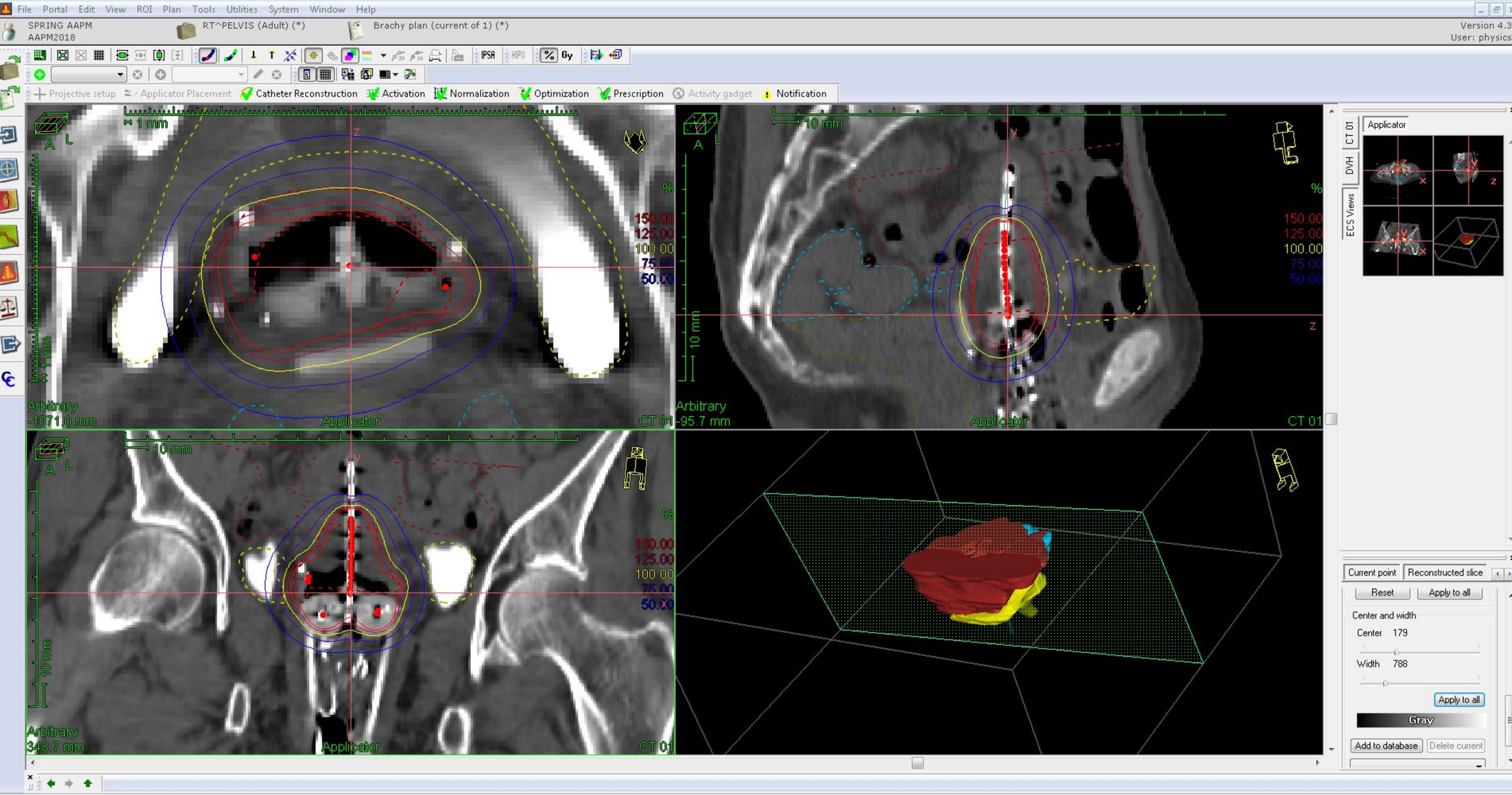
Treatment plan with embedded errors

Example of poor documentation


File Portal Edit View ROI Plan Tools Utilities System Window Help
SPRING AAPM
AAPM2018
RT^PELVIS (Adult) (*)
Brachy plan (current of 1) (*)
Version 4.3
User: physics
Projective setup
Applicator Placement
Catheter Reconstruction
Activation
Normalization
Optimization
Prescription
Activity gadget
Notification
1 mm
10 mm
150.00
125.00
100.00
75.00
50.00
Arbitrary
-1071.0 mm
-95.7 mm
348.7 mm
Applicator
CT 01
CT 01
DVH
ECS Views
Current point
Reconstructed slice
Reset
Apply to all
Center and width
Center 179
Width 788
Apply to all
Gray
Add to database
Delete current

Patient name	AAPM, SPRING		
Patient ID	AAPM2018		
Birth date	12 Oct 1983	**Sex**	Female
Case	RT^PELVIS (Adult)		
Plan	Brachy plan		
Saved	Printed case not saved		
Printed	02 Apr 2018 17:45:14 by physics		
Time zone	Eastern Standard Time (UTC-5:00), Eastern Daylight Time		

SCCC Radiation Oncology

Treatment Unit

Treatment unit name:	sccc2011
Treatment unit type:	microSelectron v3
Source:	192-Ir-mHDR-v2
Isotope:	Ir-192
Air kerma rate constant (cGy cm2/ h / mCi):	4.082

Calibration data

Calibration date/time:	28 Feb 2018 16:30:00
Air kerma strength (cGy cm²/h):	45321.00
Apparent source activity (Ci):	11.10265

Treatment data

Treatment date/time:	19 Mar 2018 11:11:46
Air kerma strength (cGy cm²/h):	38010.27
Apparent source activity (Ci):	9.31168
Interval between calibration date and time, and treatment date and time (days):	18.74
Decay factor:	0.8387

Dose Normalization, Optimization and Prescription

Normalization type:	Normalized manual
F Factor:	1.000
Optimization type:	Graphical
Prescription dose per fraction/pulse (cGy):	7.00
Total Reference Air Kerma per fraction/pulse at 1 m (cGy):	0.004
Number of fractions:	1

Applicator Model

None

Patient name	AAPM, SPRING
Patient ID	AAPM2018
Birth date	12 Oct 1983 **Sex** Female
Case	RT^PELVIS (Adult)
Plan	Brachy plan
Saved	Printed case not saved
Printed	02 Apr 2018 17:45:14 by physics
Time zone	Eastern Standard Time (UTC-5:00), Eastern Daylight Time

SCCC Radiation Oncology

Source Positions

Catheter (channel)	Name	Channel length (indexer length)

```
1   5   9   13  17  21  25  29  33 (pos)
|   |   |   |   |   |   |   |   |
AAAA
AAAA
.AAA
..A
A.AA
A
....................AAAAAAAAAAAAAAA
|   |   |   |   |   |   |   |   |
0   10  20  30  40  50  60  70  80 (mm)
```

1 (1)	Rt Ovo...	1500.0 (mm)
2 (2)	Lt Ovo...	1500.0 (mm)
3 (3)	Needle...	1240.0 (mm)
4 (4)	Needle...	1240.0 (mm)
5 (5)	Needle...	1240.0 (mm)
6 (6)	Needle...	1240.0 (mm)
7 (7)	Tandem	1500.0 (mm)

Source position separation (mm): 2.5

Catheter (channel) Times

Catheter (channel)	Name	# Active positions	Channel time (sec.)
1 (1)	Rt Ovoid (Manual)	4	0.4
2 (2)	Lt Ovoid (Manual)	4	0.4
3 (3)	Needle 1 (Manual)	3	0.3
4 (4)	Needle 2 (Manual)	1	0.1
5 (5)	Needle 3 (Manual)	3	0.3
6 (6)	Needle 4 (Manual)	1	0.1
7 (7)	Tandem (Manual)	15	1.7

Total Treatment Time

Total treatment time (sec.): 3.3

% of total time given extra due to rounding off (%): 0.4

Source Coordinates and Times

Catheter 1 (channel 1) - Rt Ovoid

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
1	32.8	-1118.1	194.5	1.32	0.1
2	32.6	-1119.5	196.6	1.33	0.1

Continued

Patient name	AAPM, SPRING		
Patient ID	AAPM2018		
Birth date	12 Oct 1983	**Sex**	Female
Case	RT^PELVIS (Adult)		
Plan	Brachy plan		
Saved	Printed case not saved		
Printed	02 Apr 2018 17:45:14 by physics		
Time zone	Eastern Standard Time (UTC-5:00), Eastern Daylight Time		

SCCC Radiation Oncology

Source Coordinates and Times (continued)

Catheter 1 (channel 1) - Rt Ovoid

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
3	32.5	-1120.9	198.7	1.35	0.1
4	32.3	-1122.2	200.8	1.37	0.1

Catheter 2 (channel 2) - Lt Ovoid

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
1	7.9	-1119.4	192.2	1.33	0.1
2	7.7	-1120.8	194.2	1.33	0.1
3	7.6	-1122.1	196.3	1.33	0.1
4	7.4	-1123.5	198.4	1.34	0.1

Catheter 3 (channel 3) - Needle 1

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
2	1.2	-1103.5	191.2	1.33	0.1
3	1.4	-1106.0	191.1	1.33	0.1
4	1.5	-1108.5	190.9	1.33	0.1

Catheter 4 (channel 4) - Needle 2

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
3	0.7	-1110.2	196.9	1.33	0.1

Catheter 5 (channel 5) - Needle 3

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
1	-0.4	-1106.9	203.5	1.42	0.1
3	-0.1	-1111.9	203.6	1.34	0.1
4	0.0	-1114.4	203.6	1.34	0.1

Patient name	AAPM, SPRING		
Patient ID	AAPM2018		
Birth date	12 Oct 1983	**Sex**	Female
Case	RT^PELVIS (Adult)		
Plan	Brachy plan		
Saved	Printed case not saved		
Printed	02 Apr 2018 17:45:14 by physics		
Time zone	Eastern Standard Time (UTC-5:00), Eastern Daylight Time		

SCCC Radiation Oncology

Source Coordinates and Times (continued)

Catheter 6 (channel 6) - Needle 4

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
1	39.1	-1105.6	195.0	1.30	0.1

Catheter 7 (channel 7) - Tandem

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
22	19.5	-1113.0	200.4	2.04	0.2
23	19.3	-1110.5	200.6	2.00	0.2
24	19.1	-1108.0	200.8	1.82	0.1
25	19.0	-1105.5	201.0	1.62	0.1
26	18.8	-1103.1	201.1	1.45	0.1
27	18.7	-1100.6	201.2	1.35	0.1
28	18.5	-1098.1	201.3	1.31	0.1
29	18.4	-1095.6	201.5	1.30	0.1
30	18.2	-1093.1	201.7	1.31	0.1
31	18.0	-1090.6	202.0	1.31	0.1
32	17.8	-1088.1	202.3	1.32	0.1
33	17.6	-1085.7	202.5	1.32	0.1
34	17.4	-1083.2	202.9	1.32	0.1
35	17.2	-1080.7	203.3	1.32	0.1
36	16.9	-1078.3	203.7	1.32	0.1

Treatment plan with embedded errors

Example of good documentation

File Portal Edit View ROI Plan Tools Utilities System Window Help

SPRING AAPM
AAPM2018

RT^PELVIS (Adult) (*)

Brachy plan (current of 1) (*)

Projective setup | Applicator Placement | Catheter Reconstruction | Activation | Normalization | Optimization | Prescription | Activity gadget | Notification

Prescription

Prescription (per fraction/pulse)

