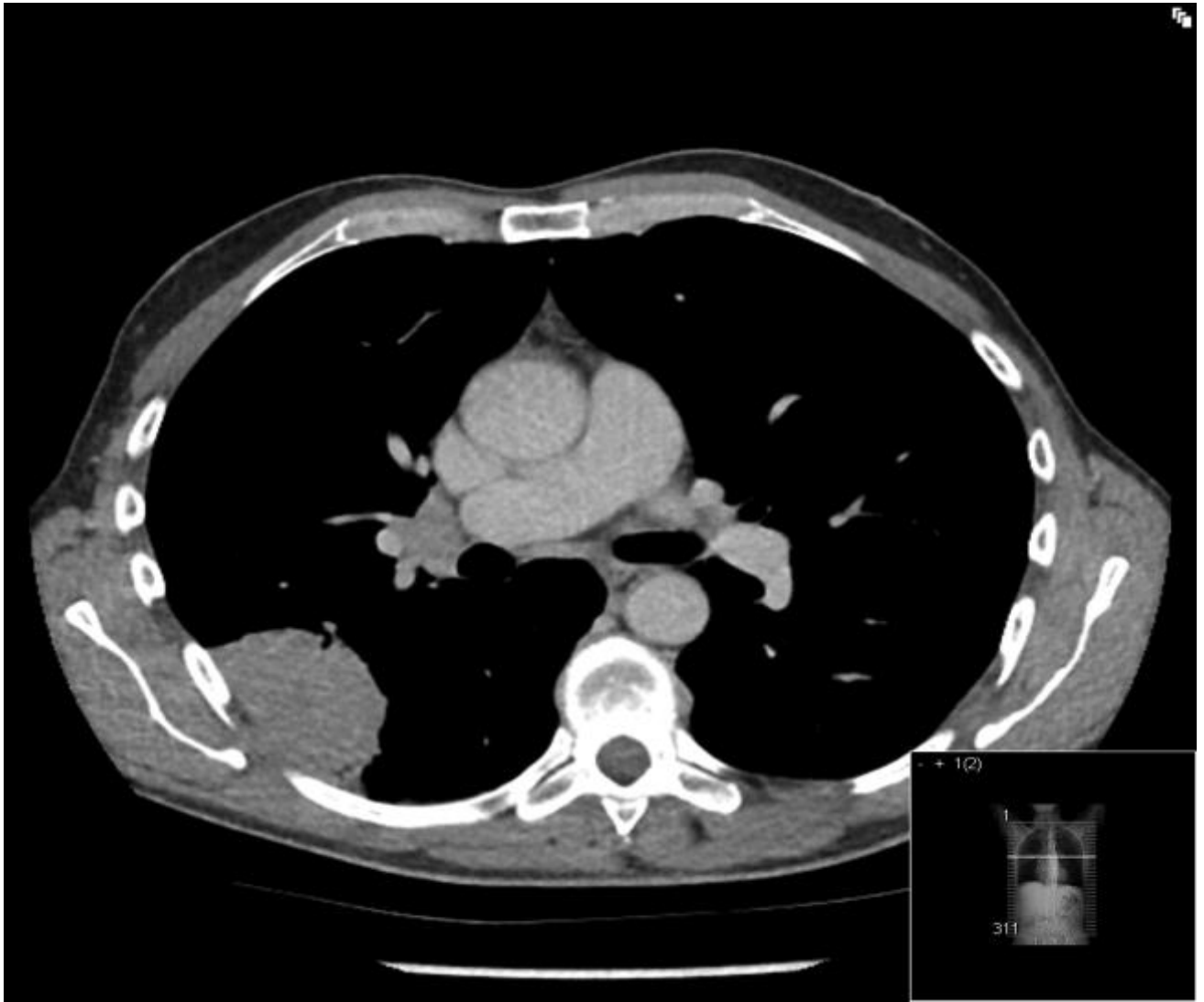
A 63 year old man PS 0, presents with a cough

