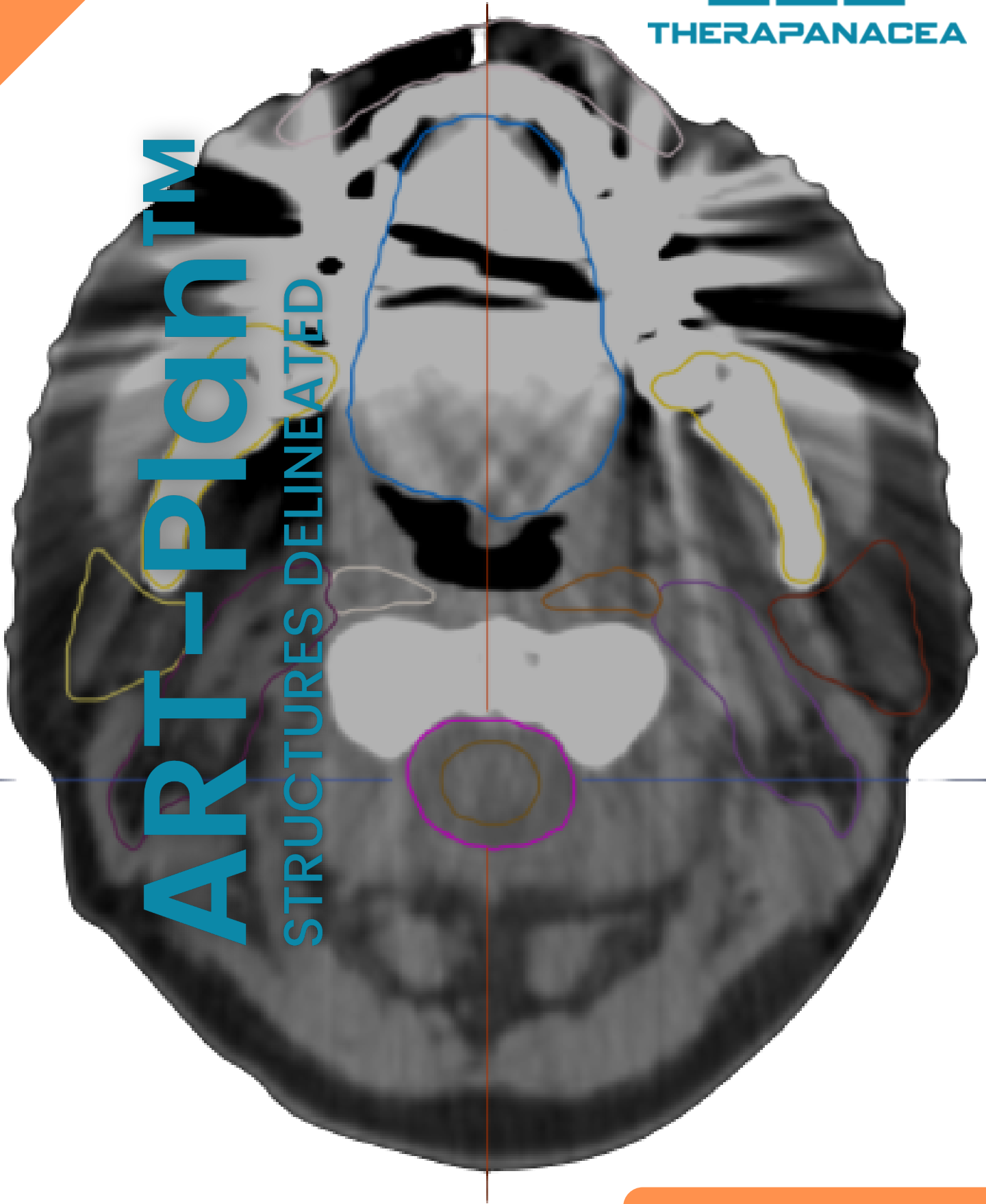




THERAPANACEA

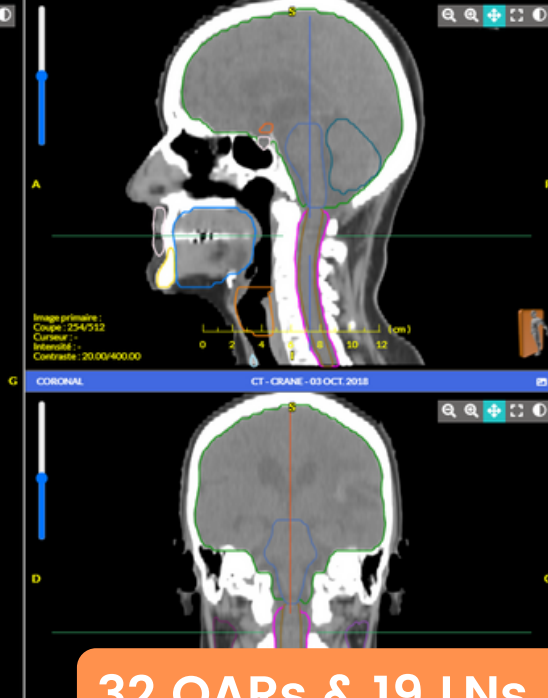
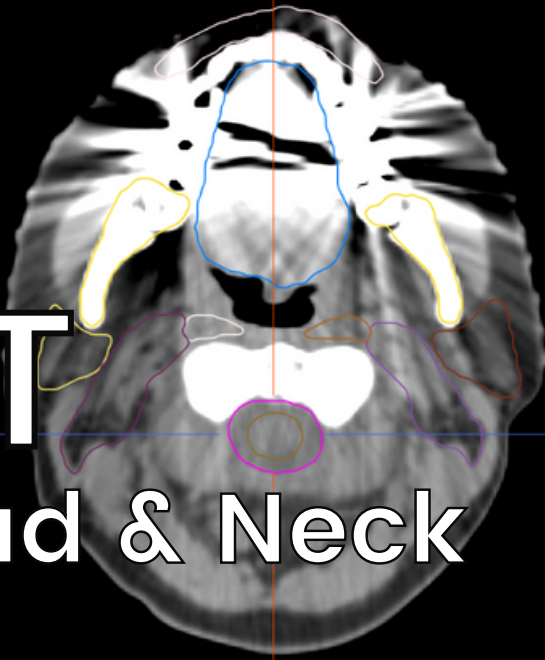
# ART-plan™