Dose: 7.00 cGy Prescribed

Treatment date and time

19 Mar 2018 11:11:46

Treatment parameters

HDR

Fractions: 1

PDR

Pulses: 1

Period time: hh:mm

Treatment unit

Afterloader:

sccc2011

AK Strength

38010.27 cGy cm2/h

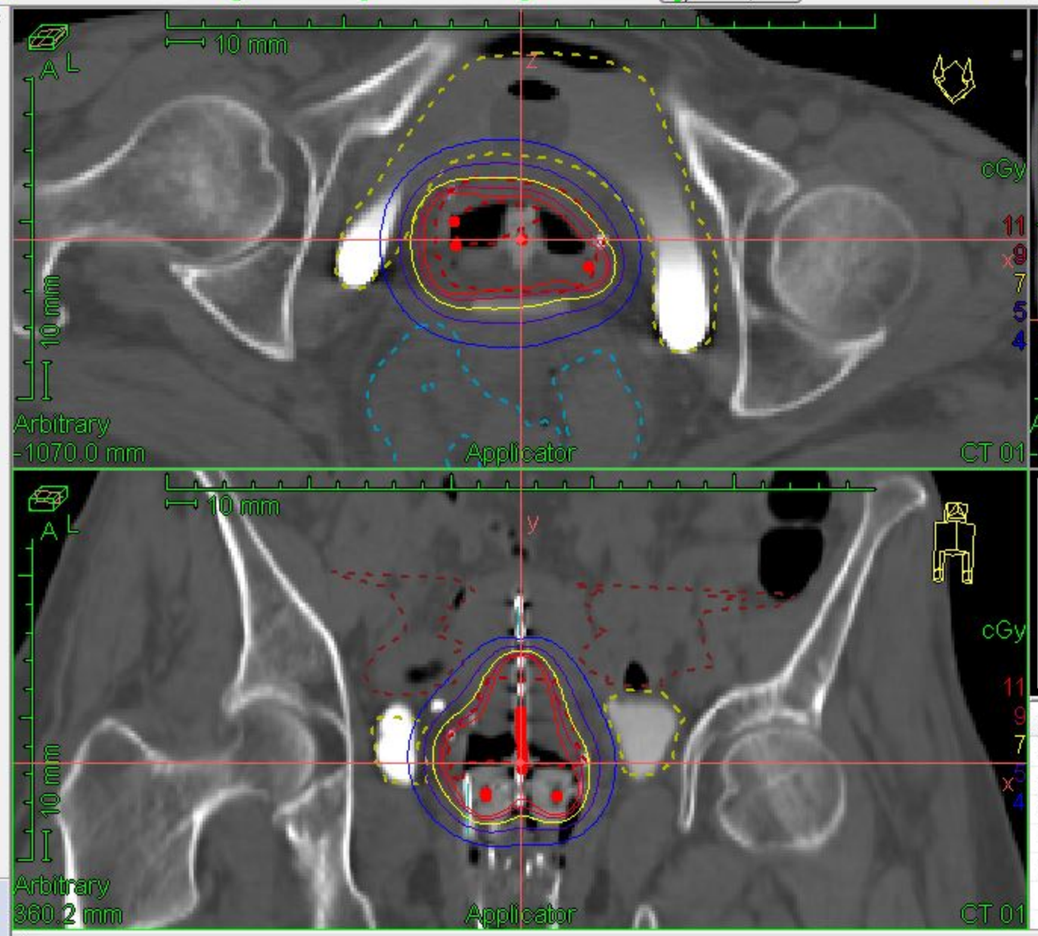
Apparent source activity:

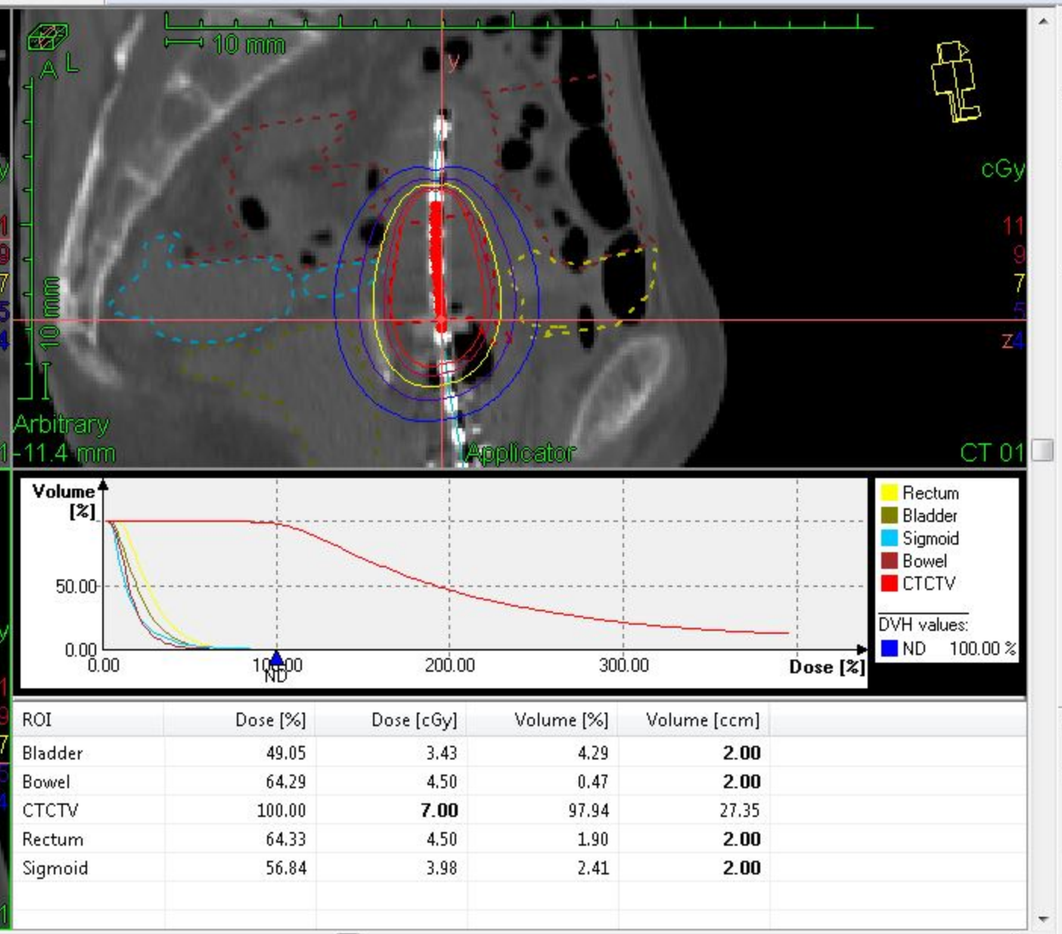
9.3116789 Ci

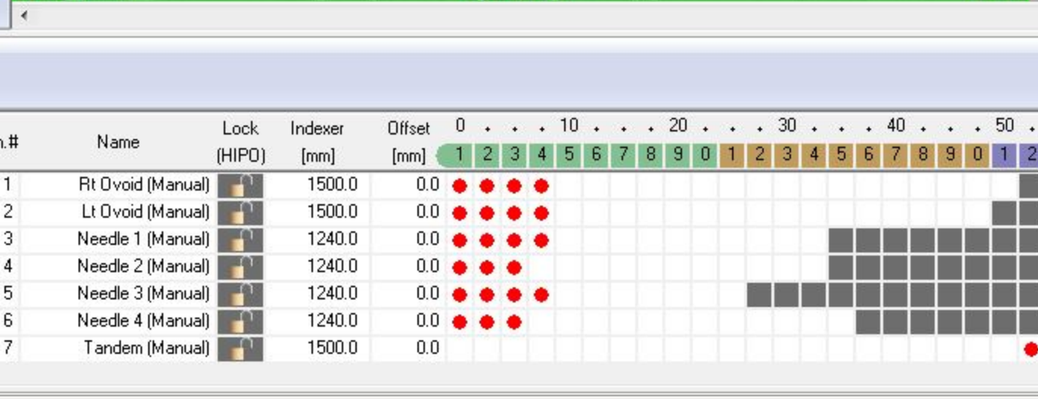
AKRC:

4.082 cGy.cm2/ h / mCi

Select | Channel Mapping







ROI	Dose [%]	Dose [cGy]	Volume [%]	Volume [ccm]
Bladder	49.05	3.43	4.29	**2.00**
Bowel	64.29	4.50	0.47	**2.00**
CTCTV	100.00	**7.00**	97.94	27.35
Rectum	64.33	4.50	1.90	**2.00**
Sigmoid	56.84	3.98	2.41	**2.00**

ROI Set
Plans
Brachy plan
Applicator
Points

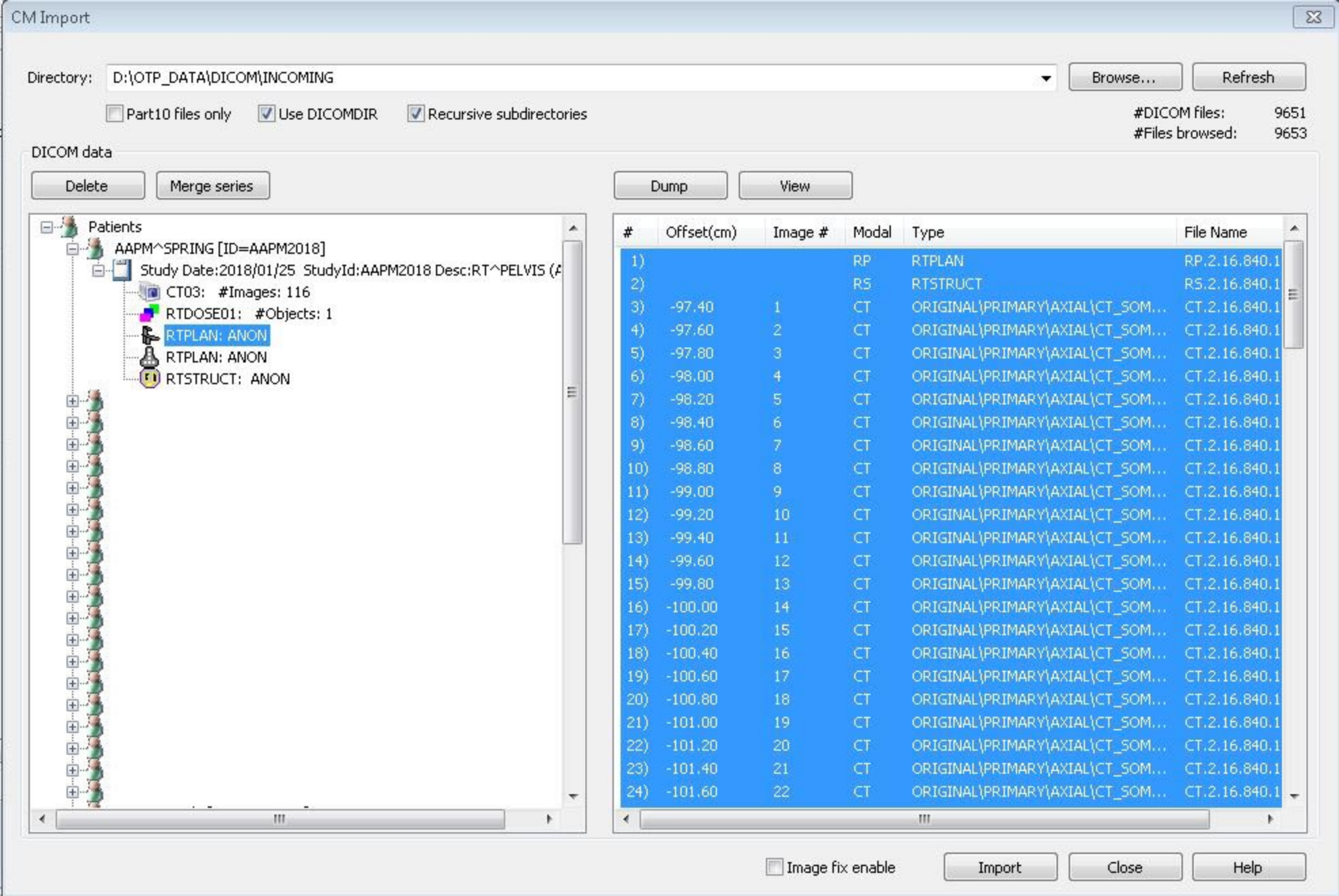
Cath.#	Ch.#	Name	Lock (HIPO)	Indexer [mm]	Offset [mm]
1	1	Rt Ovoid (Manual)		1500.0	0.0
2	2	Lt Ovoid (Manual)		1500.0	0.0
3	3	Needle 1 (Manual)		1240.0	0.0
4	4	Needle 2 (Manual)		1240.0	0.0
5	5	Needle 3 (Manual)		1240.0	0.0
6	6	Needle 4 (Manual)		1240.0	0.0
7	7	Tandem (Manual)		1500.0	0.0

