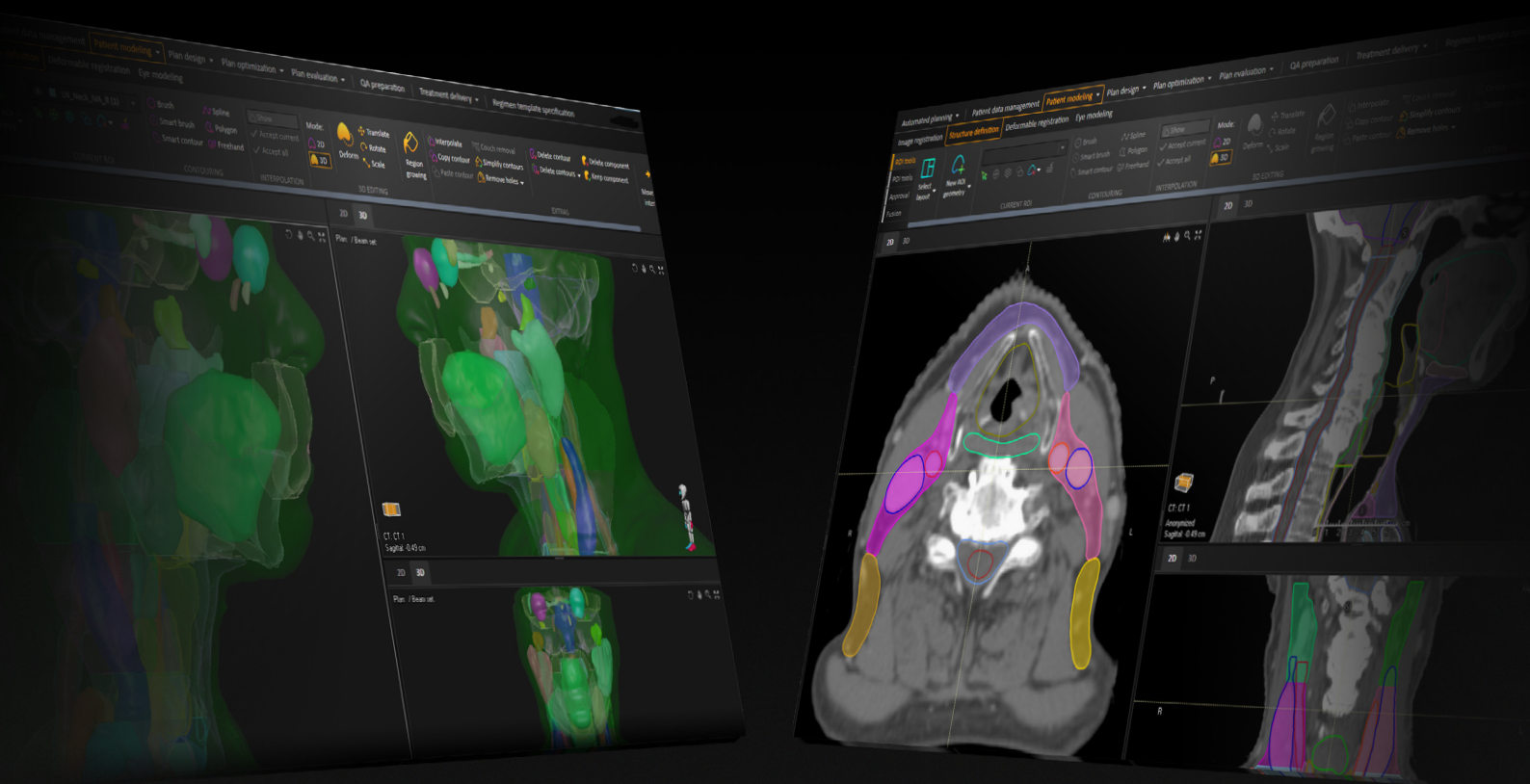




DEEP LEARNING SEGMENTATION MODELS

Deep learning capabilities in RayStation®* help make image segmentation quicker and more consistent. A high-speed GPU-powered algorithm is capable of producing consistent segmentation results using guideline-based segmentation models that have been trained and evaluated on curated data for different body sites.

*Subject to regulatory clearance in some markets.



