Gy | 52.0 Gy | 55.8 Gy | 56.6 Gy | 52.3 Gy |
|  |  |  |  |  |  |  |
| Core | *D*10% | <25 Gy | 21.3 Gy | 30.0 Gy | 30.4 Gy | 20.9 Gy |
|  |  |  |  |  |  |  |

**Prostate**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume** | **Dose metric** | **Tolerance** | **Static, 4°**  **1.9 min** | **Static plan**  **recalculated** | **Static plan recalc, rescale** | **Dynamic optimized**  **1.8 min** |
| PTV76Gy | *D*95% | >76 Gy | 76.0 Gy | 74.9 Gy | 76.0 Gy | 76.0 Gy |
|  | *D*2% | <83.6 Gy | 82.6 Gy | 83.7 Gy | 85.0 Gy | 82.7 Gy |
|  |  |  |  |  |  |  |
| PTV46Gy | *D*95% | >46 Gy | 47.4 Gy | 47.0 Gy | 47.1 Gy | 47.4 Gy |
|  |  |  |  |  |  |  |
| Bladder | *V*65 Gy | <50% | 20.6% | 21.0% | 21.6% | 20.6% |
| *V*70 Gy | <35% | 18.2% | 18.4% | 19.0% | 18.4% |
| *V*75 Gy | <25% | 15.8% | 16.0% | 16.6% | 15.9% |
| *V*80 Gy | <15% | 10.5% | 12.5% | 13.7% | 11.0% |
|  |  |  |  |  |  |  |
| Rectum | *V*60 Gy | <50% | 18.9% | 24.8% | 26.4% | 18.2% |
| *V*65 Gy | <35% | 12.4% | 16.8% | 18.0% | 12.5% |
| *V*70 Gy | <25% | 7.9% | 10.7% | 11.6% | 8.2% |
| *V*75 Gy | <15% | 5.5% | 7.1% | 7.4% | 5.5% |
|  |  |  |  |  |  |  |
| Penile bulb | *D*mean | <5.25 Gy | 4.7 Gy | 4.7 Gy | 4.8 Gy | 4.5 Gy |
|  |  |  |  |  |  |  |
| Left femur | *V*50 Gy | <5% | 0.1% | 0.1% | 0.2% | 0% |
|  |  |  |  |  |  |  |
| Right femur | *V*50 Gy | <5% | 0.2% | 0% | 0% | 0.1% |
|  |  |  |  |  |  |  |

**Head and neck**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **OAR** | **Dose metric** | **Tolerance** | **Static**  **1.4 min** | **Static plan recalculated** | **Static plan recalc, rescale** | **Dynamic optimized**  **1.4 min** |
| PTV70Gy | *D*99% | >66.5 Gy | 69.3 Gy | 67.8 Gy | 69.8 Gy | 68.9 Gy |
|  | *D*95% | >70 Gy | 70.6 Gy | 69.9 Gy | 72.0 Gy | 70.0 Gy |
|  | *D*20% | <77 Gy | 72.7 Gy | 73.1 Gy | 75.3 Gy | 71.4 Gy |
|  | *D*max | <80.5 Gy | 76.2 Gy | 76.2 Gy | 78.5 Gy | 75.2 Gy |
|  | *D*mean | <73.5 Gy | 72.0 Gy | 72.1 Gy | 74.3 Gy | 71.0 Gy |
|  |  |  |  |  |  |  |
| PTV63Gy | *D*99% | >59.8 Gy | 59.8 Gy | 58.0 Gy | 59.8 Gy | 60.6 Gy |
|  | *D*95% | >63 Gy | 67.3 Gy | 66.0 Gy | 68.0 Gy | 66.7 Gy |
|  |  |  |  |  |  |  |
| PTV56Gy | *D*99% | >53.2 G | 58.6 Gy | 57.6 Gy | 59.3 Gy | 58.0 Gy |
|  | *D*95% | >56 Gy | 59.5 Gy | 59.0 Gy | 60.7 Gy | 58.9 Gy |
|  |  |  |  |  |  |  |
| Spinal cord | *D*0.1 cm3 (0.58%) | <45 Gy | 44.6 Gy | 45.5 Gy | 46.9 Gy | 42.4 Gy |
| *D*max | <48 Gy | 46.0 Gy | 46.0 Gy | 47.4 Gy | 42.7 Gy |
|  |  |  |  |  |  |  |
| Brainstem | *D*0.1 cm3 (0.53%) | <50 Gy | 43.6 Gy | 44.3 Gy | 45.6 Gy | 41.9 Gy |
| *D*max | <54 Gy | 44.5 Gy | 46.1 Gy | 47.5 Gy | 42.4 Gy |
|  |  |  |  |  |  |  |
| Optic chiasm | *D*max | <50 Gy | 4.2 Gy | 4.2 Gy | 4.3 Gy | 4.1 Gy |
|  |  |  |  |  |  |  |
| Left parotid | *D*50% | <30 Gy | 19.8 Gy | 21.1 Gy | 21.6 Gy | 18.2 Gy |
| *D*mean | <26 Gy | 25.5 Gy | 25.8 Gy | 26.6 Gy | 24.5 Gy |
|  |  |  |  |  |  |  |
| Right parotid | *D*50% | <30 Gy | 18.2 Gy | 18.9 Gy | 19.4 Gy | 16.3 Gy |
|  | *D*mean | <26 Gy | 22.9 Gy | 23.2 Gy | 23.9 Gy | 21.4 Gy |
|  |  |  |  |  |  |  |
| Temporomandibular joint | *D*0.1 cm3 (27.8%) | <70 Gy | 52.0 Gy | 52.0 Gy | 53.5 Gy | 51.7 Gy |
|  |  |  |  |  |  |  |
| Larynx | *D*67% | <50 Gy | 39.8 Gy | 41.6 Gy | 42.8 Gy | 34.2 Gy |
| *D*mean | <45 Gy | 42.5 Gy | 44.7 Gy | 46.1 Gy | 38.0 Gy |
|  |  |  |  |  |  |  |
| Lips | *D*mean | <20 Gy | 18.3 Gy | 18.5 Gy | 19.0 Gy | 18.0 Gy |
| *D*max | <30 Gy | 22.8 Gy | 23.2 Gy | 23.9 Gy | 22.3 Gy |
|  |  |  |  |  |  |  |
| Optic nerve | *D*max | <50 Gy | 4.2 Gy | 4.2 Gy | 4.4 Gy | 4.1 Gy |
|  |  |  |  |  |  |  |