Applicator Visualization
Thickness:
Skin:
Off
Triangles
Transparent
Opacity

CT 01 | DVH | ECS Views

ady

Time zone: Eastern Standard T


CM Import
Directory:
D:\OTP_DATA\DICOM\INCOMING
Browse...
Refresh
Part10 files only
Use DICOMDIR
Recursive subdirectories
#DICOM files: 9651
#Files browsed: 9653
DICOM data
Delete
Merge series
Dump
View
Patients
AAPM^SPRING [ID=AAPM2018]
Study Date:2018/01/25 StudyId:AAPM2018 Desc:RT^PELVIS (A
CT03: #Images: 116
RTDOSE01: #Objects: 1
RTPLAN: ANON
RTPLAN: ANON
RTSTRUCT: ANON
Offset(cm) Image # Modal Type File Name
1) RP RTPLAN RP.2.16.840.1
2) RS RTSTRUCT RS.2.16.840.1
3) -97.40 1 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
4) -97.60 2 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
5) -97.80 3 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
6) -98.00 4 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
7) -98.20 5 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
8) -98.40 6 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
9) -98.60 7 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
10) -98.80 8 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
11) -99.00 9 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
12) -99.20 10 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
13) -99.40 11 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
14) -99.60 12 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
15) -99.80 13 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
16) -100.00 14 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
17) -100.20 15 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
18) -100.40 16 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
19) -100.60 17 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
20) -100.80 18 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
21) -101.00 19 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
22) -101.20 20 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
23) -101.40 21 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
24) -101.60 22 CT ORIGINAL\PRIMARY\AXIAL\CT_SOM... CT.2.16.840.1
Image fix enable
Import
Close
Help

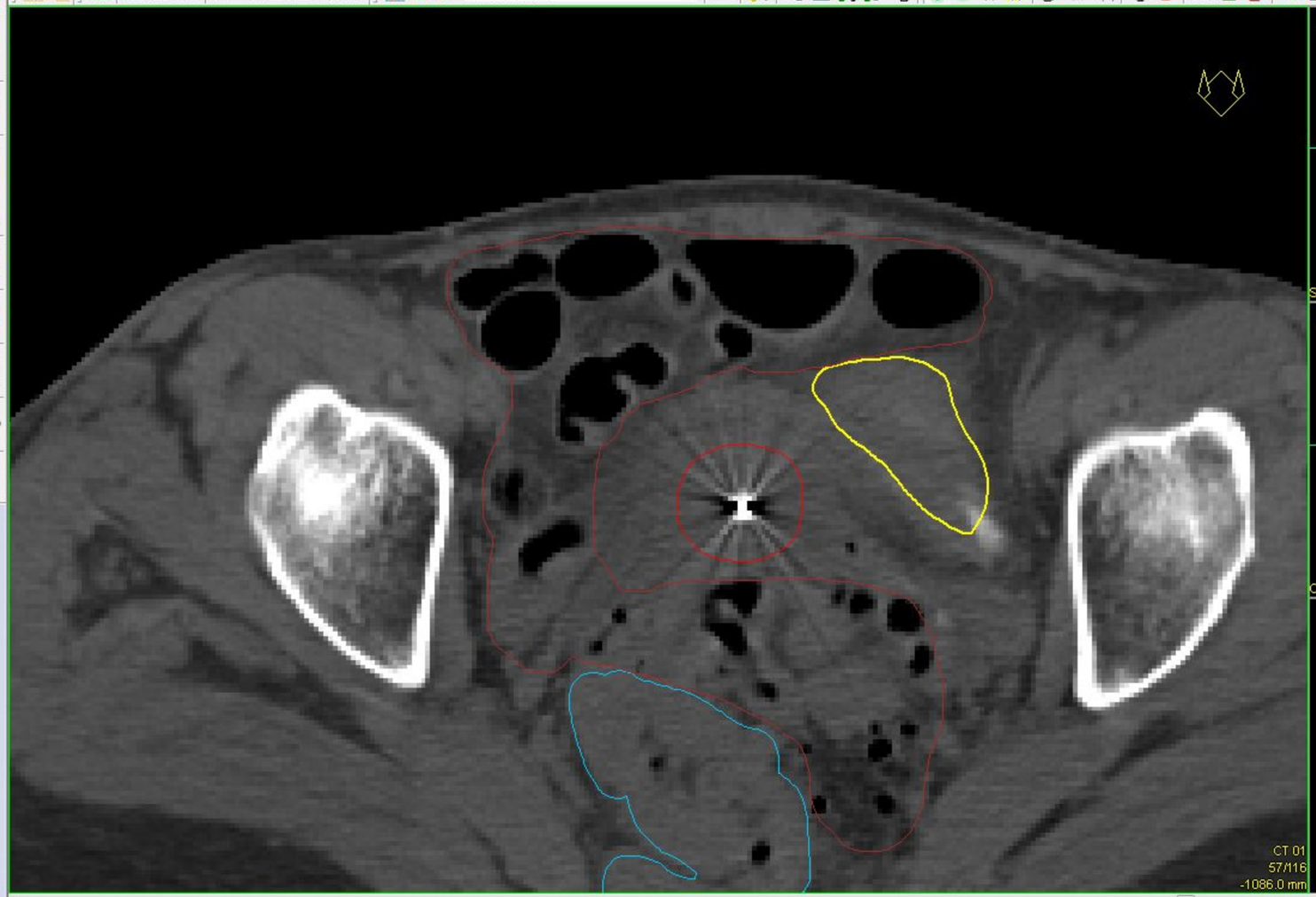
SPRING AAPM
AAPM2018

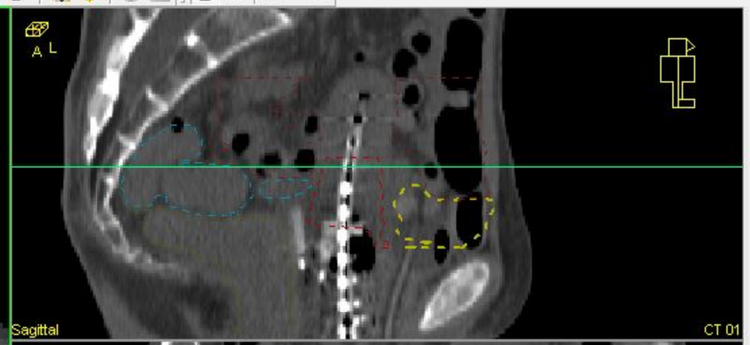
RT^PELVIS (Adult) (*)

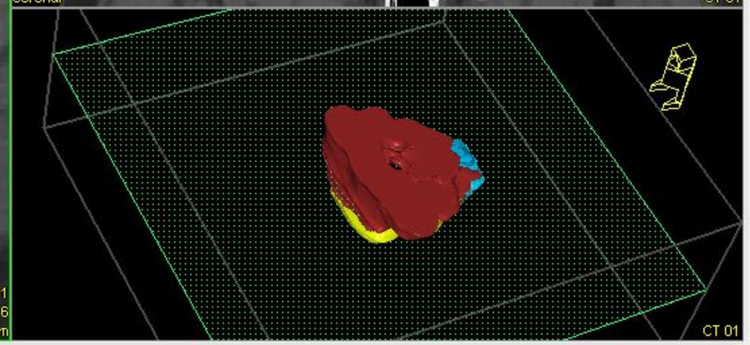
Brachy plan (current of 1)

Version 4.3
User: physics

Rectum [CT 01]







View properties

Current point | Image | DICOM Info

Apply to all

Gray

Add to database | Delete current

DICOM Information

Number:	57
Slice thickness:	2.0 mm
Offset:	-1086.0 mm
Position:	-249.5 mm -464.5 mm -1086.0 mm
Row cosine:	1.00 0.00 0.00
Column cosine:	0.00 1.00 0.00

Study

Date:	2018 Jan 25
Time:	12:49
Description:	RT^PELVIS (Adult)

Thumbnail palette | View properties

Object Properties

Structure

Name	Rectum
Color	ffff00
Visible	

Visualization

Closure	Close
Draw mode	Solid
Sliced	
Help	

ROI grid

Grid spacing	1.00 mm
Auto spacing	
Align grid	

Case explorer - Current ROI Rectum [CT 01]

- ROI Set
- POI
- Registrations
- Measures

Name	Series	Volume [ccm]	Mass Density	DICOM Type	DICOM #	Completion	MBS
Bladder	CT 01	46.59	-	Unknown	2	Not completed	
Bowel	CT 01	428.35	-	Unknown	4	Not completed	
CTCTV	CT 01	27.90	-	Unknown	5	Not completed	
Rectum	CT 01	105.31	-	Unknown	1	Not completed	
Sigmoid	CT 01	83.06	-	Unknown	3	Not completed	

