

BTOG 2025 Highlights

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Disclosures

Support to Attend Educational Conferences:

Abbvie, BMS, Boehringer Ingelheim, Brainomix, Janssen, Lilly, MSD, Roche, Takeda

Consulting / Advisory Fees:

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Lectures / Public Speaking:

Accord, Amgen, Astra-Zeneca, Bayer, BMS, Boehringer Ingelheim, EQRx, Gilead, Goldman Sachs, GSK, Janssen, Lilly, Novartis, Roche, Takeda

Clinical Trial Steering Committee / IDMC:

Astra Zeneca, MSD, Roche



23rd Annual BTOG Conference

BTOG 2025 • 3 - 5 March 2025

Attendees

1,088



Healthcare
Professionals (HCP)



Industry



Advocates / Patient
Organisations

First Time Attending BTOG Annual Conference - 38%



Exhibition

41

Exhibition
Stands

268

Posters

80 Faculty



5,000+
Downloads
of the event programme

Highlights & Topics

✓	Keynote
✓	Therapeutics
✓	Respiratory
✓	Radiology
✓	Radiotherapy
✓	Nursing
✓	Trainees
✓	Diagnostics
✓	Genomics
✓	Staging
✓	Screening
✓	Non-medical treatments

BTOG 2025 App

Attendees who used the
BTOG 2025 app

71.5%



Spending an average of



each visit

X



560,000
impressions



1,280
posts



226
participants

Bluesky



101 posts
used the hashtag
#BTOG25

BTOG 2025 Webpage

Almost
30,000
page views

the highest of any page on the
website in the last 12 months



EGFR

Metastatic Disease



1L Osimertinib (FLAURA)



Toxicity

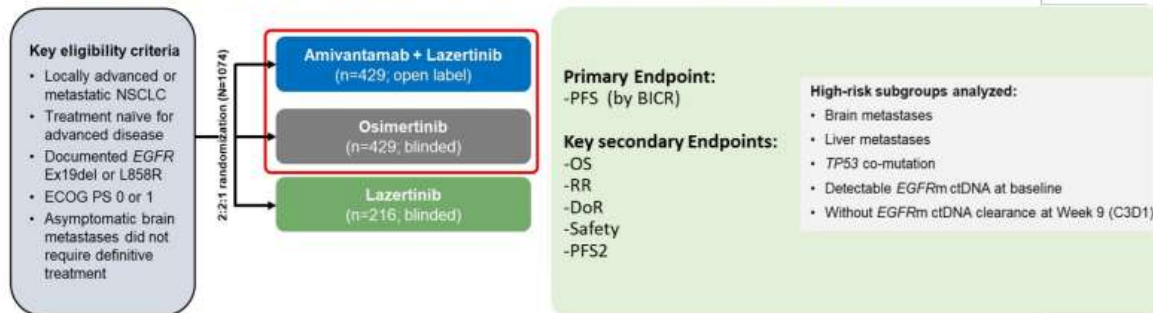
- Diarrhoea (any grade=60%, G3=3%), rash/acne (59%, 1%), nail changes (35%, 1%), stomatitis (29%, <1%)
- Cardiotoxicity: Decreased ejection fraction was reported in 5%, QT prolongation in 10%,
- Interstitial lung disease in 2%
- Dose interruptions: 43%, permanent discontinuation because of AE: 15%

NEJM 2018; 378:113-25, N Engl J Med 2020;382:41-50



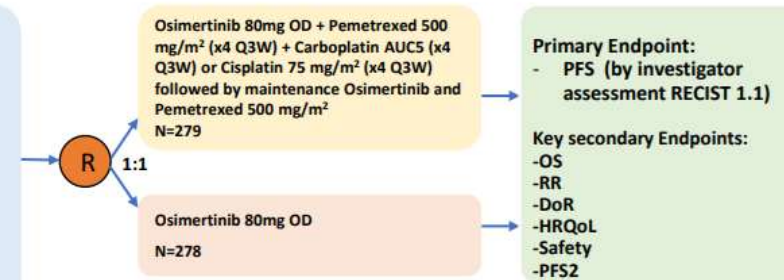
Mariposa: 1st line Amivantamab + Lazertinib vs Osimertinib

- Lazertinib is an oral, third-generation, EGFR Tyrosine Kinase inhibitor (TKI)
- Amivantamab is a bispecific EGFR and MET receptor-directed antibody



FLAURA 2: 1st line Osimertinib + Platinum-Pemetrexed vs Osimertinib

- Untreated Stage locally advanced/IV non-squamous NSCLC
- Age ≥ 18 y (Japan > 20)
- Pathologically confirmed non-SqCC
- Ex19 del/L858R
- PS 0/1
- Asymptomatic CNS metastases or treated CNS mets stable > 2 weeks were permitted
- Stratification by: Race (Chinese Asian /non Chinese Asian /non Asian) *EGFR* (local/central test) WHO PS (0/1)



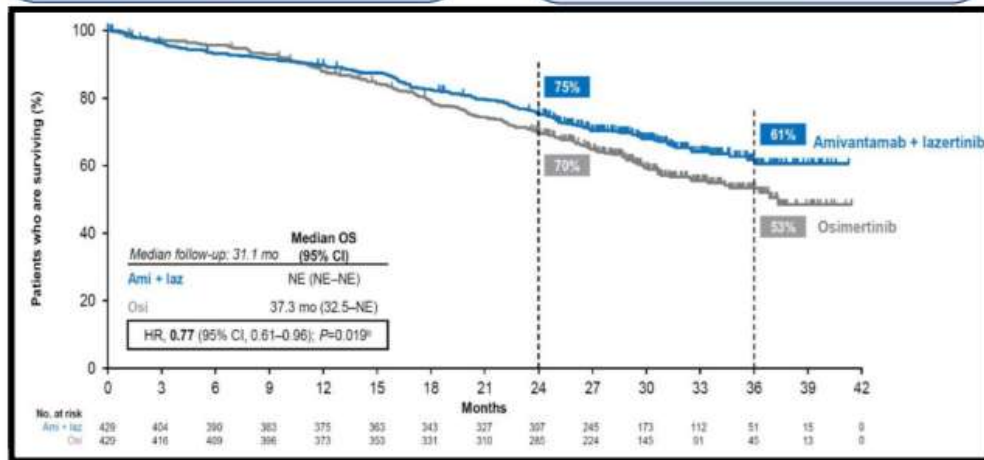
Efficacy: 1st line Amivantamab + Lazertinib vs Osimertinib

