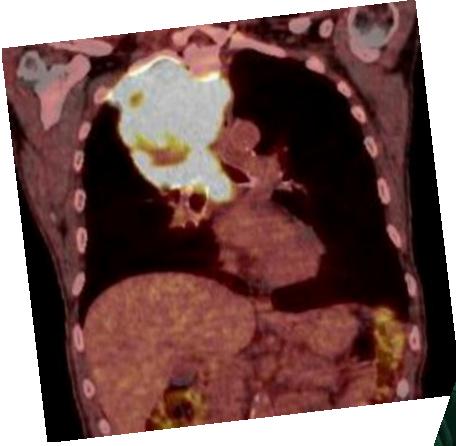


# Stadivering en behandeling niet-kleincellig longcarcinoom

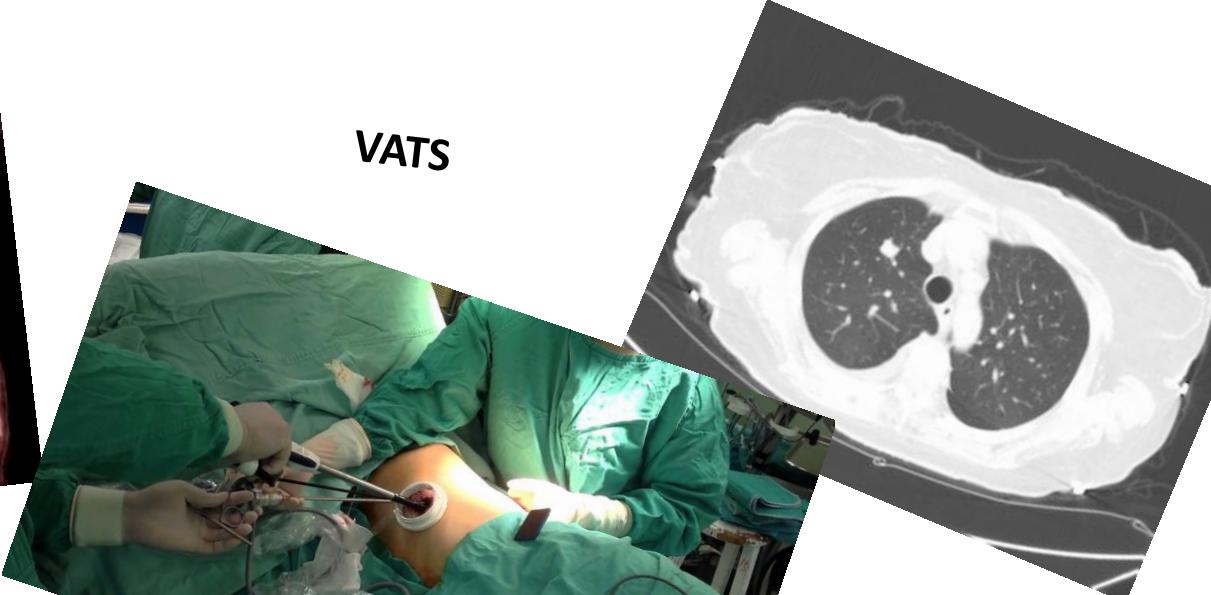
Robert Rhodius, longarts  
Spijkenisse Medisch Centrum  
Regionaal Longkankercentrum Rotterdam-Zuid

# 3 Belangrijke Vragen

- 1. Met welke ziekte heb ik te maken. Is het wel longkanker?
- 2. Welke behandeling geef je bij voorkeur?
  - Welke ziekte?
  - Stadium?
- 3. Kan de patiënt de behandeling aan?



PETCT



VATS

EGFR



Fietstest

TNM

MDO

EBUS

Chemotherapie

immunotherapie

Niet-kleincellig longkanker



Perfusescan



# 1. Met welke ziekte heb ik te maken?

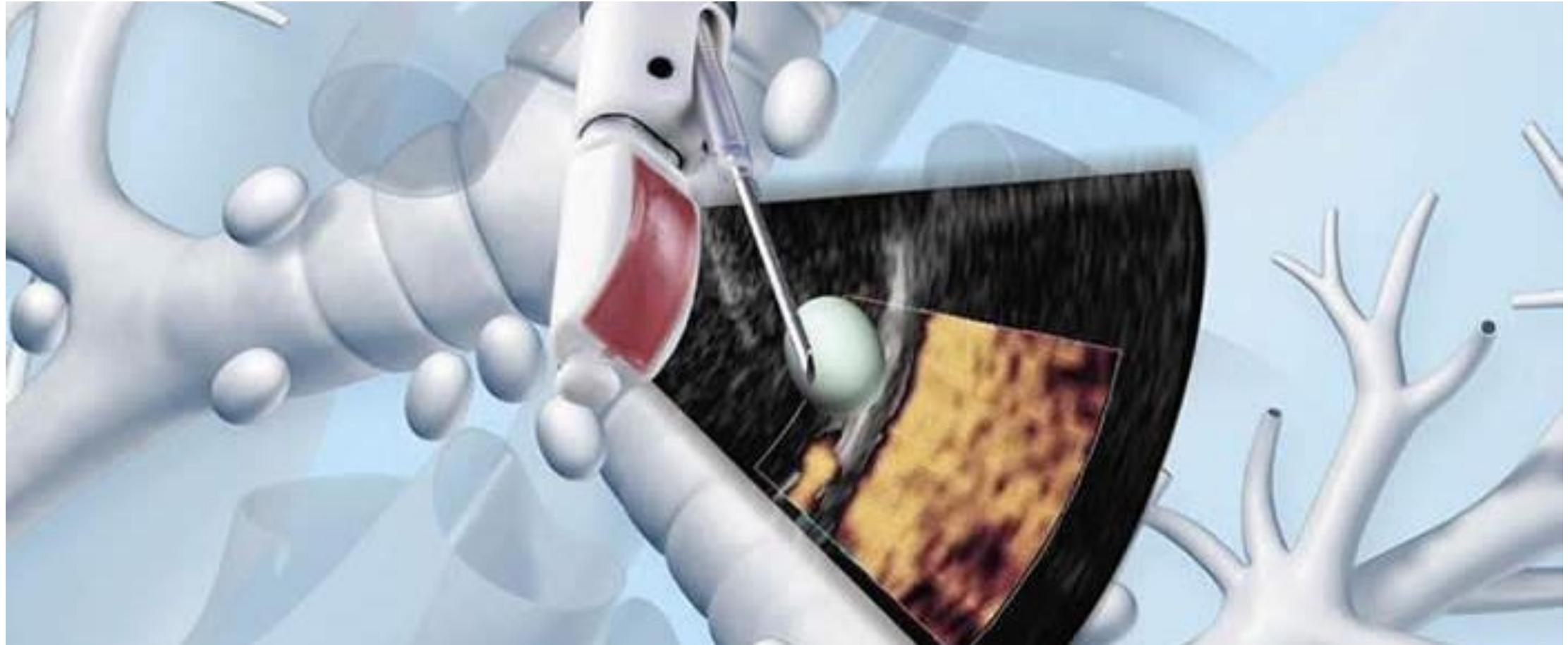
- Bronchoscopie
- Biopt uit de long/ elders
- EBUS/ EUS



# EBUS



# EBUS (Endo-Bronchial Ultra Sound)



## 2. Welke behandeling geef bij voorkeur?

- In welk stadium bevindt de ziekte zich?

