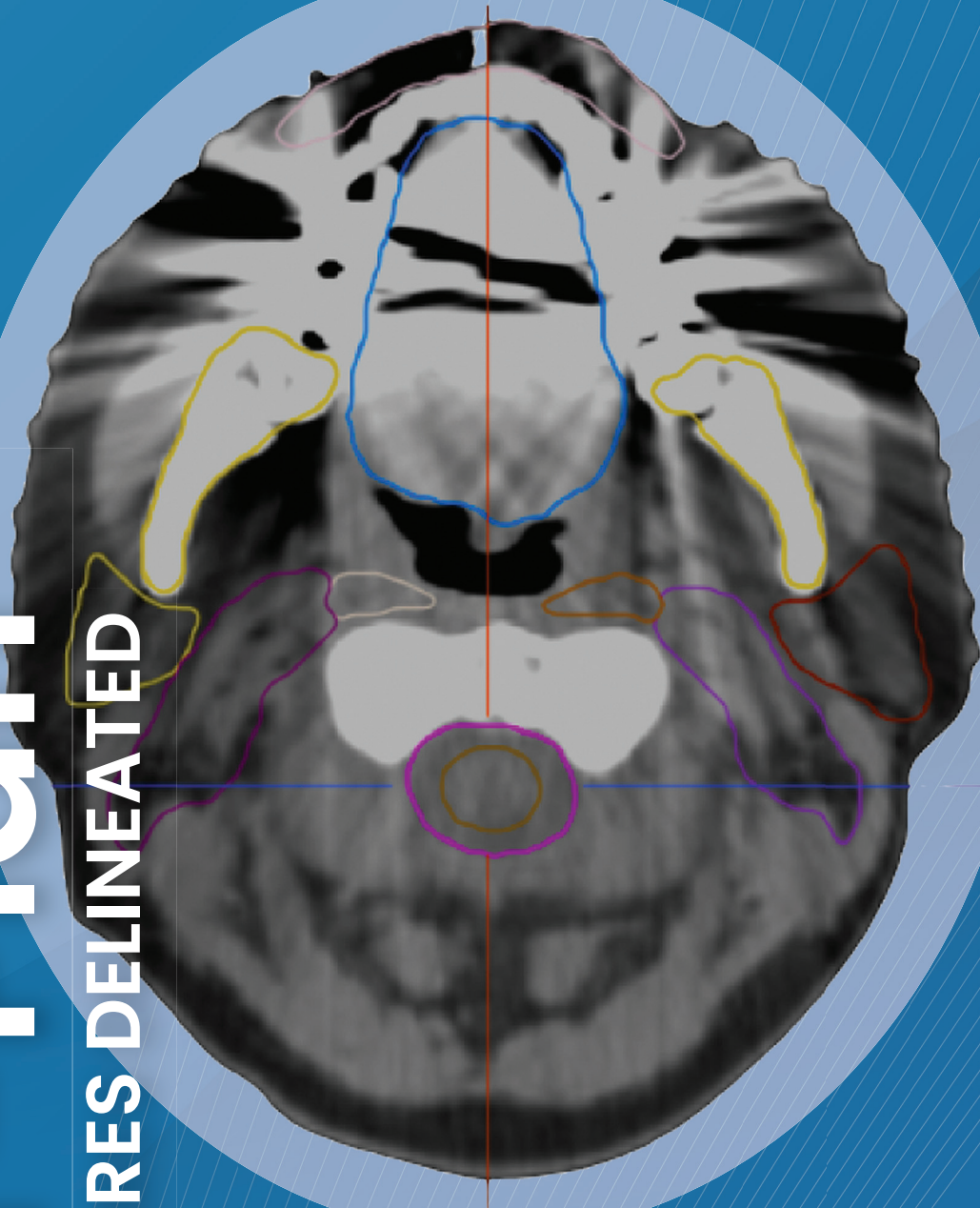


THERAPANACEA

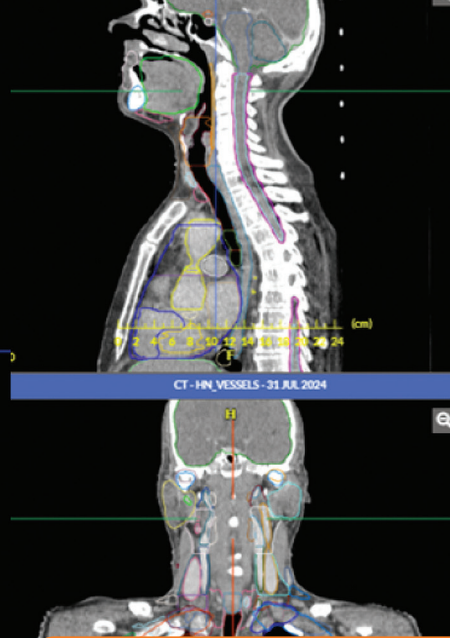
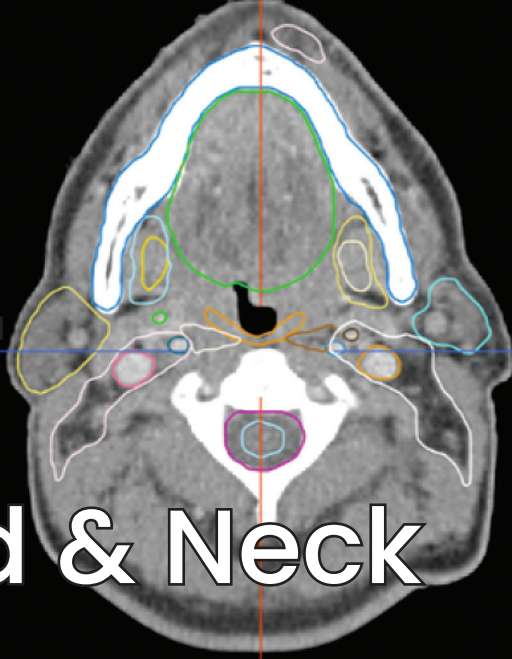
ART-plan™

STRUCTURES DELINEATED



VERSION 3.2.0

CT Head & Neck



46 OARs & 19 LNs

OARs*

Brachial_Plex_(L/R)
Brain
Brainstem
Cerebellum
Cochlea_(L/R)
Common carotid artery (L/R)
Esophagus
External carotid artery (L/R)
External contours
External jugular vein(L/R)
Eyeball_(L/R)
Lens_Eye_(L/R)
Glottic_Larynx
Internal carotid artery (L/R)
Internal jugular vein (L/R)
Lacrim_gland_(L/R)
Larynx
Lips
Mandible
Mouth
Optic_chiasm
Optic_nerve_(L/R)
Parotid_(L/R)

Pharynx_Const_muscle
Pituitary_Gland
Spinal_Canal
Spinal_Cord
Submand_Gland_(L/R)
Supraglottic_Larynx
Thyroid_Gland
TM_Joint_(L/R)
Trachea

LNs*

LN_Neck_IA
LN_Neck_IB_(L/R)
