



PROLONG VZW

Infonamiddag
24 September 2026
De Jachthoorn, Kontich



Radiologie als kompas bij diagnose en behandeling

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Radioloog UZA – expertise thoracale oncologie

Diensthoofd

Europese verenigingen en taskforces

Implementatie longkankerscreening

Vraag?

Iets niet duidelijk?
Stel ze gerust!





Radiologie

Over wat spreken we dan juist?



Röntgenfoto



Echografie

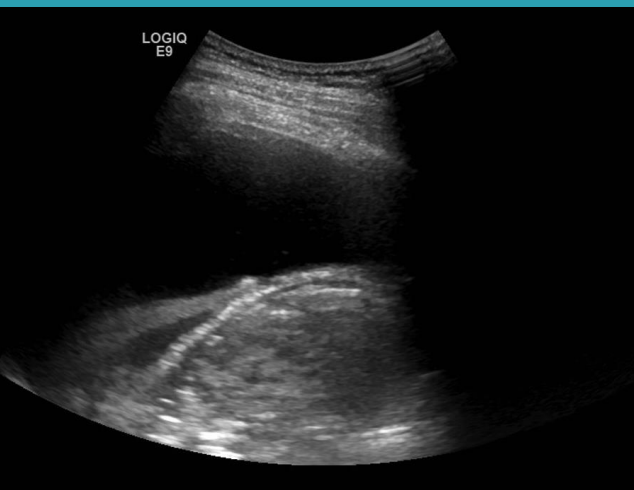


CT



MRI





Echografie

Geluidsgolven

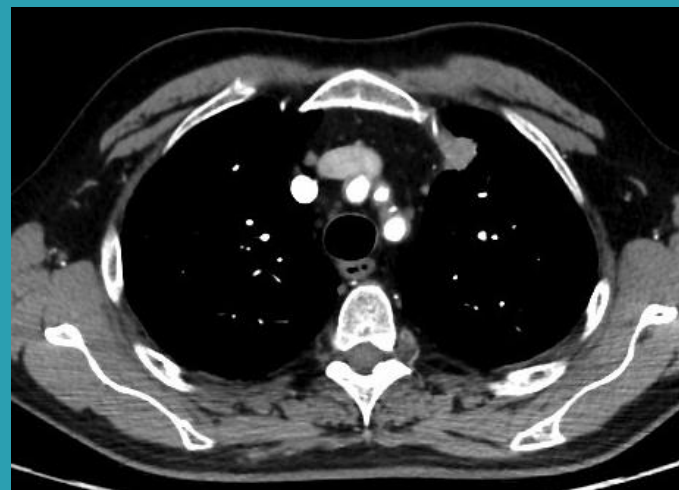
- Opsporen van pleuravocht
- Drainage van vocht



Röntgenfoto

Röntgenstralen

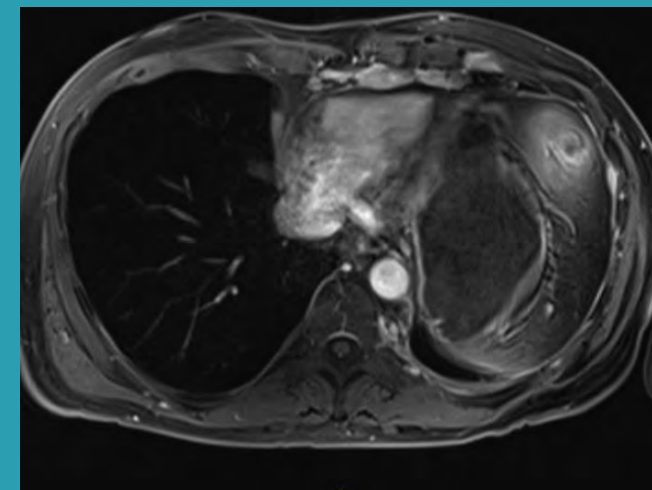
- Eenvoudig onderzoek
- Aan bed
- Beperkte straling
- Algemene inschatting



CT

Röntgenstralen

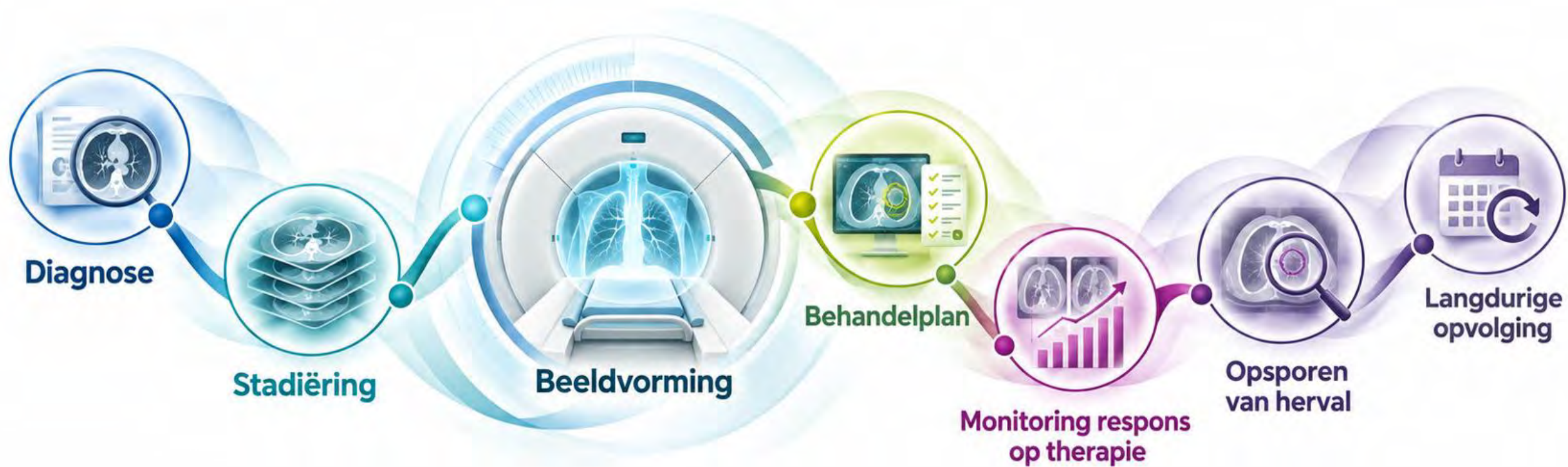
- Hogere dosis
- Intraveneus contrast
- Meer gedetailleerd beeld



MRI

Magnetisch veld

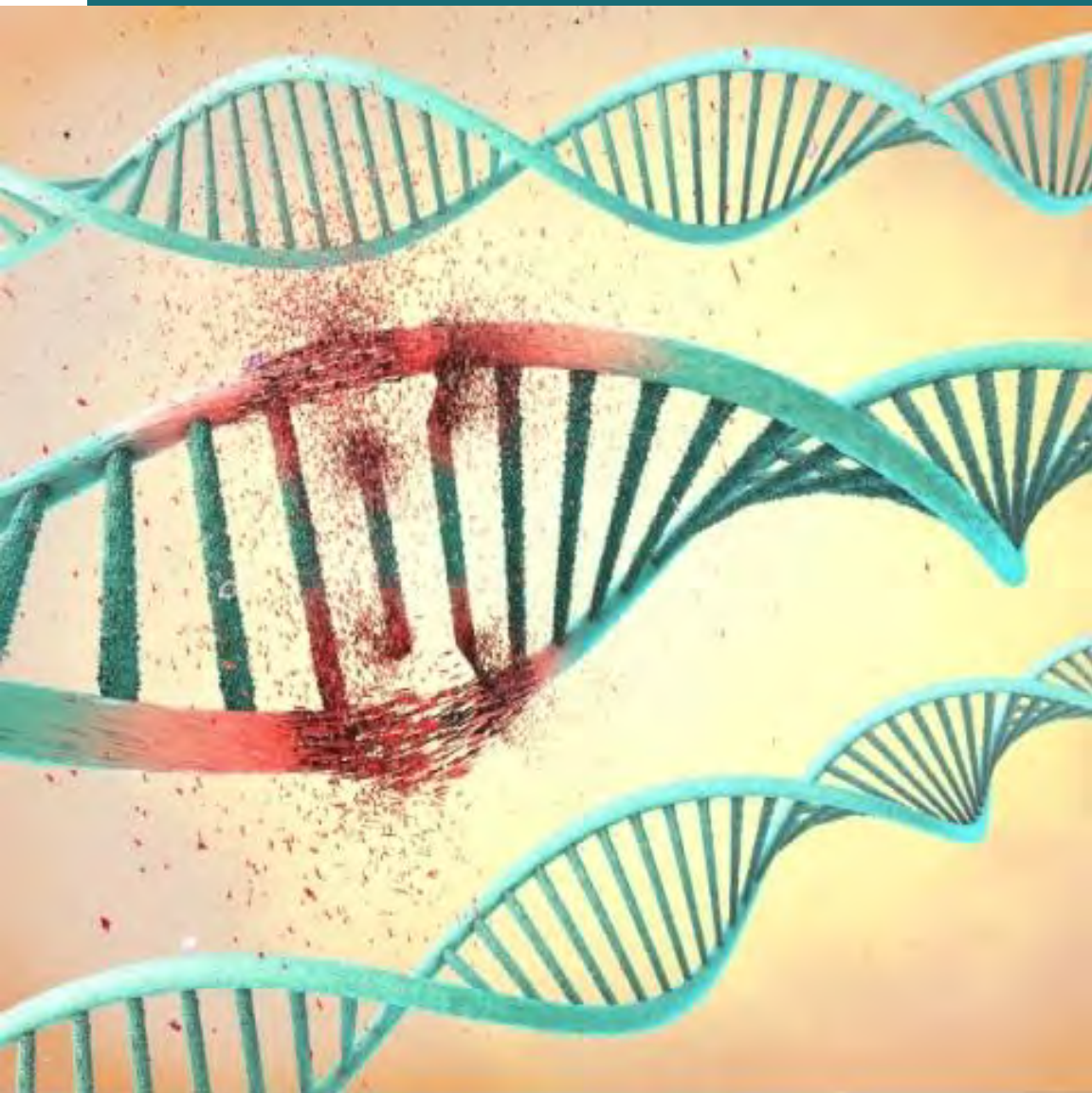
- Niet goed voor longen
- Wel voor longvlies
- Specifieke gevallen
- Beeldvorming hersenen



Elke techniek heeft zijn eigen waarde in dit traject...



Moet ik mij zorgen maken over
al die Röntgenstralen?