HEAD AND NECK (OAR) CT

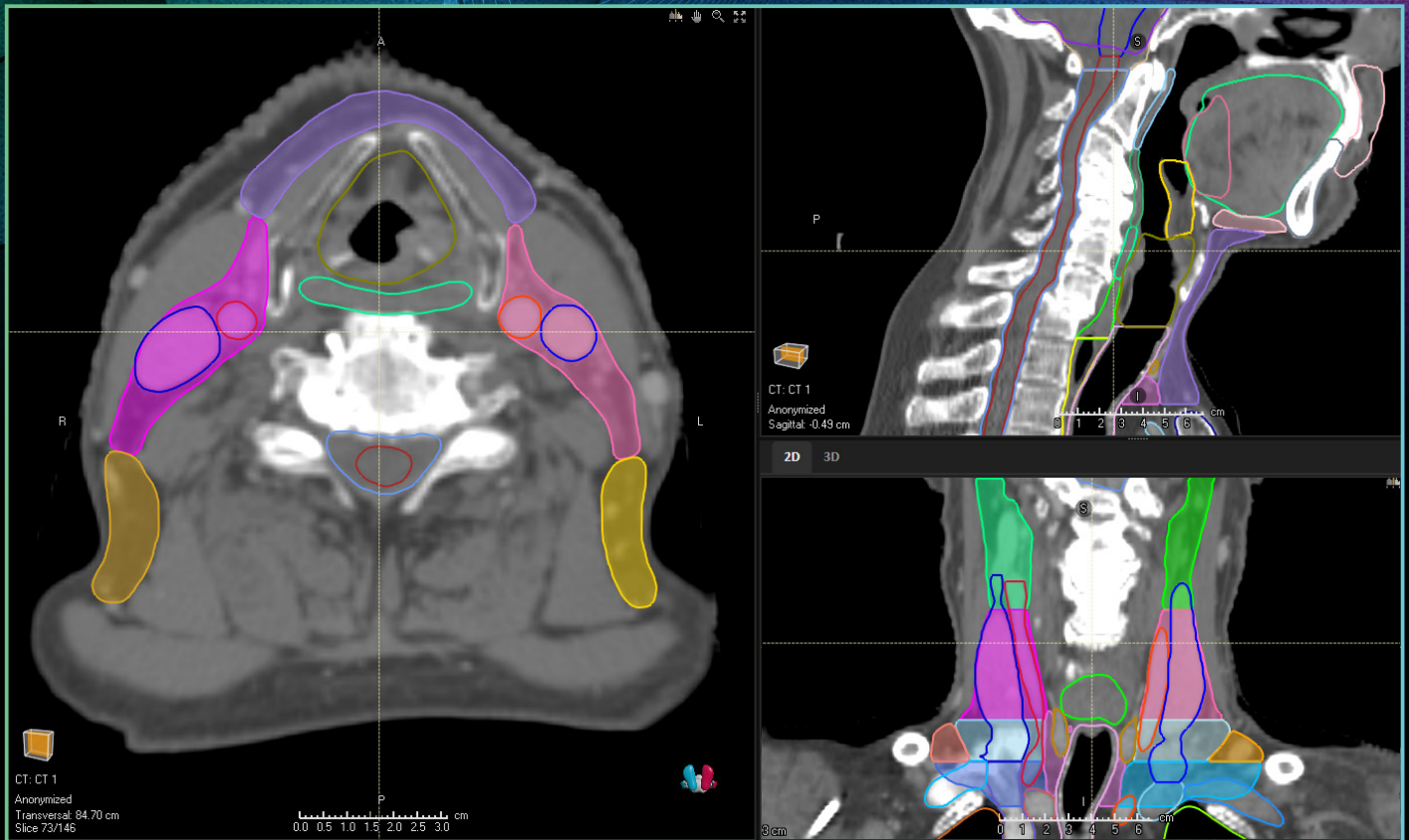


STRUCTURES

Bone_Mandible	Larynx_SG IMPROVED
Brain	Lens_L
Brainstem	Lens_R
Cavity_Oral	Lips
Cochlea_L	Musc_Constrict_I
Cochlea_R	Musc_Constrict_M
Cricopharyngeus	Musc_Constrict_S
Eye_L	Nasolacrimal_Duct_L
Eye_R	Nasolacrimal_Duct_R
Fossa_Posterior	OpticChiasm
GlnD_Lacrimal_L	OpticNrv_L
GlnD_Lacrimal_R	OpticNrv_R
GlnD_Submand_L	Parotid_L
GlnD_Submand_R	Parotid_R
Glottis IMPROVED	Pituitary
Joint_TM_L	SpinalCord
Joint_TM_R	Tongue_Base



HEAD AND NECK (LYMPH NODE LEVELS) CT



STRUCTURES

LN_Neck_IA	LN_Neck_VAB_L
LN_Neck_IB_L	LN_Neck_VAB_R
LN_Neck_IB_R	LN_Neck_VC_L
LN_Neck_II_L	LN_Neck_VC_R
LN_Neck_II_R	LN_Neck_VIA
LN_Neck_III_L	LN_Neck_VIB
LN_Neck_III_R	LN_Neck_VIIA_L
LN_Neck_IVA_L	LN_Neck_VIIA_R
LN_Neck_IVA_R	LN_Neck_VIIB_L
LN_Neck_IVB_L	LN_Neck_VIIB_R
LN_Neck_IVB_R	



