



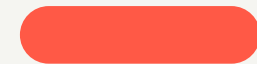
ACCURAY



Treating Challenging Cases using the **CyberKnife® Treatment Delivery System**

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COMPLICATED CASES USING THE CYBERKNIFE® S7

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COVERED CONCEPTS

- What is a complicated case?
- How is the S7 able to handle these “complicated cases”
- Examples
 - Complex Multi-lesion Plans
 - G4/VSI vs. S7 Plans
 - Accuray Precision® vs. Multiplan
CyberKnife® treatment times, debunked



WHAT IS A COMPLICATED CASE

- In the context of this presentation, a complicated case comparing an CyberKnife® S7 System plan vs. CyberKnife G4 or VSI plan
- These cases are considered difficult due to being outliers for a typical treatment type
- Difficult to plan due to proximity to critical structures



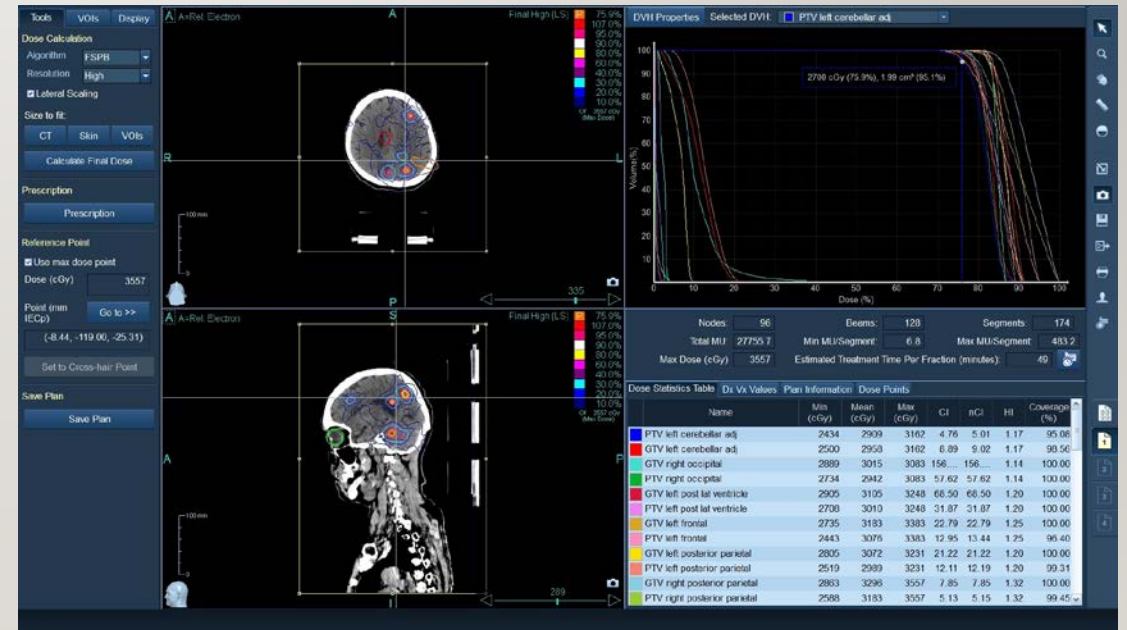
HOW IS THE S7 ABLE TO HANDLE THESE “COMPLICATED CASES”

- The S7 is the latest iteration of the Accuray CyberKnife® Stereotactic Radiation Delivery System
- The S7 can come with three secondary collimators(Fixed, Iris, and Incise MLC) and many different planning algorithms, the highlights being the Incise MLC and VOLO™ algorithm
- The planning times are significantly reduced via faster GPU processors
- The latest planning tools with the 3.4 planning system