PFS (95% C.I.)
 Ami+ Laz = 23.7 m (19.1 - 27.7)
 Osi = 16.6 m (14.8 - 18.5)

HR= 0.70 (95% CI, 0.58–0.85)
P<0.001

OS (95% C.I.)
 Ami+ Laz = NE
 Osi = 37.3 (32.5 - ND)

HR= 0.77 (95% CI, 0.61–0.96)
P=0.019



Update (ELCC, 2025): OS benefit
 NR vs. 36.7m, HR = 0.75

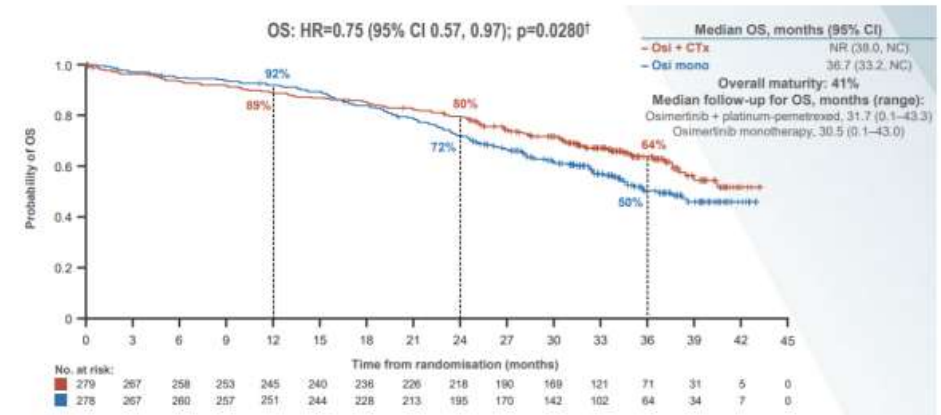
Efficacy: 1st line Osimertinib + Platinum-Pemetrexed vs Osimertinib

PFS
 Osi+ Plat-Pem = 25.5 m (24.7 - NC)
 Osimertinib = 16.7 m (14.1 - 21.3)

HR=0.62 (95% CI 0.49, 0.79);
p<0.001

OS (95% C.I.)
 Osi+ Plat-Pem = NC
 Osi = 36.7 33.2-NC)

HR= 0.75; (95% CI, 0.57-0.97)
P = .02800



Safety: 1st line Amivantamab + Lazertinib vs Osimertinib

Event	Amivantamab + Lazertinib (%)	Osimertinib (%)
Any Serious event	49	33
Treatment interruption	83	39
Dose reduction	59	5
Discontinuation of any agent	35	14

Toxicity	Ami +Laze All (G ≥ 3) %	Osimertinib All (G ≥ 3) %
Paronychia	68 (11)	28 (<1)
Rash	62 (15)	31 (1)
Dermatitis Acne	29 (8)	13 (0)
Diarrhoea	29 (2)	44 (1)
Hypoalbuminaemia	48 (5)	6 (0)
Peripheral Oedema	36 (2)	6 (0)
Pulmonary Embolism	17 (8)	5 (2)
ALT rise	36 (5)	13 (2)

N Engl J Med 2024;391:1486-98.

Safety: 1st line Osimertinib + Platinum-Pemetrexed vs Osimertinib

Event	Osimertinib + Platinum-pemetrexed (%)	Osimertinib (%)
Any Serious event	38	19
Treatment interruption	43	19
Dose reduction	10	3
Discontinuation	11	6

Toxicity	Osimertinib + Platinum-pemetrexed (%) All (G ≥ 3) %	Osimertinib All (G ≥ 3) %
Anaemia	46(20)	8 (1)
Neutropenia	47 (25)	9 (2)
Thrombocytopenia	36 (15)	11(1)
Diarrhoea	43 (3)	41 (<1)
Nausea / Vomiting/Stomatitis	43 (1) / 26 (1)/ 25 (<1)	10 (0) / 6(0)/ 18 (<1)
Decreased appetite	31 (3)	26 (1)
Rash	28 (<1)	21 (0)
ALT rise	20 (1)	8 (<1)
Pneumonitis / Cardiac events	All Grades: 3 / 9	All Grades: 4 / 4

N Engl J Med 2023;389:1935-48.



Conclusion: Who should we be offering combination therapy with 3rd generation TKI?

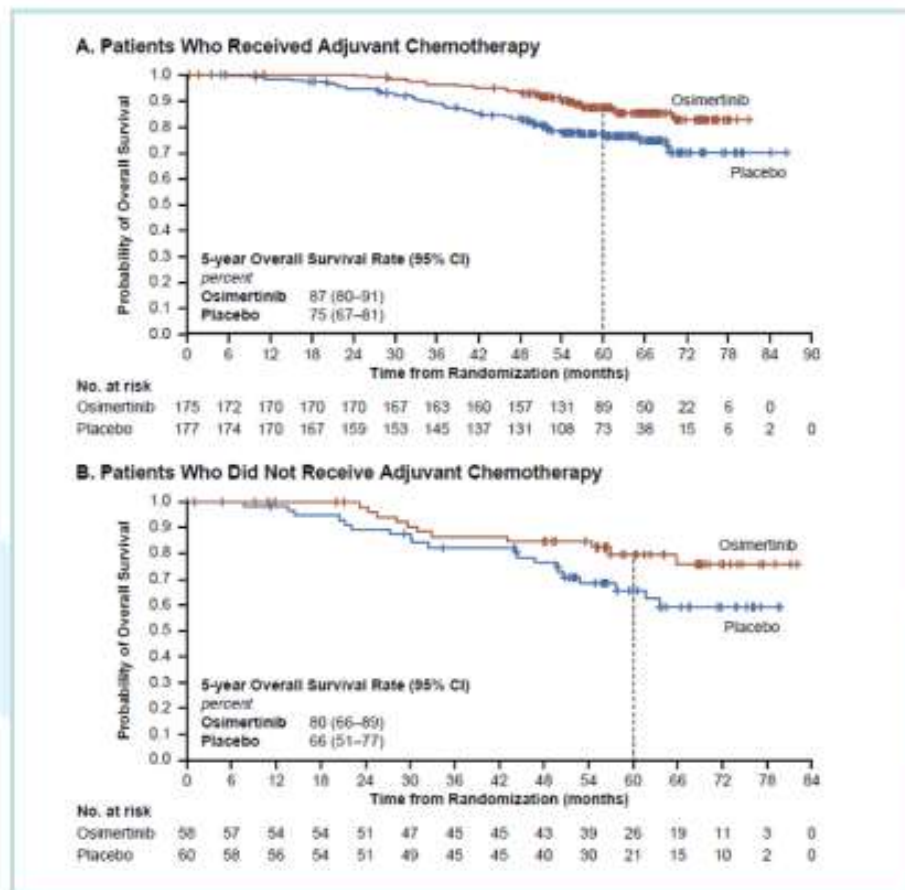
- Mariposa (Amivantamab + Lazertinib) and FLAURA2 (Osimertinib + Platinum-Pemetrexed) represent significant progress in the setting of first line advanced/metastatic common EGFR mutant NSCLC
- Combination therapy **discussed** with all fit (PS 0/1) treatment-naïve patients with advanced common EGFR mutant NSCLC
- Combination therapy should be **recommended** in fit PS 0/1 patients with:
 - High Disease burden:
 - Patients with CNS metastases
 - Patients with liver metastases
 - Detectable ctDNA at baseline
 - TP53 co-mutations
 - Exon 21 L858R EGFR Mutant NSCLC