Describe the CT scan Soft tissue mass adjacent to R posterior chest wall, abutting possibly invading, and R hilar node. Primary lung cancer:3 if not: 2, nodes:4



A 63 year old PS 0, ex-smoker with presents with a cough

Biopsy:
Grade 2 Adenocarcinoma: CK7, TTF1 +ve, CK20 -ve

PET CT:
5.2cm mass in right upper lobe, not invading chest wall/ribs
Ipsilateral hilar nodes
No disease elsewhere.
Stage T2b N1 M0
Pulmonary Function
FEV1: 1.5l FVC: 2.5l TLCO: 65% predicted

What treatment do you recommend?
Right upper lobectomy or radical RT (CHART ideally) - both with pros and cons for a 4, one for a 3
Chemoradiation – 2, as no evidence for this stage of disease
If expresses concern re FEV1, ok, but would still operate at that level for a 4

He elects for Right upper lobectomy

Pathology:
pT2b N1 L1 R0 Grade 2 adenocarcinoma:
CK7, TTF1 +ve, CK20, EGFR and Alk -ve

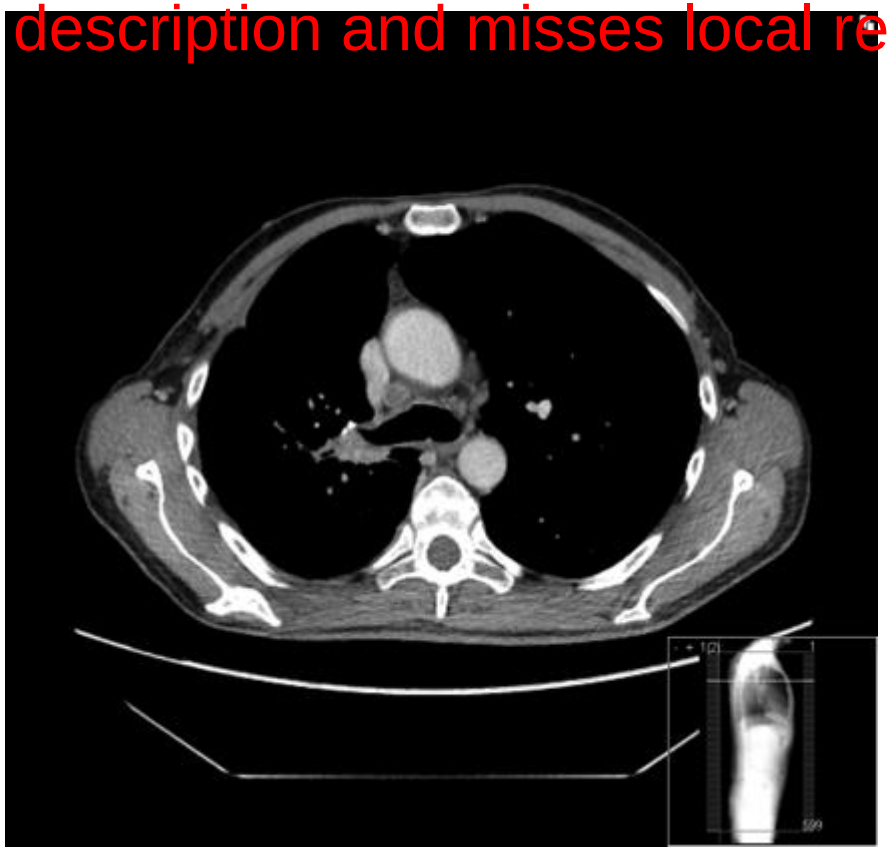
What do you recommend ?
Adjuvant chemotherapy: cisplatin and vinorelbine, must be platinum based for 3
If say surveillance or adjuvant RT ? a 1
Examiners note If just says adjuvant chemo push for the actual regimen