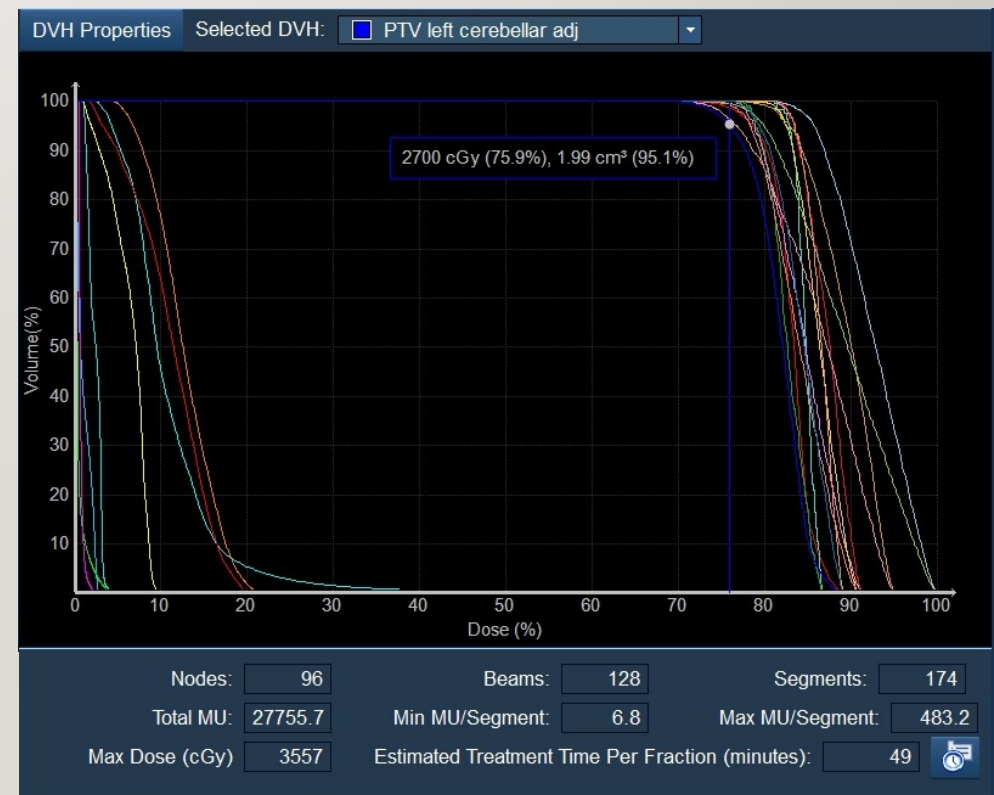
COMPLEX MULTI-LESION INTRACRANIAL PLANS

- The patient is a 10-lesion brain plan treated using Incise MLC and Precision[®] VOLO[™] Algorithm
- CI=1.36 ,nCI=1.28 ,HI=1.34
- The dose is 2700 cGy in 3 fractions