DNA-schade: hersteld
Hoeveelheid - leeftijd
Lange termijn effecten

ALARA

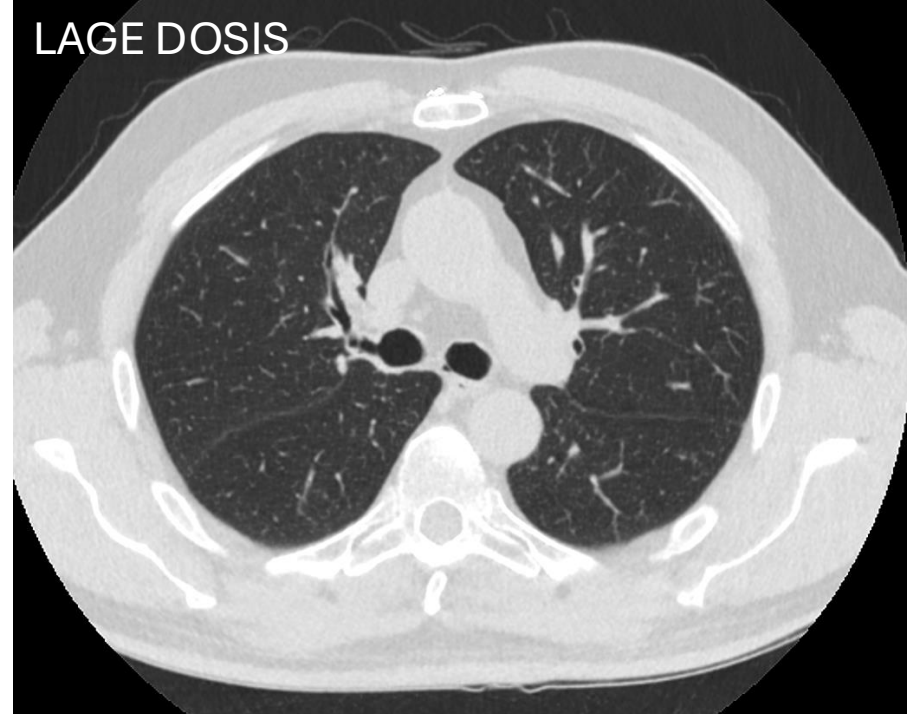
‘as low as reasonably achievable’

Rechtvaardiging

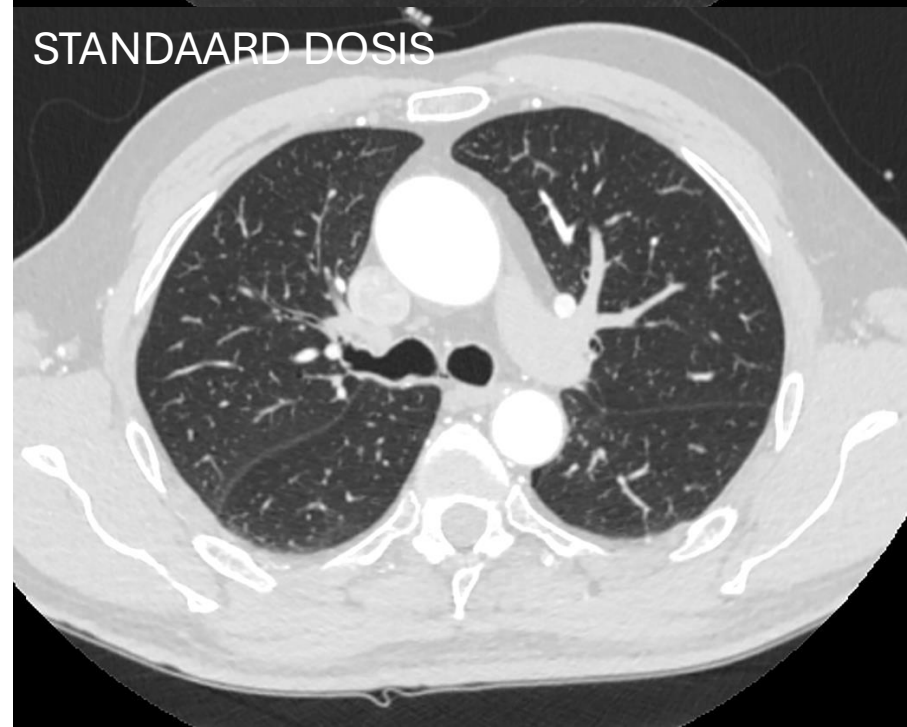
LAGE DOSIS CT

Waarom wel voor longkanker screening en niet voor de vervolgonderzoeken bij longkanker en longvlieskanker?

LAGE DOSIS

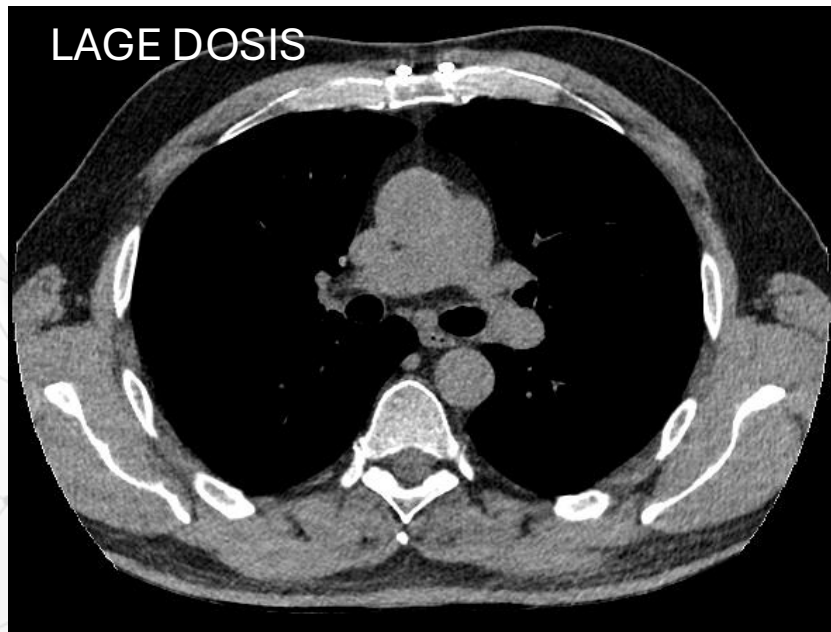


STANDAARD DOSIS

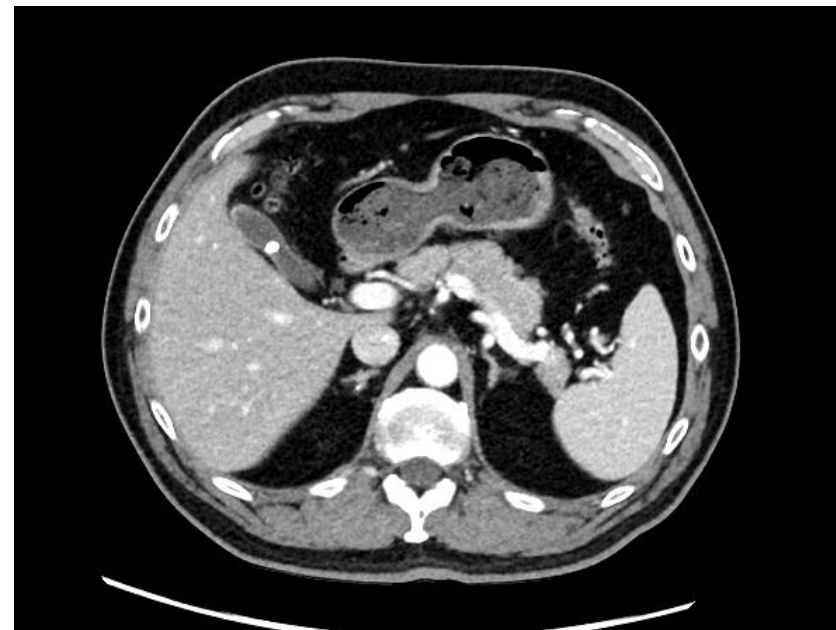
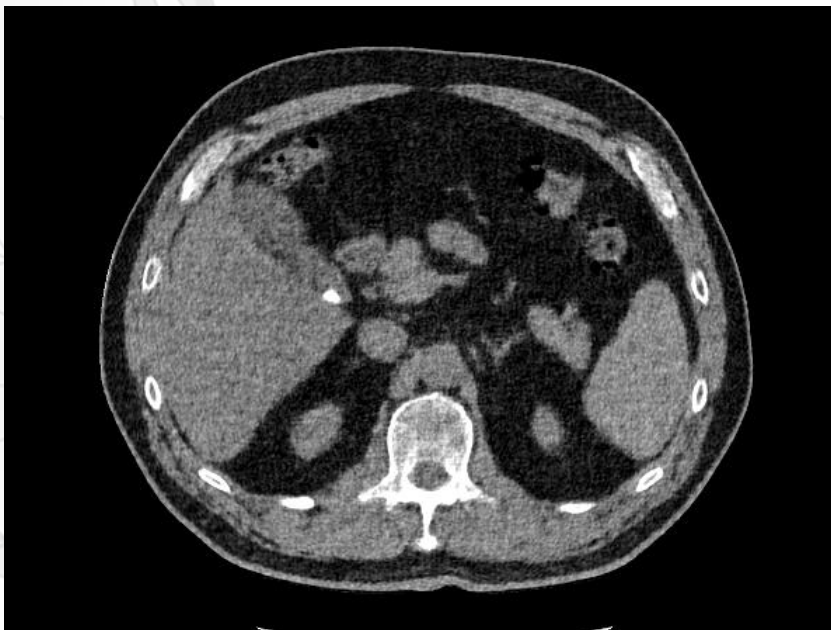
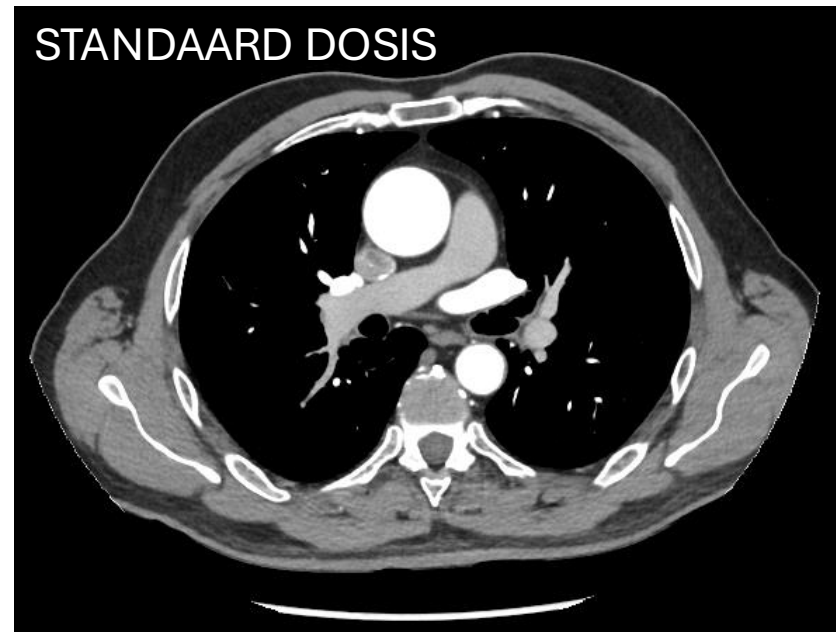




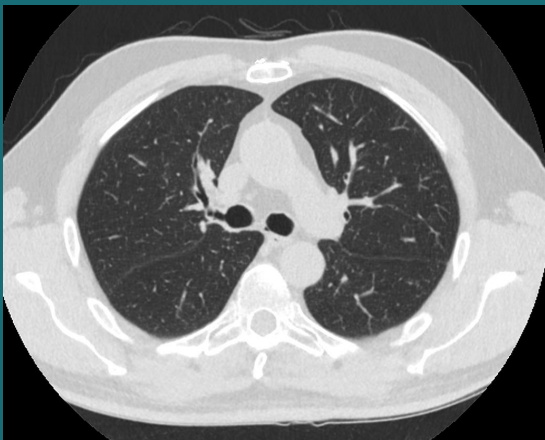
LAGE DOSIS



STANDAARD DOSIS



LAGE DOSIS CT



Rechtvaardiging Justificatie

Longkankerscreening = 'gezonde'
burgers – normale onderzoeken
Ziekenhuis = patiënten