LN_Neck_II_(L/R)
LN_Neck_III_(L/R)
LN_Neck_IVA_(L/R)
LN_Neck_IVB_(L/R)
LN_Neck_V_(L/R)
LN_Neck_VIA
LN_Neck_VIB
LN_Neck_VIIA_(L/R)
LN_Neck_VIIB_(L/R)

*Guidelines: LN according to Grégoire et al 2014,
OAR as described in DAHANCA 2020, Eekers et al 2021 (EPTN) and Mir et al 2020 (International consensus).



CT

Thorax/Breast/Abdo

Includes SBRT lung and Heart substructures



73 OARs & 12 LNs

OARs*

Aorta
Atrium_(L/R)
Brachial_Plex_(L/R)
Breast_(L/R)
Bronchia_(L/R)
Bronchial_Tree
Bronchus_(L/R)
Cardiac_Aorta
Carina
Cauda Equina
Chestwall_(L/R)
Coronary_Sinus
Distal_Circumflex_Coronary
Esophagus
Heart
Humerus_Head_(L/R)
Kidney_(L/R)
LAD_Coronary
L_Main_Coro_Art
Liver
Lung_(L/R)
Pericardium
Proximal_Circumflex_Coronary
Pulmonary_Arter
Ribs 1-12_(L/R)