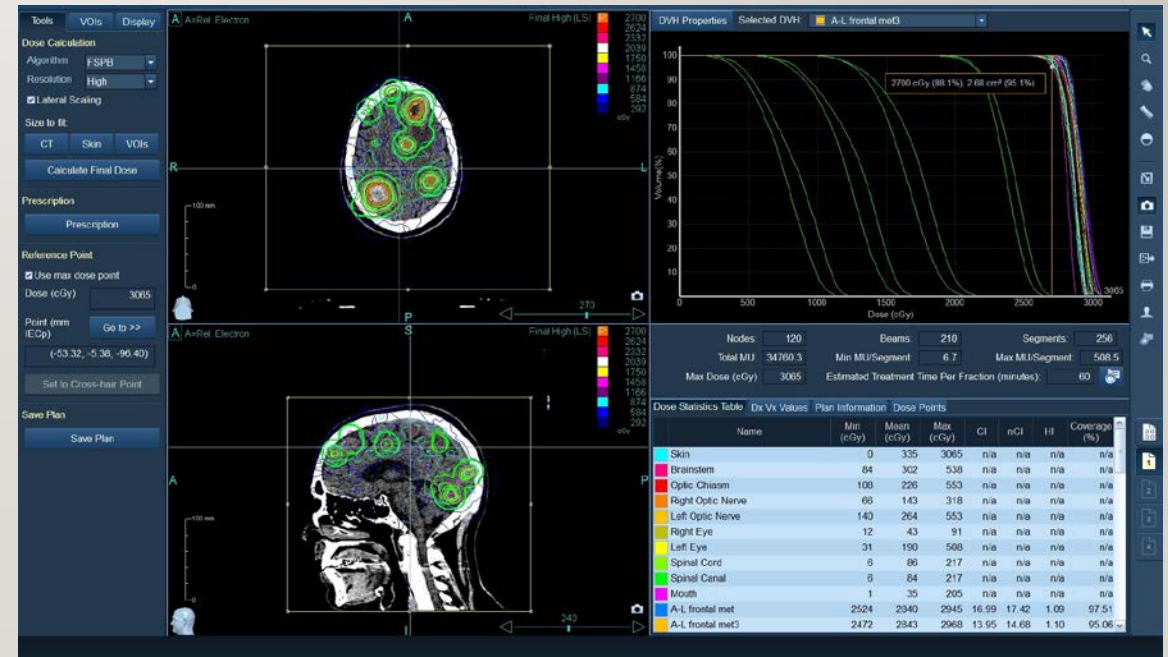
COMPLEX MULTI-LESION INTRACRANIAL PLANS

- Physician's contouring time was about 30 minutes
- The plan took about 30 minutes to complete
- The delivery is 49 minutes per fraction
- The G4/VSI with Multiplan
- The G4/VSI with Accuray Precision®



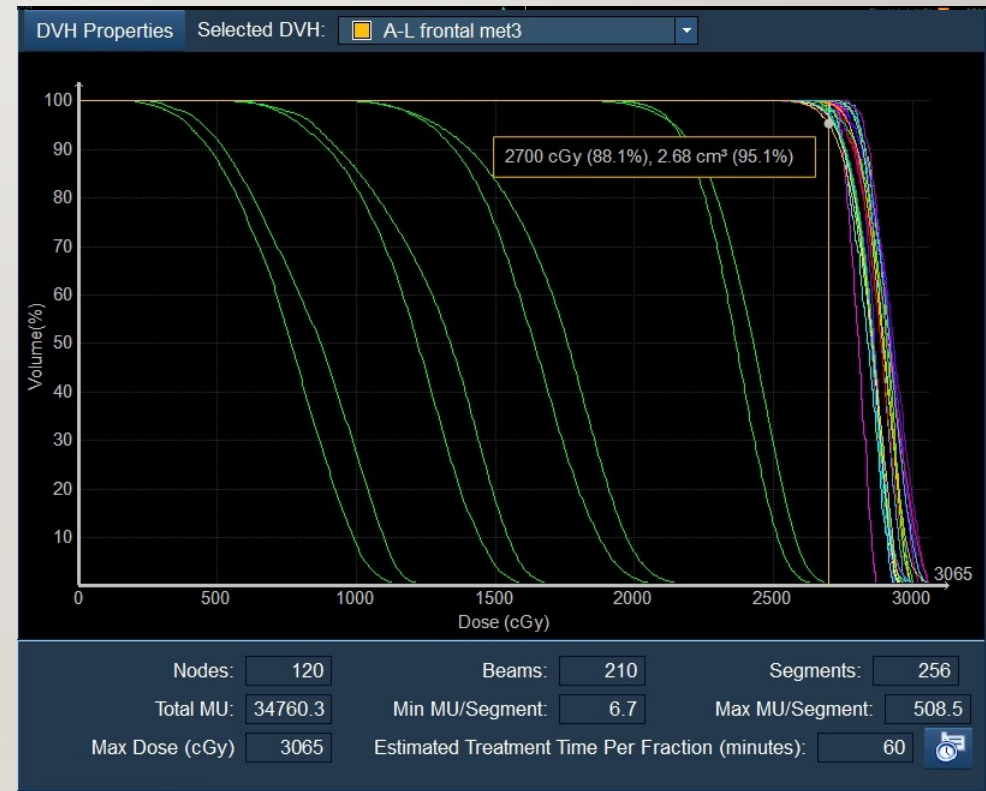
COMPLEX MULTI-LESION INTRACRANIAL PLANS

- The patient is an 18-lesion brain plan treated using incise MLC and Precision[®] VOLO[™] Algorithm
- CI=1.28 ,nCI=1.31 ,HI=1.32
- The dose is 2700 cGy in 3 fractions