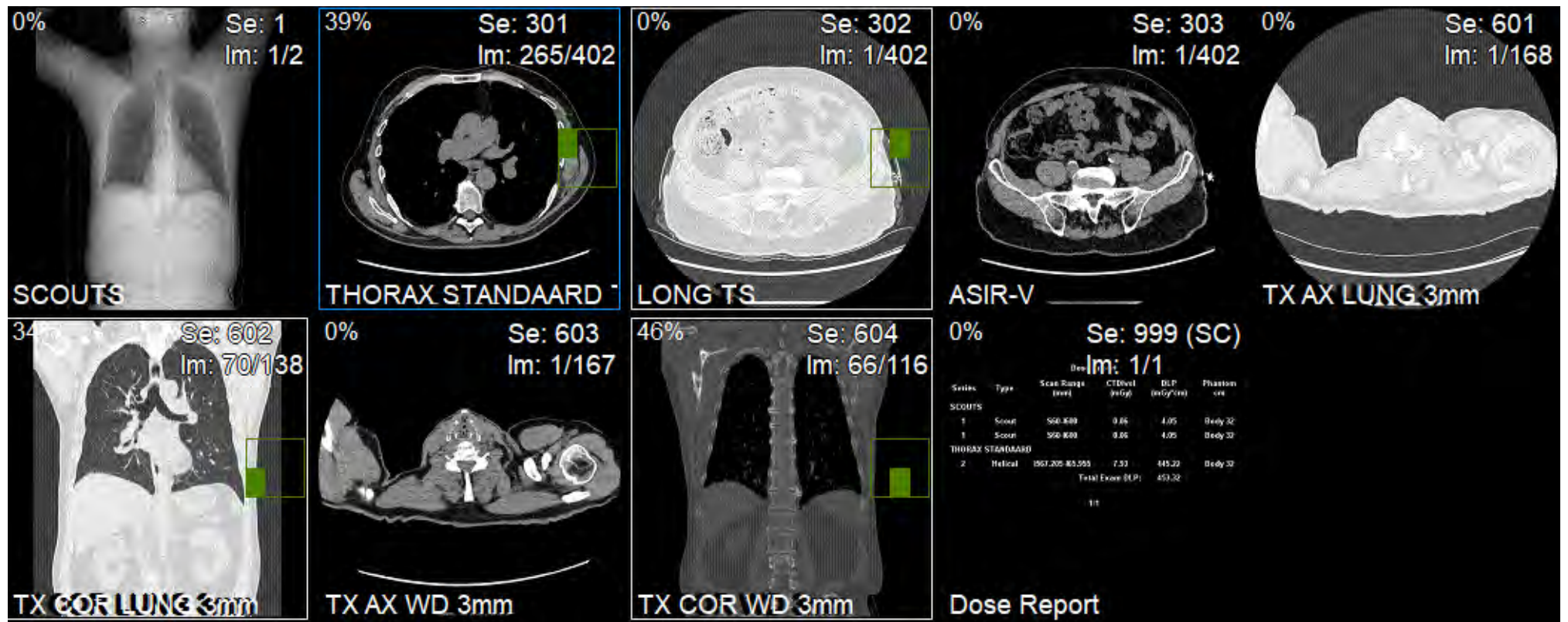


Eén scan...

Veel beelden...

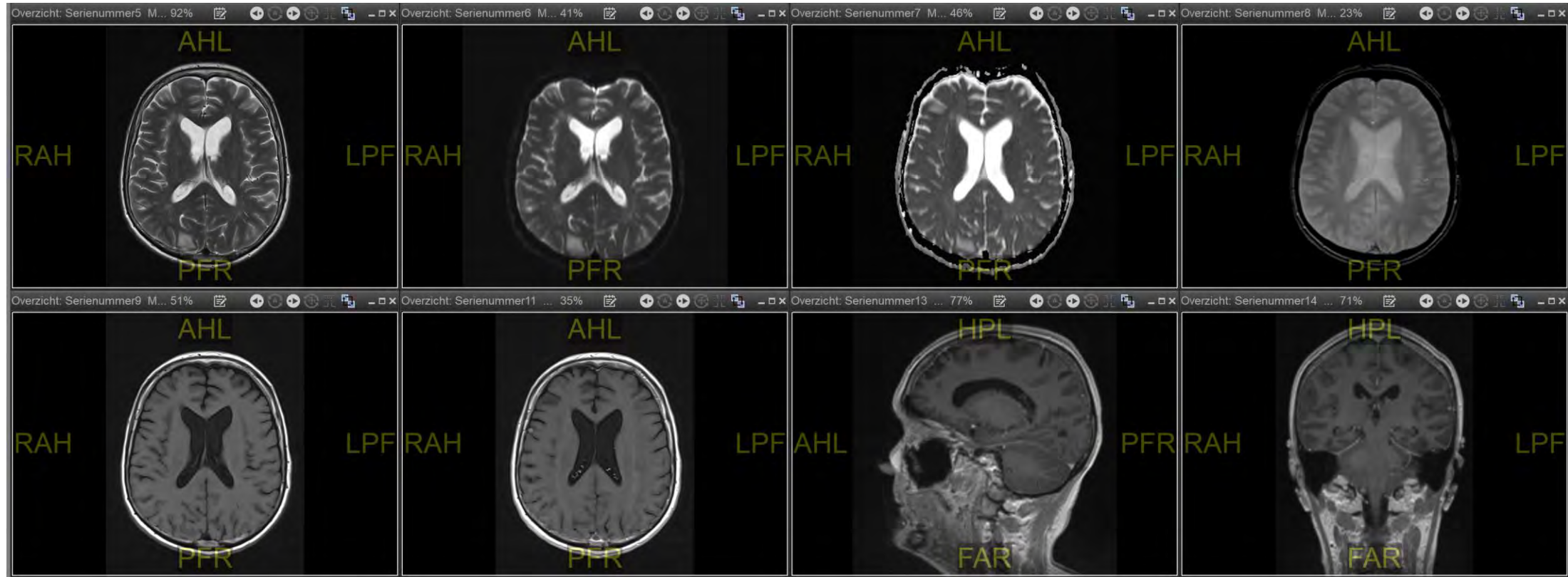
Hoe zit dat eigenlijk?