THORAX/ABDOMEN CT



STRUCTURES

BrachialPlex_L	Esophagus	Musc_Scalene_Ant_L
BrachialPlex_R	GInd_Thyroid	Musc_Scalene_Ant_R
Bronchus_InterM	Heart	Musc_Scalene_Med_L
Bronchus_Main_L	Heart_Inferior_Left_PA	Musc_Scalene_Med_R
Bronchus_Main_R	Humeral_Head_L IMPROVED	Ribs_L NEW
Carina	Humeral_Head_R IMPROVED	Ribs_R NEW
Cartlg_Costal_L NEW	Humerus_L NEW	Pancreas
Cartlg_Costal_R NEW	Humerus_R NEW	Scapula_L NEW
Clavicle_L NEW	Kidney_L	Scapula_R NEW
Clavicle_R NEW	Kidney_R	SpinalCanal
CW_2cm_L NEW	Liver	Spleen
CW_2cm_R NEW	Lung_L	Sternum
CW_Anatomical_L NEW	Lung_R	Stomach
CW_Anatomical_R NEW		Trachea



BREAST CT



STRUCTURES

Breast_L

Breast_R

LN_Ax_L1_L IMPROVED

LN_Ax_L1_R IMPROVED

LN_Ax_L2_L IMPROVED

LN_Ax_L2_R IMPROVED

LN_Ax_L3_L IMPROVED

LN_Ax_L3_R IMPROVED

LN_Ax_Pectoral_L IMPROVED

LN_Ax_Pectoral_R IMPROVED

LN_IMN_L

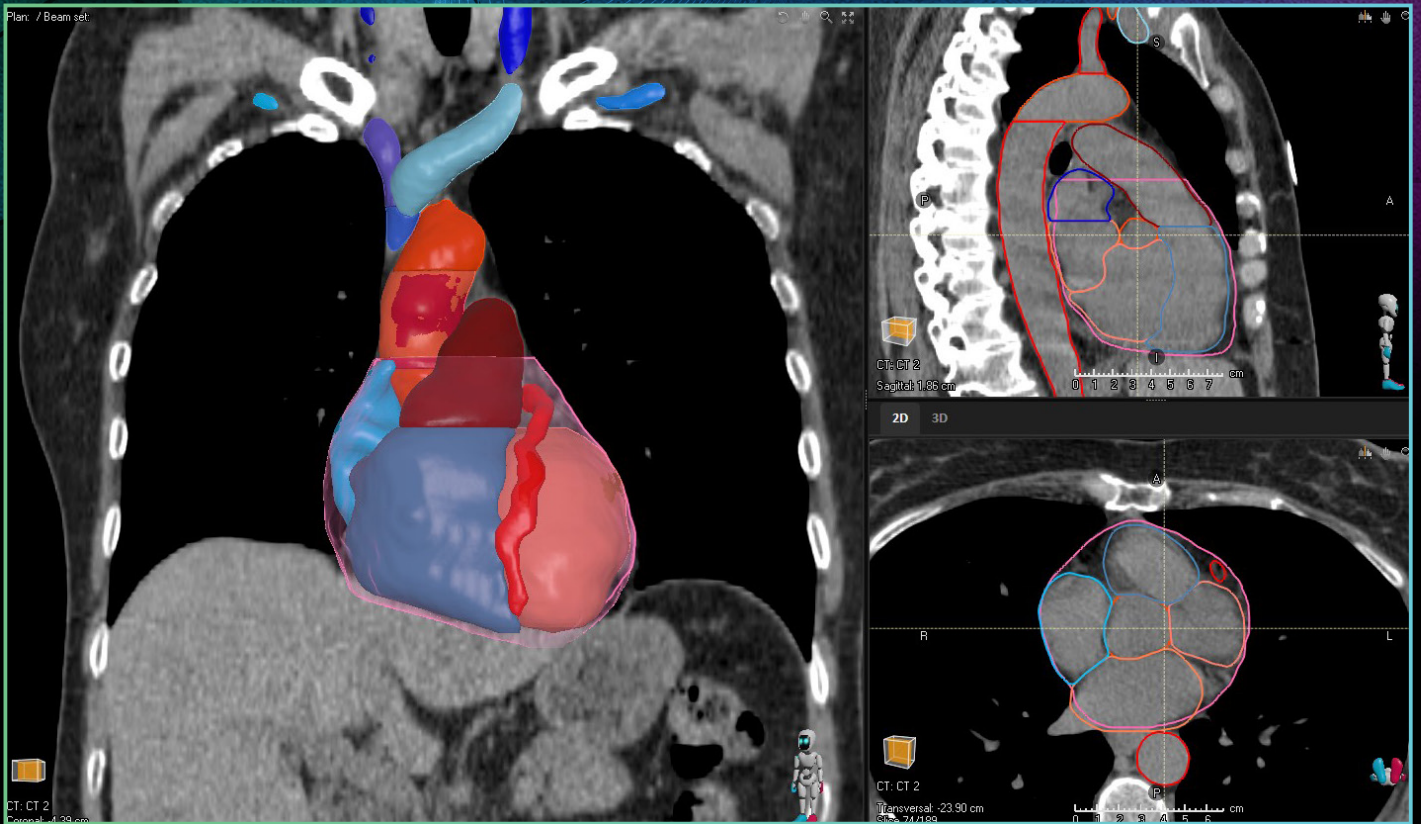
LN_IMN_R

LN_L4_L IMPROVED

LN_L4_R IMPROVED



HEART SUBSTRUCTURES

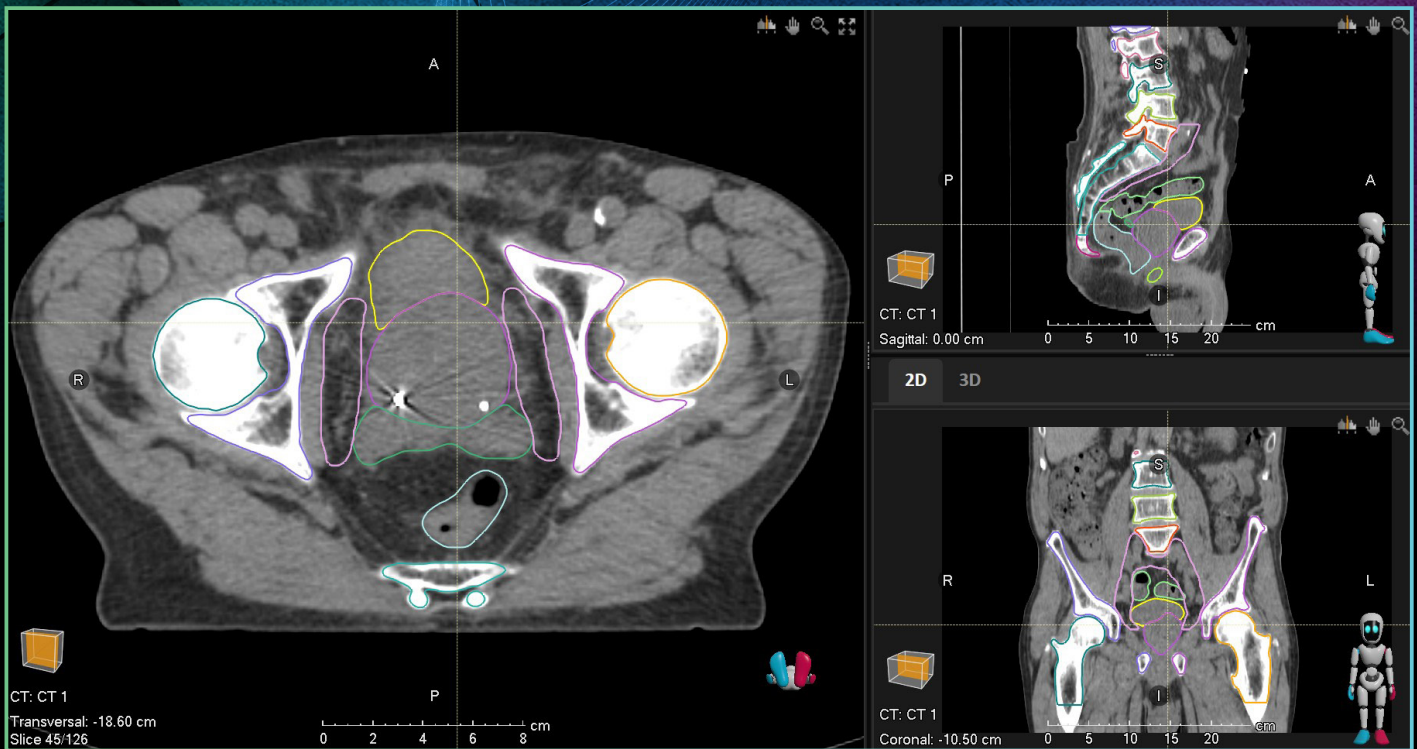


STRUCTURES

- A_Aorta_Asc_Prox NEW
- A_Aorta_Root NEW
- A_LAD
- A_Pulmonary NEW
- Atrium_L NEW
- Atrium_R NEW
- V_Pulmonary NEW
- V_Venacava_S_Prox NEW
- Ventricle_L NEW
- Ventricle_R NEW