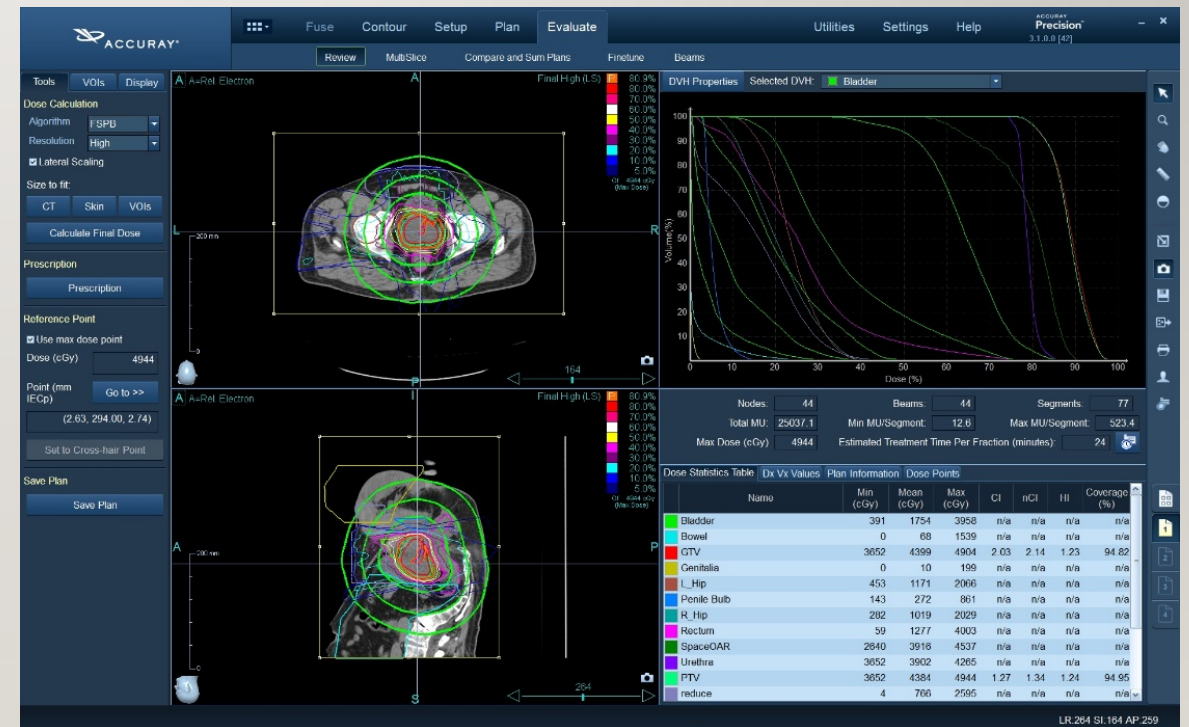
COMPLEX MULTI-LESION INTRACRANIAL PLANS

- Physician's contouring time was about 30 minutes
- The plan took about 30 minutes to complete
- The delivery is 60 minutes per fraction
- The G4/VSI with Multiplan
- The G4/VSI with Accuray Precision®