CT-scan

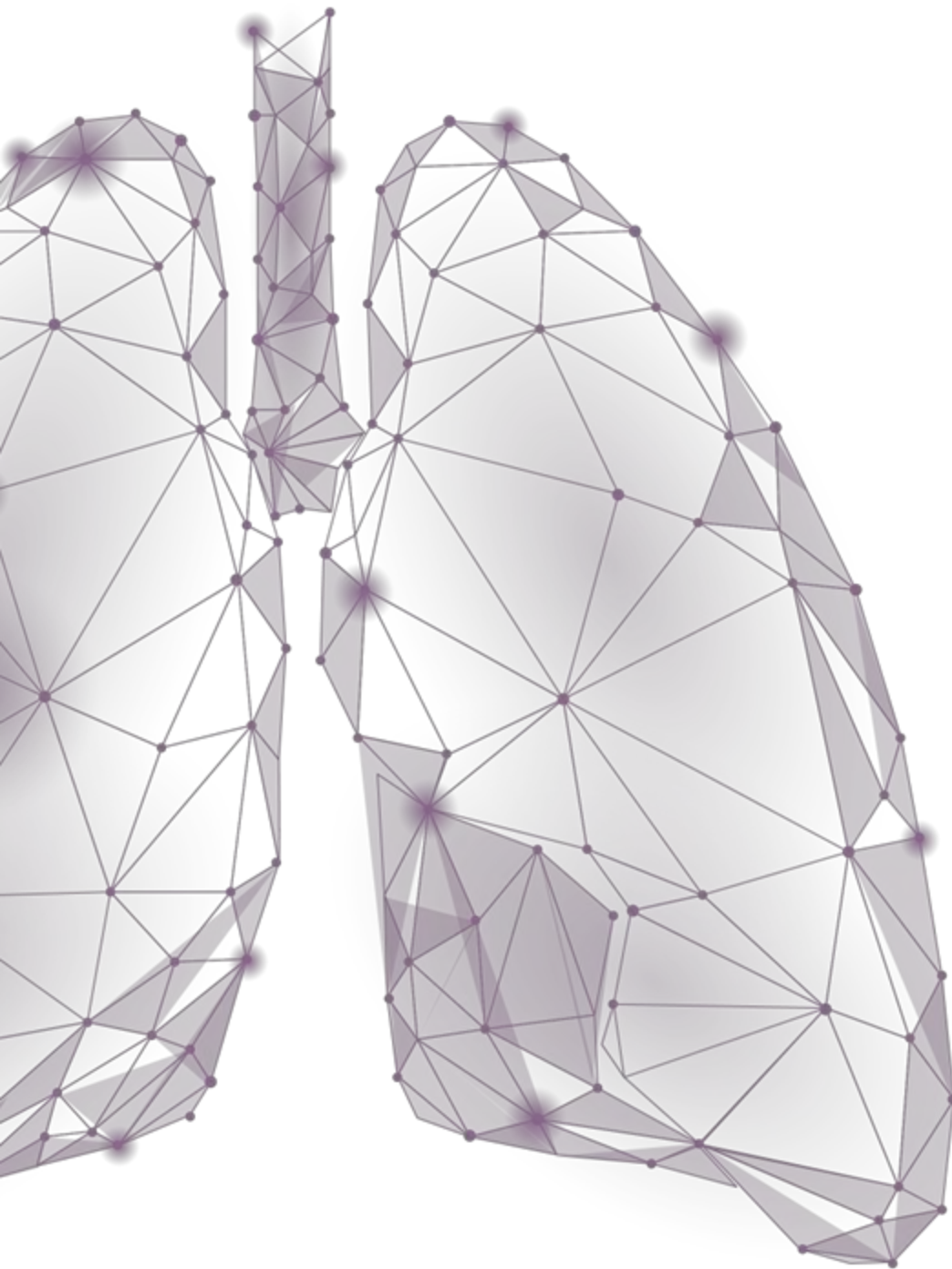


- Scan duurt seconden
- Computer berekent beelden

MRI-scan

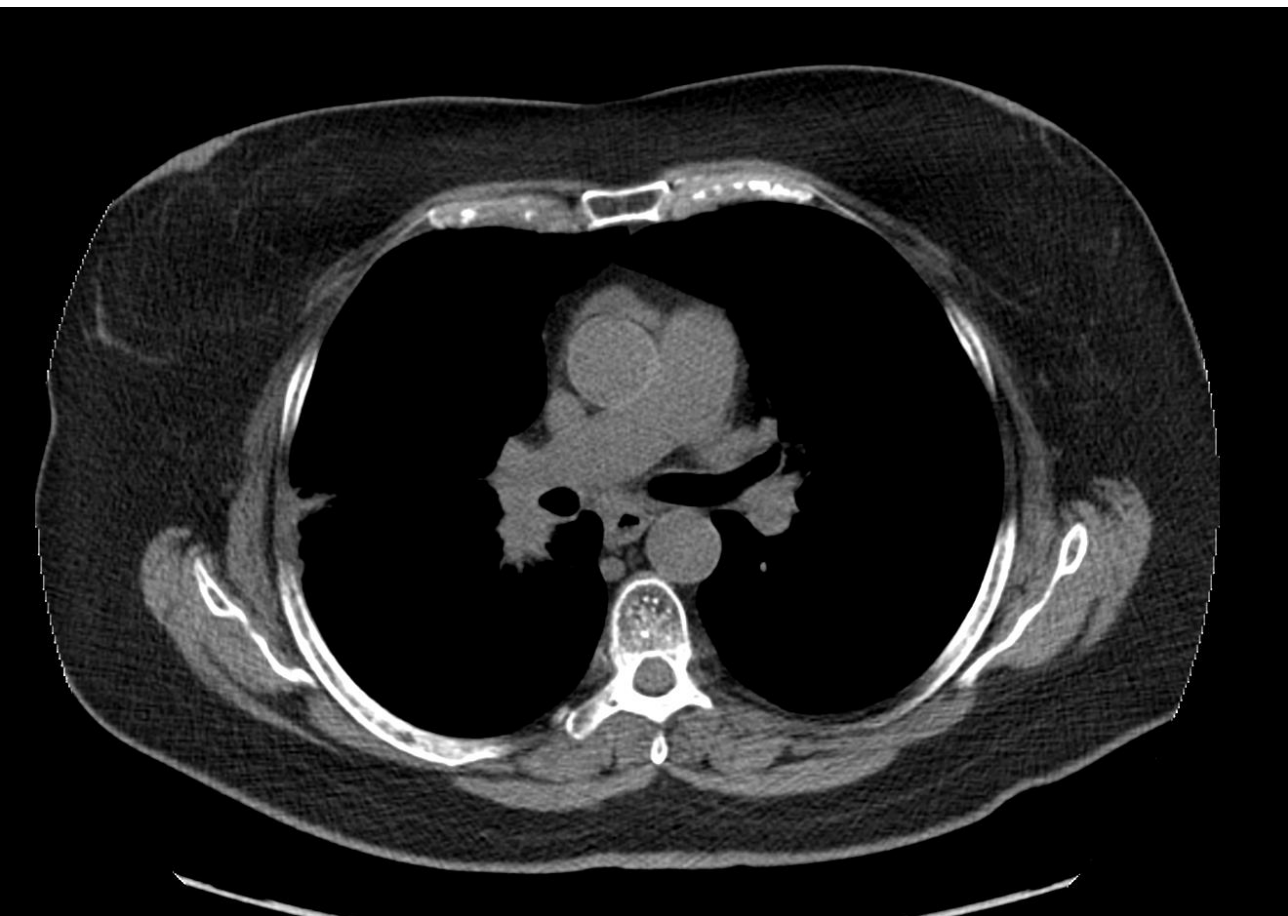


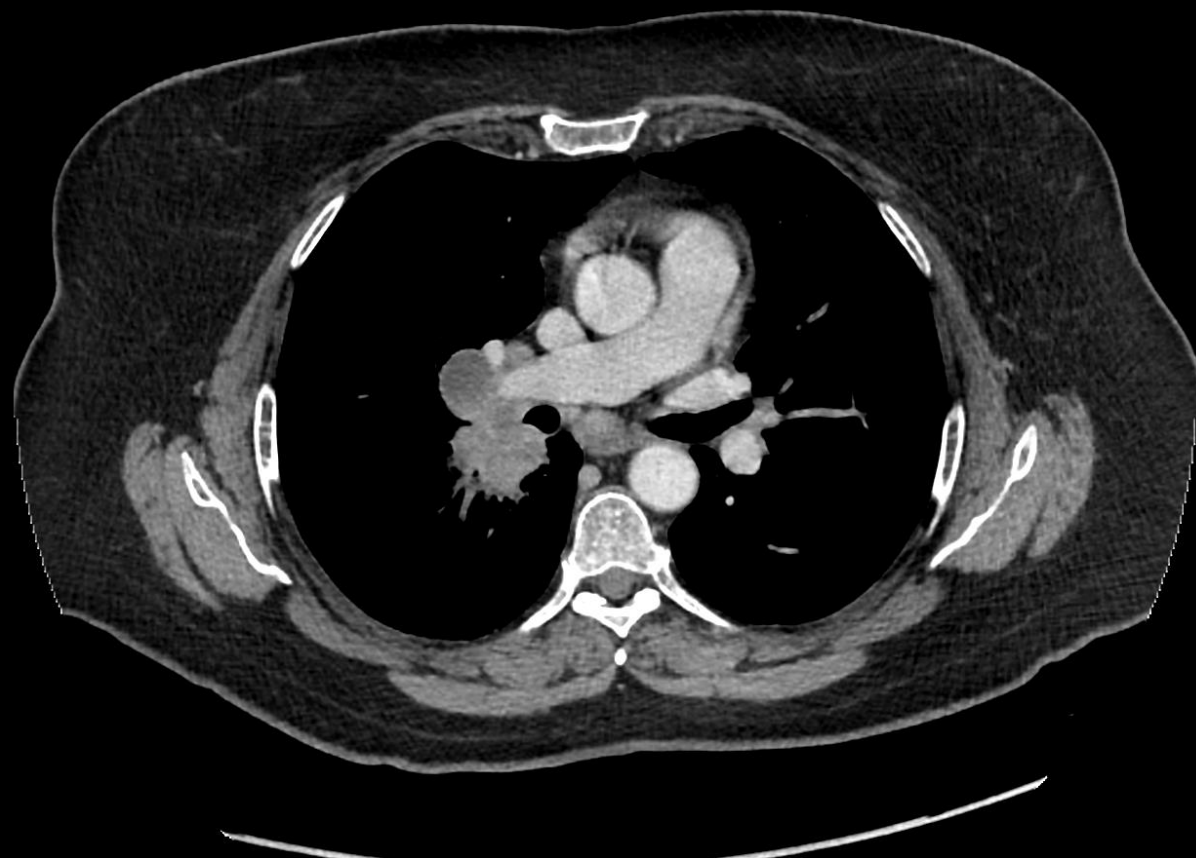
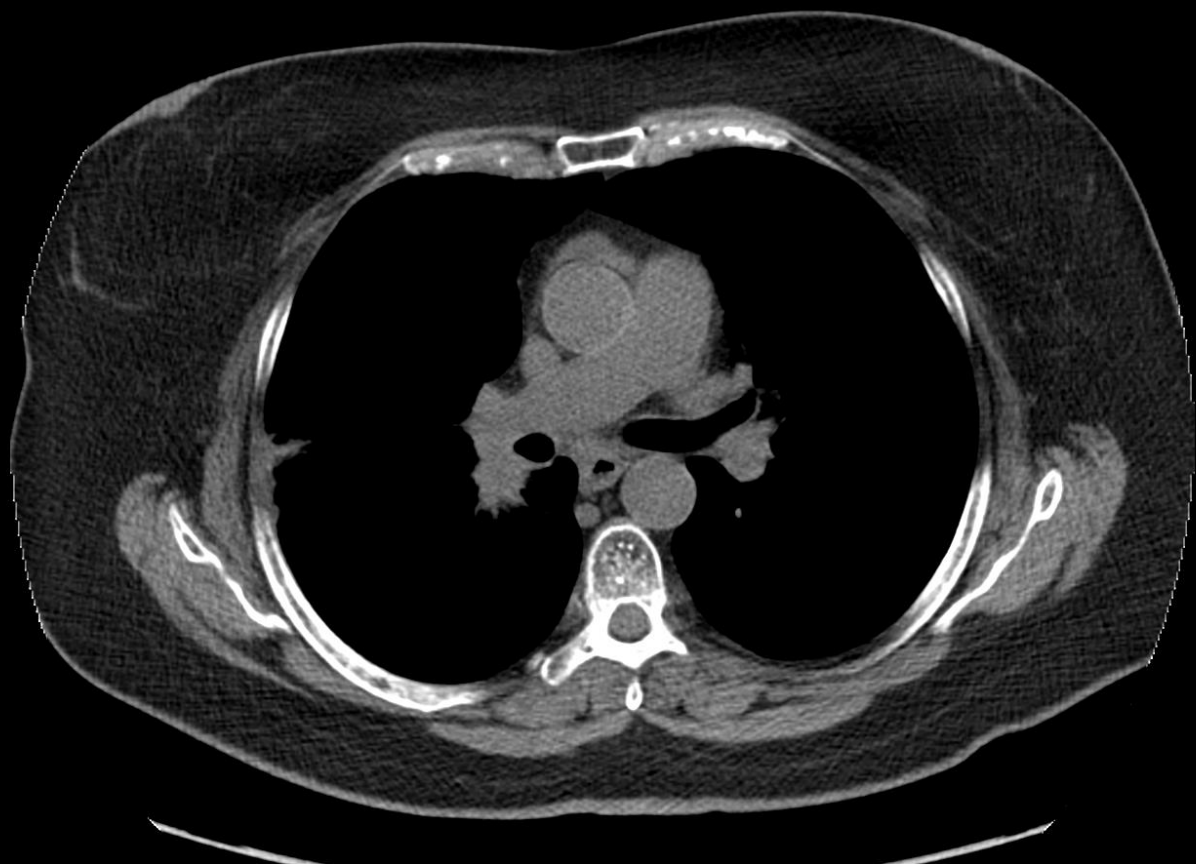
- Scan duurt tot een half uur
- Verschillende sequenties tijdens het onderzoek

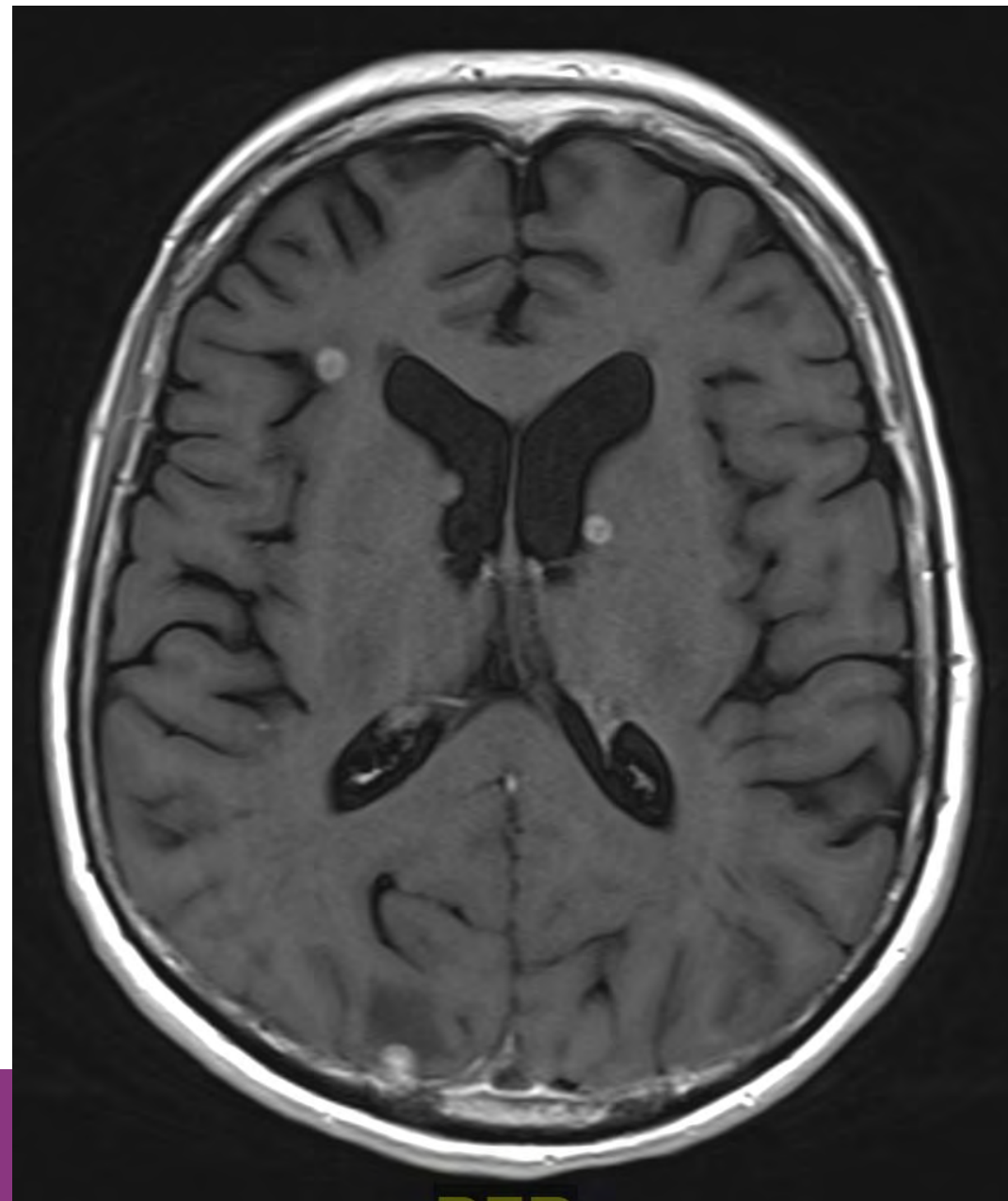


Intraveneus contrast...