Ready

Time zone: Eastern Standard Time (UTC-5:00), Eastern Daylight Time

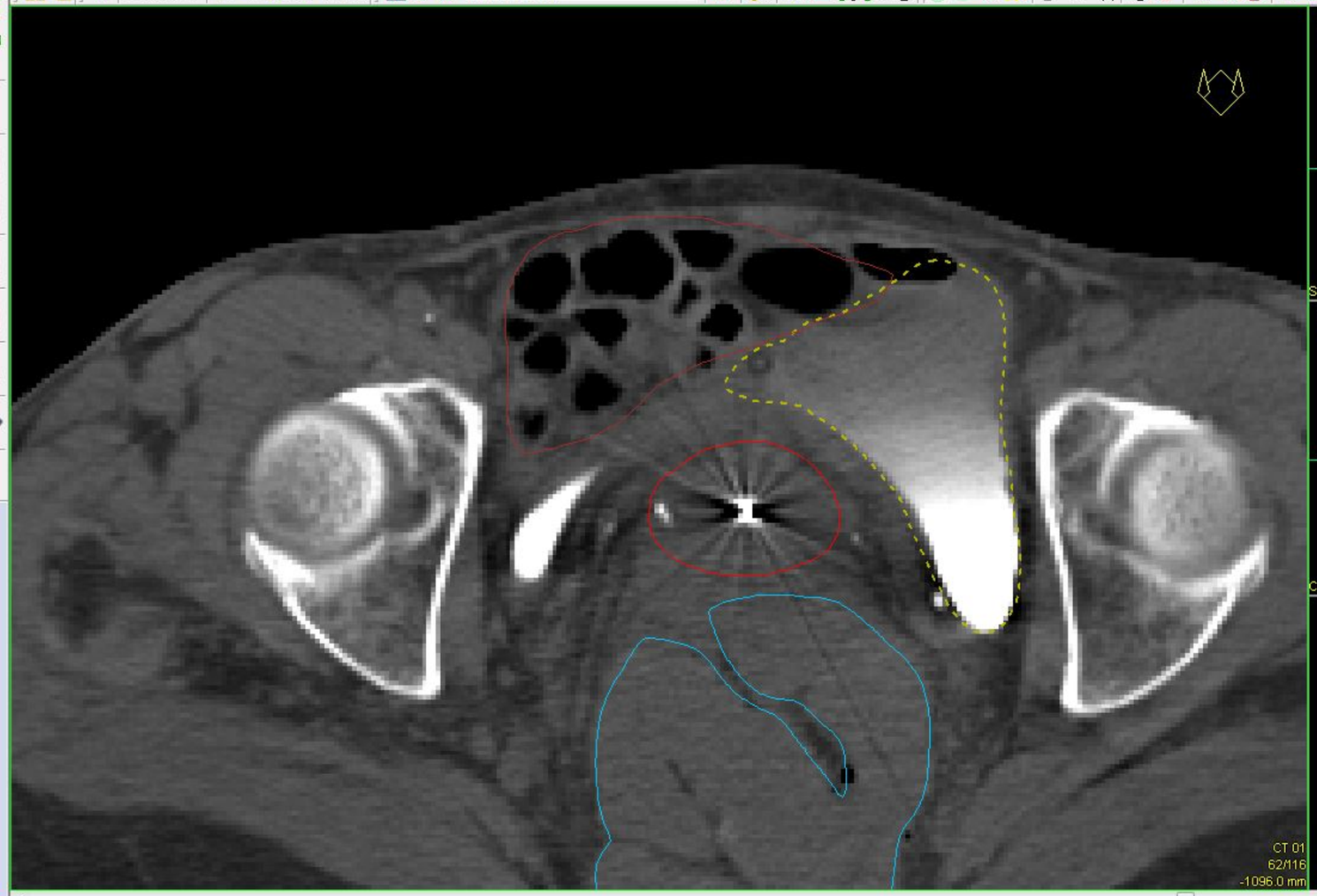
SPRING AAPM
AAPM2018

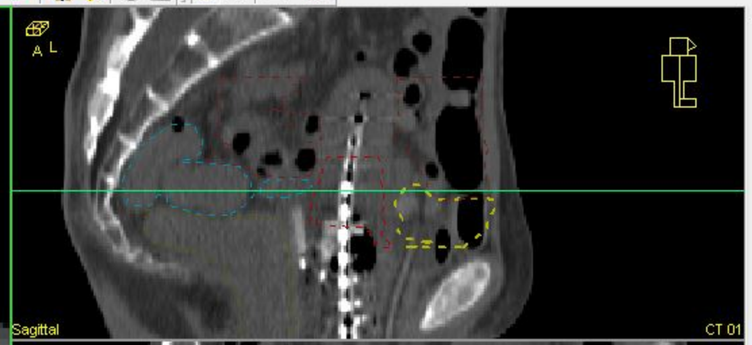
RT^PELVIS (Adult) (*)

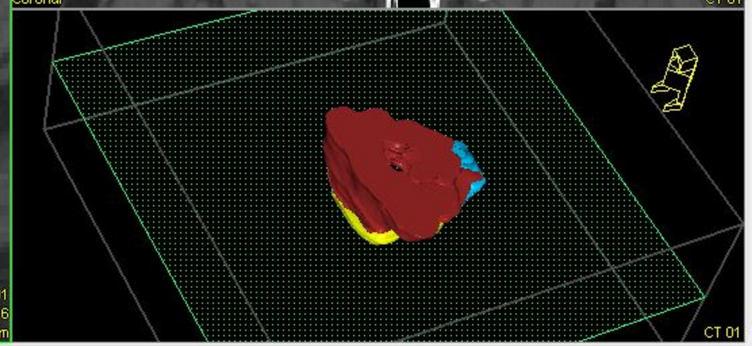
Brachy plan (current of 1)

Version 4.3
User: physics

Rectum [CT 01]







View properties

Current point | Image | DICOM Info

Apply to all

Gray

Add to database | Delete current

DICOM Information

Number:	62
Slice thickness:	2.0 mm
Offset:	-1096.0 mm
Position:	-249.5 mm -464.5 mm -1096.0 mm
Row cosine:	1.00 0.00 0.00
Column cosine:	0.00 1.00 0.00
Study	
Date:	2018 Jan 25
Time:	12:49
Description:	RT^PELVIS (Adult)

Thumbnail palette | View properties

Object Properties

Structure	
Name	Rectum
Color	ffff00
☑ Visible	
Visualization	
Closure	Close
Draw mode	Solid
☐ Sliced	
☐ Help	
ROI grid	
Grid spacing	1.00 mm
☑ Auto spacing	
☑ Align grid	

Case explorer - Current ROI Rectum [CT 01]

- ROI Set
- POI
- Registrations
- Measures

Name	Series	Volume [ccm]	Mass Density	DICOM Type	DICOM #	Completion	MBS
☑ Bladder	CT 01	46.59	-	Unknown	2	Not completed	
☑ Bowel	CT 01	428.35	-	Unknown	4	Not completed	
☑ CTCTV	CT 01	27.90	-	Unknown	5	Not completed	
☑ Rectum	CT 01	105.31	-	Unknown	1	Not completed	
☑ Sigmoid	CT 01	83.06	-	Unknown	3	Not completed	

ady

Time zone: Eastern Standard Time (UTC-5:00), Eastern Daylight Time

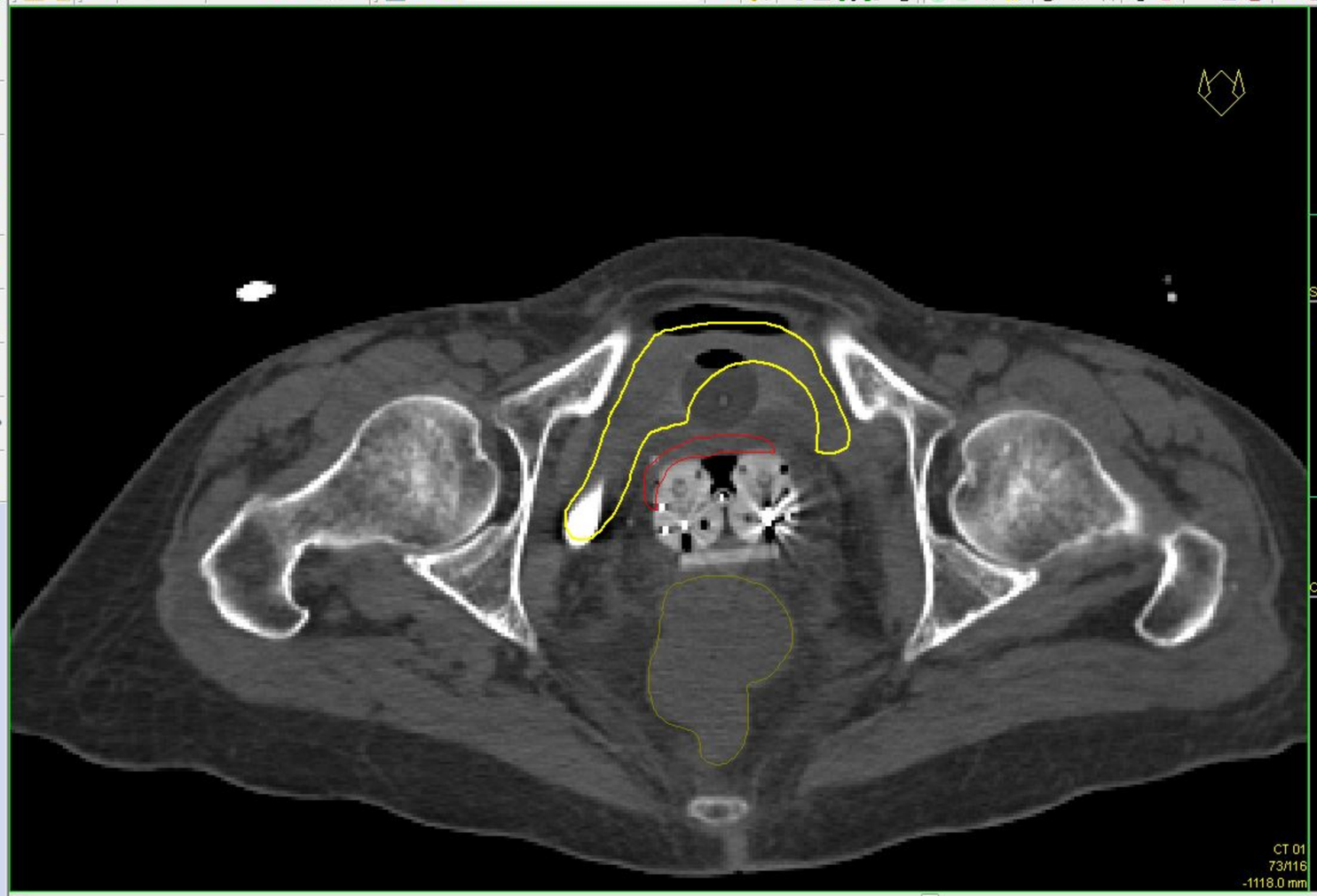
SPRING AAPM
AAPM2018

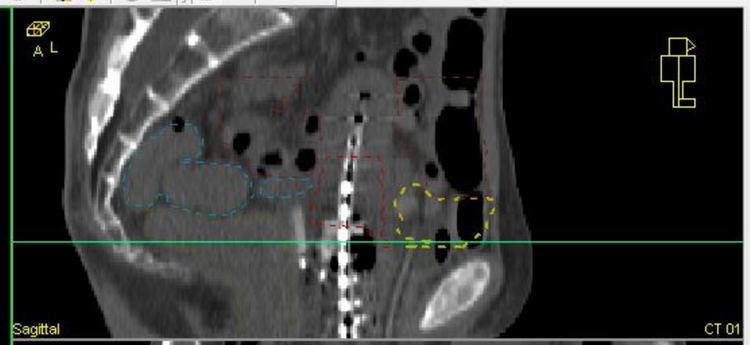
RT^PELVIS (Adult) (*)

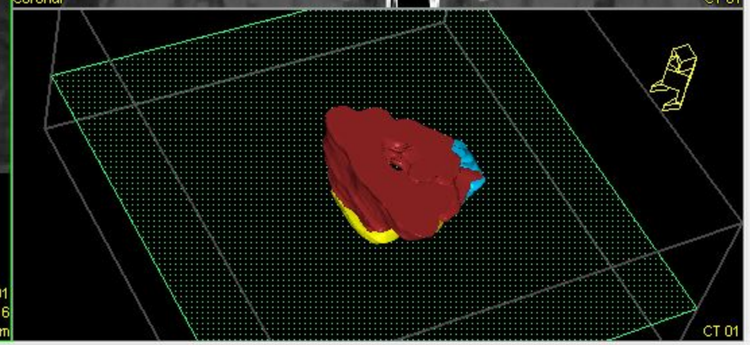
Brachy plan (current of 1)

Version 4.3
User: physics

Rectum [CT 01]







View properties

Current point | Image | DICOM Info

Apply to all

Gray

Add to database | Delete current

DICOM Information

Number:	73
Slice thickness:	2.0 mm
Offset:	-1118.0 mm
Position:	-249.5 mm -464.5 mm -1118.0 mm
Row cosine:	1.00 0.00 0.00
Column cosine:	0.00 1.00 0.00

Study

Date:	2018 Jan 25
Time:	12:49
Description:	RT^PELVIS (Adult)