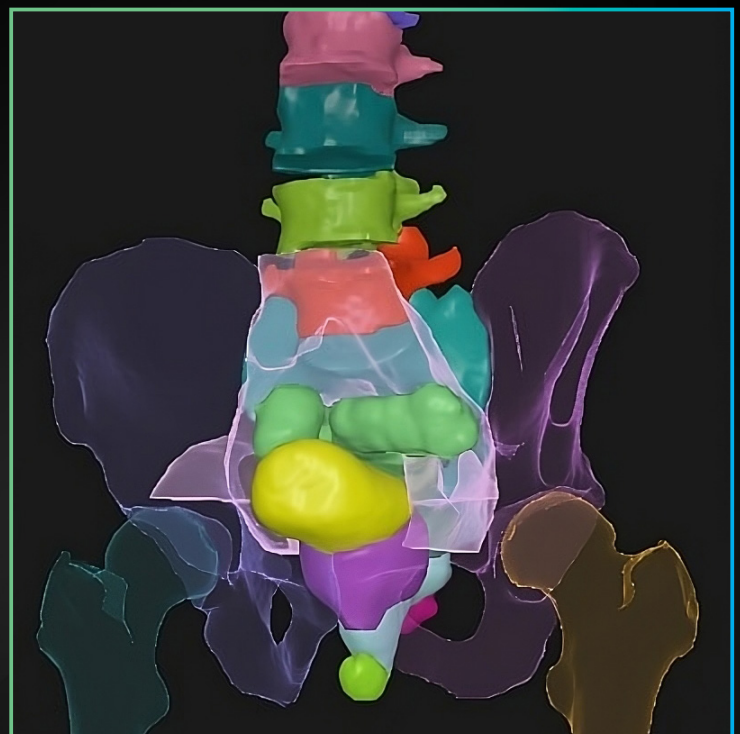


MALE PELVIC CT



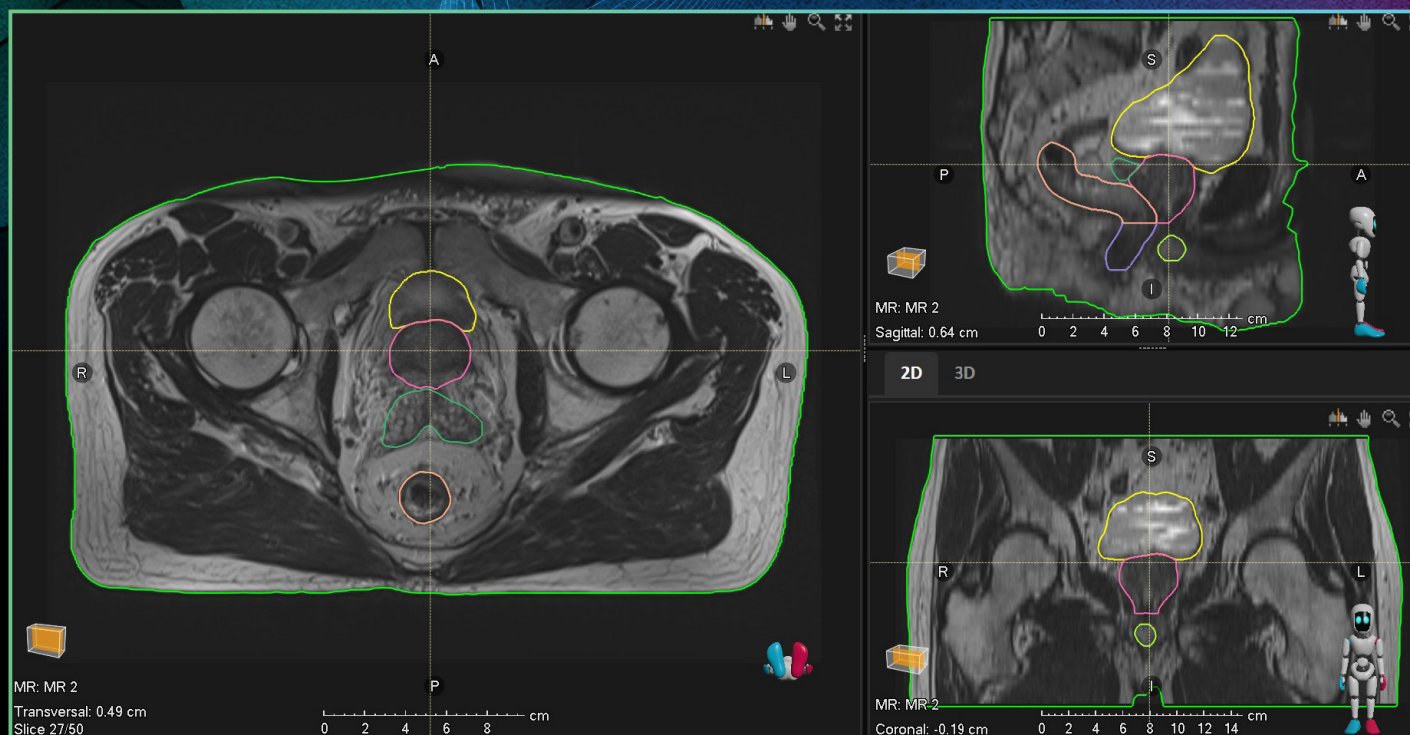
STRUCTURES

Anorectum	Musc_Iliopsoas_L NEW *
Bladder	Musc_Iliopsoas_R NEW *
Bone_Pelvic_L NEW *	PenileBulb NEW
Bone_Pelvic_R NEW *	Prostate
Coccyx NEW *	Prostate_minus_VenousPlexus
Colon_Sigmoid NEW	Sacrum NEW *
Femur_Head_L *	SeminalVes
Femur_Head_R *	Spc_Bowel
LN_Pelvics NEW	