STRUCTURES DELINEATED



VERSION 2.1.0

# CT Head & Neck



32 OARs & 19 LNs

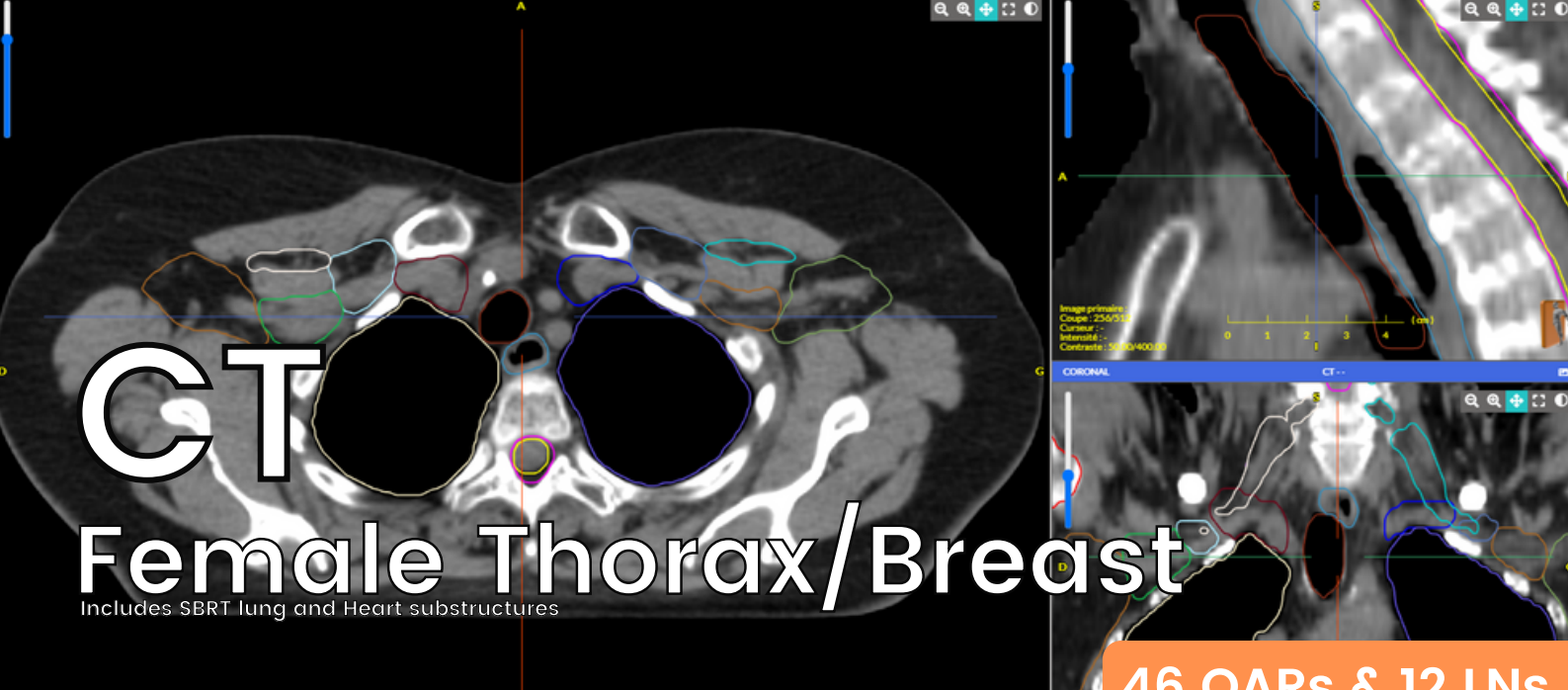
## OARs\*

- Brachial plexus (L/R)
- Brainstem
- Cerebellum
- Chiasma
- Cochlea (L/R)
- Encephalon
- Esophagus
- Eye (L/R)
- Eye Lens (L/R)
- Hypophyse
- Lacrimal gland (L/R)
- Larynx
- Lips
- Mandible
- Mouth
- Optical nerve (L/R)
- Parotid (L/R)
- Pharyngeal constrictor muscle
- Spinal cord
- Sub mandible (L/R)
- Thyroid
- Temporomandibular joints (L/R)
- Trachea

## LNs\*

- Cervical lymph nodes IA
- Cervical lymph nodes IB (L/R)