EGFR

Early and Locally Advanced Disease



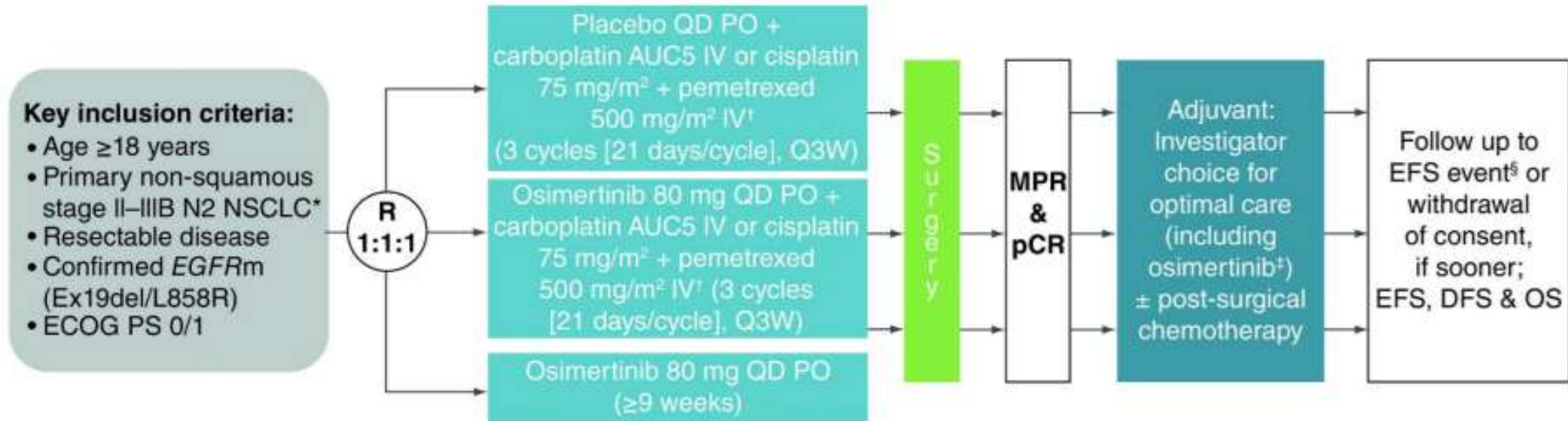
ADAURA: Role of Chemotherapy



- Chemotherapy was not mandated in the ADAURA study
- 75% of stage II-IIIA had chemo
- Chemotherapy OS benefit was similar in both arms in patients with stage II to IIA disease and similar to data for WT population

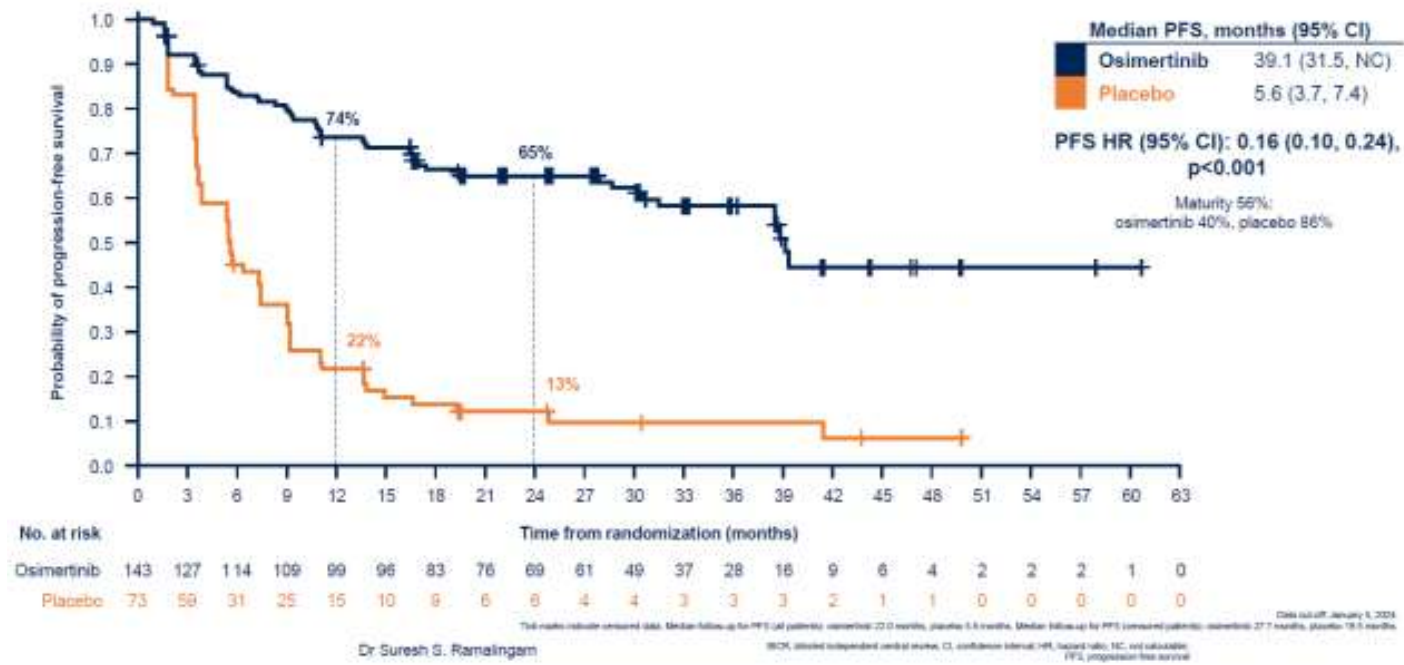
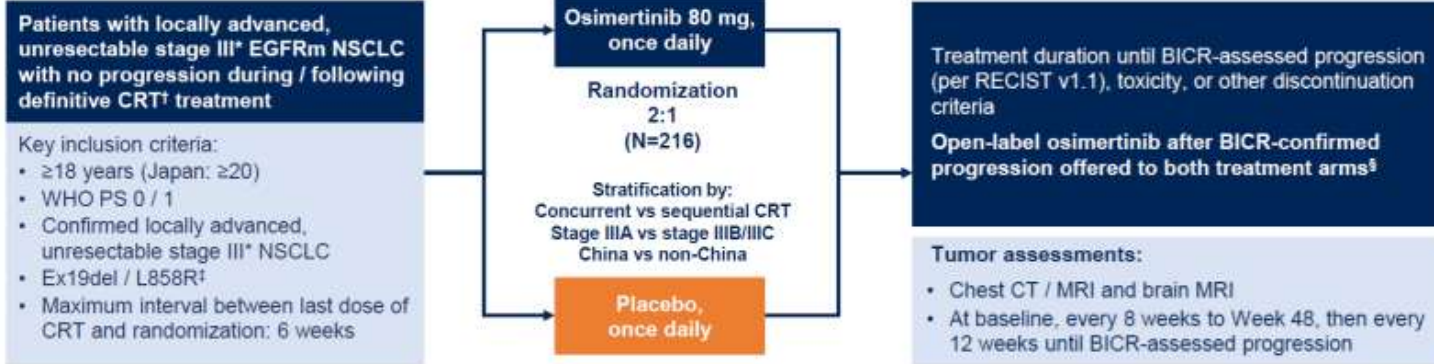
Supplement to: Tsuboi M, Herbst RS, John T, et al. Overall survival with osimertinib in resected EGFR-mutated NSCLC. *NEJM* 2023;389:137-47