- CT thorax
- PET-CT
- MRI hersenen

### 3. Kan de patiënt de behandeling aan?

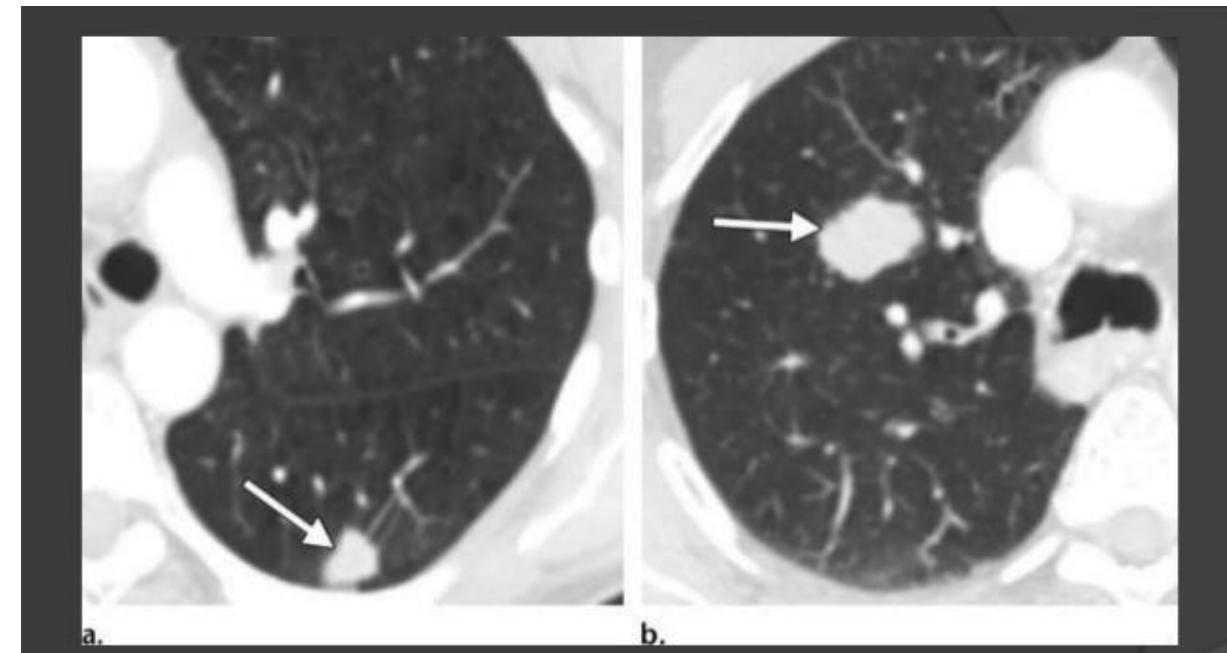
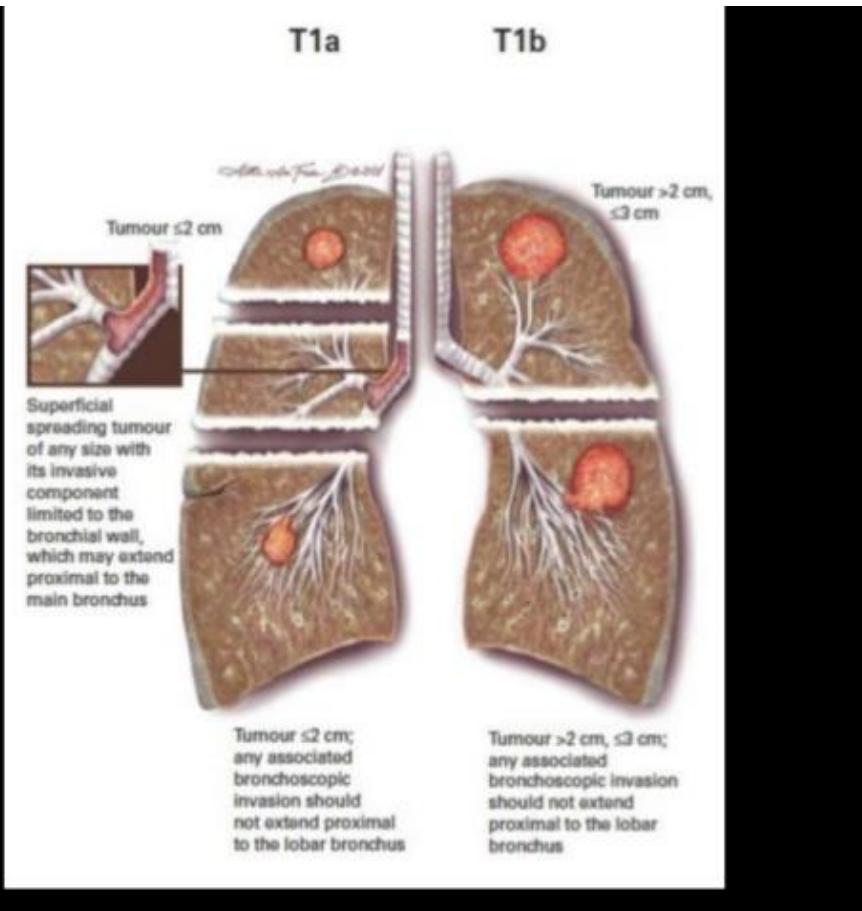
- Longfunctie
- Fietstest
- Perfusiescan
- Hartfilmpje (ECG)
- (In consult collega)