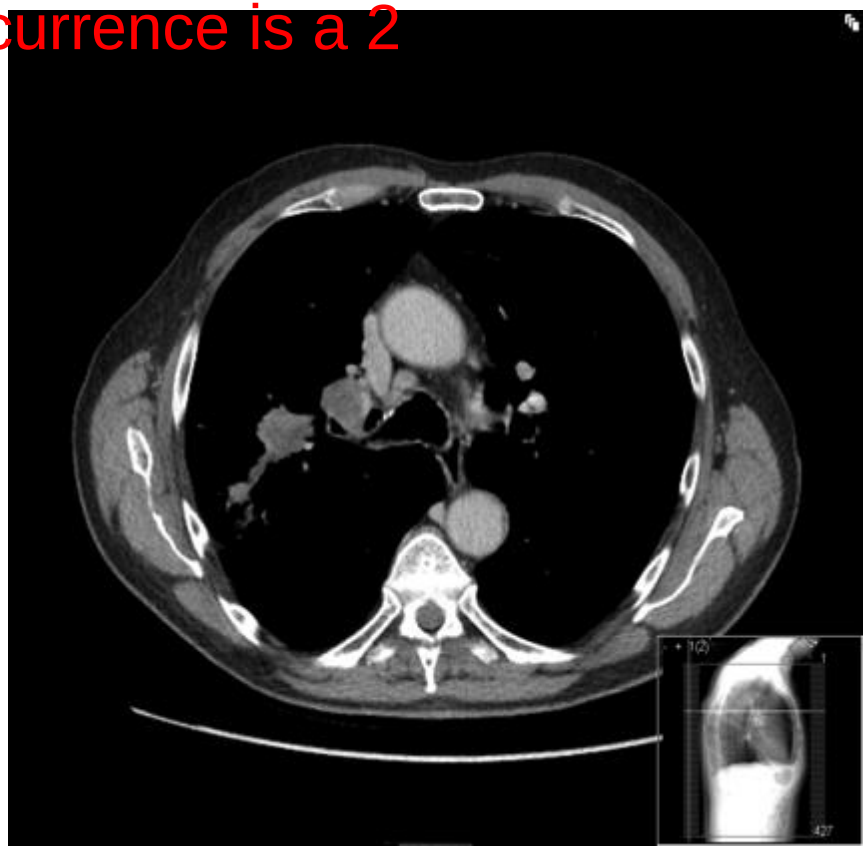
He elected to receive adjuvant chemotherapy

12 months later he developed a cough.

Comment on the images

Recurrence in ipsilateral hilar and mediastinal nodes plus at resection site for a 4, both nodes anatomically correct 3, poor description and misses local recurrence is a 2