Neo-ADAURA



Update (ASCO, 2025):
Increase in MPR, improved EFS (immature data), increase in nodal downstaging

LAURA Phase 3 double-blind study design



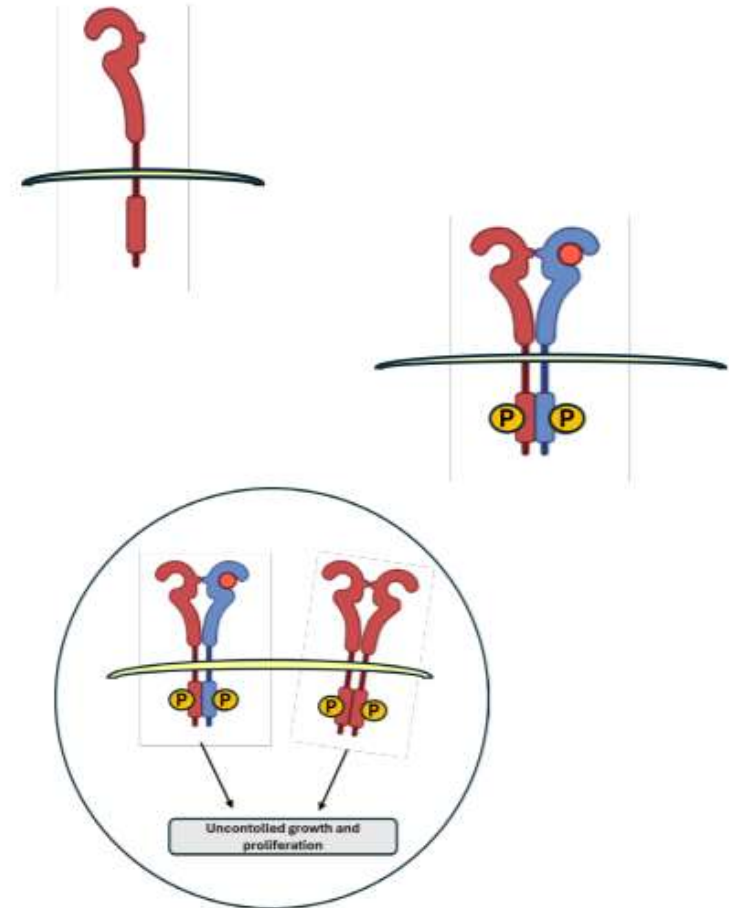
HER2



HER2 Receptor

Human Epidermal Growth Factor Receptor 2 (ERBB2)

- Belongs to the HER/ ERBB family of receptors (EGFR, HER2, HER3, HER4)
- Activation of downstream signalling pathways occurs via heterodimerisation with other ligand bound HER members
- Activation of HER2 in NSCLC occurs via three main mechanisms with different prognostic and predictive outcomes
 - gene mutation (1-4%)
 - gene amplification (2-5%)
 - protein overexpression (2-30%)

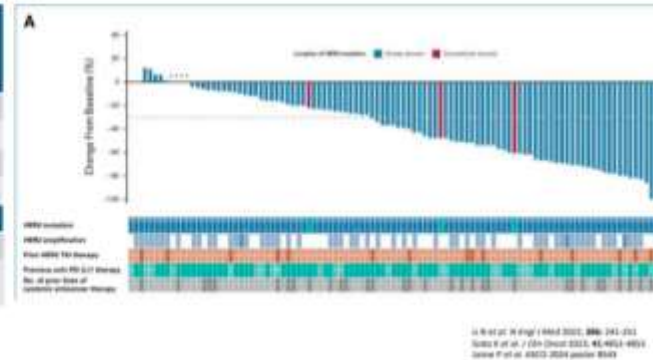


Trastuzumab deruxtecan (T-Dxd)

The recommended dose of Enhertu is 5.4 mg/kg given as an intravenous infusion once every 3 weeks

- DESTINY-Lung02 Phase II (2:1 randomisation to 5.4mg/Kg Q3W and 6.4mg/Kg Q3W)
- ≥1 prior anticancer therapy, including platinum-based chemotherapy
- Primary end point was ORR; secondary end points PFS, OS and DoR