Thumbnail palette | View properties

Object Properties

Structure

Name	Rectum
Color	ffff00
Visible	

Visualization

Closure	Close
Draw mode	Solid
Sliced	
Help	

ROI grid

Grid spacing	1.00 mm
Auto spacing	
Align grid	

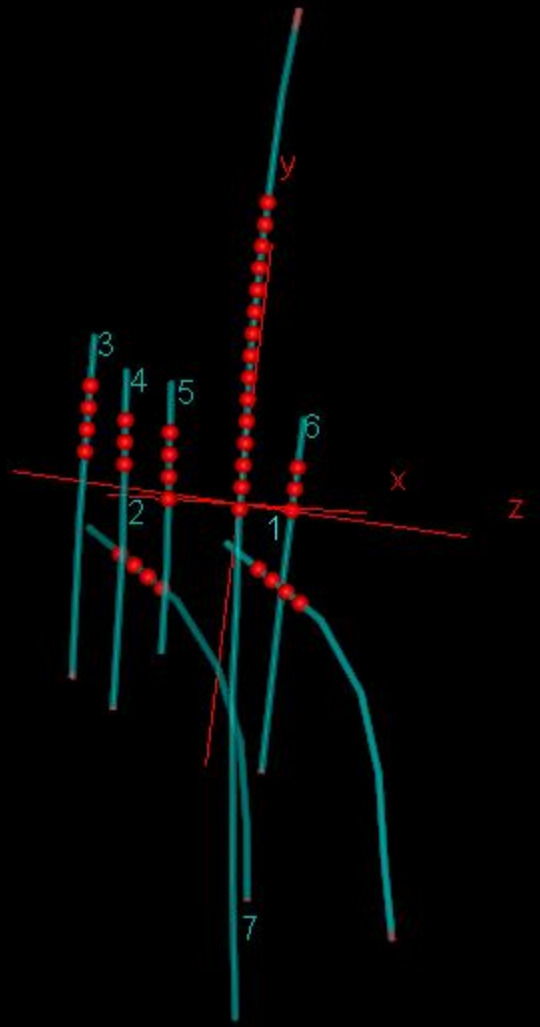
Case explorer - Current ROI Rectum [CT 01]

- ROI Set
- POI
- Registrations
- Measures

Name	Series	Volume [ccm]	Mass Density	DICOM Type	DICOM #	Completion	MBS
Bladder	CT 01	46.59	-	Unknown	2	Not completed	
Bowel	CT 01	428.35	-	Unknown	4	Not completed	
CTCTV	CT 01	27.90	-	Unknown	5	Not completed	
Rectum	CT 01	105.31	-	Unknown	1	Not completed	
Sigmoid	CT 01	83.06	-	Unknown	3	Not completed	

eady

Time zone: Eastern Standard Time (UTC-5:00), Eastern Daylight Time



Applicator

SPRING AAPM
AAPM2018

RT^PELVIS (Adult) (*)

Brachy plan (current of 1) (*)

Projective setup | Applicator Placement | Catheter Reconstruction | Activation | Normalization | Optimization | Prescription | Activity gadget | Notification

Catheter reconstruction

Manual | Automatic | Shields

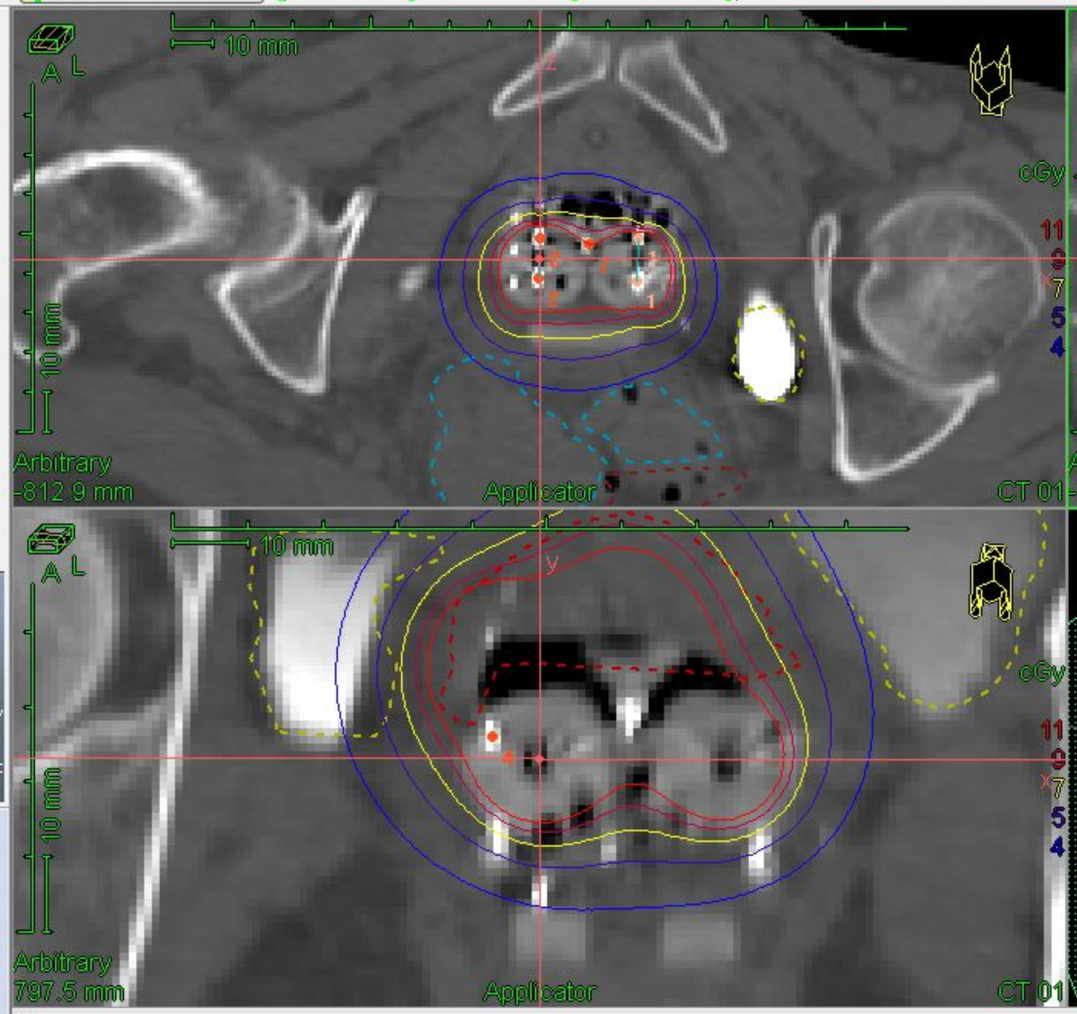
Preferences
Sequencing: No Sequencing

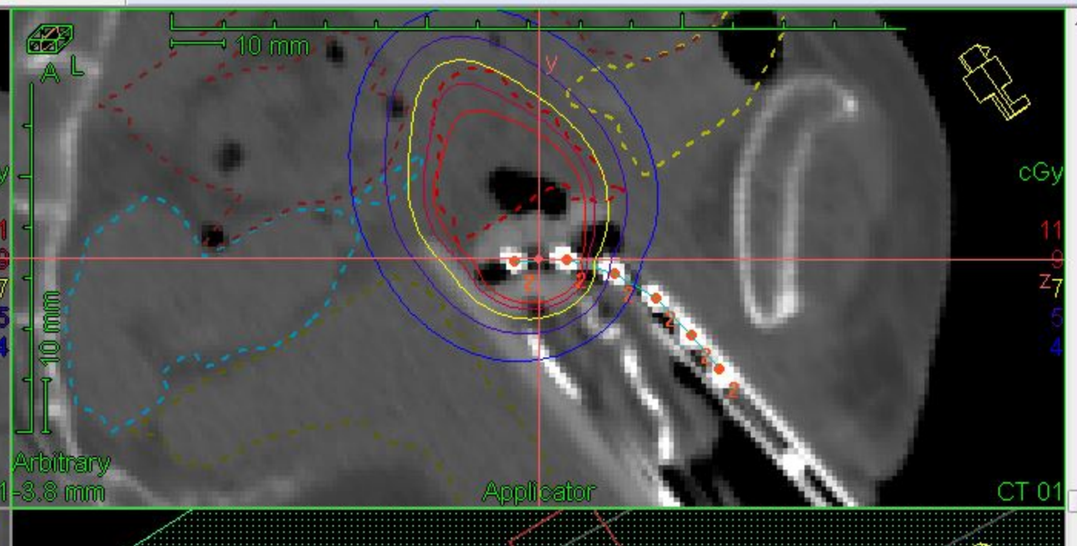
Catheters
Number of catheters: 7
Add (+1) | Remove (-1) | Remove All

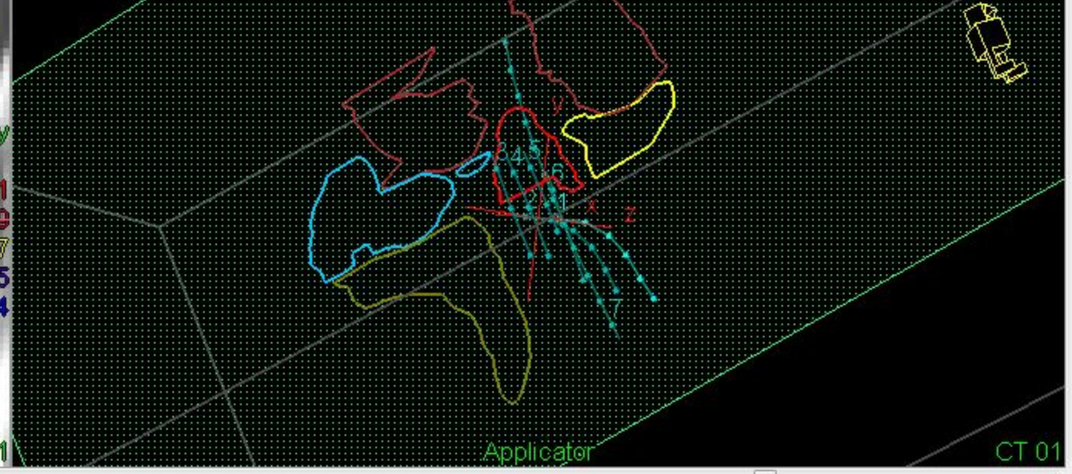
Current Catheter
Index: 1 | Prev | Next
Offset: 0.0 mm | In Sequence
Flip | Delete | Clear

Applicator properties
Source Step: 2.5 mm

Oncentra
Snipping Tool
Oncentra Backup
Notepad







ROI Set
Plans
Brachy plan
Applicator
Points

Cath.#	Ch.#	Name	Lock (HIPO)	Indexer [mm]	Offset [mm]
1	1	Rt Ovoid (Manual)		1500.0	0.0
2	2	Lt Ovoid (Manual)		1500.0	0.0
3	3	Needle 1 (Manual)		1240.0	0.0
4	4	Needle 2 (Manual)		1240.0	0.0
5	5	Needle 3 (Manual)		1240.0	0.0
6	6	Needle 4 (Manual)		1240.0	0.0
7	7	Tandem (Manual)		1500.0	0.0

Applicator Visualization
Thickness:
Skin:
Off
Triangles
Transparent
Opacity

CT 01 | DVH | ECS Views

SPRING AAPM
AAPM2018

RT^PELVIS (Adult) (*)

Brachy plan (current of 1) (*)

Projective setup | Applicator Placement | Catheter Reconstruction | Activation | Normalization | Optimization | Prescription | Activity gadget | Notification