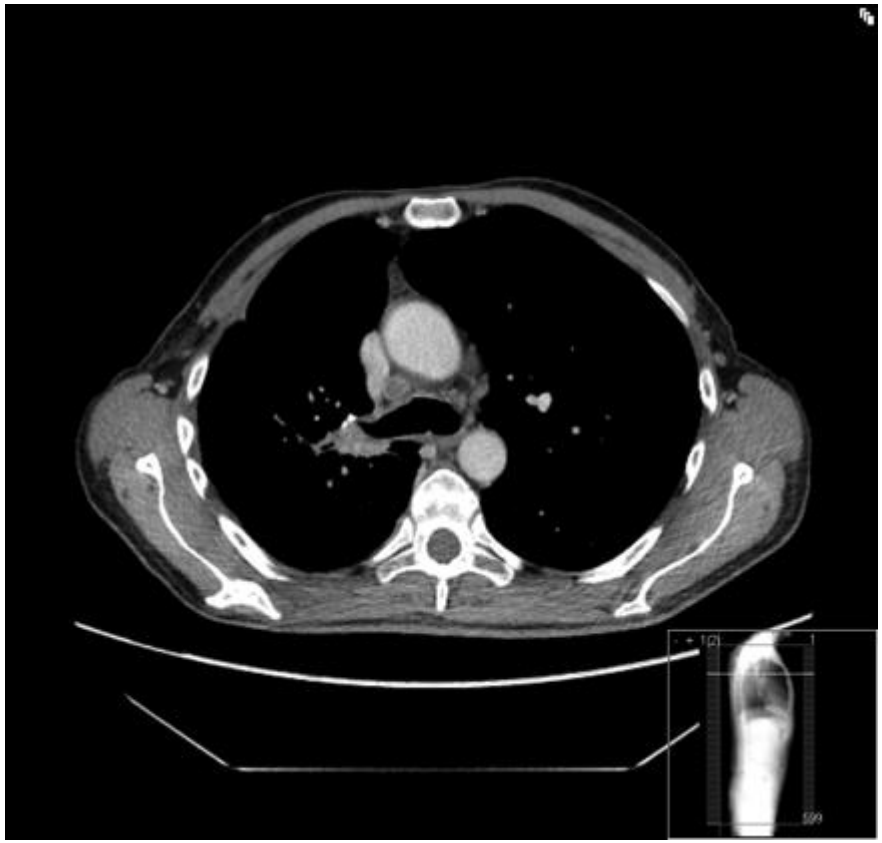


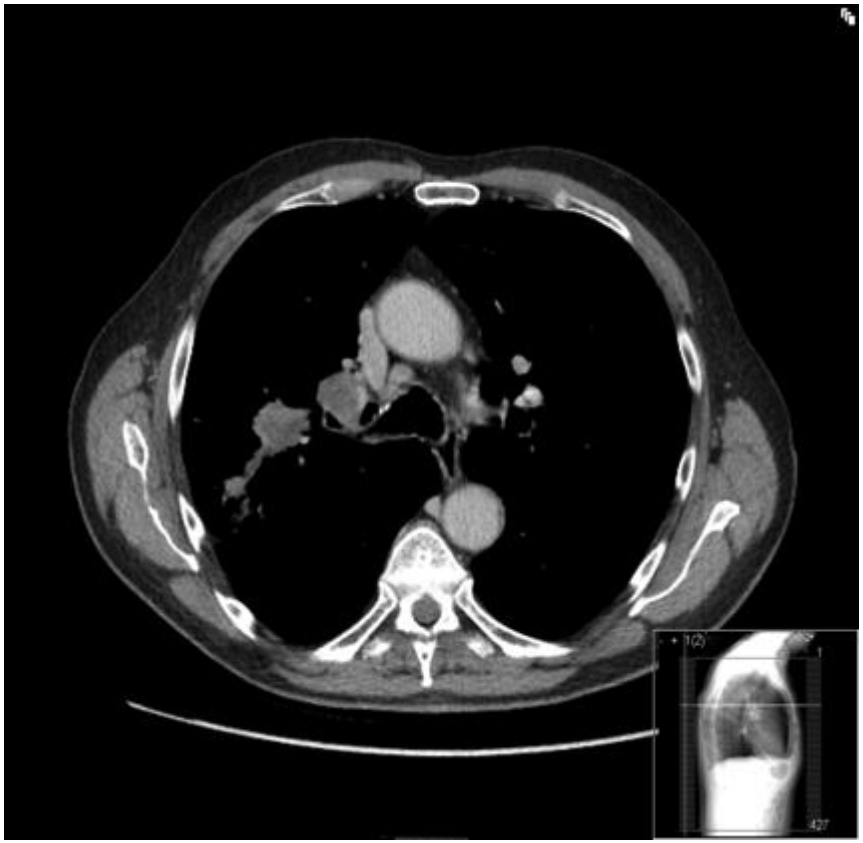


A CT scan is arranged 12 months after adjuvant cisplatin and vinorelbine as he has developed a cough.

What do you recommend?