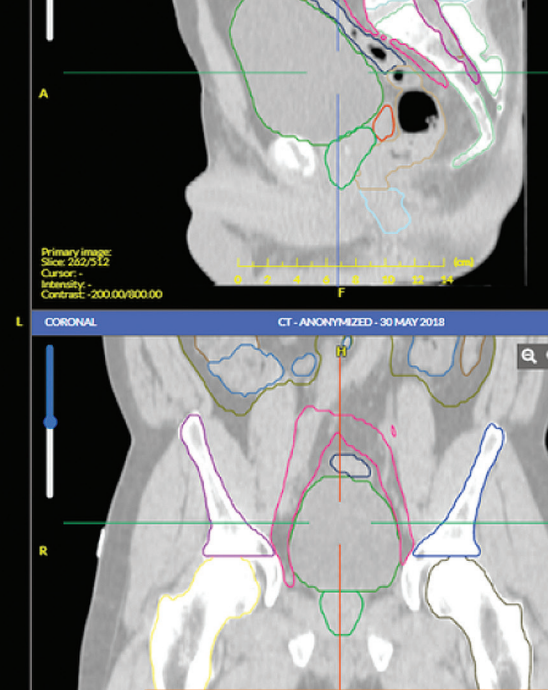
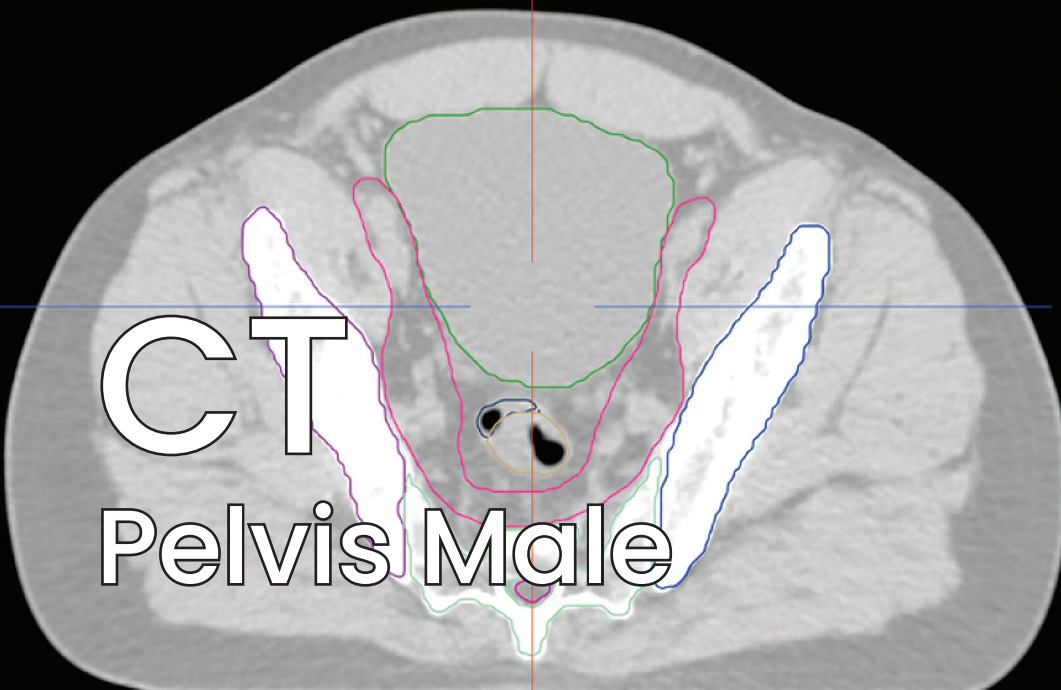
Spinal_Canal
Spinal_Cord
Spleen
Stomach
Supraglottic_Larynx
Thyroid_Gland
Trachea
Vena_Cava_Inf
Vena_Cava_Sup
Ventri_(L/R)
Ventri_L_Ant
Ventri_L_Api
Ventri_L_Inf
Ventri_L_Lat
Ventri_L_Sept

LNs*

LN_IMN_(L/R)
LN_Interpec_(L/R)
LN_Ax_L1_(L/R)
LN_Ax_L2_(L/R)
LN_Ax_L3_(L/R)
LN_Ax_L4_(L/R)

*Guidelines: ESTRO - LN according to Offersen et al 2015 (ESTRO)

OARs as described in Kong 2011 (RTOG), Jabbour et al 2014 (RTOG), UK SABR Consortium 2019, De Rose et al, 2017, Duane et al 2017, Milo et al 2020, Mir et al 2020



19 OARs & 3 ROIs
& 15 LNs

OARs*

Anal_Canal
Bladder
Bowel_Bag
Cauda Equina
Duodenum
External contours
Femur_Head_(L/R)
Ilium_(L/R)
Large_Bowel
Penile_Bulb
Rectum
Sacrum
Sigmoid_Colon
Small_Bowel
Spinal_Cord
VB_L4
VB_L5

LNs*

NEW Ischio_Rectal_Fossae_Val
NEW LN_Iliac_Ext_L_Val
NEW LN_Inguinofem_L_Val
NEW LN_Iliac_Int_L_Val
NEW LN_Obturator_L_Val
NEW Mesorectum_Val
NEW Presacral_Abdo_LN_Val
NEW Presacral_Pelvis_LN_Val
NEW LN_Iliac_Ext_R_Val
NEW LN_Inguinofem_R_Val
NEW LN_Iliac_Int_R_Val
NEW LN_Obturator_R_Val
NEW Sphincter_Complex_Val
NEW LN_Common_Iliac
NEW LN_Lomboaortic