- Cervical lymph nodes II (L/R)
- Cervical lymph nodes III (L/R)
- Cervical lymph nodes IVA (L/R)
- Cervical lymph nodes IVB (L/R)
- Cervical lymph nodes V (L/R)
- Cervical lymph nodes VIA
- Cervical lymph nodes VIB
- Cervical lymph nodes VIIA (L/R)
- Cervical lymph nodes VIIB (L/R)

\*Guideline: Grégoire et al (2014), Brouwer et al (2015)



# CT

## Female Thorax/Breast

Includes SBRT lung and Heart substructures

46 OARs & 12 LNs

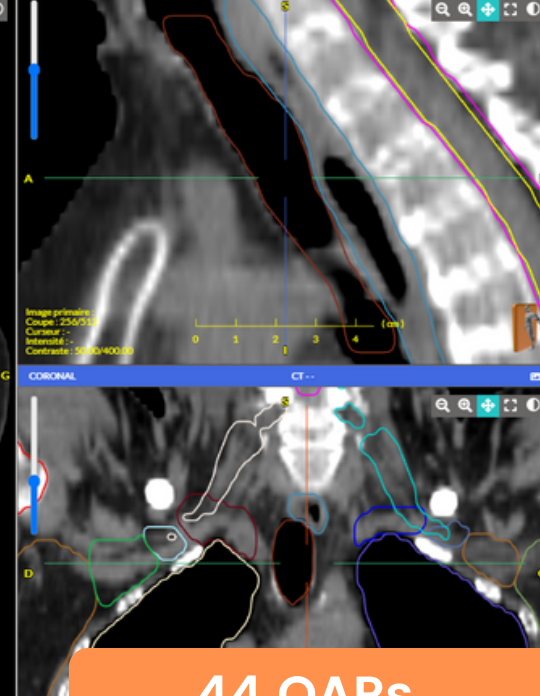
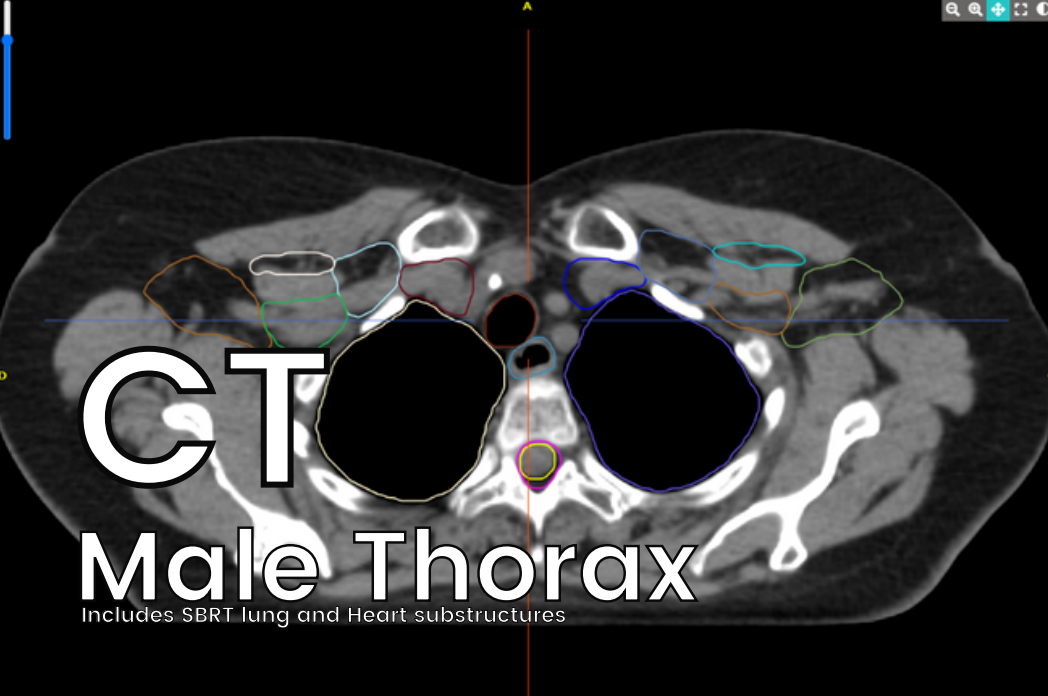
### OARs\*