Kan het niet gewoon zonder? Moet dat echt?





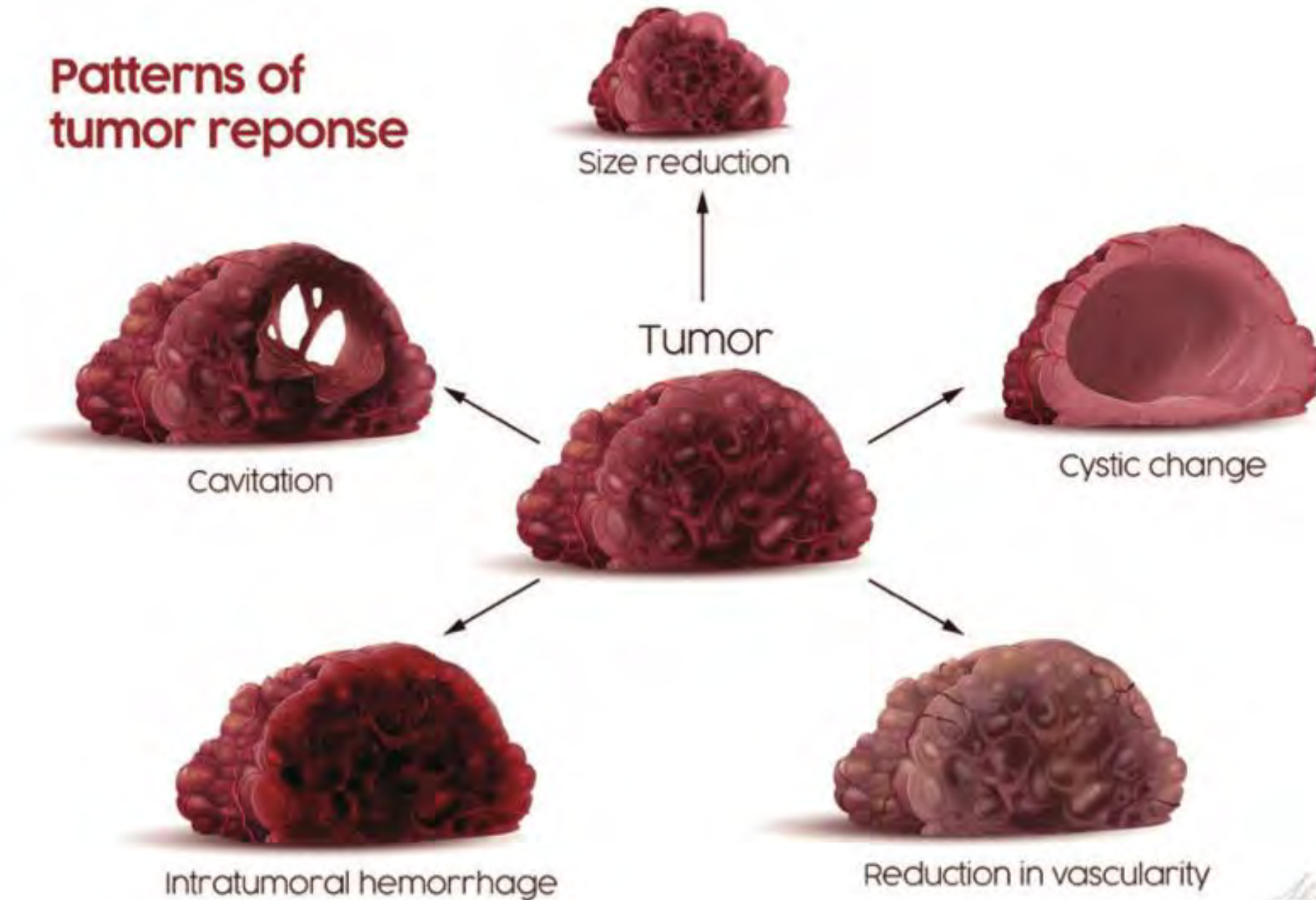


A stylized, wireframe illustration of human lungs, rendered in a light gray color. The lungs are composed of a network of interconnected points and lines, giving them a geometric, mesh-like appearance. They are positioned on the left side of the image, with a darker, more detailed version in the foreground and a lighter, faded version in the background.

Wat doet de behandeling met mijn tumor?

Er verandert weinig op mijn scan...moet ik mij nu zorgen maken?

Patterns of tumor response





Huidige
beeldvorming =
morfologisch

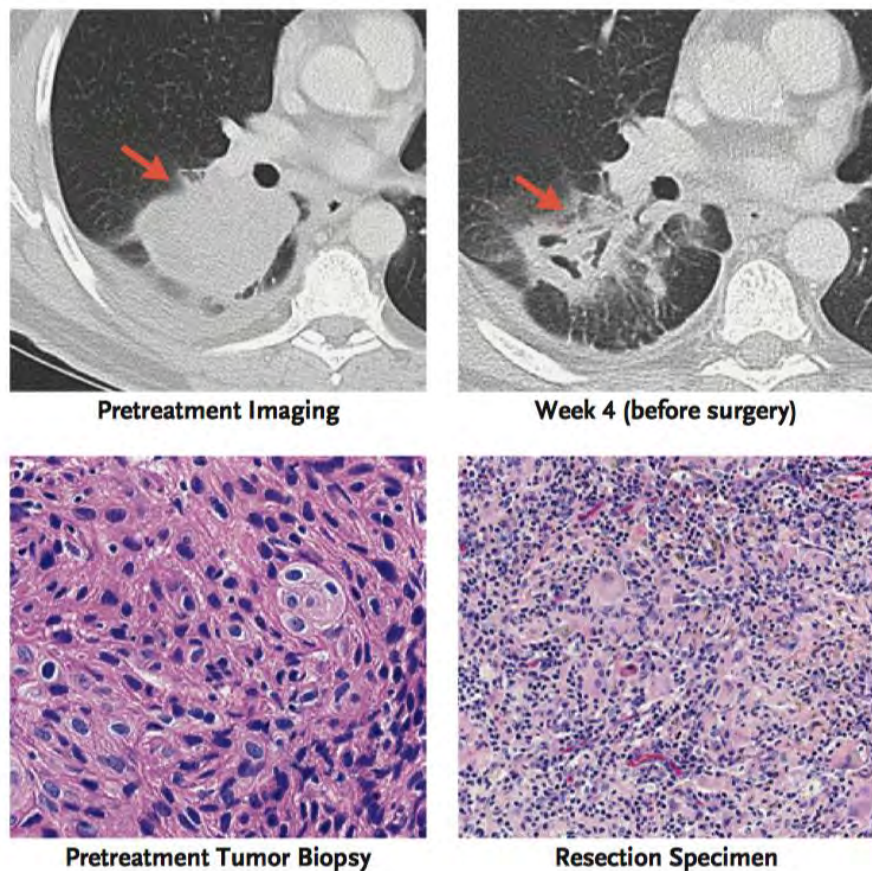
Geen info over
activiteit

Geen info over
'welke' cellen

Neoadjuvant PD-1 Blockade in Resectable Lung Cancer

P.M. Forde, J.E. Chaft, K.N. Smith, V. Anagnostou, T.R. Cottrell, M.D. Hellmann, M. Zahurak, S.C. Yang, D.R. Jones, S. Broderick, R.J. Battafarano, M.J. Velez, N. Rekhtman, Z. Olah, J. Naidoo, K.A. Marrone, F. Verde, H. Guo, J. Zhang, J.X. Caushi, H.Y. Chan, J.-W. Sidhom, R.B. Scharpf, J. White, E. Gabrielson, H. Wang, G.L. Rosner, V. Rusch, J.D. Wolchok, T. Merghoub, J.M. Taube, V.E. Velculescu, S.L. Topalian, J.R. Brahmer, and D.M. Pardoll

A Patient 1



B Patient 5

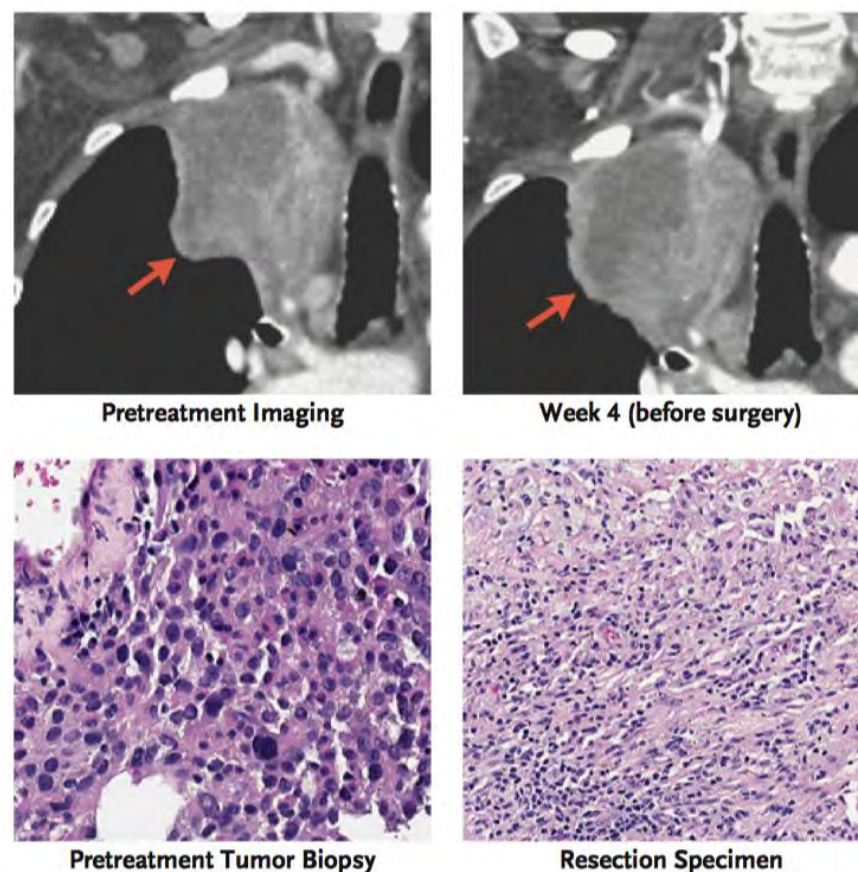


Figure 1. Patterns of Radiologic and Pathologic Response to Neoadjuvant Therapy with Nivolumab.