Catheter reconstruction

Manual | Automatic | Shields

Preferences
Sequencing: No Sequencing

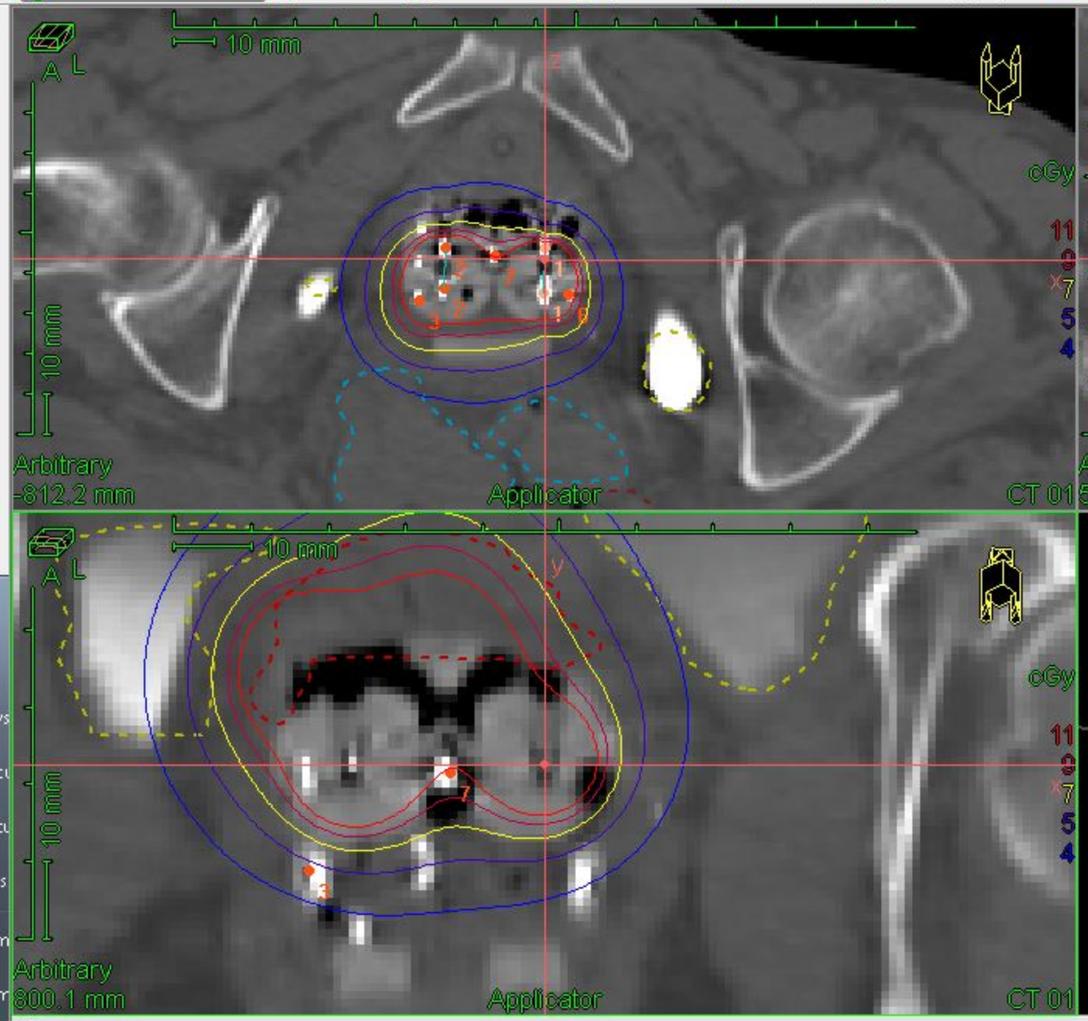
Catheters
Number of catheters: 7
Add (+1) | Remove (-1) | Remove All

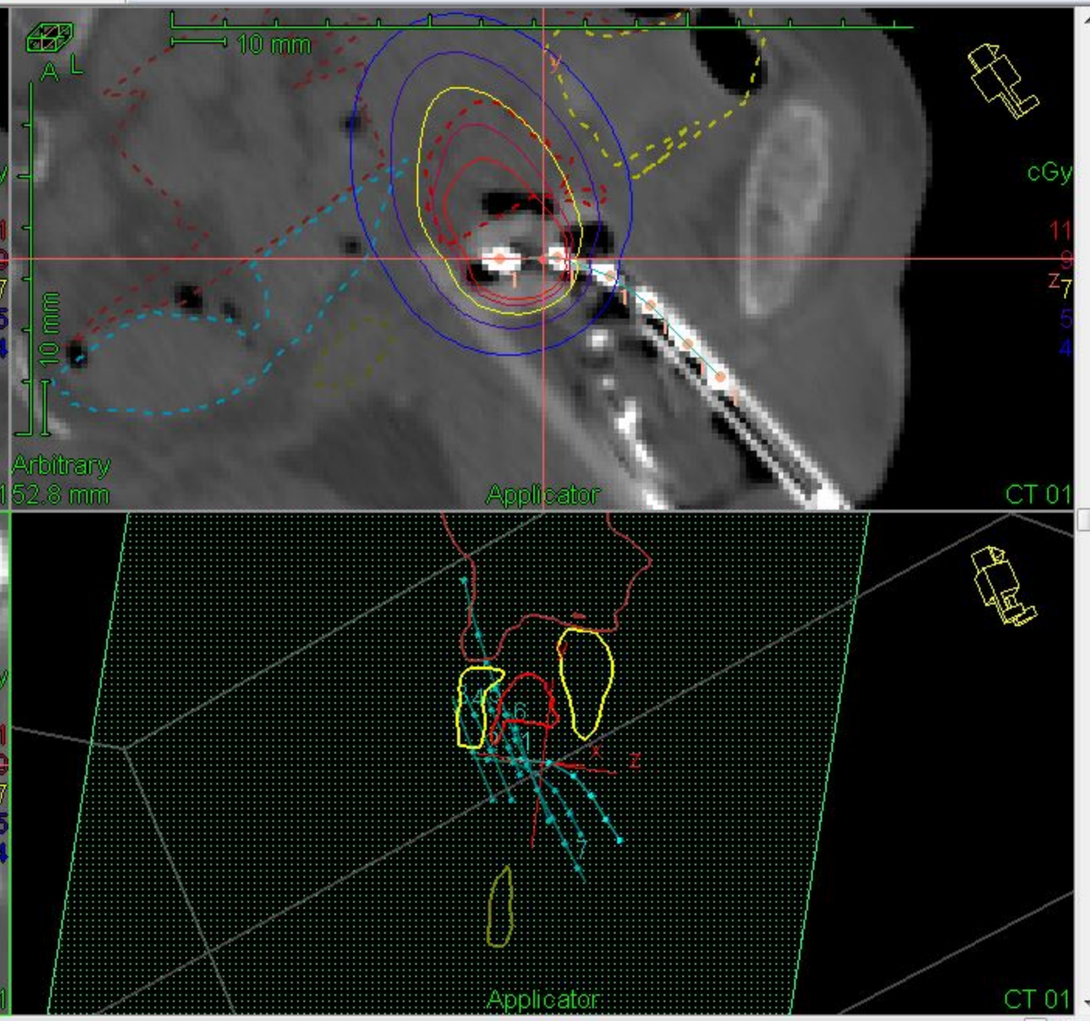
Current Catheter
Index: 1 | Prev | Next
Offset: 0.0 mm | In Sequence

Flip | Delete | Clear

Applicator properties
Source Step: 2.5 mm

Oncentra
Snipping Tool
Oncentra Backup
Notepad
Firefox
RDStore
RadCalc - Shortcut
DICOM Server Configuration





ROI Set
Plans
Brachy plan
Applicator
Points

Devices and Printers
Default Programs
Help and Support
Windows Security
Log off

	Lock (HIPO)	Indexer [mm]	Offset [mm]
H (Manual)		1500.0	0.0
H (Manual)		1500.0	0.0
1 (Manual)		1240.0	0.0
2 (Manual)		1240.0	0.0
3 (Manual)		1240.0	0.0
4 (Manual)		1240.0	0.0
n (Manual)		1500.0	0.0

0 10 20 30 40 50 60 70 80 90 100 110
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8

Applicator Visualiza
Thickness:
Skin:
Off
Triangles
Transparent
Opacity

Time zone: Eastern Standa

SPRING AAPM
AAPM2018

RT^PELVIS (Adult) (*)

Brachy plan (current of 1) (*)

Projective setup | Applicator Placement | Catheter Reconstruction | Activation | Normalization | Optimization | Prescription | Activity gadget | Notification

Catheter reconstruction

Manual | Automatic | Shields

Preferences
Sequencing: No Sequencing

Catheters
Number of catheters: 7
Add (+1) | Remove (-1) | Remove All

Current Catheter
Index: 1 | Prev | Next
Offset: 0.0 mm | In Sequence
Flip | Delete | Clear

Applicator properties
Source Step: 2.5 mm

Oncentra
Snipping Tool
Oncentra Backup
Notepad
Firefox
RDStore
RadCalc - Shortcut
DICOM Server Configuration

10 mm
A
L
y
cGy
11
9
7
5
4
z
10 mm
Arbitrary
-23.9 mm
Applicator
CT 01

CT 01 | DVH | ECS Views

ROI Set
Plans
Brachy plan
Applicator
Points

Devices and Printers
Default Programs
Help and Support
Windows Security
Log off

	Lock (HIPO)	Indexer [mm]	Offset [mm]
d (Manual)		1500.0	0.0
d (Manual)		1500.0	0.0
1 (Manual)		1240.0	0.0
2 (Manual)		1240.0	0.0
3 (Manual)		1240.0	0.0
4 (Manual)		1240.0	0.0
n (Manual)		1500.0	0.0

0 10 20 30 40 50 60 70 80 90 100 110
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8

Applicator Visualization
Thickness:
Skin:
Off
Triangles
Transparent
Opacity

Time zone: Eastern Standard T

SPRING AAPM
AAPM2018

RT^PELVIS (Adult) (*)

Brachy plan (current of 1) (*)

Projective setup | Applicator Placement | Catheter Reconstruction | Activation | Normalization | Optimization | Prescription | Activity gadget | Notification

