**TG119**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume** | **Dose metric** | **Tolerance** | **Static, 4°**  **1.8 min** | **Static plan**  **recalc** | **Static plan recalc, rescale** | **Dynamic optimized**  **2.3 min** |
| PTV | *D*95% | >50 Gy | 50.0 Gy | 49.6 Gy | 50.0 Gy | 50.0 Gy |
|  | *D*10% | <55 Gy | 52.1 Gy | 55.1 Gy | 55.5 Gy | 52.4 Gy |
|  |  |  |  |  |  |  |
| Core | *D*10% | <25 Gy | 21.7 Gy | 30.1 Gy | 30.3 Gy | 21.7 Gy |
|  |  |  |  |  |  |  |

**Prostate**

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| --- | --- | --- | --- | --- | --- | --- |
| **Volume** | **Dose metric** | **Tolerance** | **Static, 4°**  **1.8 min** | **Static plan**  **recalculated** | **Static plan recalc, rescale** | **Dynamic optimized**  **2.1 min** |
| PTV76Gy | *D*95% | >76 Gy | 76.0 Gy | 75.1 Gy | 76.0 Gy | 76.0 Gy |
|  | *D*2% | <83.6 Gy | 82.5 Gy | 84.2 Gy | 85.2 Gy | 82.4 Gy |
|  |  |  |  |  |  |  |
| PTV46Gy | *D*95% | >46 Gy | 47.3 Gy | 46.8 Gy | 47.3 Gy | 47.1 Gy |
|  |  |  |  |  |  |  |
| Bladder | *V*65 Gy | <50% | 20.0% | 20.3% | 20.7% | 20.5% |
| *V*70 Gy | <35% | 18.0% | 18.0% | 18.5% | 18.0% |
| *V*75 Gy | <25% | 15.7% | 15.8% | 16.1% | 15.8% |
| *V*80 Gy | <15% | 8.3% | 12.0% | 12.9% | 7.8% |
|  |  |  |  |  |  |  |
| Rectum | *V*60 Gy | <50% | 19.2% | 26.6% | 27.6% | 16.7% |
| *V*65 Gy | <35% | 12.1% | 17.9% | 18.6% | 11.0% |
| *V*70 Gy | <25% | 7.9% | 11.6% | 12.5% | 8.0% |
| *V*75 Gy | <15% | 5.5% | 7.3% | 7.8% | 5.5% |
|  |  |  |  |  |  |  |
| Penile bulb | *D*mean | <5.25 Gy | 4.6 Gy | 4.6 Gy | 4.7 Gy | 4.5 Gy |
|  |  |  |  |  |  |  |
| Left femur | *V*50 Gy | <5% | 0.1% | 0.3% | 0.4% | 0.1% |
|  |  |  |  |  |  |  |
| Right femur | *V*50 Gy | <5% | 0% | 0% | 0% | 0.2% |
|  |  |  |  |  |  |  |

**Head and neck**

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| --- | --- | --- | --- | --- | --- | --- |
| **OAR** | **Dose metric** | **Tolerance** | **Static**  **2.4 min** | **Static plan recalculated** | **Static plan recalc, rescale** | **Dynamic optimized**  **2.9 min** |
| PTV70Gy | *D*99% | >66.5 Gy | 69.3 Gy | 65.8 Gy | 68.6 Gy | 69.4 Gy |
|  | *D*95% | >70 Gy | 70.0 Gy | 68.7 Gy | 71.7 Gy | 70.0 Gy |
|  | *D*20% | <77 Gy | 72.0 Gy | 75.1 Gy | 78.3 Gy | 71.5 Gy |
|  | *D*max | <80.5 Gy | 74.7 Gy | 80.6 Gy | 84.1 Gy | 75.0 Gy |
|  | *D*mean | <73.5 Gy | 71.3 Gy | 72.9 Gy | 76.1 Gy | 71.1 Gy |
|  |  |  |  |  |  |  |
| PTV63Gy | *D*99% | >59.8 Gy | 59.9 Gy | 52.9 Gy | 55.2 Gy | 61.6 Gy |
|  | *D*95% | >63 Gy | 65.5 Gy | 60.4 Gy | 63.0 Gy | 65.8 Gy |
|  |  |  |  |  |  |  |
| PTV56Gy | *D*99% | >53.2 G |  |  |  |  |
|  | *D*95% | >56 Gy |  |  |  |  |
|  |  |  |  |  |  |  |
| Spinal cord | *D*0.1 cm3 (0.5229%) | <45 Gy | 42.6 Gy | 45.9 Gy | 47.9 Gy | 41.8 Gy |
| *D*max | <48 Gy | 42.9 Gy | 46.0 Gy | 48.0 Gy | 42.3 Gy |
|  |  |  |  |  |  |  |
| Brainstem | *D*0.1 cm3 (0.5304%) | <50 Gy | 46.6 Gy | 46.7 Gy | 48.8 Gy | 46.2 Gy |
| *D*max | <54 Gy | 47.3 Gy | 48.3 Gy | 50.5 Gy | 46.8 Gy |
|  |  |  |  |  |  |  |
| Optic chiasm | *D*max | <50 Gy | 3.9 Gy | 3.7 Gy | 3.9 Gy | 3.6 Gy |
|  |  |  |  |  |  |  |
| Left parotid | *D*50% | <30 Gy | 18.4 Gy | 23.5 Gy | 24.6 Gy | 17.3 Gy |
| *D*mean | <26 Gy | 24.5 Gy | 28.1 Gy | 29.3 Gy | 23.8 Gy |
|  |  |  |  |  |  |  |
| Right parotid | *D*50% | <30 Gy | 16.6 Gy | 20.0 Gy | 20.9 Gy | 14.6 Gy |
|  | *D*mean | <26 Gy | 21.9 Gy | 25.1 Gy | 26.2 Gy | 20.4 Gy |
|  |  |  |  |  |  |  |
| Temporomandibular joint | *D*0.1 cm3 (22.2% L, 44.4% R) | <70 Gy | 63.1 Gy | 56.0 Gy | 58.4 Gy | 61.7 Gy |
|  |  |  |  |  |  |  |
| Larynx | *D*67% | <50 Gy | 40.7 Gy | 44.9 Gy | 46.9 Gy | 36.1 Gy |
| *D*mean | <45 Gy | 42.5 Gy | 47.5 Gy | 49.5 Gy | 38.5 Gy |
|  |  |  |  |  |  |  |
| Lips | *D*mean | <20 Gy | 17.1 Gy | 20.3 Gy | 21.2 Gy | 16.7 Gy |
| *D*max | <30 Gy | 23.2 Gy | 30.1 Gy | 31.4 Gy | 22.6 Gy |
|  |  |  |  |  |  |  |
| Optic nerve | *D*max | <50 Gy | 3.9 Gy | 3.8 Gy | 4.0 Gy | 3.6 Gy |
|  |  |  |  |  |  |  |