PET/CT for a 3 PFTs to be repeated for a 4.





PET/CT:

FDG uptake in the ipsilateral hilar and mediastinal nodes, no disease elsewhere.

Pulmonary Function

FEV1: 1.5l FVC: 2.3l TLCO: 65% predicted

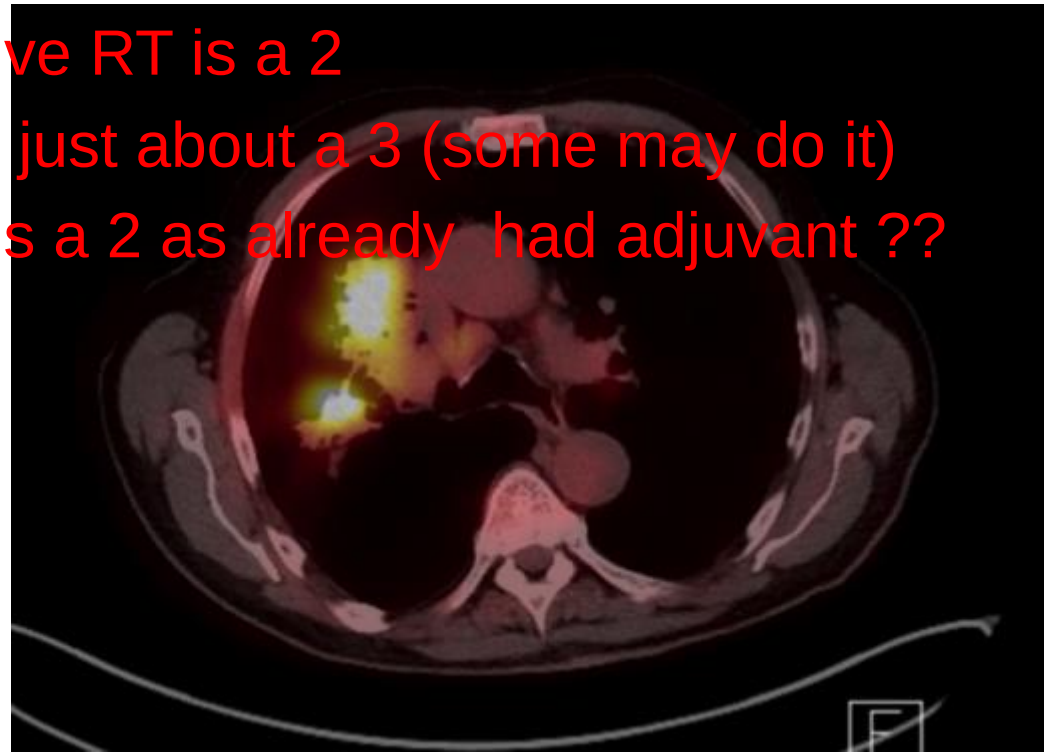
What treatment do you recommend?

Radical RT for a 4, second-line chemotherapy is a 2.