Catheter reconstruction

Manual | Automatic | Shields

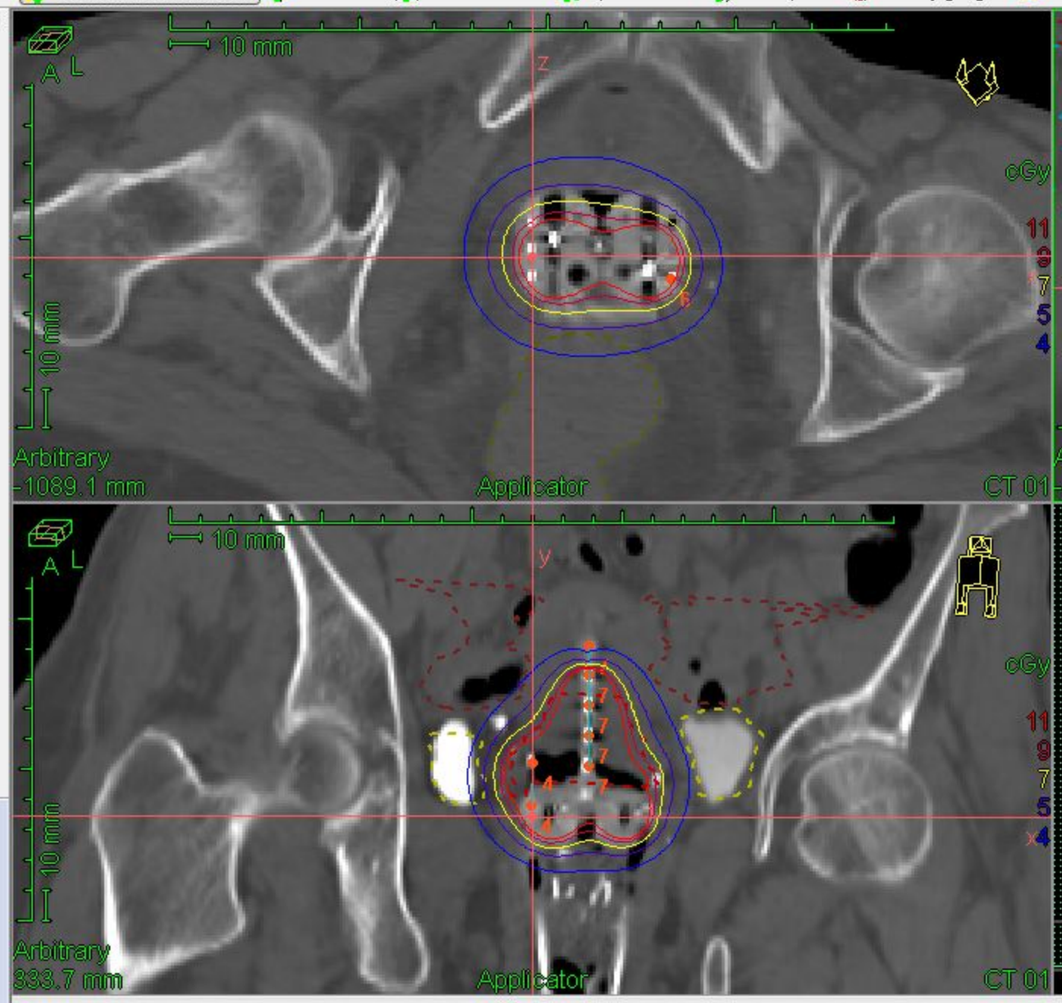
Preferences
Sequencing: No Sequencing

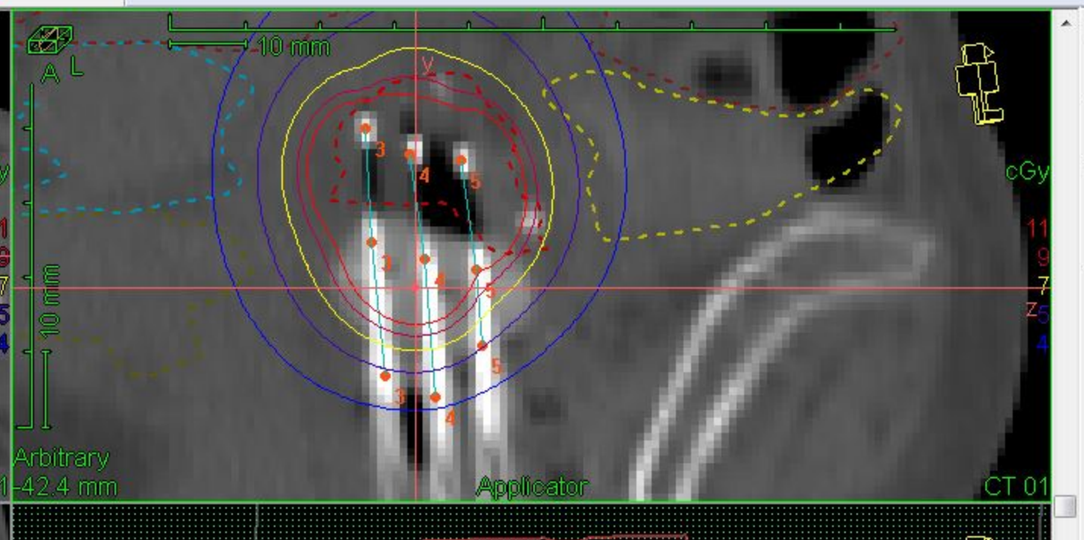
Catheters
Number of catheters: 7
Add (+1) | Remove (-1) | Remove All

Current Catheter
Index: 1 | Prev | Next
Offset: 0.0 mm | In Sequence
Flip | Delete | Clear

Applicator properties
Source Step: 2.5 mm
Start At: Tip End

Visualization





CT 01 | DVH | ECS Views

ROI Set
Plans
Brachy plan
Applicator
Points

Cath.#	Ch.#	Name	Lock (HIPO)	Indexer [mm]	Offset [mm]
1	1	Rt Ovoid (Manual)		1500.0	0.0
2	2	Lt Ovoid (Manual)		1500.0	0.0
3	3	Needle 1 (Manual)		1240.0	0.0
4	4	Needle 2 (Manual)		1240.0	0.0
5	5	Needle 3 (Manual)		1240.0	0.0
6	6	Needle 4 (Manual)		1240.0	0.0
7	7	Tandem (Manual)		1500.0	0.0

0 . . . 10 . . . 20 . . . 30 . . . 40 . . . 50 . . . 60 . . . 70 . . . 80 . . . 90 . . . 100 . . . 110 . . .
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8

Applicator Visualization
Thickness: Max
Skin:
Off
Triangles
Transparent
Opacity Max

Time zone: Eastern Standard Tim

SPRING AAPM
AAPM2018

RT^PELVIS (Adult) (*)

Brachy plan (current of 1) (*)

Projective setup | Applicator Placement | Catheter Reconstruction | Activation | Normalization | Optimization | Prescription | Activity gadget | Notification

Catheter reconstruction

Manual | Automatic | Shields

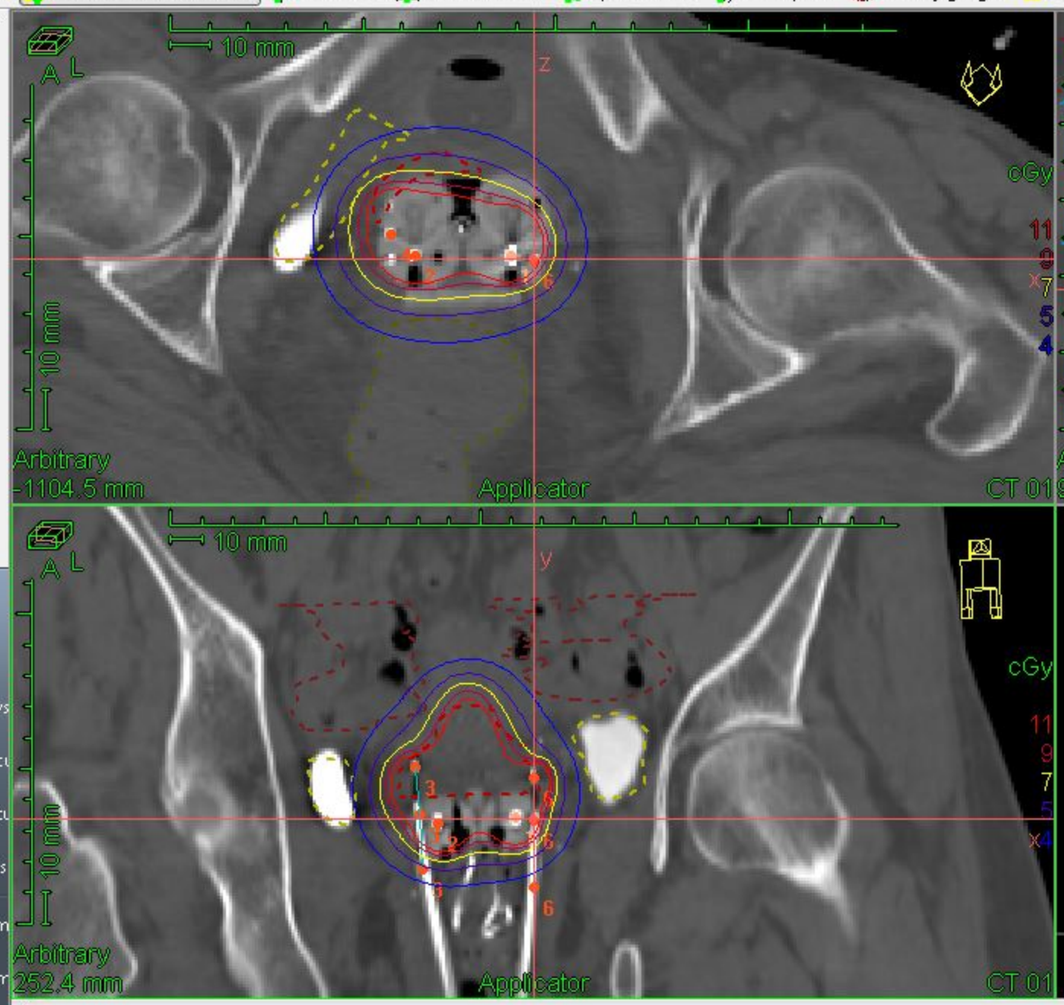
Preferences
Sequencing: No Sequencing

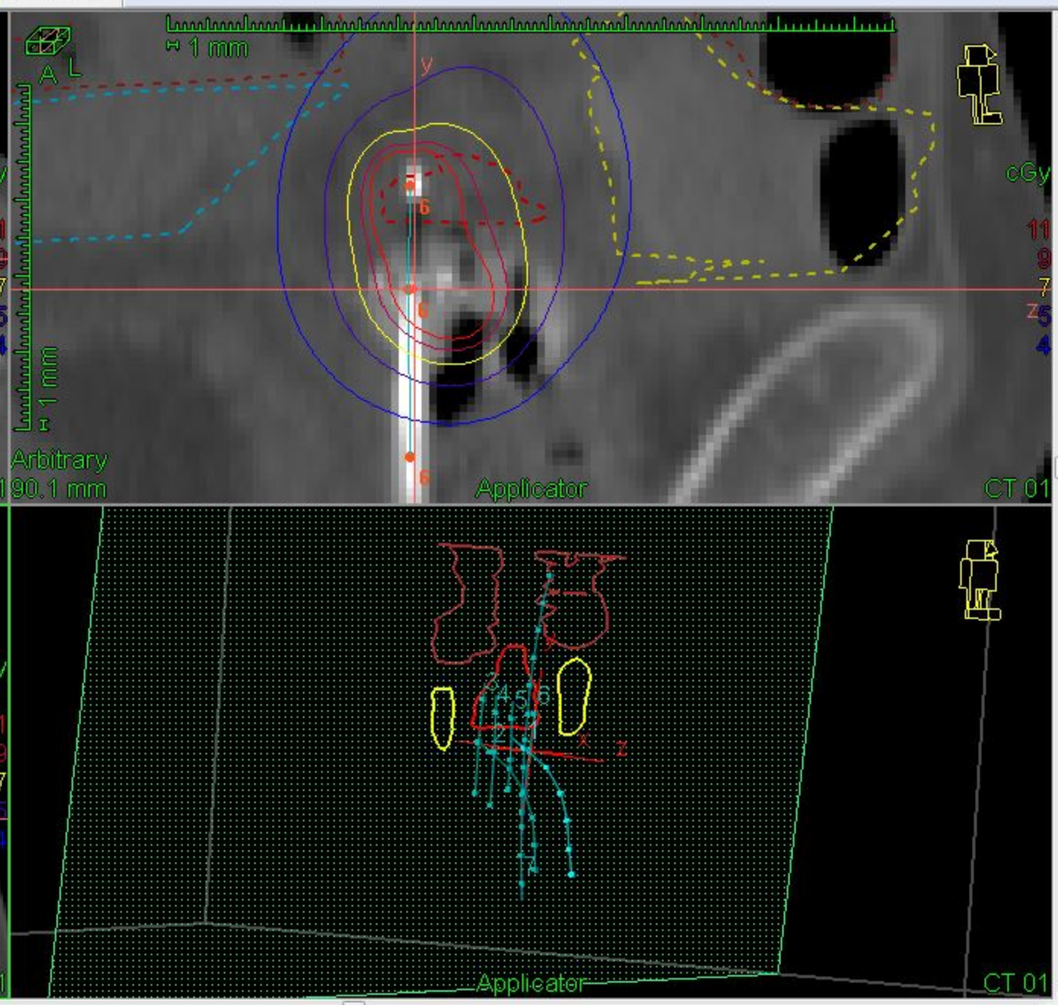
Catheters
Number of catheters: 7
Add (+1) | Remove (-1) | Remove All