# Onderverdeling “TNM”

- Tumor T1-T4
- Nodes/ Lymfeklieren N1-N3
- Metastasen M0-M1

# T1

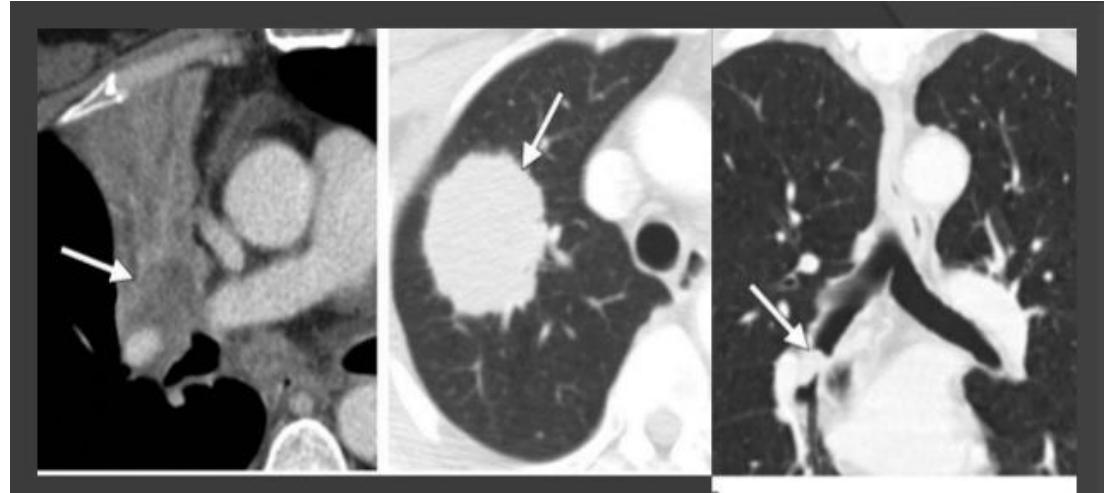
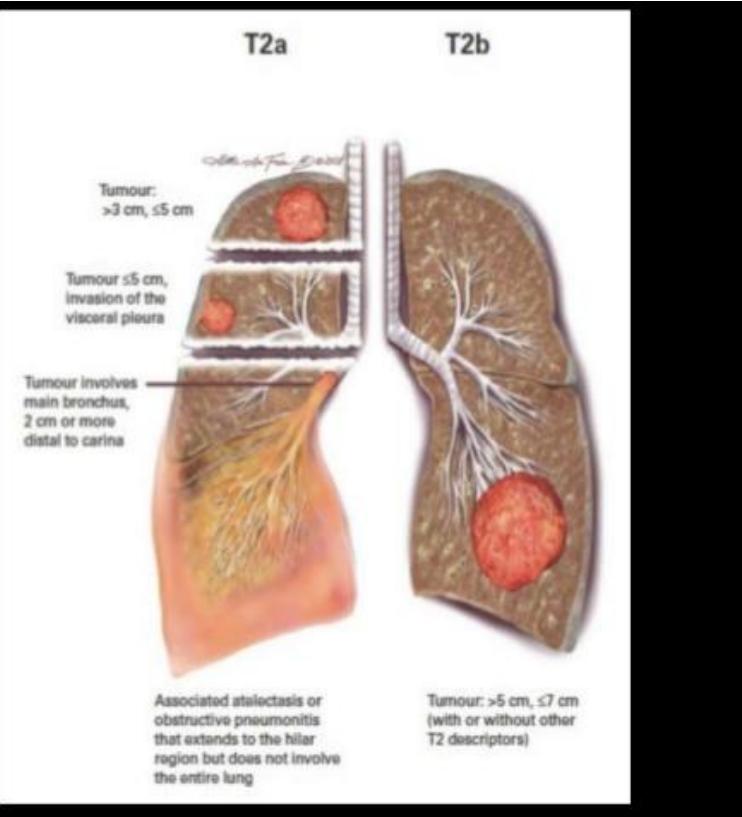
## T1 Tumor



Stage T1 tumors. (a) Chest CT scan shows a left lower lobe nodule (arrow) measuring less than 2 cm in size, a finding that is consistent with a stage T1a tumor ( $\leq 2$  cm). (b) Chest CT scan obtained in a different patient shows a right upper lobe nodule (arrow) measuring 2.9 cm in size, a finding that is consistent with a stage T1b tumor ( $>2$  cm but  $\leq 3$  cm).

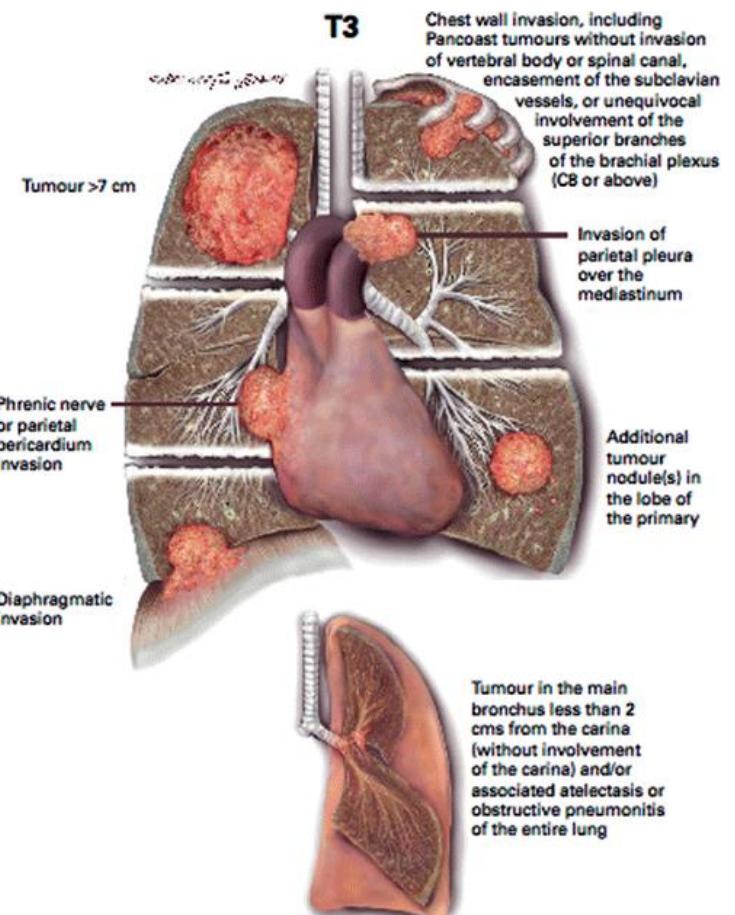
# T2

## T2 Tumor



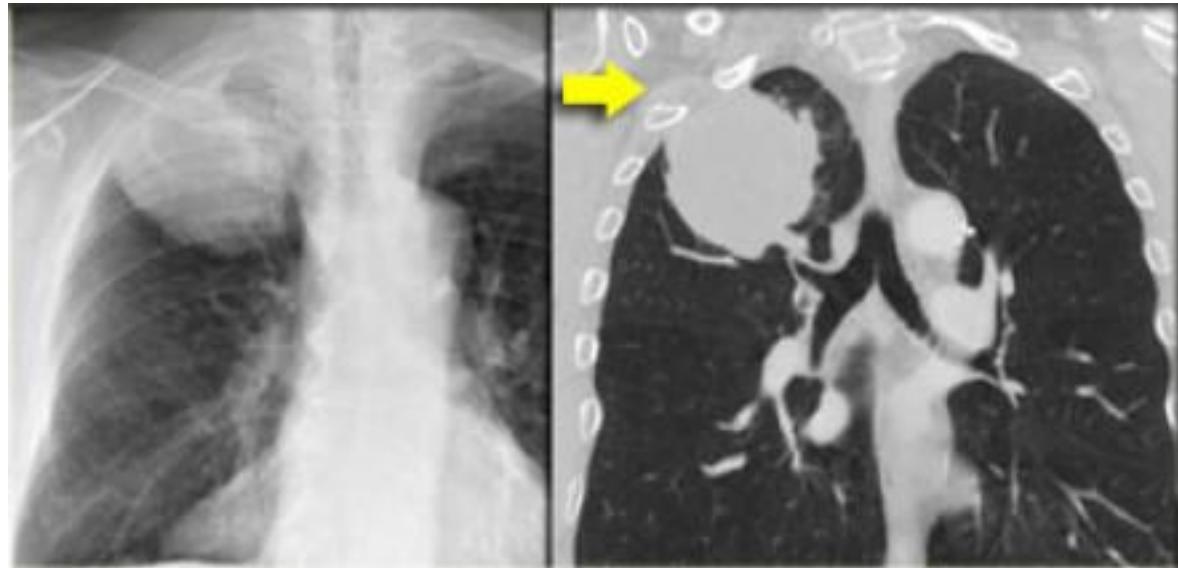
Stage T2 tumors. (a) Chest CT scan shows a centrally located lung nodule (arrow) causing airway obstruction, with atelectasis or postobstructive pneumonia that does not, however, involve the entire lung. (b) Chest CT scan obtained in a different patient shows a mass in the right lung (arrow) measuring 4.8 cm, a finding that is consistent with a stage T2a tumor ( $>3 \text{ cm}$  but  $\leq 5 \text{ cm}$ ). (c) Coronal chest CT scan obtained in a third patient shows a nodule in the bronchus intermedius (arrow). The nodule is 4 cm from the carina (an endobronchial lesion  $> 2 \text{ cm}$  from the carina is considered stage T2).