*Also works for female pelvic

MALE PELVIC MR*



STRUCTURES

Anorectum NEW

Bladder NEW

Canal_Anal NEW

PenileBulb NEW

Prostate NEW

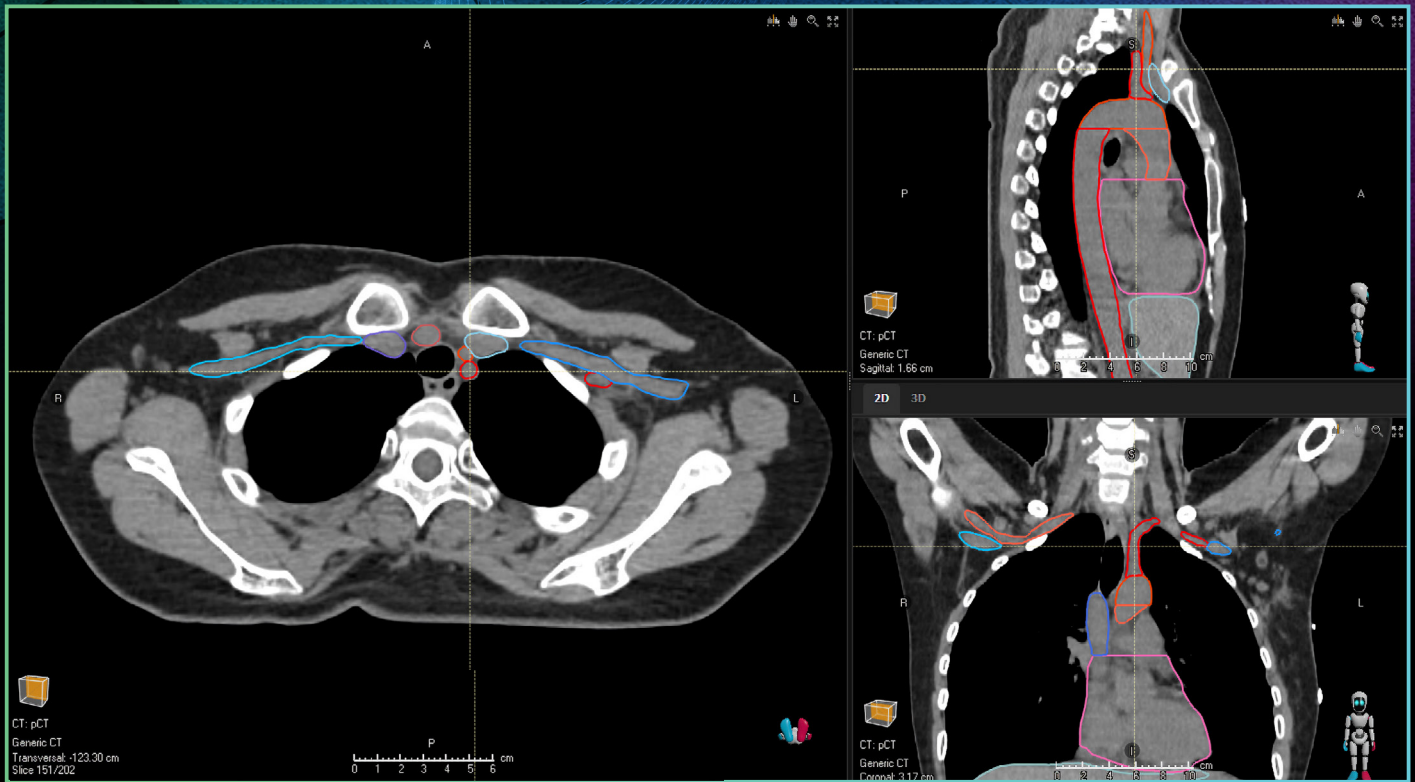
Rectum NEW

SeminalVes NEW



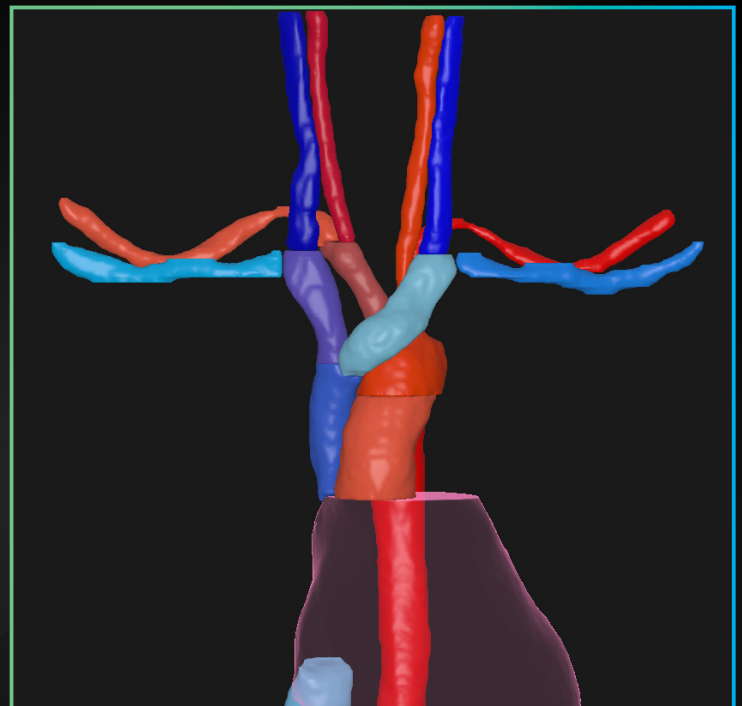
*Intended for sequence T2 SE

VESSELS CT



STRUCTURES

A_Aorta_Arc	A_Subclavian_R
A_Aorta_Asc	V_Brachioceph_L
A_Aorta_Desc	V_Brachioceph_R
A_Brachiocephls	V_Iliac_Ext_L NEW
A_Carotid_Int_L	V_Iliac_Ext_R NEW
A_Carotid_Int_R	V_Iliac_Int_L NEW
A_Carotid_L	V_Iliac_Int_R NEW
A_Carotid_R	V_Iliac_L NEW
A_Iliac_Ext_L NEW	V_Iliac_R NEW
A_Iliac_Ext_R NEW	V_Jugular_Int_L
A_Iliac_Int_L NEW	V_Jugular_Int_R
A_Iliac_Int_R NEW	V_Subclavian_L
A_Iliac_L NEW	V_Subclavian_R
A_Iliac_R NEW	V_Venacava_I IMPROVED
A_Subclavian_L	V_Venacava_S



VERTEBRAE CT



STRUCTURES

C1 NEW	T7 NEW
C2 NEW	T8 NEW
C3 NEW	T9 NEW
C4 NEW	T10 NEW
C5 NEW	T11 NEW
C6 NEW	T12 NEW
C7 NEW	L1 NEW
T1 NEW	L2 NEW
T2 NEW	L3 NEW
T3 NEW	L4 NEW
T4 NEW	L5 NEW
T5 NEW	L6 (if present) NEW
T6 NEW	



CONTOURING GUIDELINES



REGION OF INTEREST

REFERENCES

A_Aorta_Arc	Anatomical structure
A_Aorta_Asc	Anatomical structure
A_Aorta_Asc_Prox	Vaugier [1]
A_Aorta_Desc	Anatomical structure
A_Aorta_Root	Vaugier [1]
A_Brachiocephls	Vaugier [1]