HD palliative RT is a 2

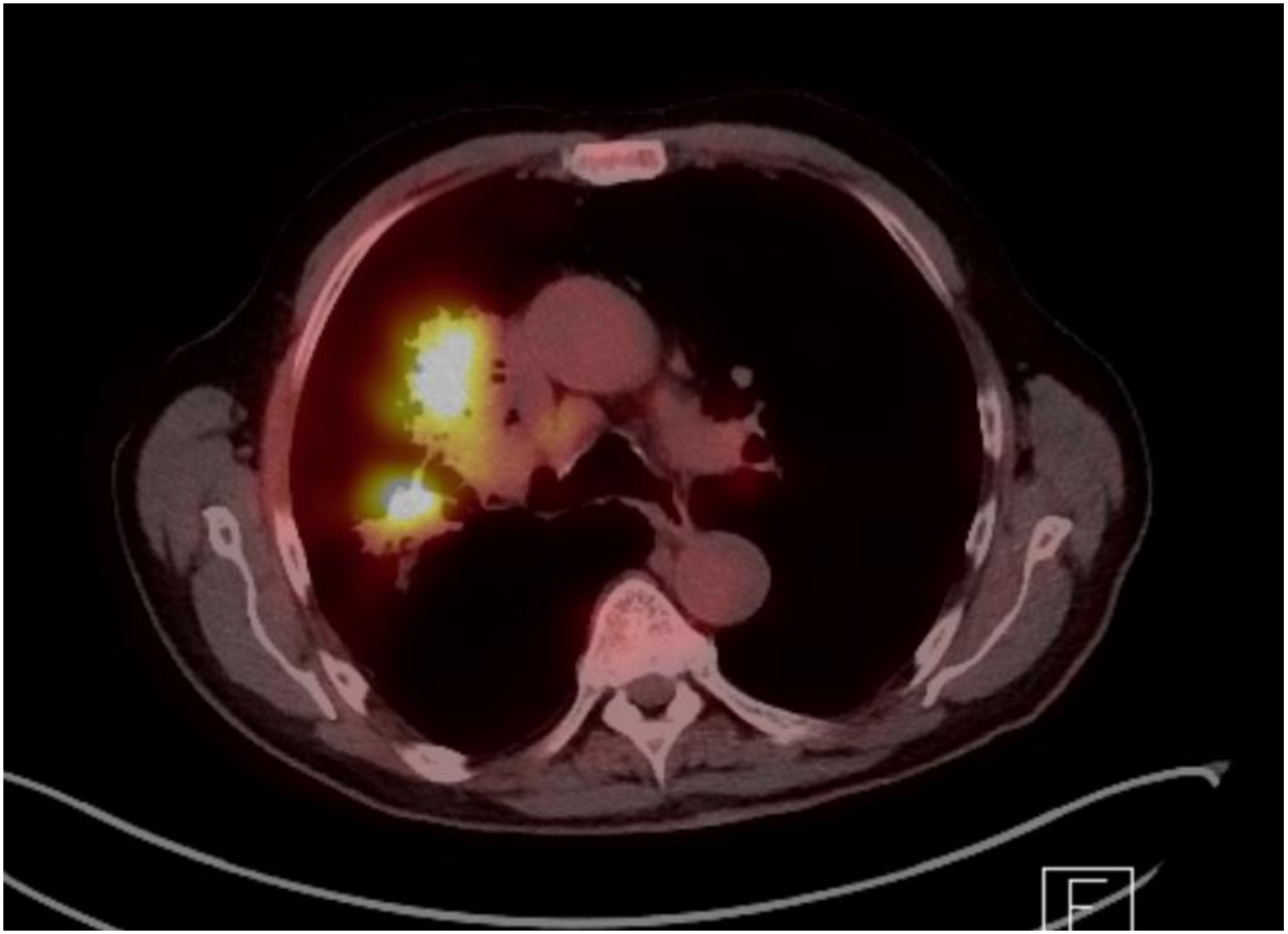
Surgery is just about a 3 (some may do it)