- |                           |                         |
|---------------------------|-------------------------|
| Ascending aorta           | Left ventricle anterior |
| Atrium (L/R)              | Left ventricle inferior |
| Brachial plexus (L/R)     | Left ventricle lateral  |
| Breast (L/R)              | Left ventricle septal   |
| Bronchia (L/R)            | Liver                   |
| Bronchial tree            | Lung (L/R)              |
| Bronchus (L/R)            | Medullar canal          |
| Carina                    | Pericardium             |
| Chest wall (L/R)          | Pulmonary arteries      |
| Coronary sinus            | Spinal cord             |
| Esophagus                 | Spleen                  |
| Heart                     | Stomach                 |
| Humeral head (L/R)        | Thoracic aorta          |
| Kidney (L/R)              | Thyroid                 |
| LAD coronary              | Trachea                 |
| Larynx                    | Vena cava               |
| Left main coronary artery | Vena cava sup           |
| Left ventricle apical     | Ventricle (L/R)         |

### LN

- |                                 |                                   |
|---------------------------------|-----------------------------------|
| IMC lymph nodes (L/R)           | Lymph nodes L2 (L/R)              |
| Interpectoral lymph nodes (L/R) | Lymph nodes L3 (L/R)              |
| Lymph nodes L1 (L/R)            | Supraclavicular lymph nodes (L/R) |

\*Guideline: ESTRO - Offersen et al (2015), UK SABR Consortium (2019), De Rose et al, (2017), Duane et al (2017), Lee et al (2017)