	DESTINY -Lung01 (6.4mg/Kg) N=91	DESTINY -Lung02 (5.4mg/Kg) N=102	DESTINY -Lung02 (6.4mg/Kg) N=50
ORR (%)	55	50	56
mDoR (months)	9.3	12.6	12.2
mPFS (months)	8.2	10	12.9
mOS (months)	17.8	18	17.3
≥grade 3 AE (%)	46	39.6	60
Any grade ILD/pneumonitis (%)	26.4	14.9	32



Zongertinib (BI 1810361)

- Selectively inhibits HER2, sparing EGFR to limit toxicities
- **Beamion-Lung 1:** Phase 1 study in advanced NSCLC with *HER2* alterations
- Cohort 1 in phase 1b was pre-treated patients with *HER2m* (120mg od n = 75)
- **ORR of 71%**, with six-month PFS of 69% and DoR of 73%
- Any grade TRAEs in 95% (most common were diarrhoea 51% and rash 27%)
- Grade ≥3 in ~18% (diarrhoea 1.5%, rash 0%); dose reductions (5%) and treatment discontinuation (3%)
- 33% (120 mg; n=27) of patients with asymptomatic brain metastases had a cORR, with a DCR of 74%
- Data is still maturing; other cohorts of interest

BAY2927088

- Inhibitor of both EGFRm (~40 fold selectivity for EGFR exon 20m compared with WT EGFR) and *HER2m*
- **SOHO-1:** Phase I/II study in patients with pre-treated EGFRm or *HER2m*
- 53% had received ≥2 lines of previous SACT

Expansion Cohort 2 included:

- *HER2* exon 20 insertion mutations group
ORR 72%, DCR 82% , DoR 8.7 months PFS 7.5 months
- *HER2* Y772_A775dup (YVMA)
ORR 90% DoR 9.7 months PFS 9.9 months
- Any grade TRAEs in 95%, grade ≥3 in 43% (diarrhoea 85%, rash 43% and paronychia 25%)
- Dose reductions in ~30% discontinuation due to TRAE 6.8%