A_Carotid_Int_L/R	Anatomical structure
A_Carotid_L/R	Anatomical structure
A_Iliac_L/R	Anatomical structure
A_Iliac_Ext_L/R*	Anatomical structure
A_Iliac_Int_L/R	Anatomical structure
A_LAD	Mir [1], Feng [9], Duane [10]
A_Pulmonary	Vaugier [1]
A_Subclavian_L/R*	Anatomical structure
Anorectum*	Mir [2], Gay [5], Nyholm [6]
Anorectum MR*	Salembier [22]
Atrium_L /R	Vaugier [1]
Bladder	Mir [2], Gay [5]
Bladder MR	Gay [5], Mir [2]
Bone_Mandible *	Mir [2], Brouwer [7]
Bone_Pelvic_L/R	Anatomical structure
Brain*	Mir [2], Brouwer [7], Eekers [8]
Brainstem	Mir [2], Brouwer [7], Eekers [8], Scoccianti [9]
BrachialPlex_L/R	Hall [10], Kong [11], AAMD [12]
Breast_L /R	Mir [2], Offersen [13]
Bronchus_InterM	Mir [2], Kong [11]
Bronchus_Main_L/R*	Mir [2], Kong [11]
Canal_Anal MR	Salembier [22]
Carina*	Custom
Cartlg_Costal_L/R	Anatomical structure
Cavity_Oral	Mir [2]
CW_2cm_L/R*	Mir [2], Kong [11]
CW_Anatomical_L/R*	Chestwall structure
Clavicle_L/R	Anatomical structure
Coccyx	Anatomical structure
Cochlea_L/R*	Mir [2], Brouwer[7], Eekers [8], Scoccianti [9]

*Internal contouring protocols were derived from published consensus guidelines, the model data sheet describes some modifications and specifications to certain ROIs.