ROIs**

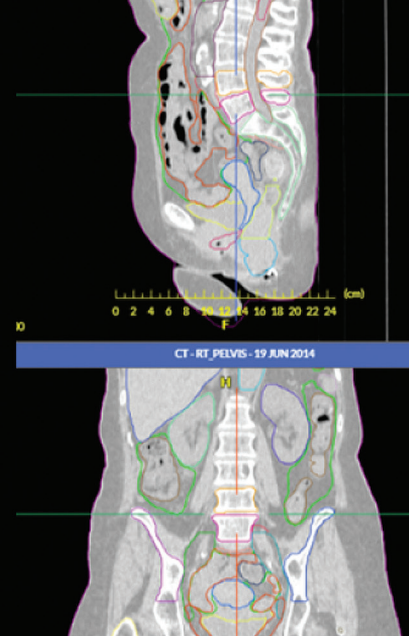
CTVN_Prostate
Prostate
Seminal_Vesicle

*Guidelines: OARs as in Gay et al 2012 (RTOG), Mir et al 2020

CTVN_Prostate as described in Hall et al 2021, LN as described in Valentini et al 2016

**ROI=Region of interest

CT Pelvis Female



18 OARs & 20 LNs &
2 ROIs

OARs*

Anal_Canal
Bladder
Bowel_Bag
Cauda Equina
Duodenum
External contours
Femur_Head_(L/R)
Ilium_(L/R)
Large_Bowel
Rectum
Sacrum
Sigmoid_Colon
Small_Bowel
Spinal_Cord
Vagina
VB_L4
VB_L5

LNs

LN_Common_Iliac
LN_Iliac_(L/R)
LN_Ingui_Gyn_(L/R)
LN_Lomboaortic
LN_Presacral

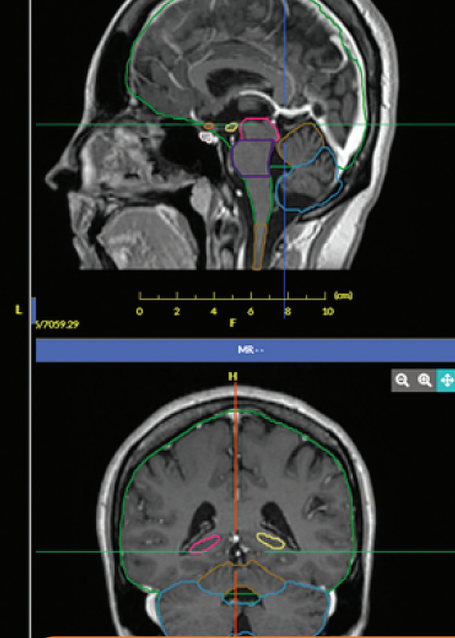
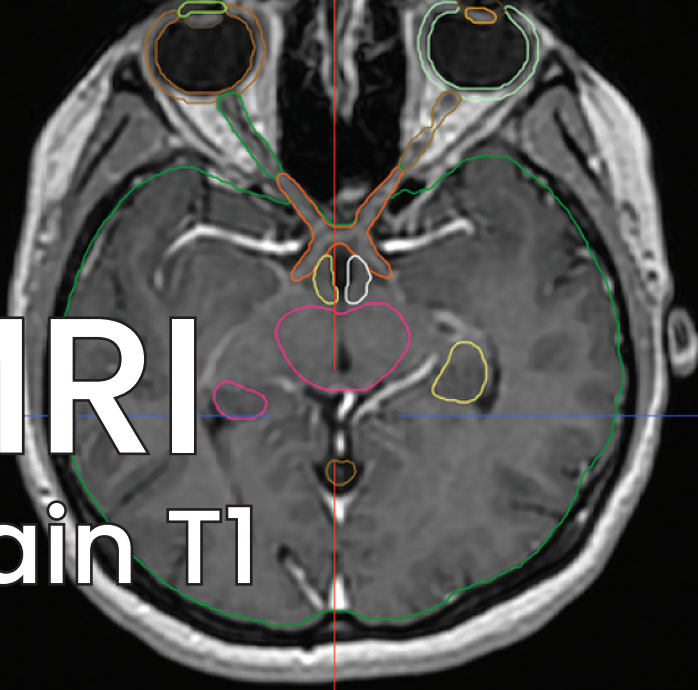
NEW Ischio_Rectal_Fossae_Val
NEW LN_Iliac_Ext_L_Val
NEW LN_Inguinofem_L_Val
NEW LN_Iliac_Int_L_Val
NEW LN_Obturator_L_Val
NEW Mesorectum_Val
NEW Presacral_Abdo_LN_Val
NEW Presacral_Pelvis_LN_Val
NEW LN_Iliac_Ext_R_Val
NEW LN_Inguinofem_R_Val
NEW LN_Iliac_Int_R_Val
NEW LN_Obturator_R_Val
NEW Sphincter_Complex_Val

ROIs**

Parametrium
Utero_Cervix

*Guidelines: Gay et al 2012, Mir et al 2020
LN as described in Valentini et al 2016
**ROI=Region of interest

MRI Brain T1



27 OARs

OARs*

Brain

Cerebellum_Ant

Cerebellum_Post

Cochlea_(L/R)

Cornea_(L/R)

Hippocampus_(L/R)

Hypothalamus_(L/R)

Lacrim_Gland_(L/R)