Panel A shows computed tomographic (CT) imaging of the chest of a 62-year-old male smoker (Patient 1) with stage IIB squamous lung cancer before and after the administration of nivolumab. In the upper row, the pretreatment scan before the infusion of nivolumab shows a primary tumor mass measuring 8 cm in diameter in the lower right lobe of the lung (arrow). A scan performed before surgery shows 35% shrinkage with associated tumor cavitation (arrow). In the lower row, shown are representative sections of tumor specimens obtained from Patient 1 before the administration of nivolumab (left) and after the administration (right) (hematoxylin and eosin staining). This patient had 100% pathological regression of the large primary lung tumor but had residual lymph-node metastases in the resection specimen. Panel B shows CT of the chest of a 78-year-old female former smoker (Patient 5) with stage IIIA lung adenocarcinoma, who received two doses of nivolumab preoperatively. In the upper row, the tumor is larger on imaging performed after the administration of nivolumab than before administration (arrows), possibly because of infiltration of immune cells into the tumor. In the lower row, shown are representative sections of tumor specimens obtained from Patient 5 before the administration of nivolumab (left) and after administration (right) (hematoxylin and eosin staining). Neoplastic cells are present throughout the pretreatment specimen, whereas in the post-treatment specimen, there was 90% tumor regression.

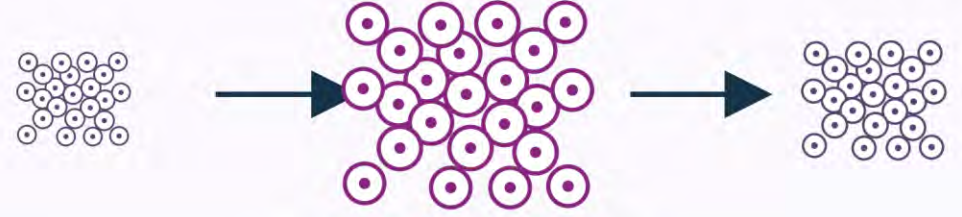
Disease Response



Disease Response



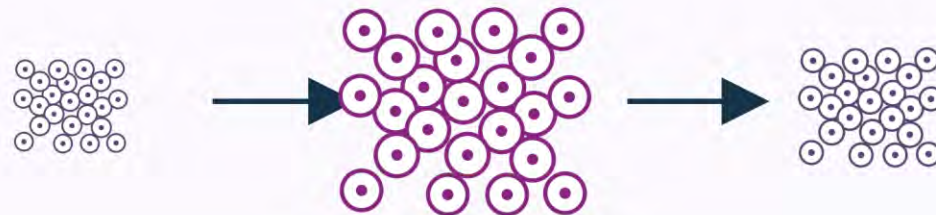
Pseudoproggression



Disease Response



Pseudoprogression



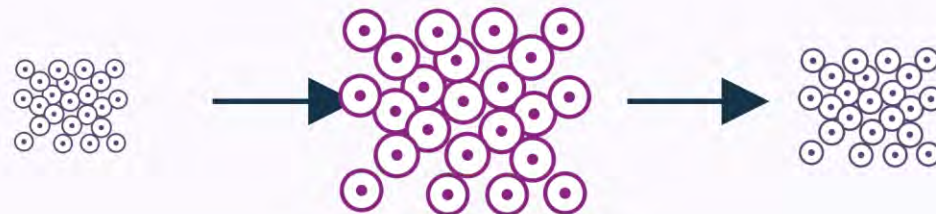
Stable Disease



Disease Response



Pseudoproggression



Stable Disease



Hyperprogression



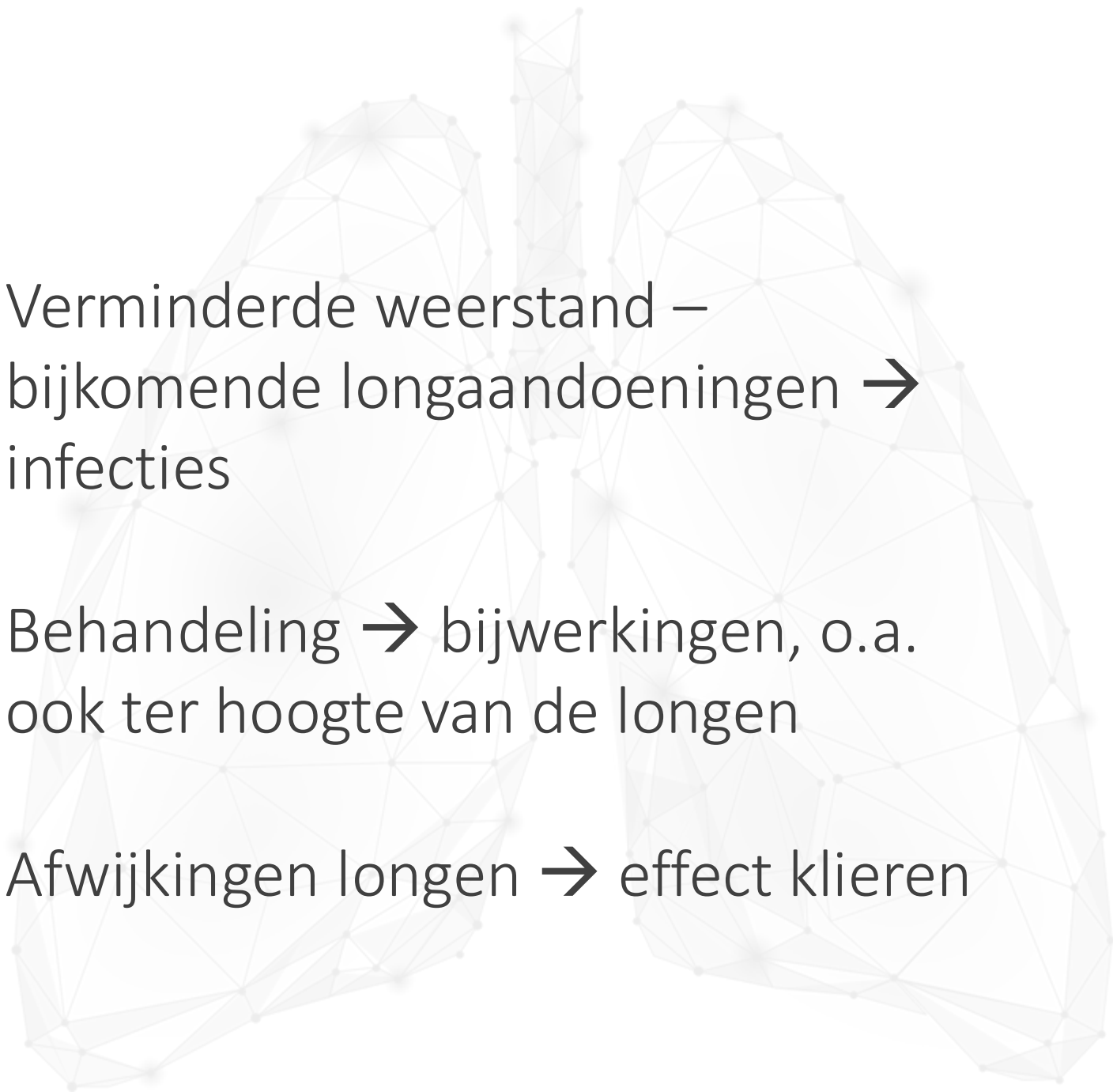


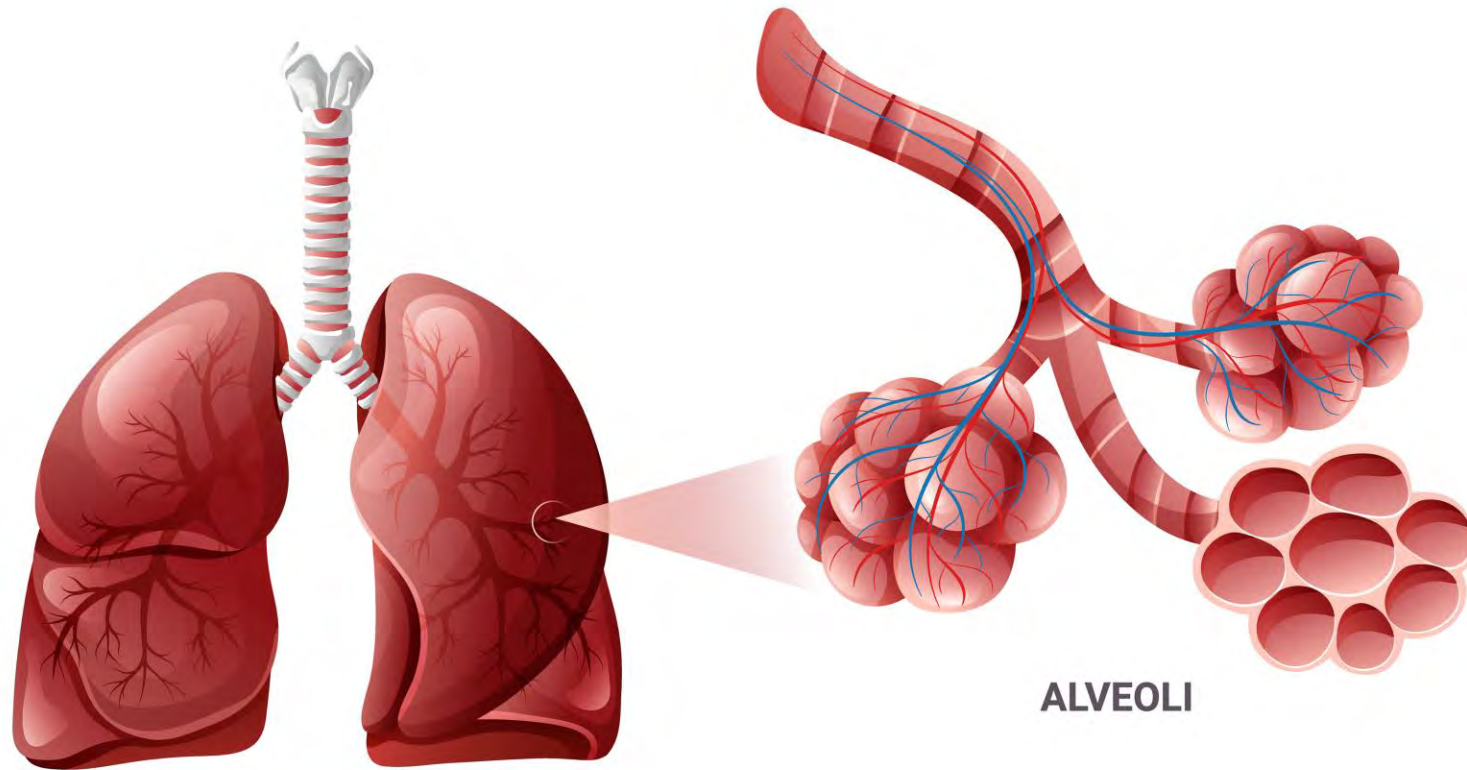
De scan toont nieuwe
afwijkingen...

... als het maar geen tumor is...