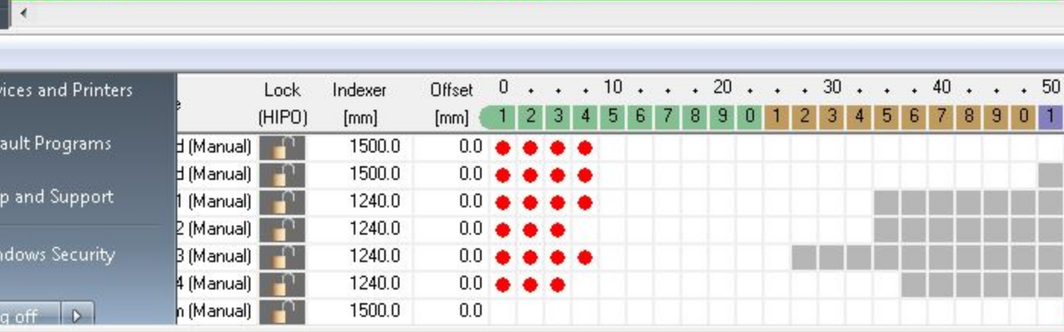
Current Catheter
Index: 1 | Prev | Next
Offset: 0.0 mm | In Sequence
Flip | Delete | Clear

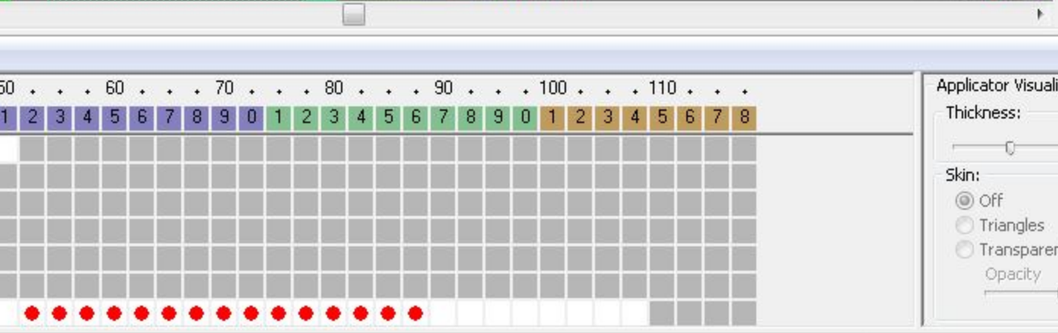
Applicator properties
Source Step: 2.5 mm

Oncentra
Snipping Tool
Oncentra Backup
Notepad
Firefox
RDStore
RadCalc - Shortcut
DICOM Server Configuration









CT 01 | DVH | ECS Views

ROI Set
Plans
Brachy plan
Applicator
Points

Devices and Printers
Default Programs
Help and Support
Windows Security
Log off

	Lock (HIPO)	Indexer [mm]	Offset [mm]
d (Manual)		1500.0	0.0
d (Manual)		1500.0	0.0
1 (Manual)		1240.0	0.0
2 (Manual)		1240.0	0.0
3 (Manual)		1240.0	0.0
4 (Manual)		1240.0	0.0
n (Manual)		1500.0	0.0

0 10 20 30 40 50 60 70 80 90 100 110

Applicator Visualization
Thickness:
Skin:
Off
Triangles
Transparent
Opacity

Time zone: Eastern Standard Ti

Name **MRN**

EBRT

Dose/fx	1.8	Tumor α/β	10
fx w/o shield	25	OAR α/β	3
fx w/ shield	0		

HDR		**fx1**	**fx2**	**fx3**	**fx4**	**EBRT**	**HDR**	**Total**	**Goal**
CTCTV	RX	7.0	7.0	7.0	7.0	45.0	28.0		
	$EQD2_{10}$	9.9	9.9	9.9	9.9	44.3	39.7	83.9	80 ≤ x ≤ 90
Bladder	D_{2cc}	3.4	3.4	3.4	3.4	45.0	13.7		
	$EQD2_3$	4.4	4.4	4.4	4.4	43.2	17.6	60.8	≤ 90*
Rectum	D_{2cc}	4.5	4.5	4.5	4.5	45.0	18.0		
	$EQD2_3$	6.8	6.8	6.8	6.8	43.2	27.0	70.2	≤ 75*
Sigmoid	D_{2cc}	4.0	4.0	4.0	4.0	45.0	16.0		
	$EQD2_3$	5.6	5.6	5.6	5.6	43.2	22.4	65.6	≤ 75*
Bowel	D_{2cc}	4.5	4.5	4.5	4.5	45.0	18.0		
	$EQD2_3$	6.8	6.8	6.8	6.8	43.2	27.0	70.2	≤ 75*

*From 2012 ABS Cervical HDR guidelines, note that 45 Gy in 25 fx 3D w/o shield + 6.3 Gy in 4 fx HDR > 90 $EQD2_{10}$

*From 2012 ABS Cervical HDR guidelines, note that 45 Gy in 25 fx 3D w/o shield + 5.0 Gy in 4 fx HDR > 75 $EQD2_3$

Patient name	AAPM, SPRING		
Patient ID	AAPM2018		
Birth date	12 Oct 1983	**Sex**	Female
Case	RT^PELVIS (Adult)		
Plan	Brachy plan		
Saved	Printed case not saved		
Printed	02 Apr 2018 17:45:14 by physics		
Time zone	Eastern Standard Time (UTC-5:00), Eastern Daylight Time		

SCCC Radiation Oncology

Treatment Unit

Treatment unit name:	sccc2011
Treatment unit type:	microSelectron v3
Source:	192-Ir-mHDR-v2
Isotope:	Ir-192
Air kerma rate constant (cGy cm2/ h / mCi):	4.082

Calibration data

Calibration date/time:	28 Feb 2018 16:30:00
Air kerma strength (cGy cm²/h):	45321.00
Apparent source activity (Ci):	11.10265

Treatment data

Treatment date/time:	19 Mar 2018 11:11:46
Air kerma strength (cGy cm²/h):	38010.27
Apparent source activity (Ci):	9.31168
Interval between calibration date and time, and treatment date and time (days):	18.74
Decay factor:	0.8387

Dose Normalization, Optimization and Prescription

Normalization type:	Normalized manual
F Factor:	1.000
Optimization type:	Graphical
Prescription dose per fraction/pulse (cGy):	7.00
Total Reference Air Kerma per fraction/pulse at 1 m (cGy):	0.004
Number of fractions:	1

Applicator Model

None

Patient name	AAPM, SPRING
Patient ID	AAPM2018
Birth date	12 Oct 1983 **Sex** Female
Case	RT^PELVIS (Adult)
Plan	Brachy plan
Saved	Printed case not saved
Printed	02 Apr 2018 17:45:14 by physics
Time zone	Eastern Standard Time (UTC-5:00), Eastern Daylight Time

SCCC Radiation Oncology

Source Positions

Catheter (channel)	Name	Channel length (indexer length)

```
1   5   9   13  17  21  25  29  33 (pos)
|   |   |   |   |   |   |   |   |
AAAA
AAAA
.AAA
..A
A.AA
A
....................AAAAAAAAAAAAAAA
|   |   |   |   |   |   |   |   |
0   10  20  30  40  50  60  70  80 (mm)
```

1 (1)	Rt Ovo...	1500.0 (mm)
2 (2)	Lt Ovo...	1500.0 (mm)
3 (3)	Needle...	1240.0 (mm)
4 (4)	Needle...	1240.0 (mm)
5 (5)	Needle...	1240.0 (mm)
6 (6)	Needle...	1240.0 (mm)
7 (7)	Tandem	1500.0 (mm)

Source position separation (mm): 2.5

Catheter (channel) Times

Catheter (channel)	Name	# Active positions	Channel time (sec.)
1 (1)	Rt Ovoid (Manual)	4	0.4
2 (2)	Lt Ovoid (Manual)	4	0.4
3 (3)	Needle 1 (Manual)	3	0.3
4 (4)	Needle 2 (Manual)	1	0.1
5 (5)	Needle 3 (Manual)	3	0.3
6 (6)	Needle 4 (Manual)	1	0.1
7 (7)	Tandem (Manual)	15	1.7

Total Treatment Time

Total treatment time (sec.): 3.3

% of total time given extra due to rounding off (%): 0.4

Source Coordinates and Times

Catheter 1 (channel 1) - Rt Ovoid

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
1	32.8	-1118.1	194.5	1.32	0.1
2	32.6	-1119.5	196.6	1.33	0.1

Continued

Patient name	AAPM, SPRING		
Patient ID	AAPM2018		
Birth date	12 Oct 1983	**Sex**	Female
Case	RT^PELVIS (Adult)		
Plan	Brachy plan		
Saved	Printed case not saved		
Printed	02 Apr 2018 17:45:14 by physics		
Time zone	Eastern Standard Time (UTC-5:00), Eastern Daylight Time		

SCCC Radiation Oncology

Source Coordinates and Times (continued)

Catheter 1 (channel 1) - Rt Ovoid

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
3	32.5	-1120.9	198.7	1.35	0.1
4	32.3	-1122.2	200.8	1.37	0.1

Catheter 2 (channel 2) - Lt Ovoid

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
1	7.9	-1119.4	192.2	1.33	0.1
2	7.7	-1120.8	194.2	1.33	0.1
3	7.6	-1122.1	196.3	1.33	0.1
4	7.4	-1123.5	198.4	1.34	0.1

Catheter 3 (channel 3) - Needle 1

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
2	1.2	-1103.5	191.2	1.33	0.1
3	1.4	-1106.0	191.1	1.33	0.1
4	1.5	-1108.5	190.9	1.33	0.1

Catheter 4 (channel 4) - Needle 2

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
3	0.7	-1110.2	196.9	1.33	0.1

Catheter 5 (channel 5) - Needle 3

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
1	-0.4	-1106.9	203.5	1.42	0.1
3	-0.1	-1111.9	203.6	1.34	0.1
4	0.0	-1114.4	203.6	1.34	0.1

Patient name	AAPM, SPRING		
Patient ID	AAPM2018		
Birth date	12 Oct 1983	**Sex**	Female
Case	RT^PELVIS (Adult)		
Plan	Brachy plan		
Saved	Printed case not saved		
Printed	02 Apr 2018 17:45:14 by physics		
Time zone	Eastern Standard Time (UTC-5:00), Eastern Daylight Time		

SCCC Radiation Oncology

Source Coordinates and Times (continued)

Catheter 6 (channel 6) - Needle 4

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
1	39.1	-1105.6	195.0	1.30	0.1

Catheter 7 (channel 7) - Tandem

Offset (mm): 0.0

Position	X (mm)	Y (mm)	Z (mm)	Dwell weight	Dwell time (sec.)
22	19.5	-1113.0	200.4	2.04	0.2
23	19.3	-1110.5	200.6	2.00	0.2
24	19.1	-1108.0	200.8	1.82	0.1
25	19.0	-1105.5	201.0	1.62	0.1
26	18.8	-1103.1	201.1	1.45	0.1
27	18.7	-1100.6	201.2	1.35	0.1
28	18.5	-1098.1	201.3	1.31	0.1
29	18.4	-1095.6	201.5	1.30	0.1
30	18.2	-1093.1	201.7	1.31	0.1
31	18.0	-1090.6	202.0	1.31	0.1
32	17.8	-1088.1	202.3	1.32	0.1
33	17.6	-1085.7	202.5	1.32	0.1
34	17.4	-1083.2	202.9	1.32	0.1
35	17.2	-1080.7	203.3	1.32	0.1
36	16.9	-1078.3	203.7	1.32	0.1

Rubric below

Imbedded errors within treatment plan

1. Prescription incorrect (7 cGy/fx instead of 7 Gy/fx)
2. Ovoids digitized incorrectly (left ovoid digitized as right and vice versa)
3. Tandem digitized incorrectly from the base but using tip end setting
4. Tandem indexed to wrong channel (should be channel 3 instead of 7)
5. Wrong treatment length from needles (1240 mm instead of 1294 mm)
6. Contours labeled incorrectly (Bladder and rectum reversed)
7. Bladder contour missing slices
8. BED calculation incorrect