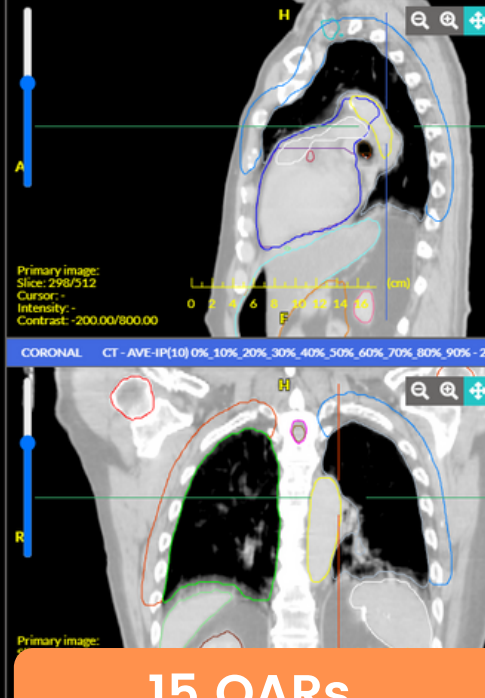
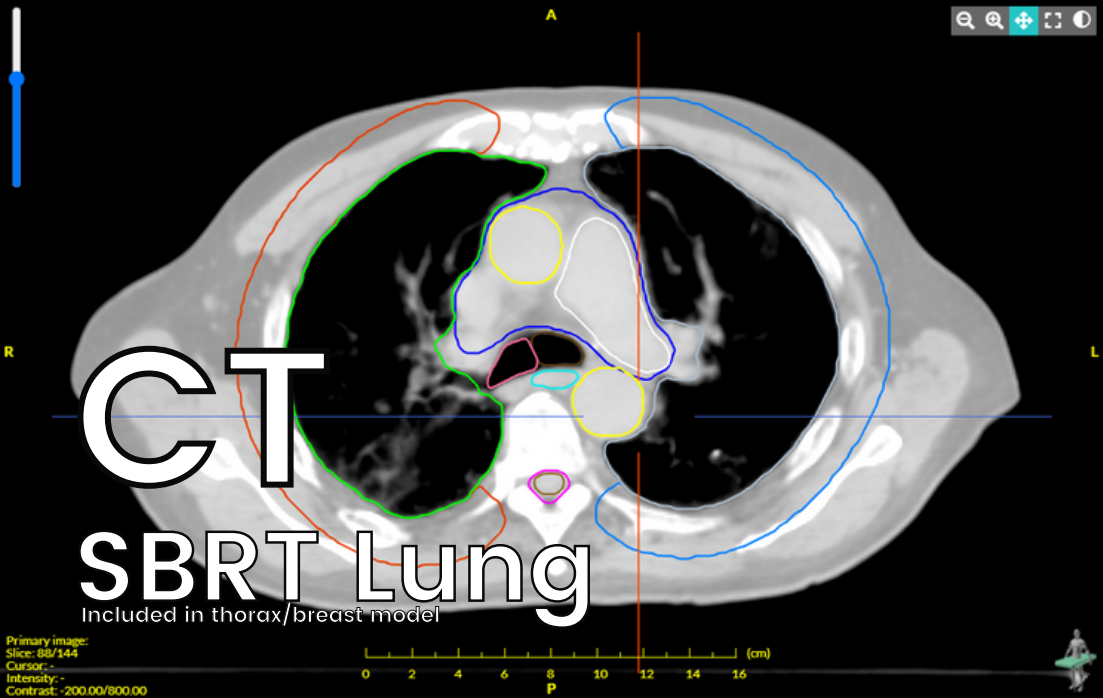
44 OARs

## OARs\*

- Ascending aorta
- Atrium (L/R)
- Brachial plexus (L/R)
- Bronchial tree
  - Carina
  - Bronchia (L/R)
  - Bronchus (L/R)
- Chest wall (L/R)
- Coronary sinus
- Esophagus
- Heart
- Humeral head (L/R)
- Kidney (L/R)
- LAD coronary
- Larynx
- Left main coronary artery
- Left ventricle apical
- Left ventricle anterior

- Left ventricle inferior
- Left ventricle lateral
- Left ventricle septal
- Liver
- Lung (L/R)
- Medullar canal
- Pericardium
- Pulmonary arteries
- Spinal cord
- Spleen
- Stomach
- Thoracic aorta
- Thyroid
- Trachea
- Vena cava
- Vena cava sup
- Ventricle (L/R)

\*Guideline: ESTRO - Offersen et al (2015), UK SABR Consortium (2019), De Rose et al, (2017), Duane et al (2017), Lee et al (2017)



15 OARs

## OARs\*

Brachial plexus (L/R)

Bronchial Tree

- Carina
- Bronchia (L/R)
- Bronchus (L/R)

Chest wall (L/R)

Esophagus

Heart

LAD coronary

Pericardium

Pulmonary Arteries

Spinal cord

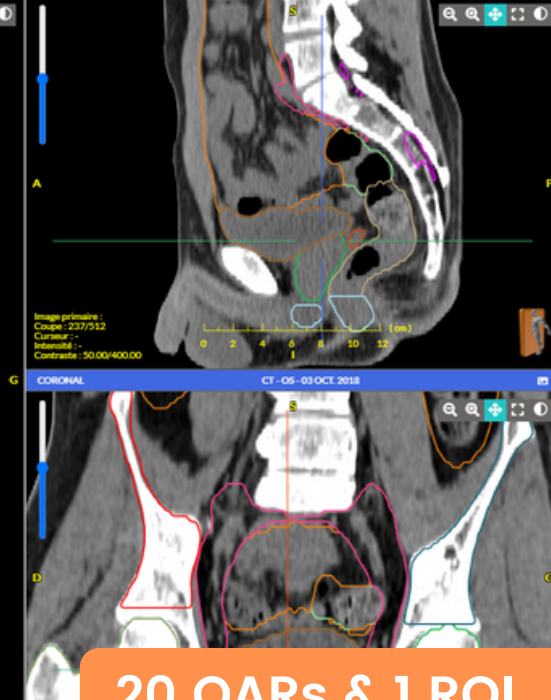
Trachea

Vena Cava

\*Guideline: UK SABR Consortium (2019), De Rose et al, (2017)