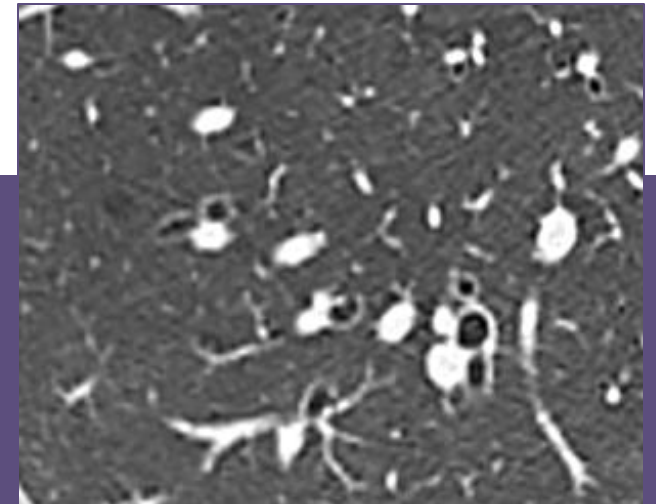


- Verminderde weerstand –
bijkomende longaandoeningen →
infecties
- Behandeling → bijwerkingen, o.a.
ook ter hoogte van de longen
- Afwijkingen longen → effect klieren



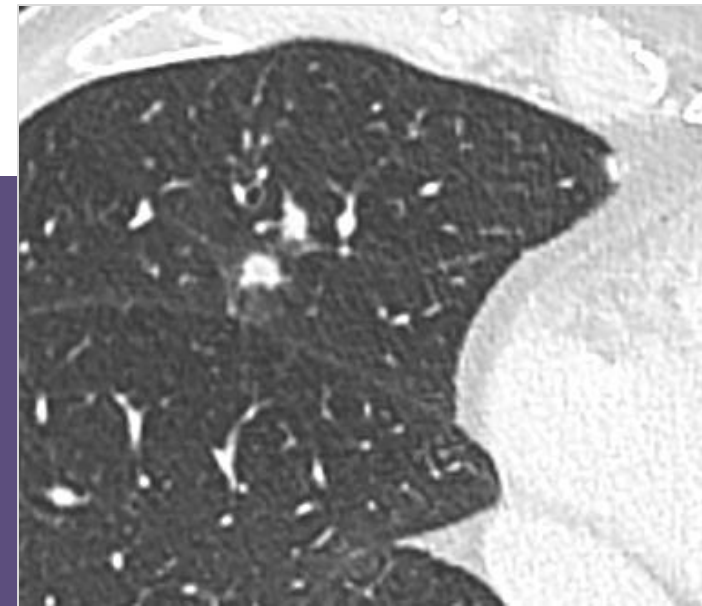
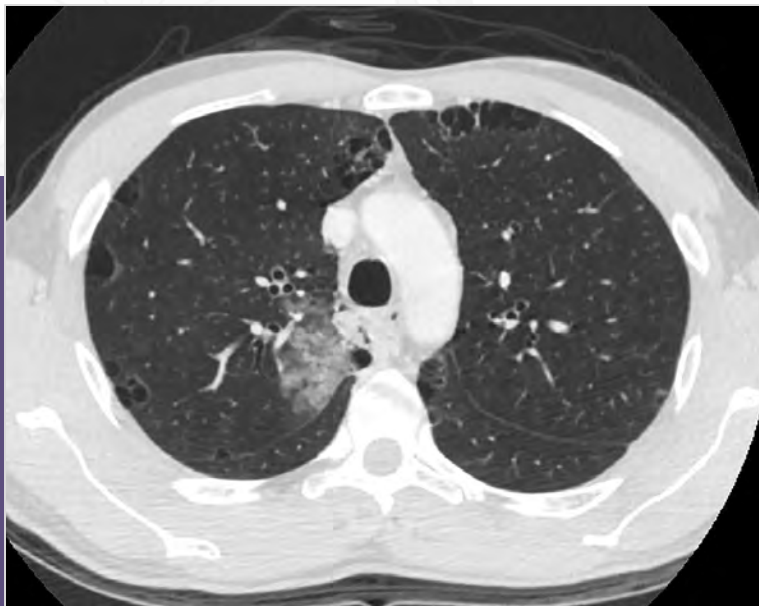
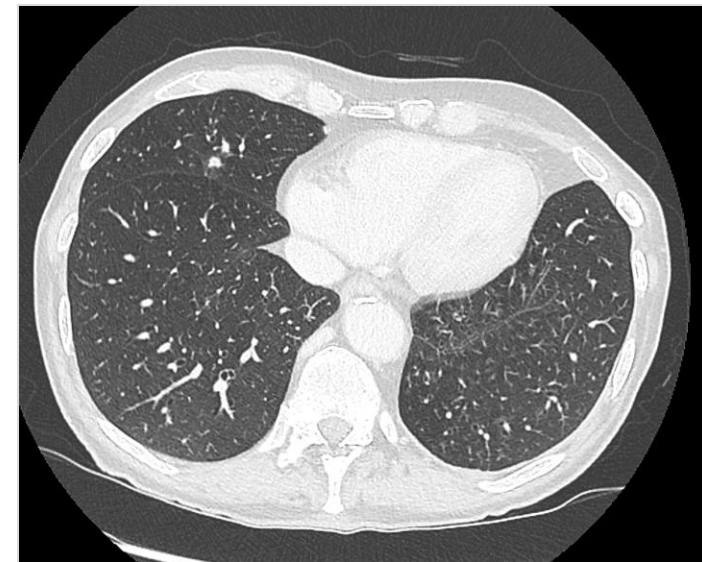
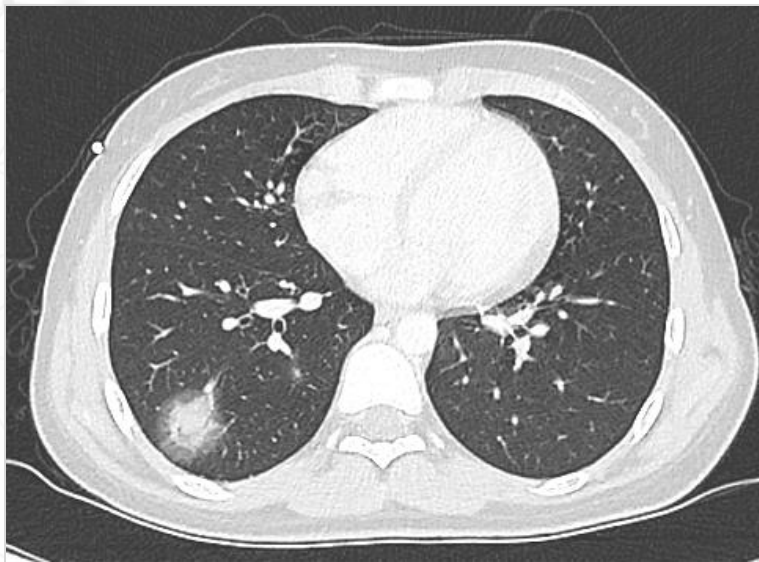


Longblaasjes
Steunweefsel



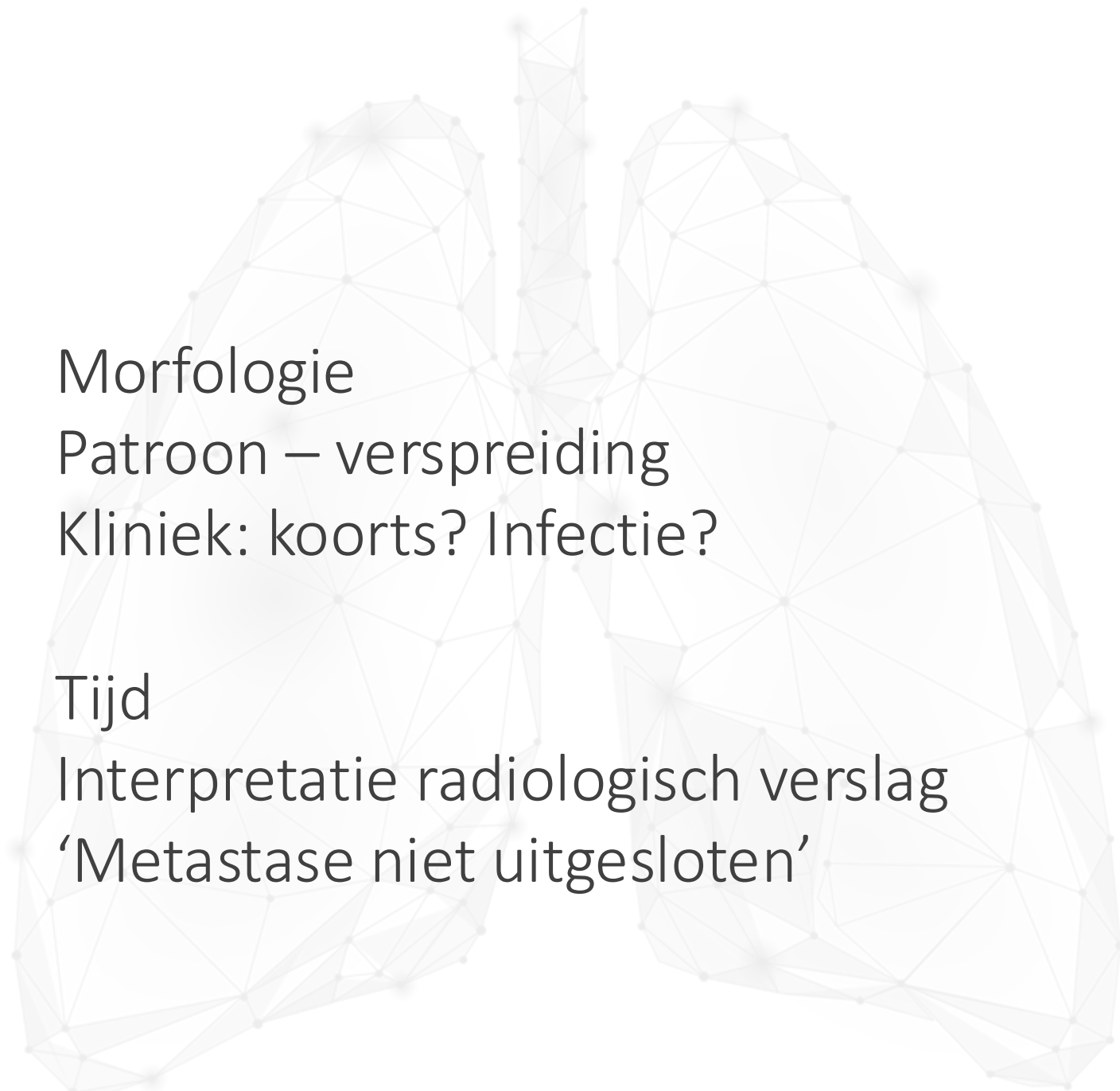
Vocht
Bloed
Ontsteking
Tumor

....