CONTOURING GUIDELINES



REGION OF INTEREST

REFERENCES

Colon_Sigmoid	Mir [2]
Cricopharyngeus	Mir [2], Christianen [14]
Esophagus	Mir [2], Kong [11]
Eye_L/R	Mir [2], Brouwer [7]
Femur_Head_L/R	Mir [2], Gay [5]
Fossa_Posterior*	Brain substructure
GlnD_Lacrima_L/R	Mir [2], Brouwer [7], Eekers [8], Scoccianti [8], Freedman [15]
GlnD_Submand_L/R	Mir [2], Van de Water [16]
GlnD_Thyroid	Brouwer [7]
Glottis*	Mir [2], Brouwer [7], Christianen [14]
Heart	Mir [2], Feng [3]
Heart_Inferior_Left_PA*	Mir [2], Feng [3]
Humeral_Head_L/R*	Anatomical structure
Humerus_L/R*	Anatomical structure
Joint_TM_L/R	Anatomical structure
Kidney_L/R	Mir [2], Jabbour [17]
Larynx_SG*	Mir [2], Brouwer [7], Christianen [14]
Lens_L/R	Mir [2], Eekers [8], Scoccianti [9]
Lips	Mir [2], Brouwer [7]
Liver	Mir [2], Jabbour [17]
LN_Ax_L1*- LN_Ax_L3	Offersen [13]
LN_Ax_Pectoral_L/R	Offersen [13]
LN_IMN_L/R	Offersen [13]
LN_L4_L/R	Offersen [13]
LN_Neck_IA- LN_Neck_VIIB	Grégoire [18]
LN_Pelvics	Hall [19]
Lung_L/R*	Mir [2], Kong [11]
Musc_Constrict_I	Mir [2], 2011 Christianen [14]
Musc_Constrict_M	Mir [2], 2011 Christianen [14]
Musc_Constrict_S*	Mir [2], 2011 Christianen [14]
Musc_Iliopsoas_L/R*	Anatomical structure
Musc_Scalene_Ant_L/R	Hall [10], Kong [11], AAMD [12]
Musc_Scalene_Med_L/R*	Hall [10], Kong [11], AAMD [12]
Nasolacrimal_Duct_L/R	Anatomical structure
OpticChiasm	Mir [2], Brouwer [7], Eekers [8], Scoccianti [9]

*Internal contouring protocols were derived from published consensus guidelines, the model data sheet describes some modifications and specifications to certain ROIs.

CONTOURING GUIDELINES



REGION OF INTEREST

REFERENCES

OpticNrv_L/R	Mir [2], Brouwer [7], Eekers [8]
Pancreas	Mir [2], Jabbour [17]
PenileBulb	Mir [2], Wallner [21]
PenileBulb MR*	Wallner [21]
Parotid_L/R	Mir [2], van de Water [16]
Pituitary*	Mir [2], Brouwer [7], Eekers [8], Scoccianti [9]
Prostate_minus_VenousPlexus*	Salembier [22]
Prostate *	Salembier [22]
Prostate MR*	Salembier [22]
Rectum MR	Salembier [22]
Ribs_L/R	Anatomical structure
Sacrum	Anatomical structure
Scapula_L/R	Anatomical structure
SeminalVes*	Gay [5]
SeminalVes MR*	Salembier [22]
Spc_Bowel*	Mir [2], Gay [5]
SpinalCanal*	Mir [2], Kong [11]
SpinalCord*	Mir [2], Brouwer [7]
Spleen	Mir [2]
Sternum	Anatomical structure
Stomach	Mir [2], Jabbour [17]
Tongue_Base	Christianen [14]
Trachea*	Mir [2]
C1, C2, C3, C4, C5, C6, C7, T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, L1, L2, L3, L4, L5, L6*	Anatomical structure
V_Brachioceph_L/R*	Anatomical structure
V_Iliac_L/R	Anatomical structure
V_Iliac_Ext_L/R*	Anatomical structure
V_Iliac_Int_L/R	Anatomical structure
V_Jugular_Int_L/R*	Anatomical structure
V_Pulmonary	Vaugier [1]
V_Subclavian_L/R	Anatomical structure
V_Venacava_I	Anatomical structure
V_Venacava_S*	Anatomical structure
V_Venacava_S_Prox	Vaugier [1]
Ventricle_L/R	Vaugier [1]

*Internal contouring protocols were derived from published consensus guidelines, the model data sheet describes some modifications and specifications to certain ROIs.

CONTOURING GUIDELINES



REFERENCES

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