# T3



Note: any associated pleural effusion should be shown on multiple microscopic examinations to be negative for tumour; it should be non-bloody and not an exudate, and clinical judgement should dictate that the effusion is not related to the tumour.

T3



Tumor 5-7 cm,  
ingroei in thoraxwand,  
2<sup>e</sup> nodule in de zelfde kwab

# T4

**Tumors previously designated as M1 by additional nodule(s) in other ipsilateral lobe(s) now qualify as T4**

**T4**

Tumour invades trachea and/or SVC or other great vessel

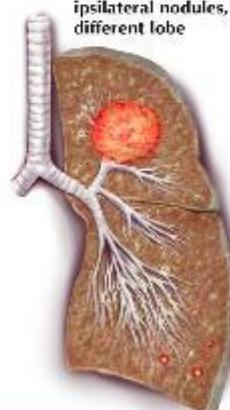
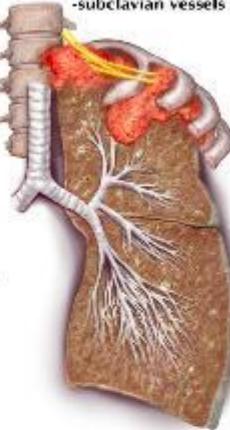
Tumour involves carina

Tumour invades adjacent vertebral body

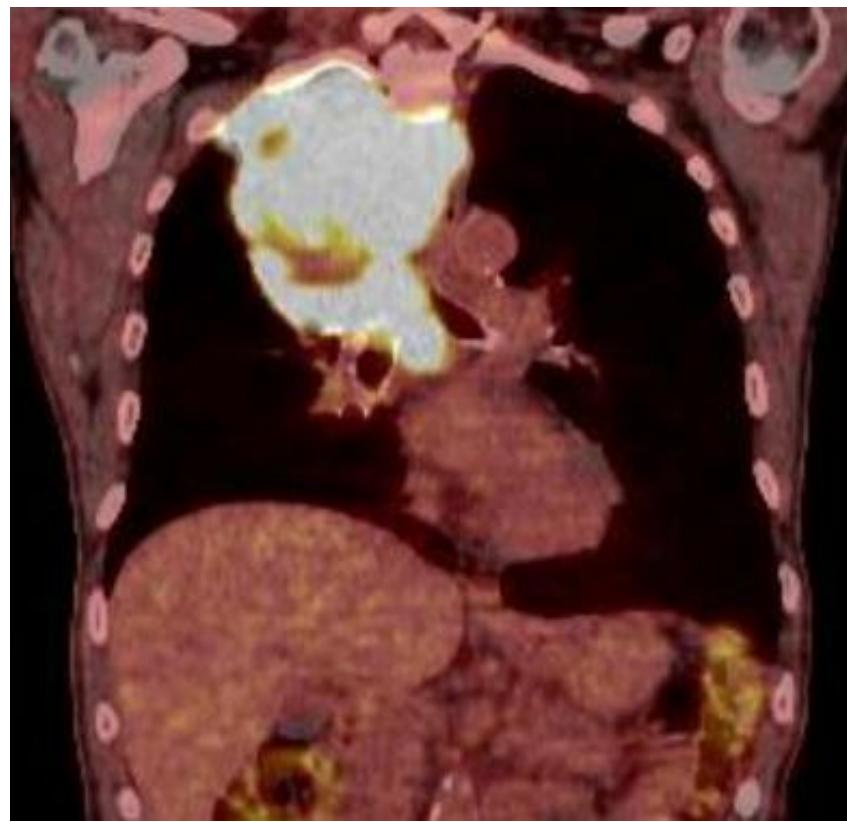
Tumour invades aorta and/or recurrent laryngeal nerve

Tumour accompanied by ipsilateral nodules, different lobe

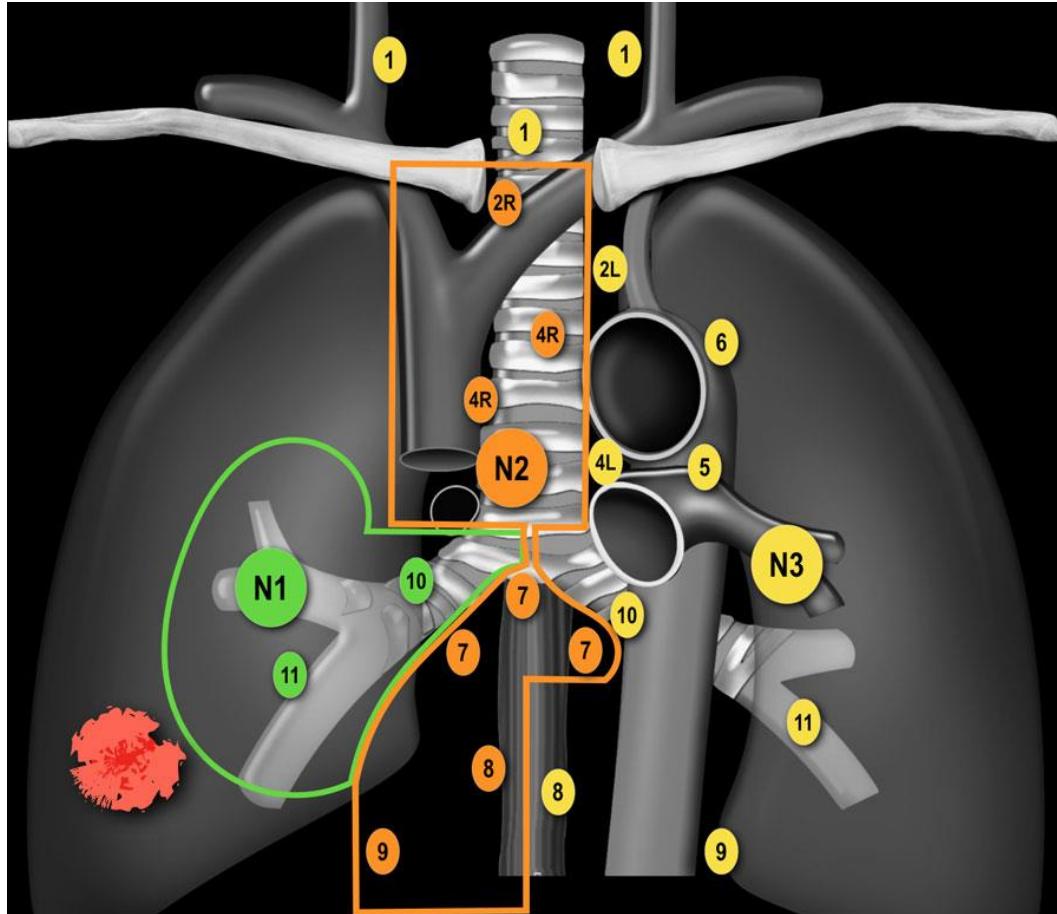
Pancoast tumours with invasion of one or more of the following structures:  
-vertebral body or spinal canal  
-brachial plexus (C8 or above)  
-subclavian vessels