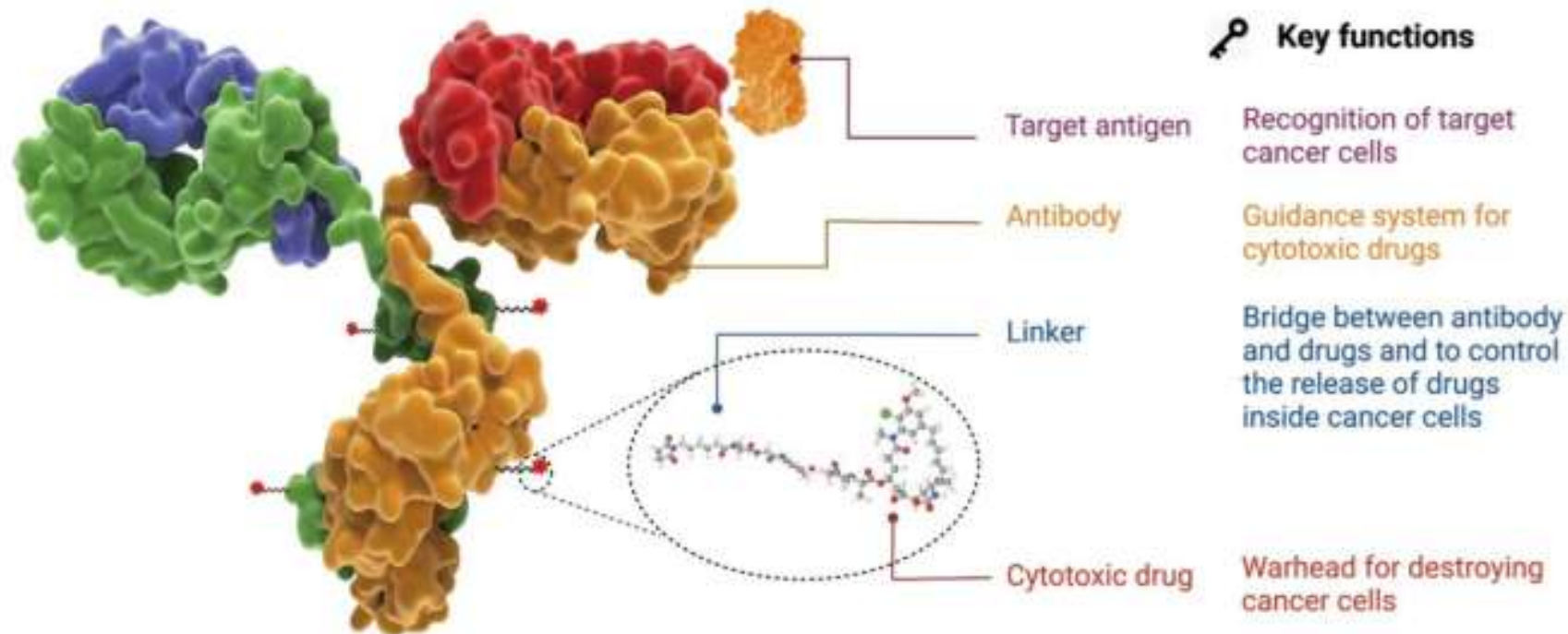


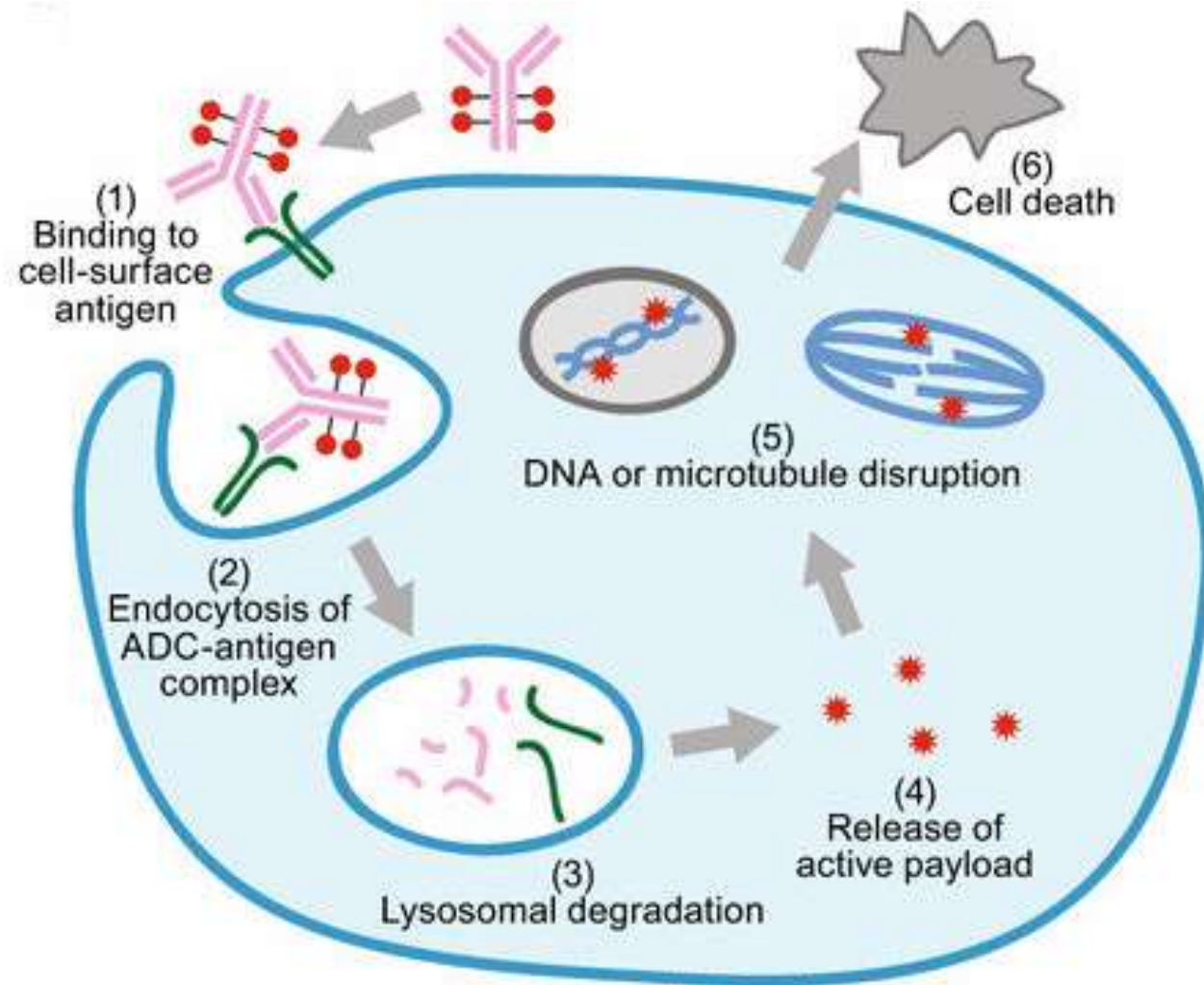
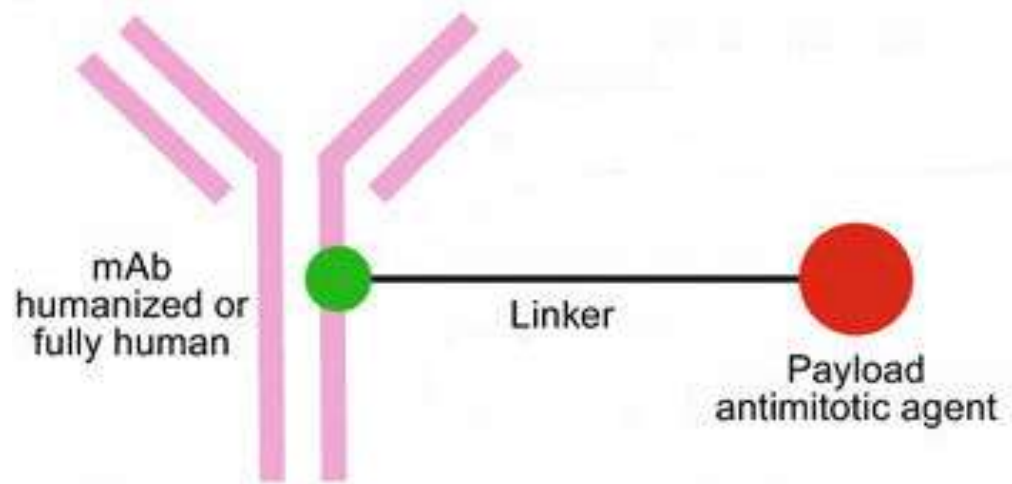
ADCs