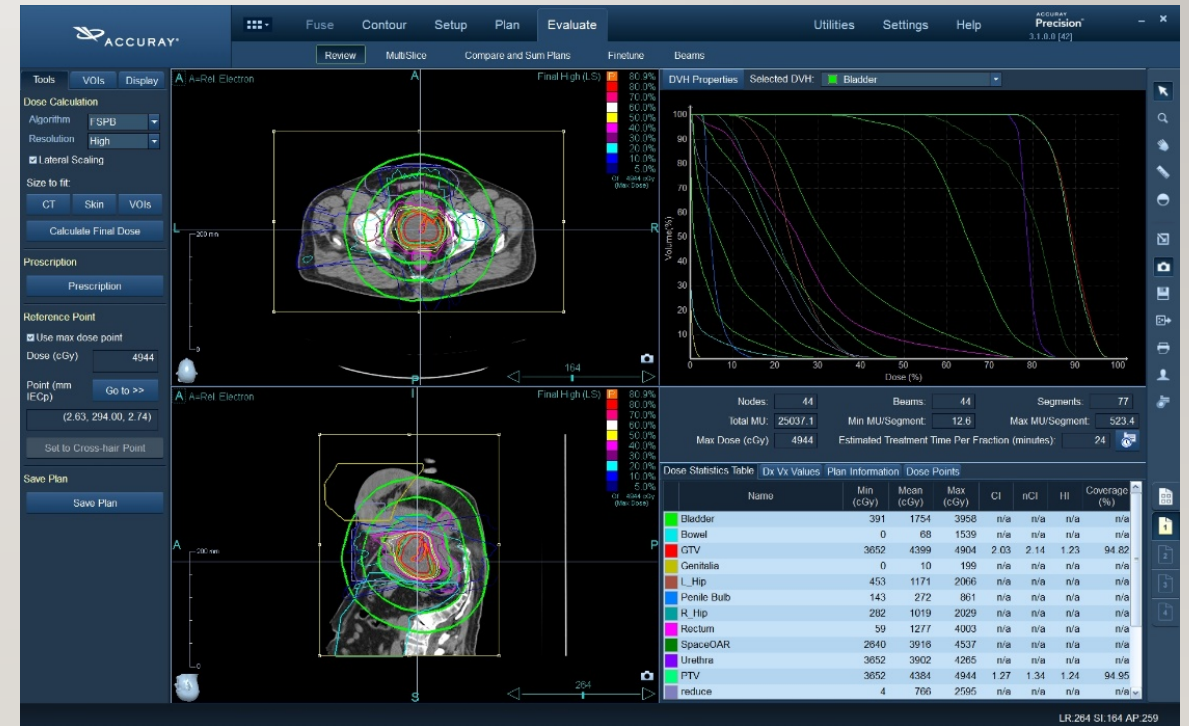
COMPLEX PROSTATE CANCER PLANS

- The patient is a 97 cc Prostate gland plan treated using incise MLC and Accuray Precision[®] VOLO[™] Algorithm
- CI=1.27 ,nCI=1.34 ,HI=1.24
- The dose is 4000 cGy in 5 fractions