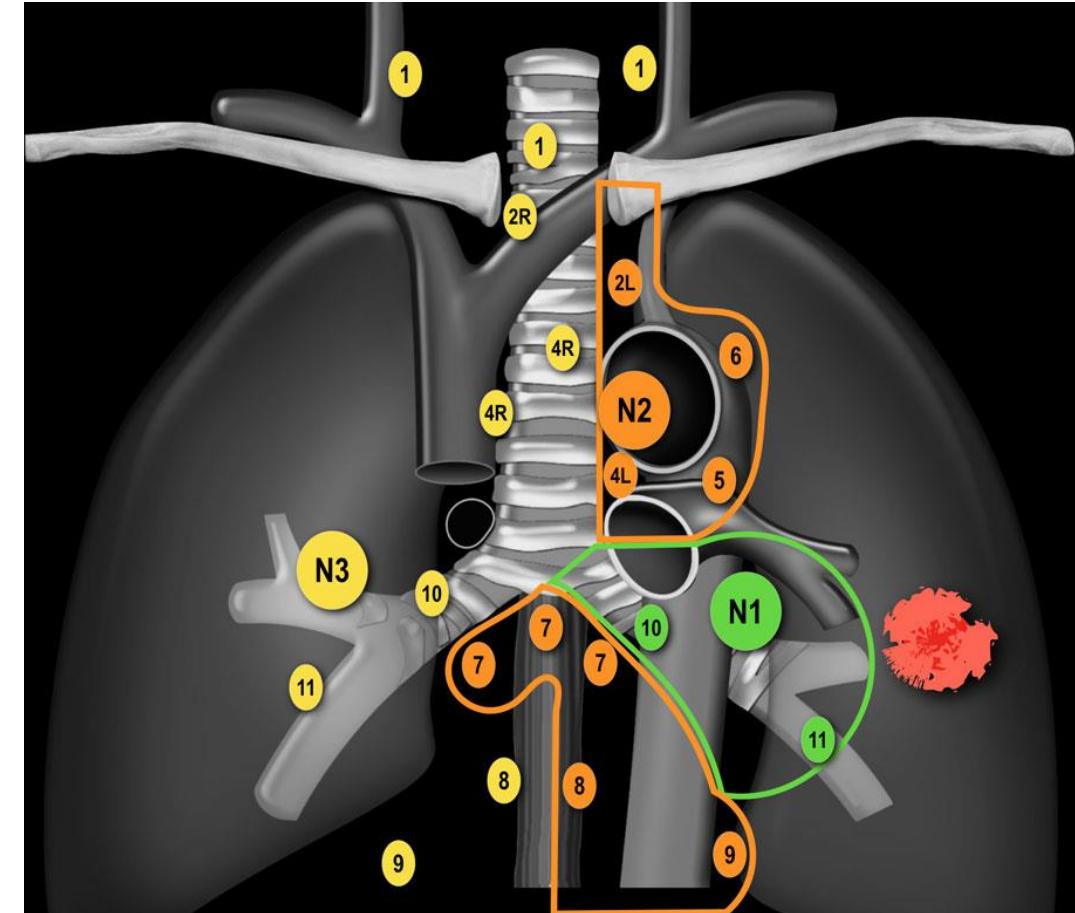
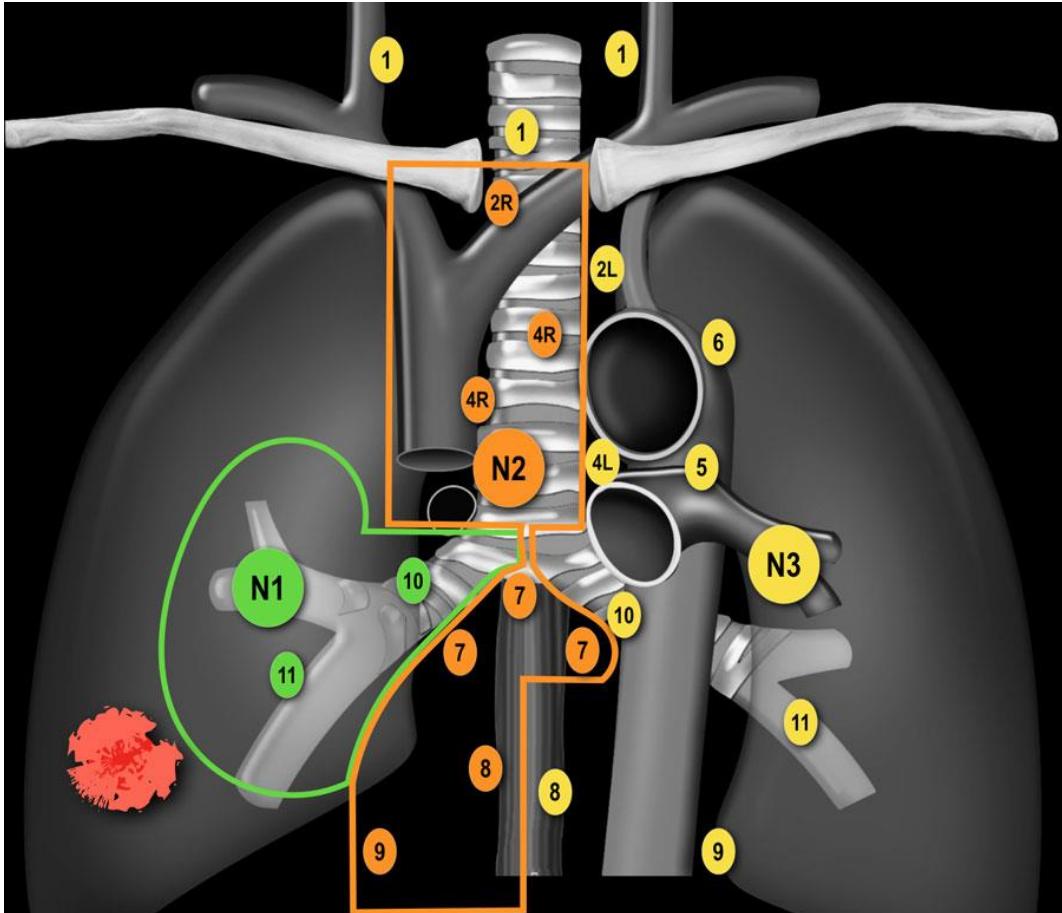
T4