Antibody Drug Conjugates

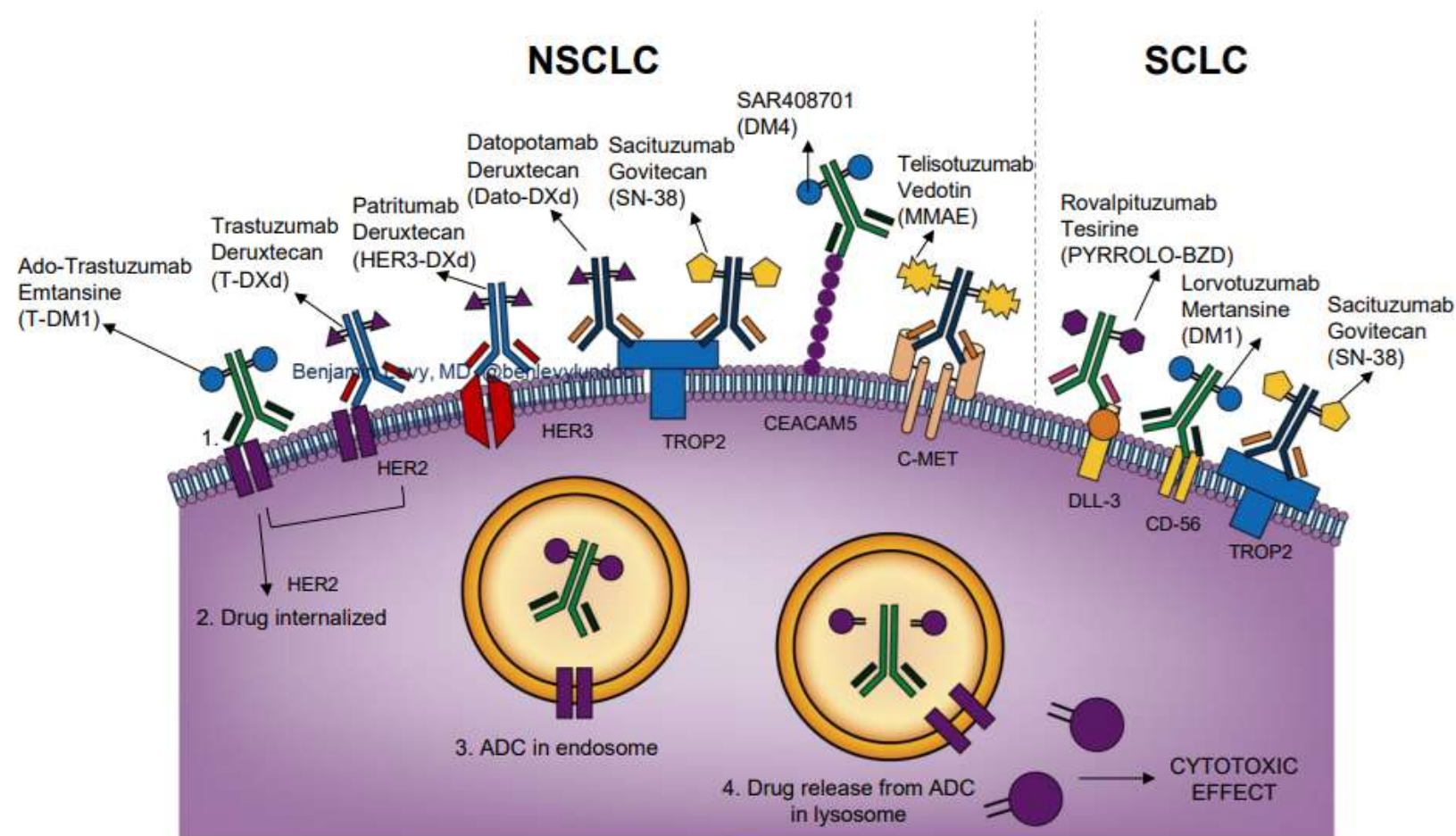


- Aim to deliver target-specific payload ('warhead') into the cancer cell¹
- Composed of an **antibody** which is directed to a defined target (antigen), a **toxic payload** and a **linker** structure connecting them





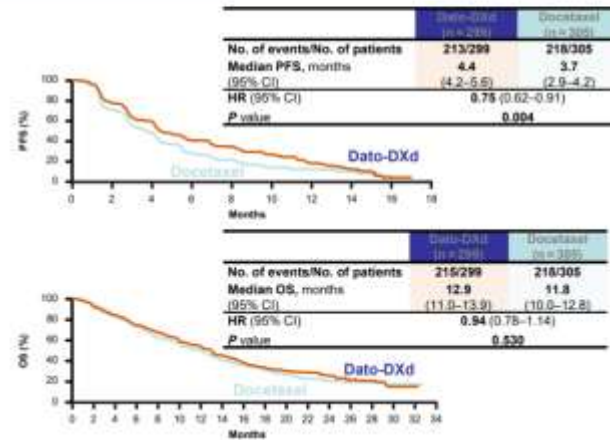
The Antigen: Ideal Characteristics for ADCs



Datopotamab Deruxtecan vs Docetaxel in NSCLC TROPION-Lung01: Primary Endpoints

Dual primary endpoints: PFS endpoint met, but OS endpoint not met

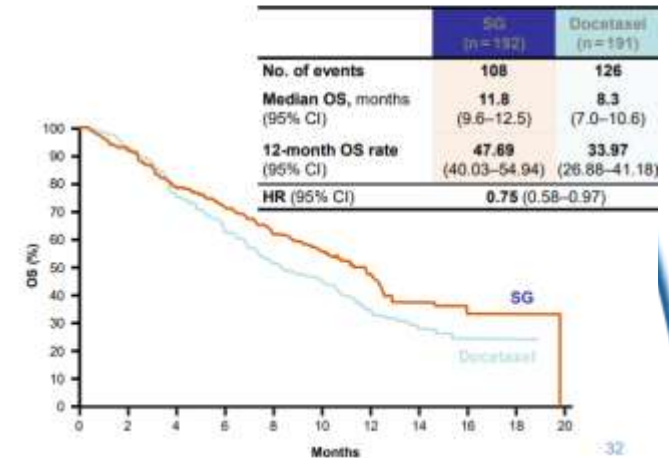
	Datopotamab deruxtecan	Docetaxel
ORR	26.4%	12.8%
mDOR	7.1 mos	5.6 mos
mPFS	4.1 mos	3.9 mos
mOS	12.9 mos	11.8 mos



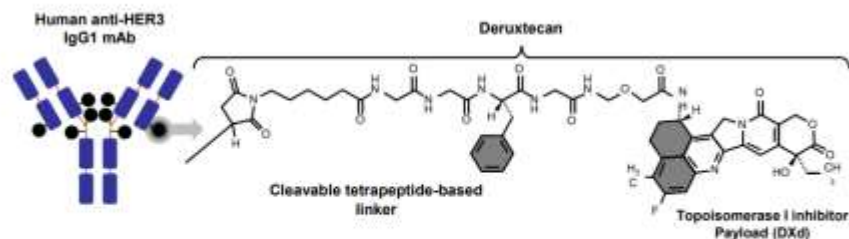
Sacituzumab Govitecan vs Docetaxel in Stage IV NSCLC EVOKE-01 Secondary Endpoints

Primary endpoint not met: no significant difference in survival

	Sacituzumab govitecan	Docetaxel
ORR	13.7%	18.1%
mDOR	6.7 mos	5.8 mos
mPFS	4.1 mos	3.9 mos
mOS	11.1 mos	9.8 mos