# CT Pelvis Male



20 OARs & 1 ROI

## OARs\*

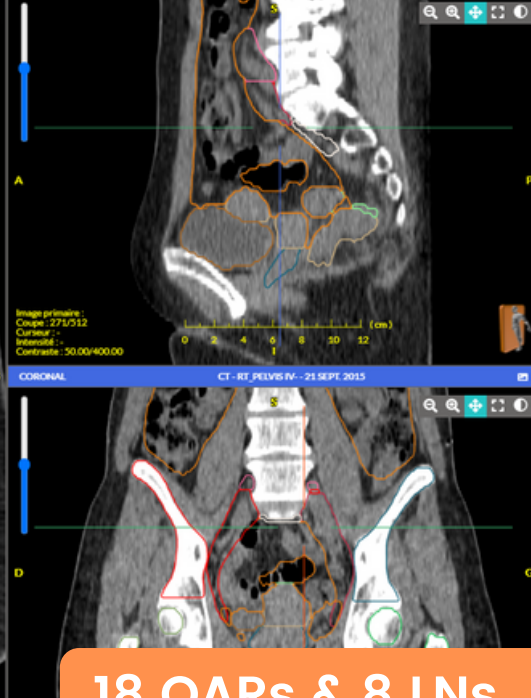
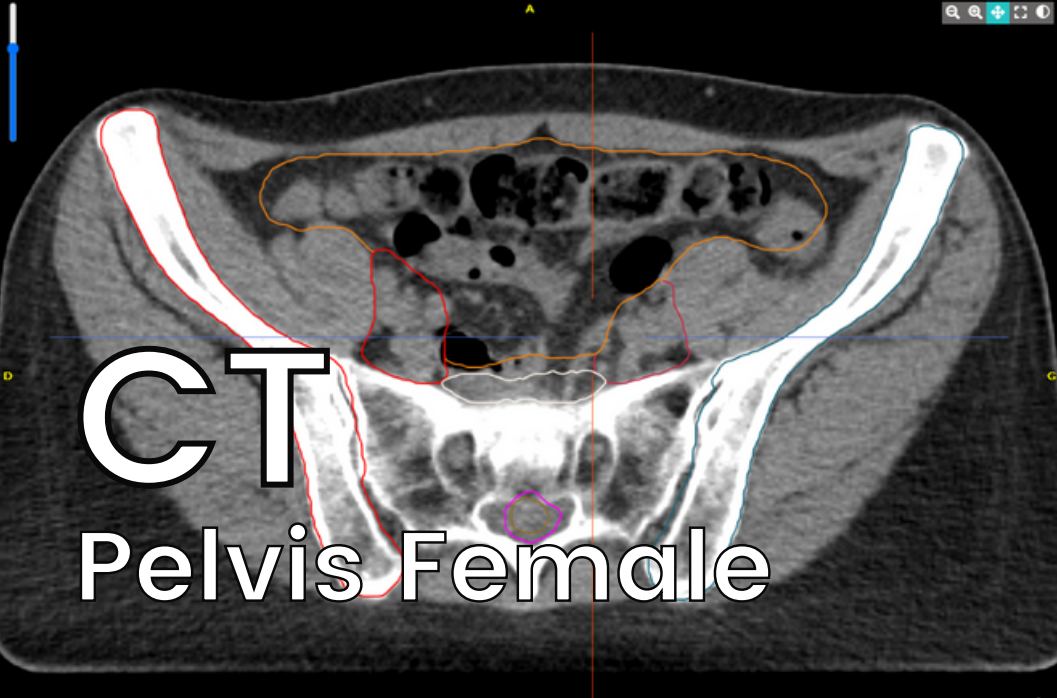
- Anal Canal
- Bladder
- Bowel Bag
- Duodenum
- Femoral Head (L/R)
- Iliac (L/R)
- Kidney (L/R)
- Liver
- Large bowel
- Medullar canal
- Penile Bulb
- Prostate
- Rectum
- Seminal Vesicle
- Sigmoid
- Small bowel
- Spinal Cord
- Stomach