Lens_Eye(L/R)

Medulla_Oblong

Midbrain

Opt_Chiasm

Optic_nerve (L/R)

Pituitary_Gland

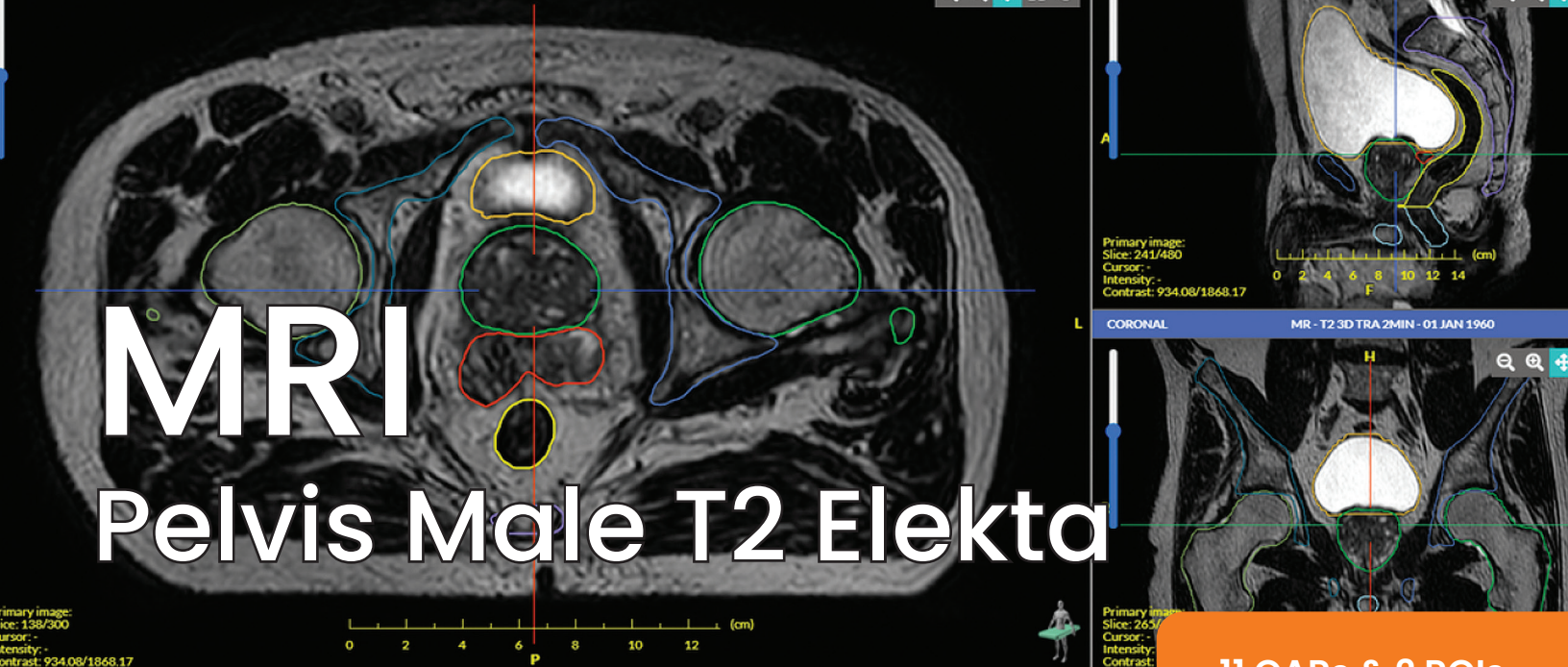
Pons

Retina_(L/R)

Spinal_Cord

VSCC_(L/R)

*Guideline: Eekers et al 2021 (EPTN)