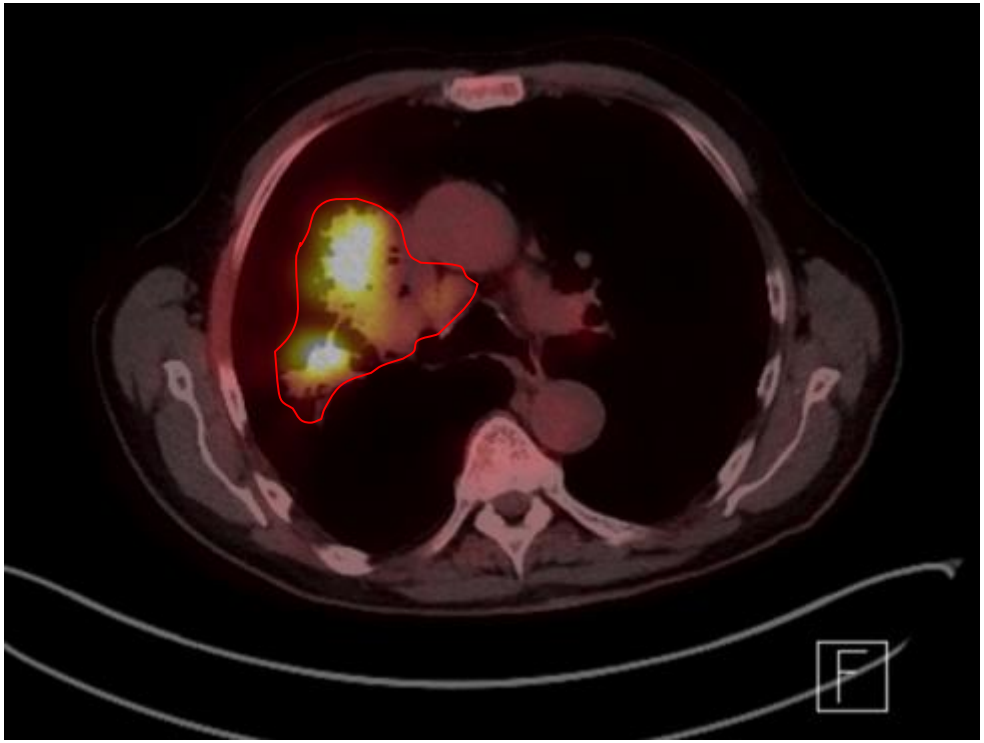
Chemorads is a 2 as already had adjuvant ??



If you were to treat this radically

Draw your GTV on this CT/PET slice





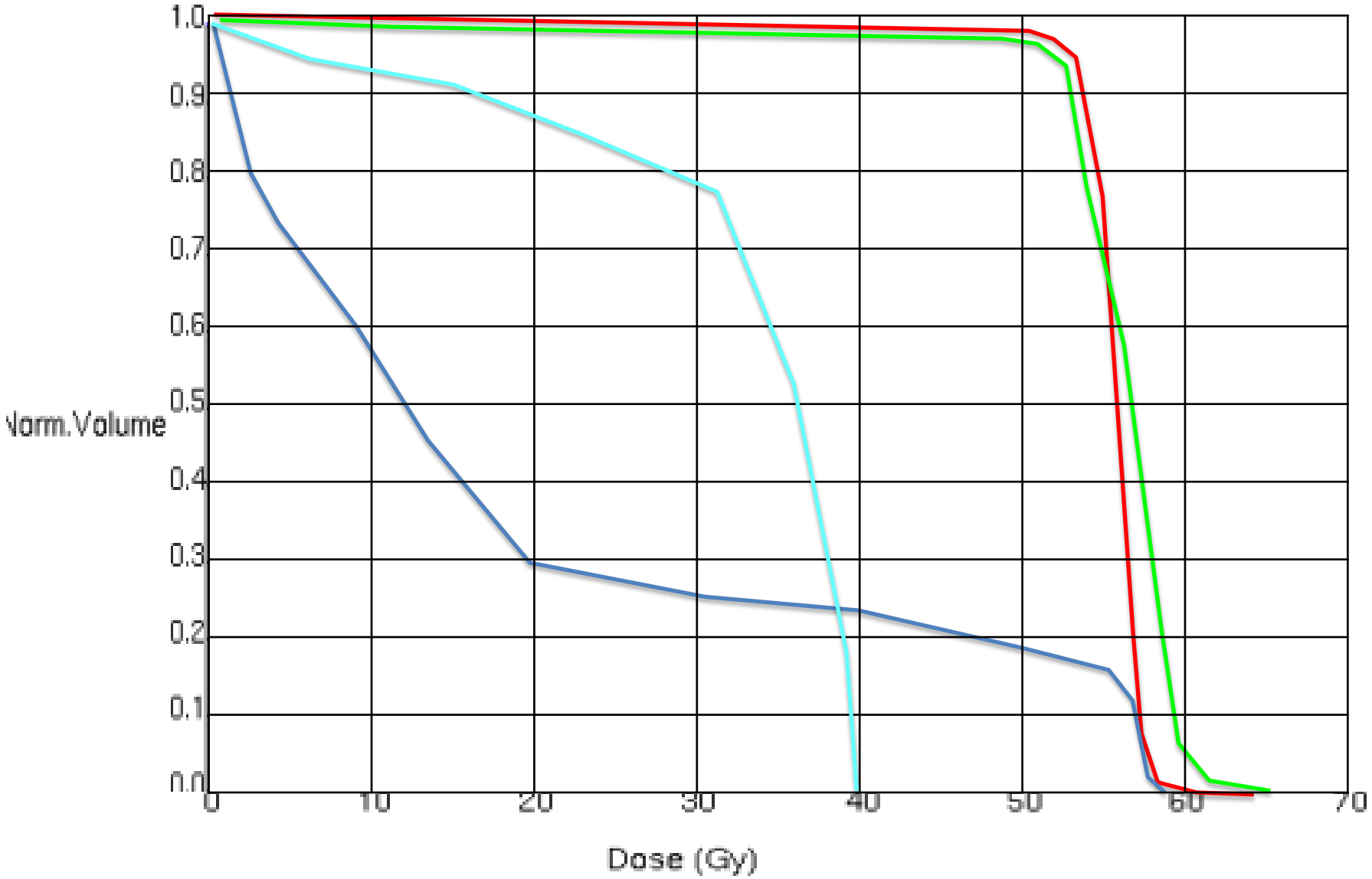
What margins would you use for CTV and PTV?