# N (Nodes/ lymfeklieren)

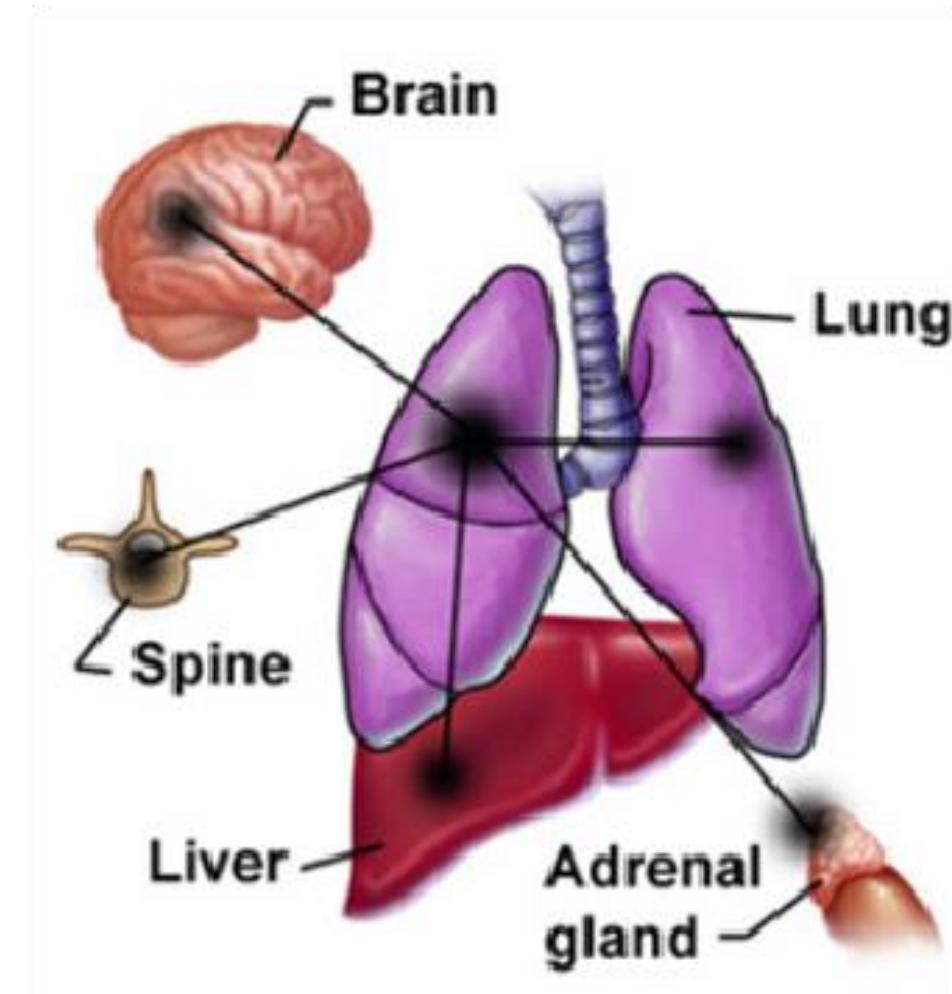


# N (Nodes/ lymfeklieren)



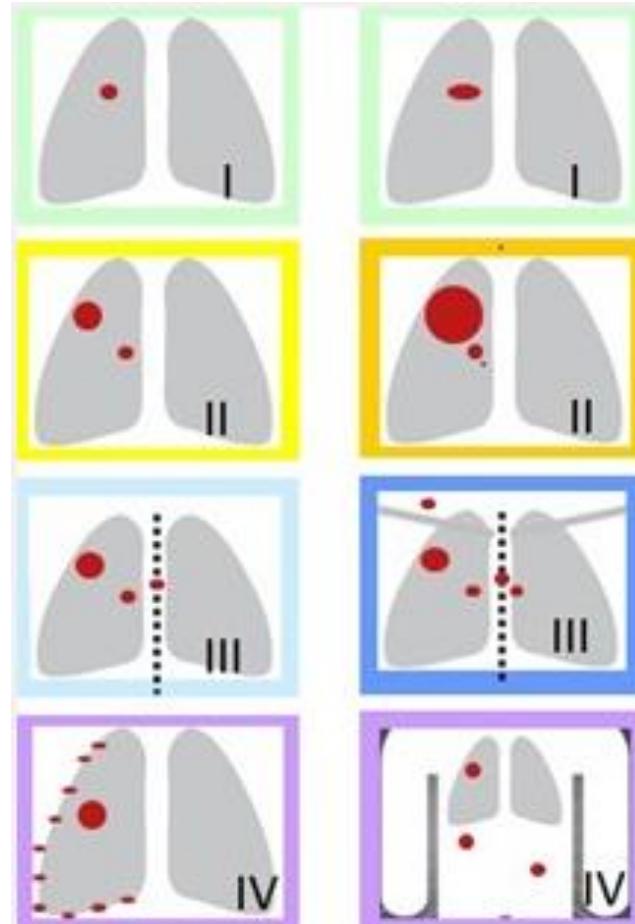
# M (Metastasen/ Uitzaaiingen)

- Als de ziekte zich buiten de thorax bevindt
- Als er tumorcellen in het pleuravocht zitten
- Uitzaaiingen in de andere long



# Stadierung

Stadium 1



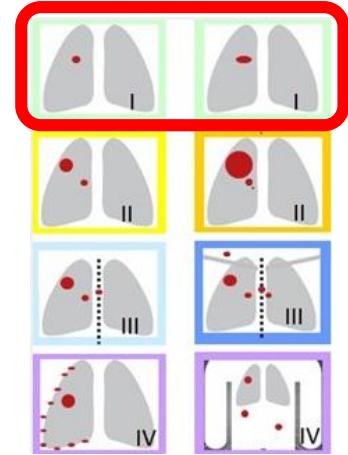
Stadium 2

Stadium 3

Stadium 4

# Stadium I (in opzet te genezen)

- Chirurgie: Meestal kijkoperatie (VATS)
  - Radiotherapie (Cybreknife)
- 
- In principe geen nabehandeling nodig