## ROI\*\*

- CTVn prostate

\*Guideline: Gay et al (2012)

\*\*Region of interest



18 OARs & 8 LNs

## OARs\*

- Anal Canal
- Bladder
- Femoral Head (L/R)
- Iliac (L/R)
- Kidney (L/R)
- Large bowel
- Liver
- Medullar canal
- Parametrium
- Rectum
- Sigmoid
- Small bowel
- Spinal Cord
- Stomach
- Vagina

## LNs & ROI\*\*

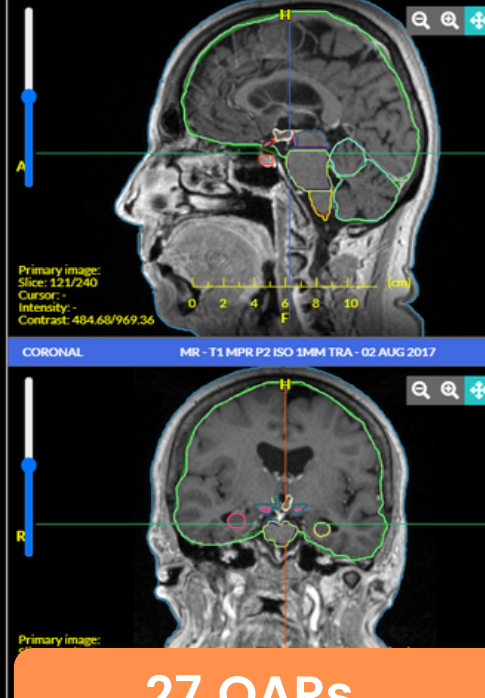
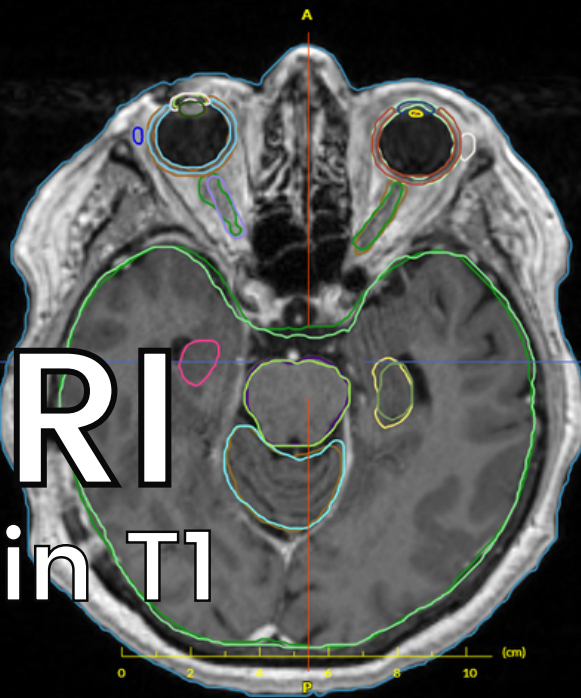
- Common Iliac Gyneco LNs
- CTVt Gyneco
- Iliac Gyneco LN (L/R)
- Inguinal Gyneco LN (L/R)
- Lomboaortic Gyneco LNs
- Presacral Gyneco LNs

\*Guideline: Gay et al (2012)

\*\*Region of interest

# MRI Brain T1

Primary image:  
Slice: 121/224  
Cursor: -  
Intensity: -  
Contrast: 484.68/969.36