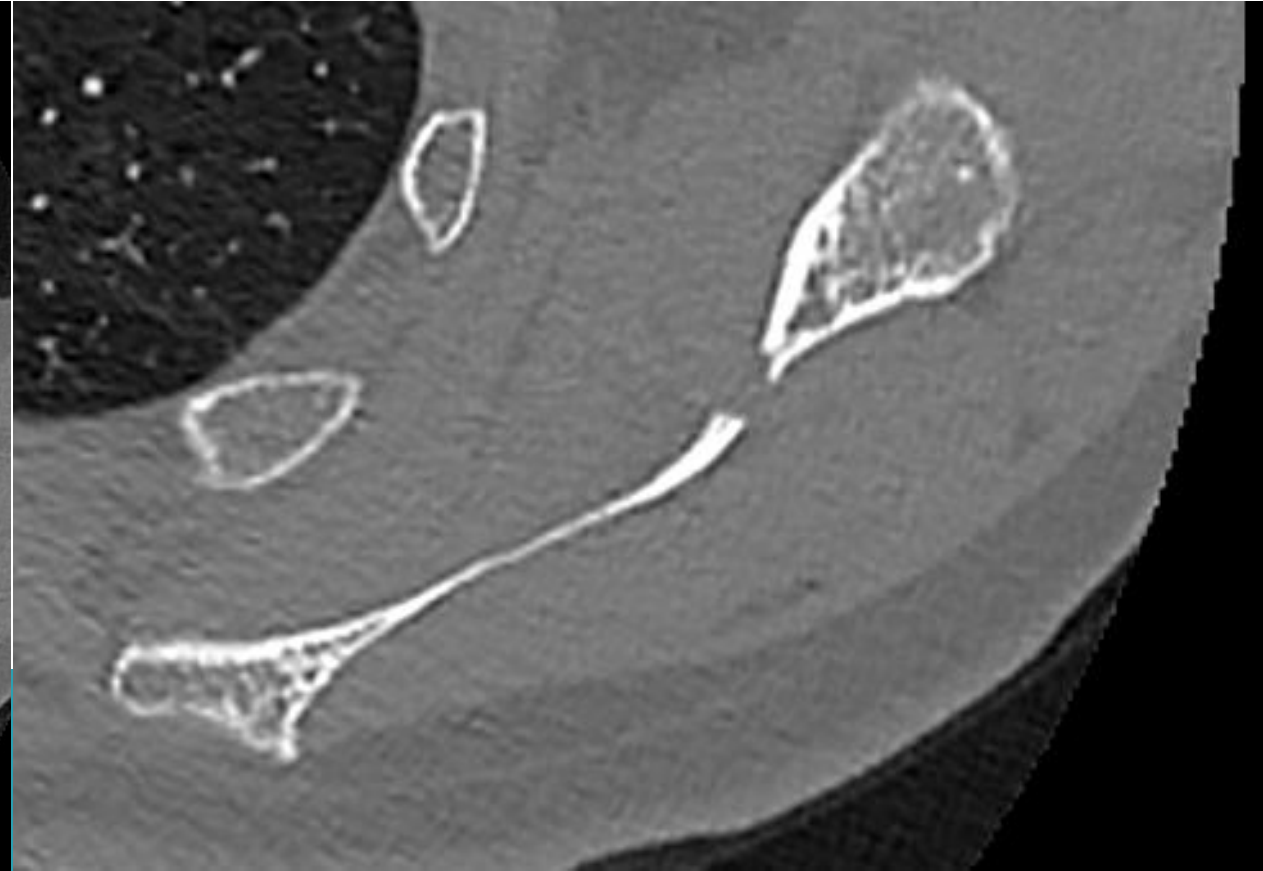
- Morfologie
- Patroon – verspreiding
- Kliniek: koorts? Infectie?
- Tijd
- Interpretatie radiologisch verslag
- ‘Metastase niet uitgesloten’



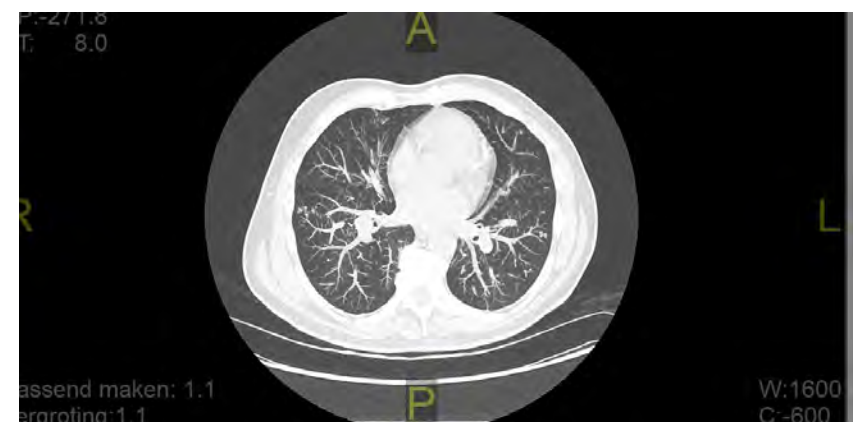
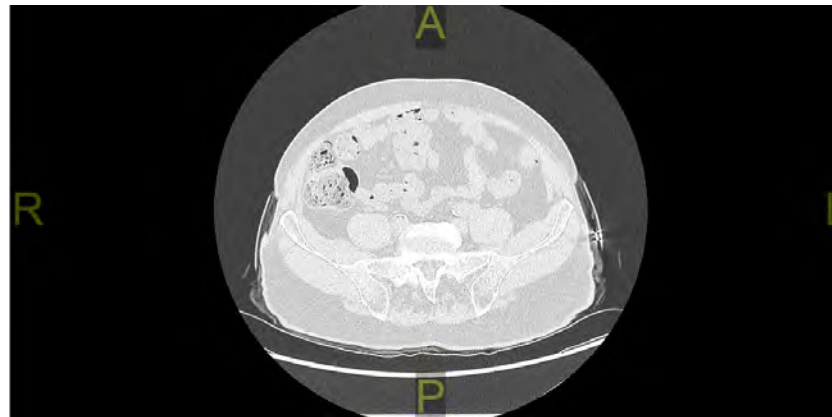
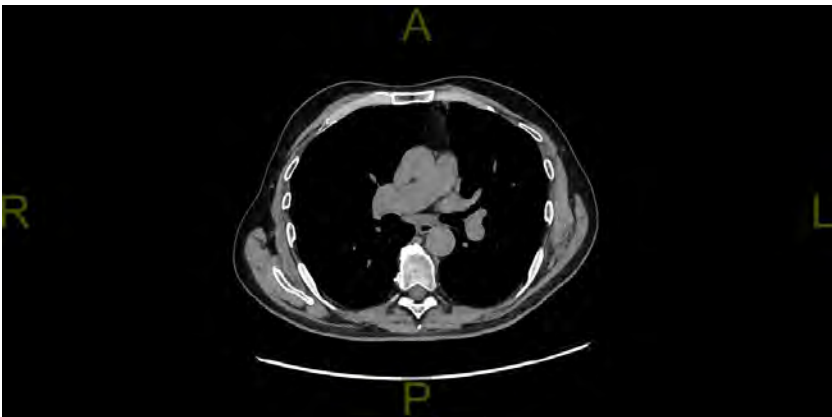


Er blijkt een afwijking te zien...maar die
is niet beschreven in het verslag....
Hoe komt dit?

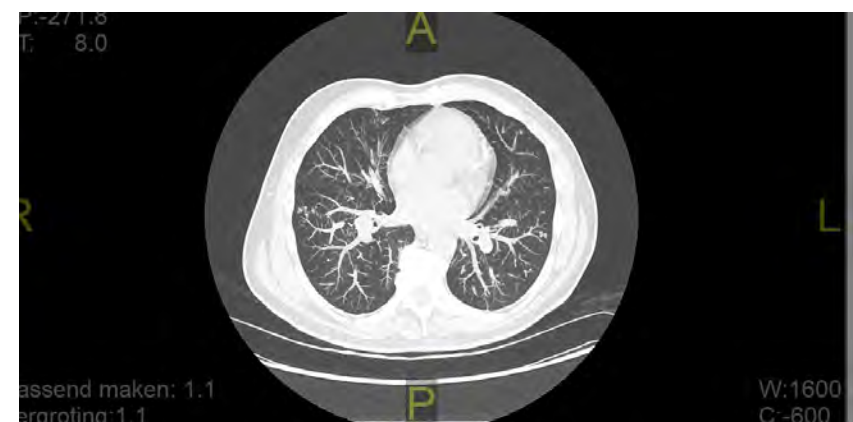
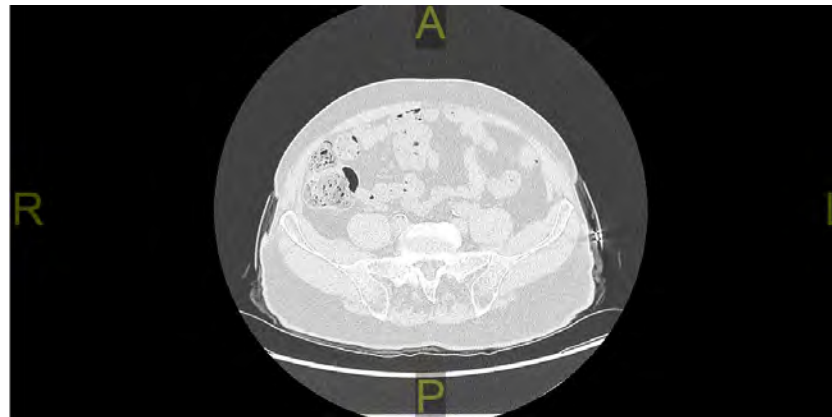
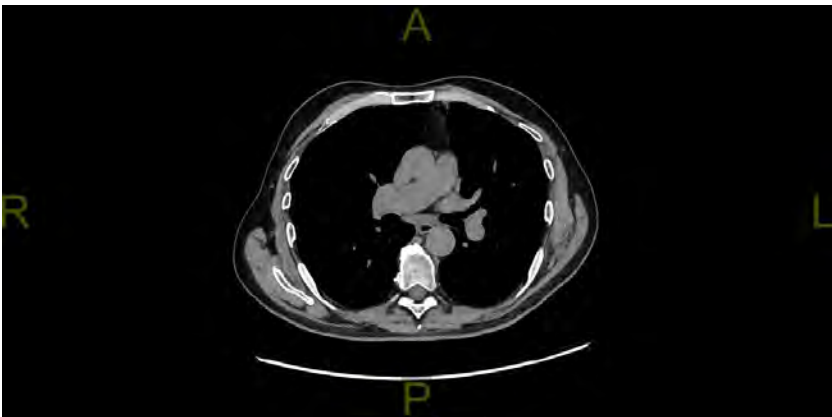




Kliniek patiënt: mijn linker schouder
Nieuwe klacht



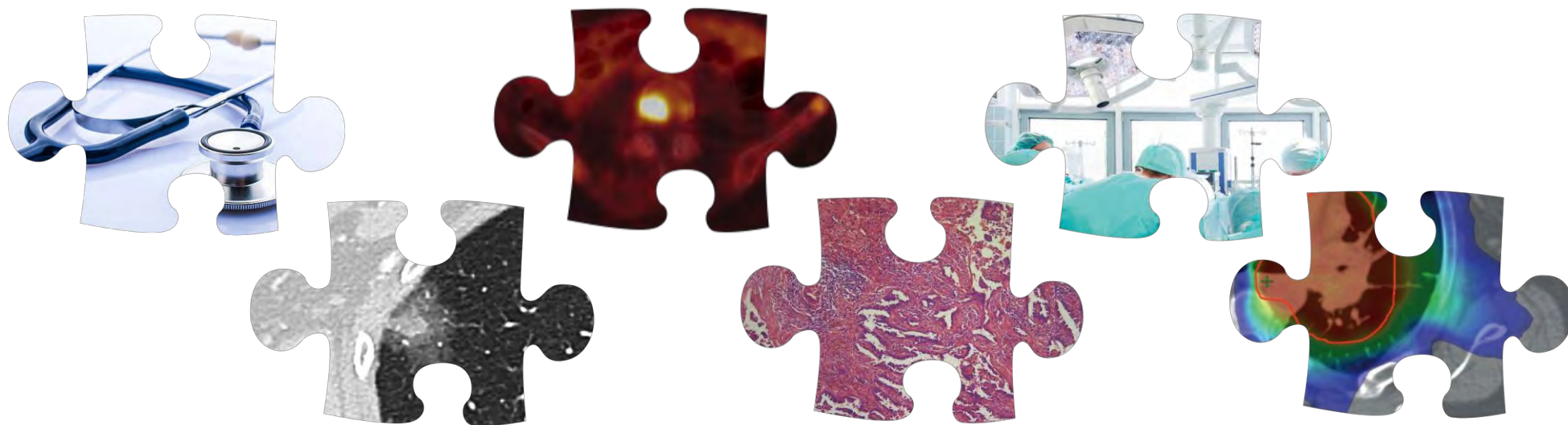
Aantal beelden in
één onderzoek?



Aantal beelden in
één onderzoek?

1627

”Behandel patiënten
geen beelden”



Multidisciplinair overleg