# Cyberknife radiotherapie



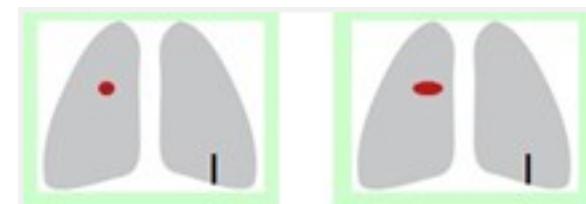
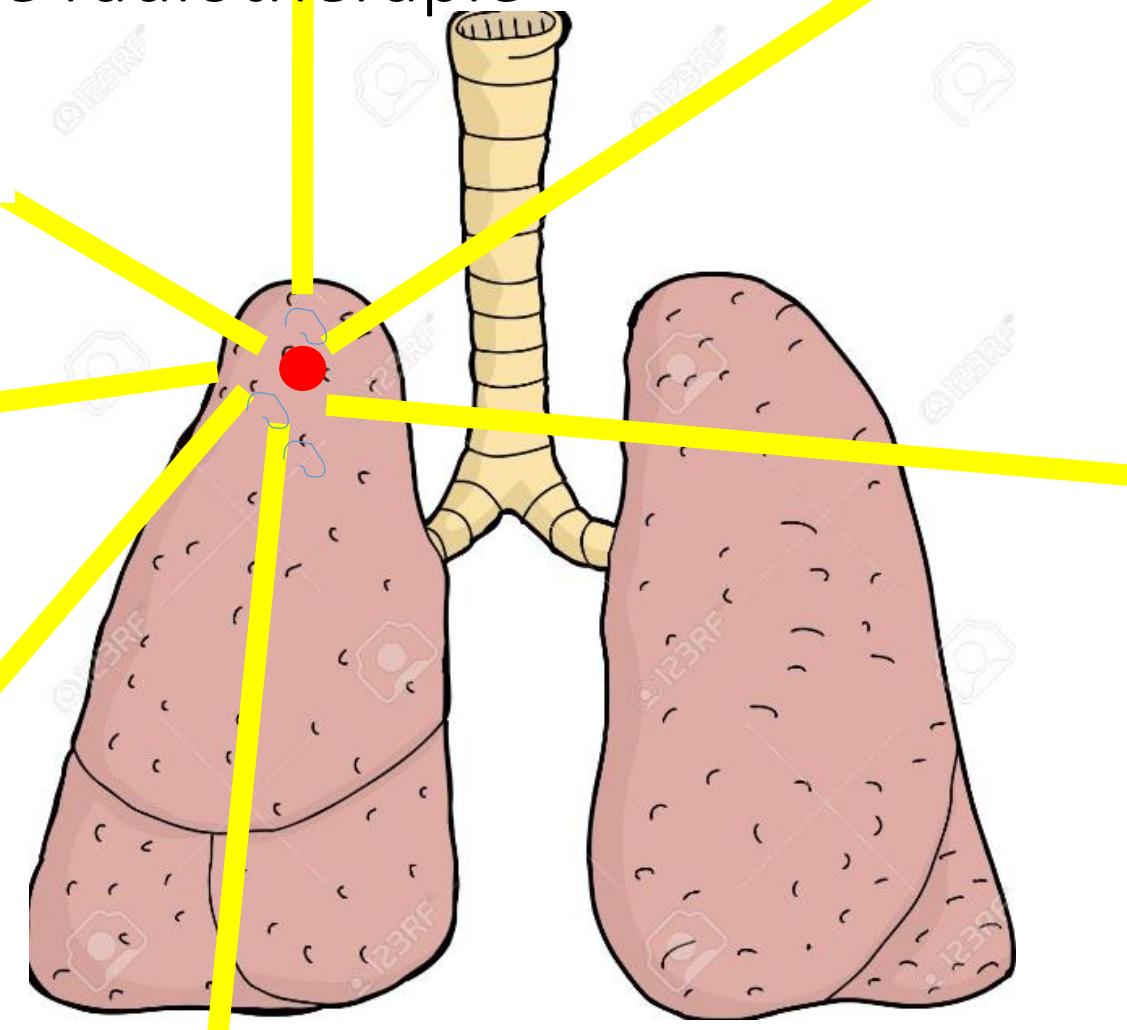


# Stereotactische Body Radiotherapie (SBRT)

## Cyberknife radiotherapie

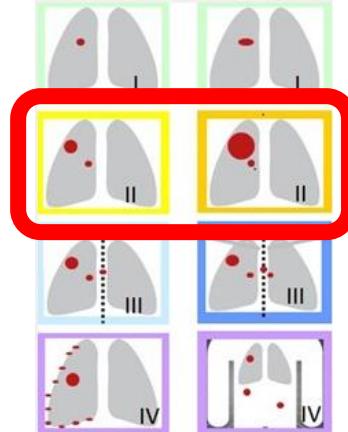
### Voordelen:

- Door gerichte bestraling  
hoge dosis mogelijk
- Weinig toxiciteit
- Geen opname nodig
- Fiducel plaatsing nodig



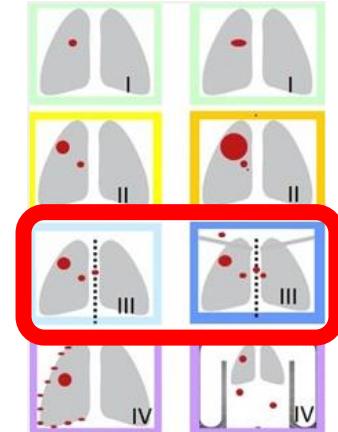
# Stadium II (in opzet te genezen)

- Klier(en) in de aangedane long
- In principe chirurgie, indien longfunctie te slecht (chemo-)radiotherapie
- Bij operatie nabehandeling met chemotherapie geïndiceerd



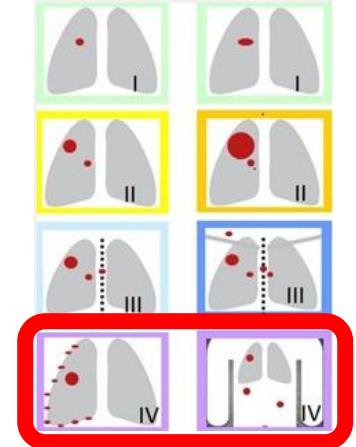
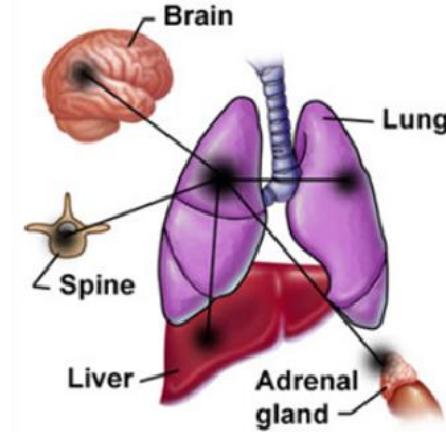
# Stadium III (in opzet te genezen)

- Klieren tussen de longen
- Klieren boven de sleutelbeenderen
- Combinatiebehandeling van chemotherapie en radiotherapie
  - Concurrent (gelijktijdig)
  - Sequentieel (eerst chemotherapie, dan radiotherapie)