11 OARs & 2 ROIs

OARs*

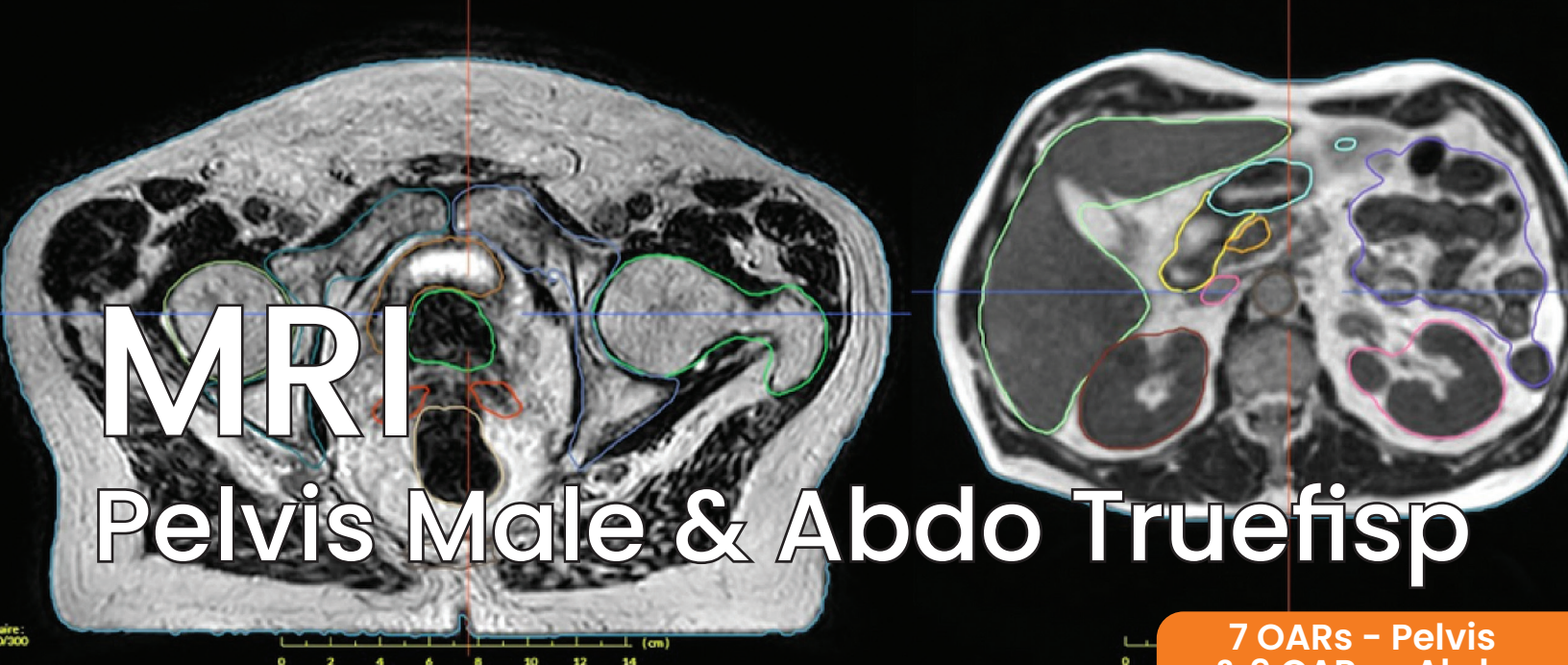
Anal_Canal
Bladder
Bony_Pelvis_(L/R)
Femur_Head_(L/R)
Penile_Bulb
Rectum
Sacrum

NEW Colon_Sigmoid
NEW Small Bowel

ROIs**

Prostate
Seminal_Vesicle

*Guideline: Mir et al 2020
**ROI=Region of interest



Pelvis OARs

Anal_Canal
Bladder
Femur_Head_(L/R)
Penile_Bulb
Rectum
Sigmoid_Colon

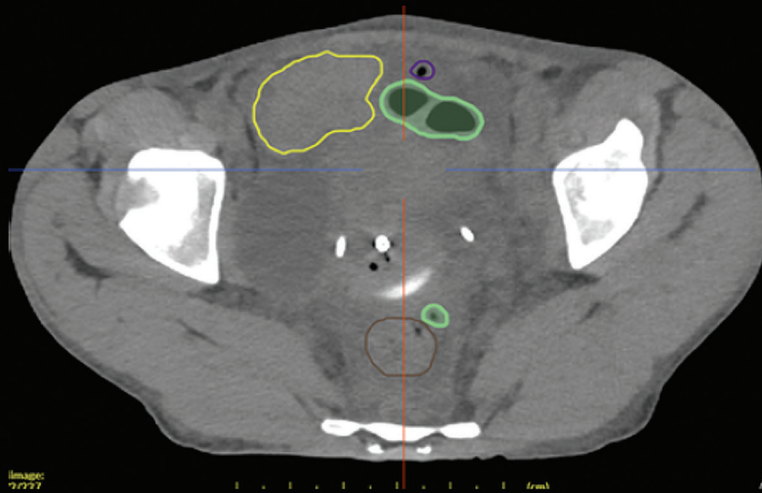
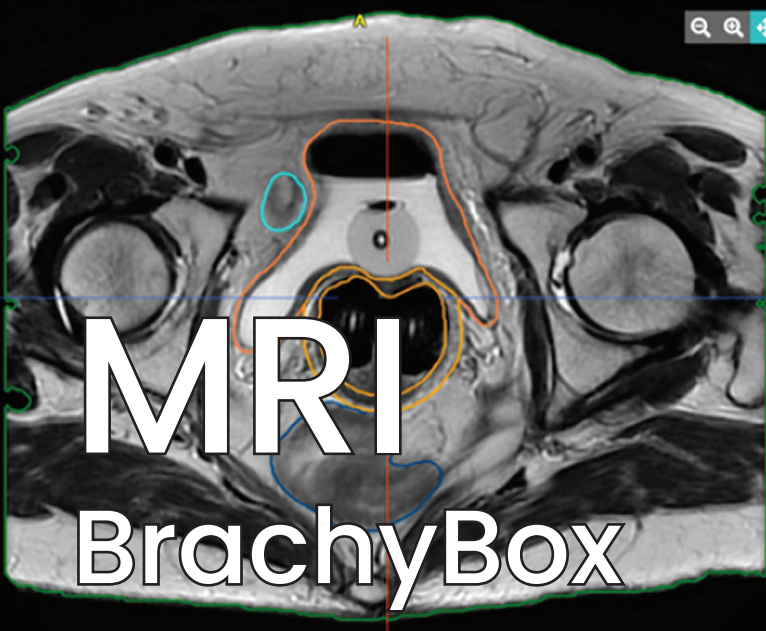
Abdo OARs