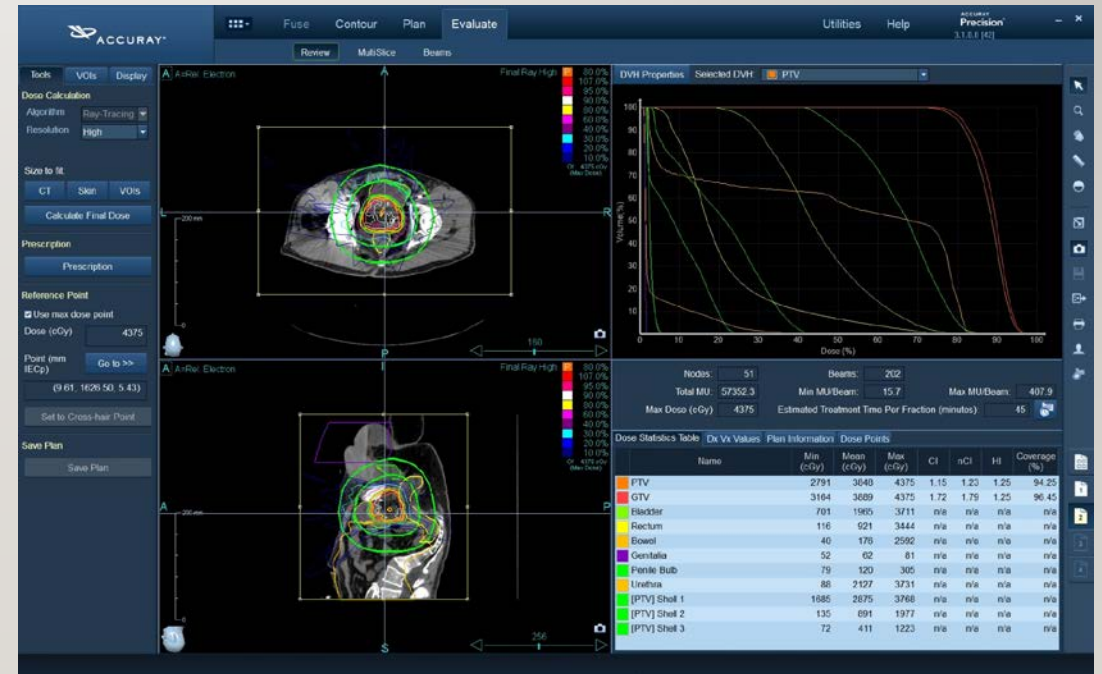
COMPLEX PROSTATE CANCER PLANS

- Physician's contouring time was about 10 minutes
- The plan took about 25 minutes to complete
- The delivery is 24 minutes per fraction



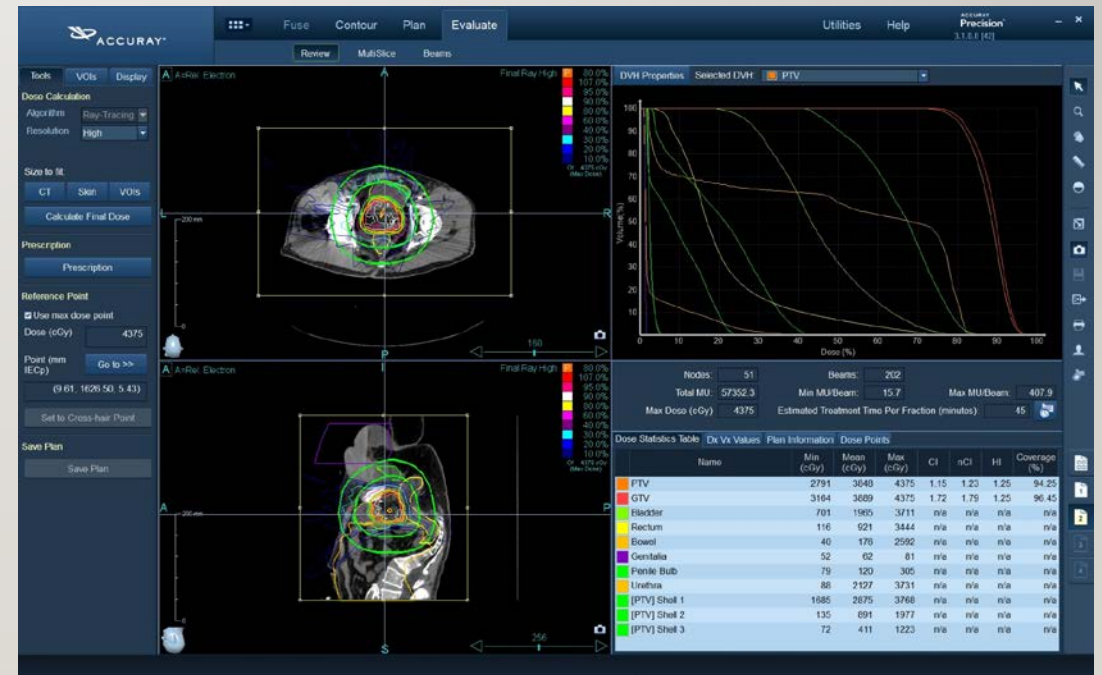
COMPLEX PROSTATE PLANS G4 AND MULTIPLAN

- The G4/VSI with Multiplan, similar volume and dose
- The patient is a 99cc prostate gland plan treated using IRIS and Sequential algorithm
- $CI=1.15$, $nCI=1.23$, $HI=1.25$
- The dose is 4000 cGy in 5 fractions



COMPLEX PROSTATE PLANS G4 AND MULTIPLAN

- Physician's contouring time was about 10 minutes
- The plan took about 90 minutes to complete
- The delivery is 45 minutes per fraction



CYBERKNIFE® TREATMENT TIMES, DEBUNKED

- The CyberKnife® treatment times have been greatly reduced with the addition of the VOLO™ optimizer and the Incise MLC
- The “usual” brain plan will take less than 15 minutes to setup and deliver
- The “usual” prostate plan will take between 11 minutes and 17 minutes to setup and deliver



QUESTIONS