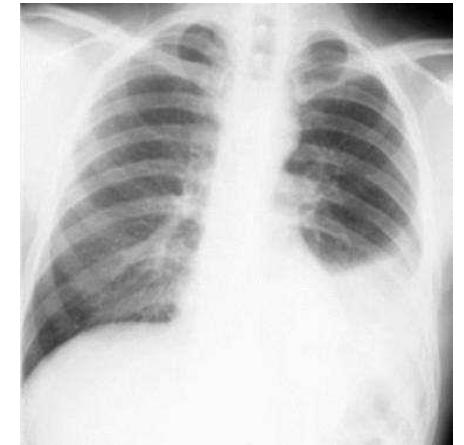


# Stadium IV (in principe niet te genezen)

- De ziekte zit ook buiten de borstholte
- De ziekte zit in het longvocht

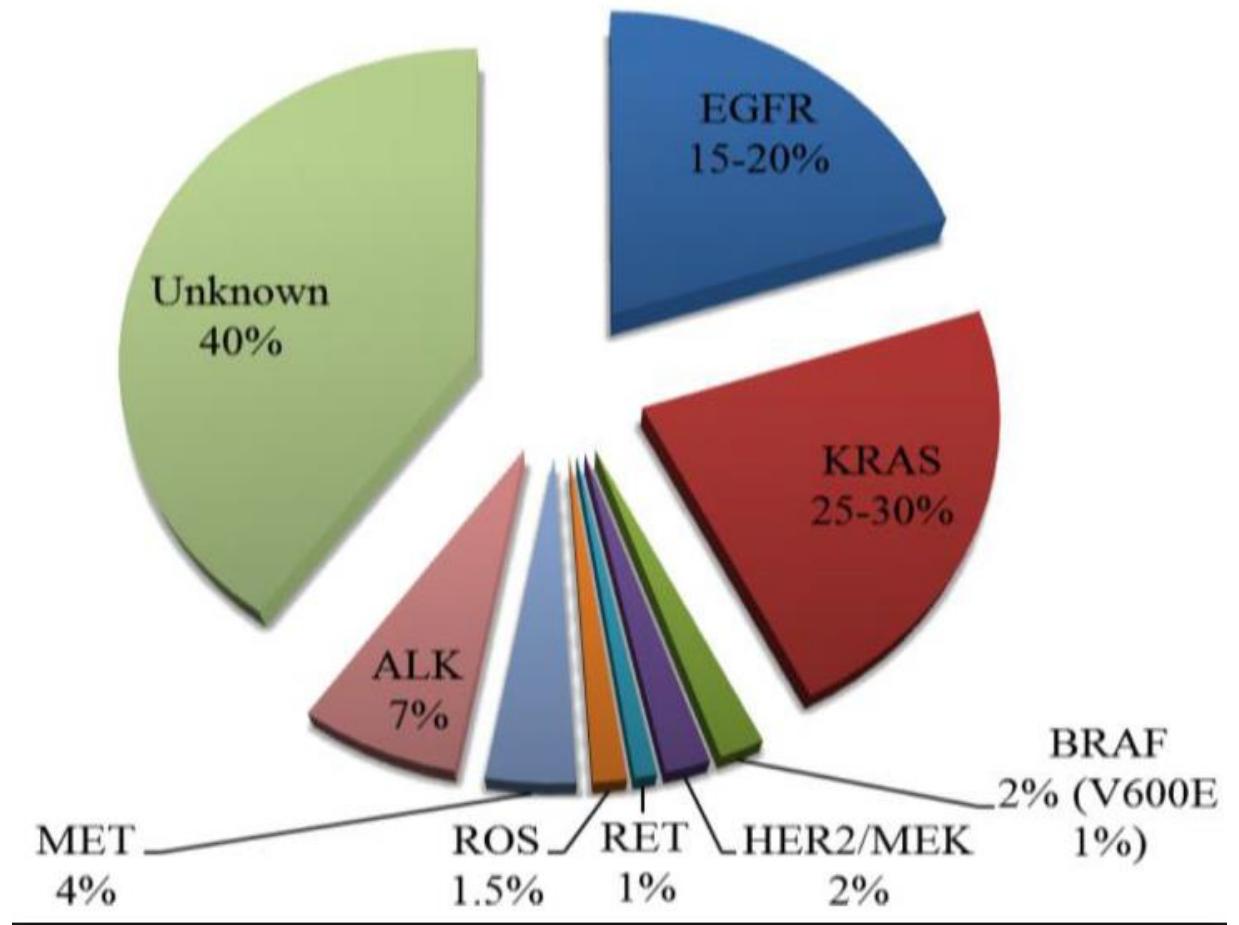


- Meestal chemotherapie
- Soms gerichte behandeling mogelijk



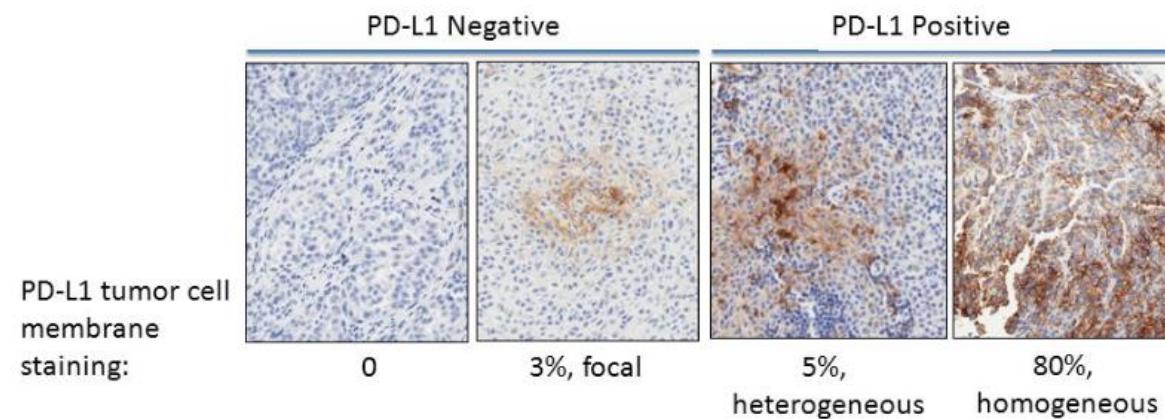
# Behandeling Stadium IV

- Plaveiselcelcarcinoom
  - Meestal chemotherapie
  - Soms immunotherapie
- Overig (adenocarcinoom, grootcellig, NOS)
  - Meestal chemotherapie
  - Soms gerichte behandeling mogelijk



# Moleculair onderzoek

- EGFR: erlotinib, gefitinib, afatinib
- ALK/ROS1: crizotinib, alectinib
- Heel veel in onderzoek. Heel veel in opkomst
- Immunotherapie



# MDO (Multi Disciplinair Overleg)

- Gezamenlijk overleg
  - Longartsen (MSZ, Ikazia, VWB, SMC, EMC)
  - Chirurgen (MSZ, Ikazia)
  - Radiotherapeut (EMC/DDHK)
  - Radiologen (MSZ, Ikazia)
  - Nucleair geneeskundige (MSZ, Ikazia)