Aorta_Abdomen
Duodenum
Kidney_(L/R)
Large_Bowel
Liver
Pancreas
Stomach
Vena Cava_Inf

ROIs*

Prostate
Seminal_Vesicle

*Guideline: Mir et al 2020
**ROI=Region of interest



4 OARs

Pelvis OARs

Bladder
Rectum
Sigmoid_Colon
Small_bowel

*Guidelines: EMBRACE studies, Pötter et al. 2018 (ESTRO)

Syn-CT

Pelvis Male

Primary image:
Slice: 86/217
Cursor: -
Intensity: -

0 2 4 6 8 10 12 14 16 (cm)

Primary image:
Slice: 253/512
Cursor: -
Intensity: -
Contrast: -200.00/800.00

L

CORONAL

CT - PSEUDO-CT - 06 SEP 2023

Primary image:
Slice: 271/511
Cursor: -
Intensity: -

R

7 OARs & 2 ROIs

OARs*

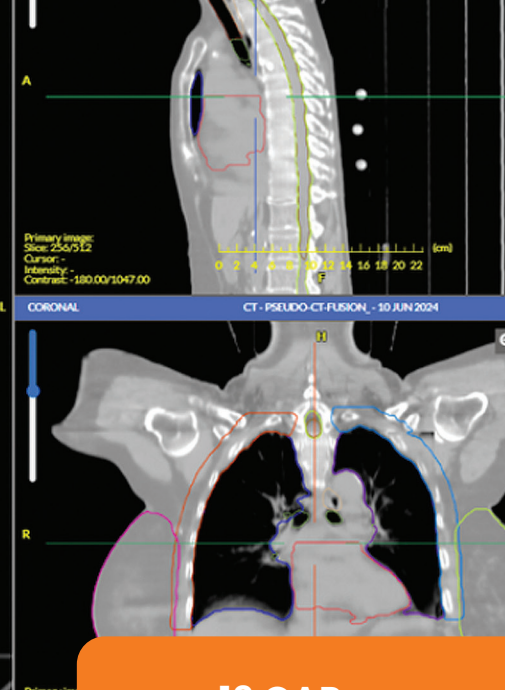
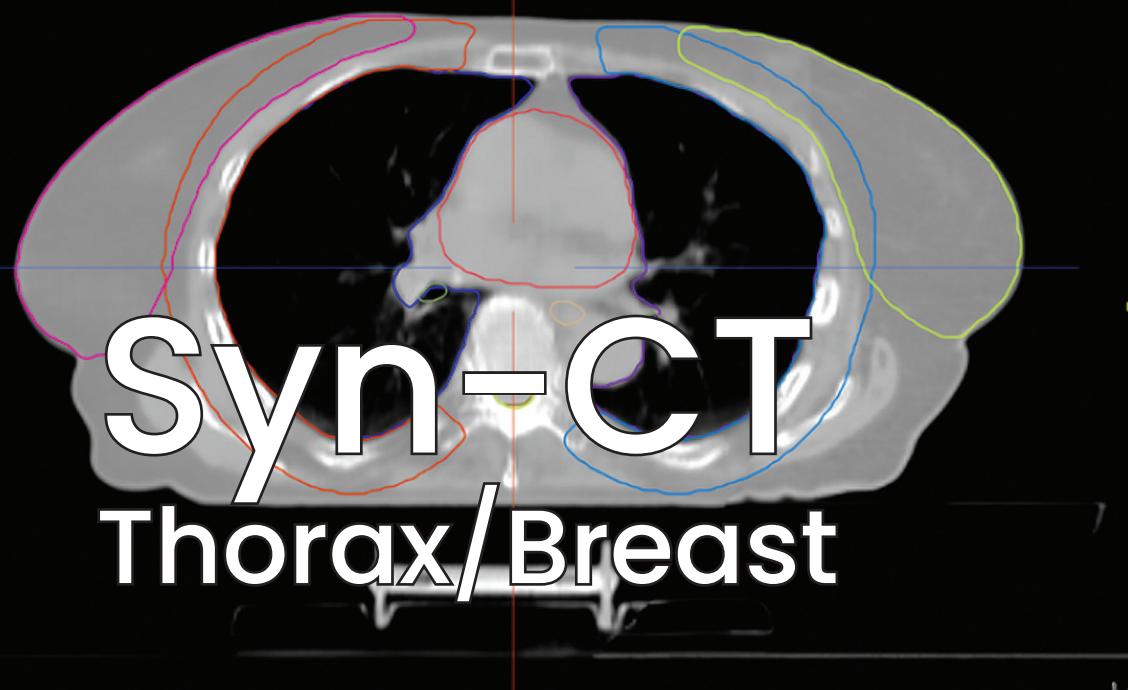
- Anal_Canal
- Bladder
- Femur_Head_(L/R)
- Penile_Bulb
- Rectum
- Sigmoid_Colon