GTV = visible disease and nodes
CTV = GTV + 0.5 - 0.8cm
PTV = CTV + 0.8cm laterally and 1cm superiorly and inferiorly
Accept between 1.5cm and 2.5cm GTV – PTV margins. Ok to account for respiratory motion if available for a 3

Dose and fractionation?
CHART (54 in 36, tds, over 12 consecutive days) for a 4 or 55/20 or 60-66 in 30-33 fractions for a 3. Anything lower, as disease present and not adjuvant, 2

You are asked to sign the DVH for treatment
Dose 55 Gy in 20 F
Do you agree ?

Lung – purple
cord – blue
GTV – red
PTV - Green



You are asked to sign the DVH for treatment
Do you agree ?

Yes agree or a 1
If agrees is a 3 and move on

He is to receive 55Gy in 20Fractions.

His daughter is getting married in Sri Lanka halfway through his planned schedule of treatment.

He starts radiotherapy but wishes to have a long weekend to enable him to attend.

What is your advice now?

Can go as is important for him, for a 4
Hyperfractionate to compensate (twice a day for 2 days) or
Treat on subsequent Saturdays to ensure completing treatment on time for a 3
If say just add on fractions at the end a 2

Essentials

- See lung primary or:2
- R hilar node:3
- Correct stage or:2
- Surgery or radical RT or a 2
- As FEV1 adequate, surgery for a 3
- Must give adjuvant platinum-based chemo or a 2 or 1
- Must see local recurrence or a 1
- Must re-stage or a ?1
- For local recurrence RT for a 3
- If say concern re surgery as pre-op lung function borderline: 4
- If suggest surgery despite poor lung function ?a 1
- If say CHART: ?4
- Acceptable outline, margins, OAR limits for a 3
- Correct dose: 54/36 tds (CHART), 55/20 or 64-66/32-33 for a 3
- No delay to start RT for a 3
- Hyperfractionate or treat on two weekend days to ensure completing within 4 weeks or a 2