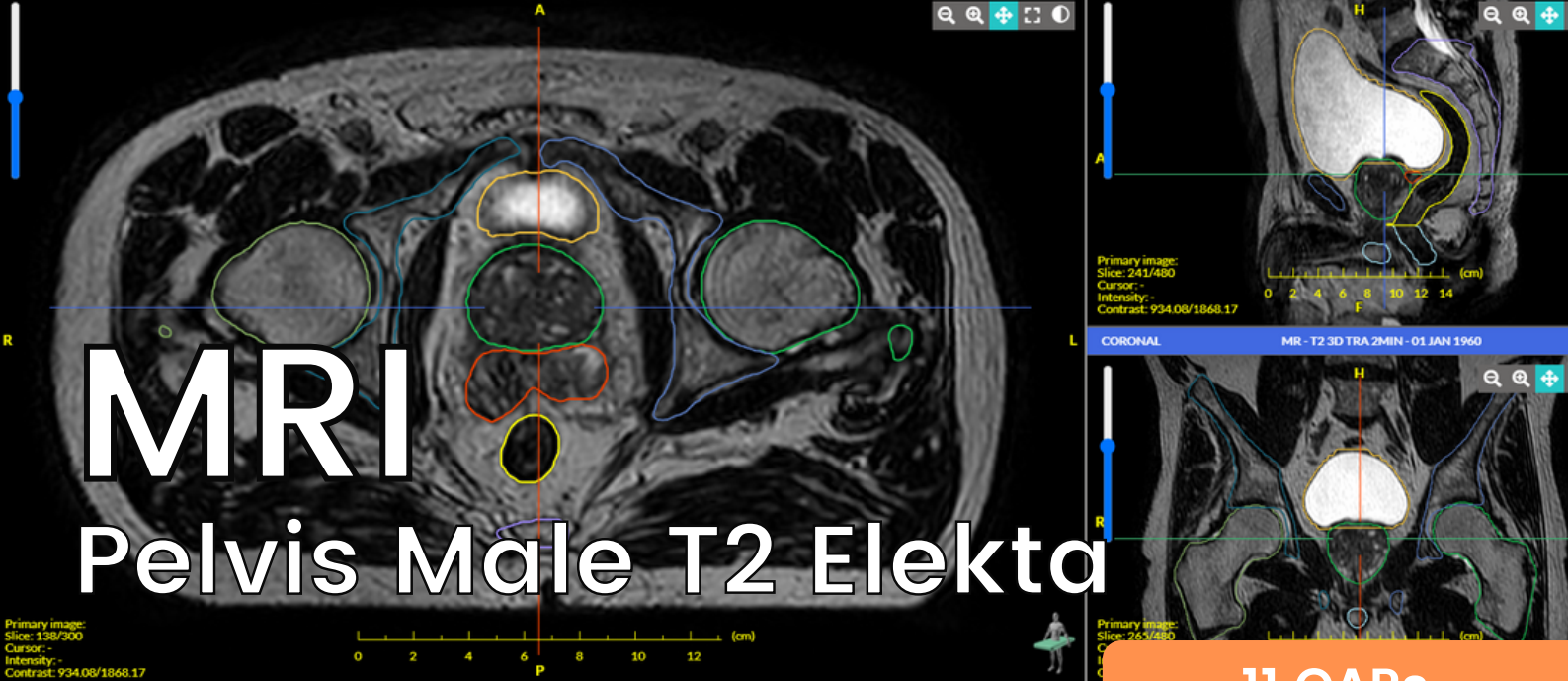
27 OARs

## OARs\*

- Anterior Cerebellum
- Chiasma
- Cochlea (L/R)
- Cornea (L/R)
- Encephalon
- Eye Lens (L/R)
- Hippocampus (L/R)
- Hypophyse
- Hypothalamus (L/R)
- Lacrimal Gland (L/R)
- Medulla Oblongata
- Midbrain
- Optical nerve (L/R)
- Pons
- Posterior cerebellum
- Retina (L/R)
- Spinal cord
- VSCC (L/R)

\*Guideline: EPTN consensus-based guideline for the tolerance dose per fraction of organs at risk in the brain (2018)





# MRI

## Pelvis Male T2 Elekta

11 OARs

## OARs\*

- Anal Canal
- Bladder
- Femoral Head (L/R)
- Pelvis (L/R)
- Penile Bulb
- Prostate
- Rectum
- Sacrum
- Seminal Vesicle

\*Guideline: ESTRO ACROP guideline, Salembier et al. (2018)



# MRI

# Pelvis Male & Abdo Truefisp

9 Abdo

9 Pelvis Male

## Pelvis OARs

- Anal Canal
- Bladder
- Femoral Head (L/R)
- Penile Bulb
- Prostate
- Rectum
- Seminal Vesicle
- Sigmoid Colon

## Abdo OARs\*

- Abdominal aorta
- Duodenum
- Kidney (L/R)
- Large bowel
- Liver
- Pancreas
- Stomach
- Vena cava inf

\*Guideline: RTOG Jabbour et al (2014), RTOG Kong et al (2011)



# THERAPANACEA

Reinventing cancer care through AI

**TheraPanacea**  
7 bis Boulevard Bourdon  
75004 Paris, France  
[www.therapanacea.eu](http://www.therapanacea.eu)

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