ROIs*

- Prostate
- Seminal_Vesicle

*Guidelines: OAR as in Gay et al 2012, Mir et al 2020

**ROI= Region of interest



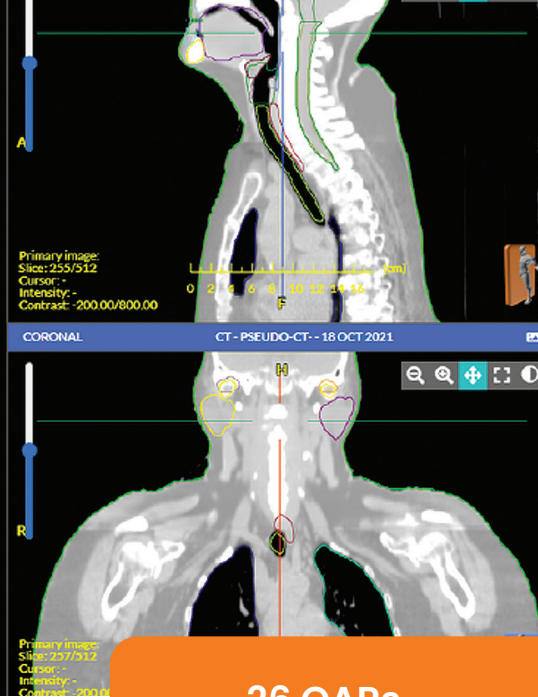
12 OARs

OARs*

- Breast_(L/R)
- Bronchial_Tree
- Chestwall_(L/R)
- Esophagus
- Heart
- Lung_(L/R)
- Spinal_Canal
- Spinal_Cord
- Trachea

*Guidelines: OARs as described in Kong 2011 (RTOG), Jabbour et al 2014 (RTOG), and Mir et al 2020

Syn-CT Head & Neck



26 OARs

OARs*

- Brachial_Plex_(L/R)
- Brainstem
- Esophagus
- Eyeball_(L/R)
- Glottic_Larynx
- Larynx
- Lens_Eye_(L/R)
- Lips
- Lung_(L/R)
- Mandible
- Optic_Nerve (L/R)
- Optic_Chiasm
- Oral_Cavity
- Parotid_(L/R)
- Pharynx_Const_Muscle
- Spinal_Canal
- Spinal_Cord
- Supraglottic_Larynx
- TM_Joint_(L/R)

*Guidelines: DAHANCA 2020, Eekers et al 2021 (EPTN) and Mir et al 2020 (International consensus).



Intended Use Summary

ART-Plan+ is a class IIb (EU)/ class II (US) medical device, intended to be used by trained clinicians who are familiar with radiation therapy, such as medical physicists, medical dosimetrists and radiation oncologists. The software consists of different applications, each used for specific purposes at a different phase of radiation treatment planning. ART-Plan+ offers the following tools to aid in the workflow of radiotherapy treatment:

- Multi-modal visualization and rigid- and deformable registration of anatomical and functional images such as CT, MR, PET-CT, 4D-CT and synthetic-CT generated from CBCT
- Display of fused and non-fused images to facilitate the comparison and delineation of image data by the user
- Automatic generation of contours for organs at risk, lymph nodes and tumors based on medical practices, on medical images such as CT and MR images
- Manual and semi-automatic creation, modification of contours for the regions of interest
- Generation of synthetic-CT from MR images for supported anatomies
- Generation of synthetic-CT from CBCT images for supported anatomies
- Dose computation on CT images for external beam irradiation with photon beams
- Assisted CBCT-based off-line adaptation decision-making for supported anatomies
- Automatic generation of radiotherapy treatment plan for supported prescriptions and anatomies that the users import into their own Treatment Planning System (TPS) for the dose calculation, review and approval

The images shown refer to the final product.

TheraPanacea
8-10 avenue Ledru-Rollin
750012 Paris – France
therapanacea.com

ART-BRO-AN-07EU
March 2026