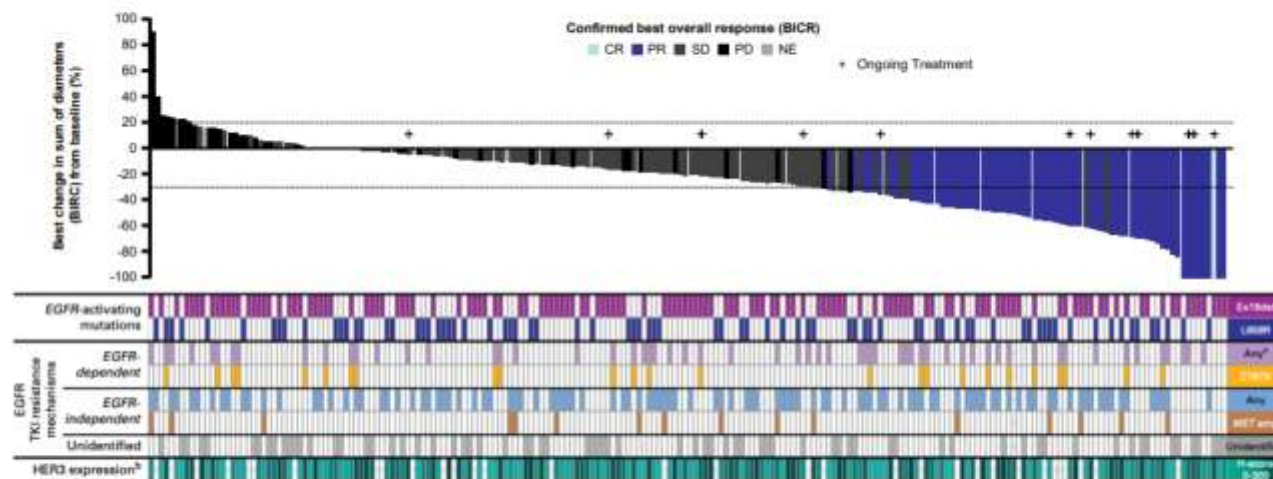
Patritumab deruxtecan (HER3-DXd)^{1,2}



The 7 Key Attributes of HER3-DXd

Payload mechanism of action: topoisomerase I inhibitor	Stable linker-payload
High potency of payload	Tumor-selective cleavable linker
High drug-to-antibody ratio =8	Bystander antitumor effect
Payload with short systemic half-life	

Patritumab Deruxtecan in *EGFR*-mutant NSCLC HERTHENA-Lung01



- HER3-DXd 5.6 mg/kg in *EGFR* mt NSCLC
 - Prior third generation TKI and chemo: ORR 29.8%, mDOR 6.4 mos, mPFS 5.5 mos, and mOS 11.9 mos
 - Efficacy seen across variable mechanisms of resistance

Update (ASCO, 2025): HERTHENA-Lung02, Randomised Ph3, 3L+ *EGFR*
No clinically meaningful improvement in PFS, no improvement OS

Small Cell Lung Cancer

Metastatic



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Meeting the standards

- NLCA and GIRFT standards

≥70% cases to receive chemotherapy

≥80% treated within 14 days of diagnosis (IHC confirmation)

- Prompt referral to the treatment centre

SCLC referral proforma across GM (since June 2022)

Nurse-Led triage

Rapid ambulatory route

Early appointment for SACT + access to optimal treatment

Small Cell Lung Cancer: Immediate Referral Proforma for Systemic Treatment

Referral to: Wythenshawe, geographical catchment area excluding patients needing assessment within Manchester Central, all patients excluding Wythenshawe Hospital catchment area	The Christie Hospital • Email this form to smallcell@christie.nhs.uk • Local letter of referral to smallcell@christie.nhs.uk	NHS Number	Wythenshawe Hospital
Referring Hospital and Consultant			
GIVE PATIENT INFORMED / WILL BE INFORMED CONSENT			
Patient location	Patient name	Ward (Give location and phone number)	
Referring Hospital Patient Key Worker Name			
Referral for systemic treatment assessment via	Outpatient Clinic Next Clinic appointment within 7 days	Inpatient admission Patient requires urgent management e.g. hypoxia, SVCOC, rapid deterioration (days) to be discussed with RPT on-call via Consultant	
Sector MDT discussed date planned discussion			
Source of Histocytological diagnosis (no reference no and location if known)			
Immunohistochemistry (IHC) confirms small cell carcinoma	Yes	Pending	
Stage: definite limited/disseminated stage or a minimum		SVCOC present clinically or radiologically	Yes No
ECOG PS	0	1	2 3
Biopsy: N/A, L2H, Argusnet CA, Ask Path			
Biopsy: Biopsy abnormal N/A, Pleural, with out report			
Biopsy: sCT (positive)			
PMS/Consentability			
Confirm patient informed of diagnosis and referral	Yes	Patient has capacity	Yes No
Social red flag			
Patient and family wishes (if known)			
Referral Name:	Referral Contact: Name Email		
Date			

2024 outcomes: treat 70% pts

- 192 patients referred: 36% (stages 1-3) 64% (stage 4)
- 162 patients received SACT: **82%**
- Reasons for non-treatment:
 - ❖ Patient referred but unfit to attend oncology appointment
 - ❖ Poor PS, offered radiotherapy or BSC
 - ❖ Adequate PS, comorbidity contraindicates SACT
 - ❖ Patient decision declines SACT

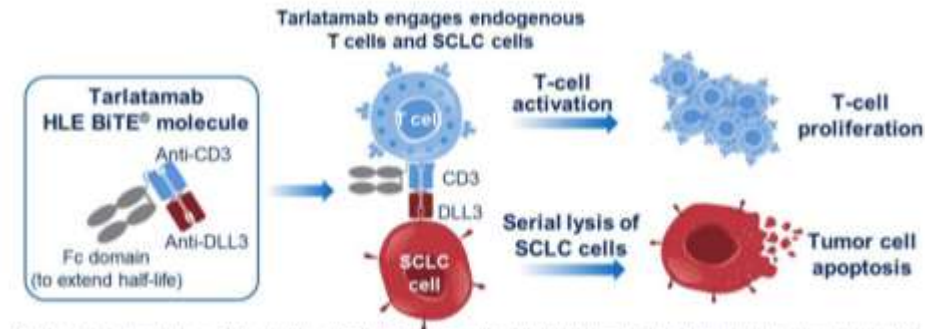


2024 outcomes: treat 80% <14 days

SACT <14 days: **71%** (mean 13.2 days, median 12 days)

Reason for delay	Avoidable delay
Pathway: SACT unit capacity	Yes
Pathway: investigated via non-lung pathway	No
Pathway: delayed SACT appointment request	Yes
Pathway: delayed referral to oncology	Yes
Pathway: delayed oncology appointment	Yes
Pathway: failure to communicate SACT appointment	Yes
Pathway: delay inpatient bed oncology	Yes
Clinical: entry into clinical trial	No
Clinical: required RIG insertion prior	No
Clinical: SABR first	No
Clinical: patient admitted local hospital	No
Clinical: NM-GFR required	Possibly
Clinical: required up to date scan	Yes

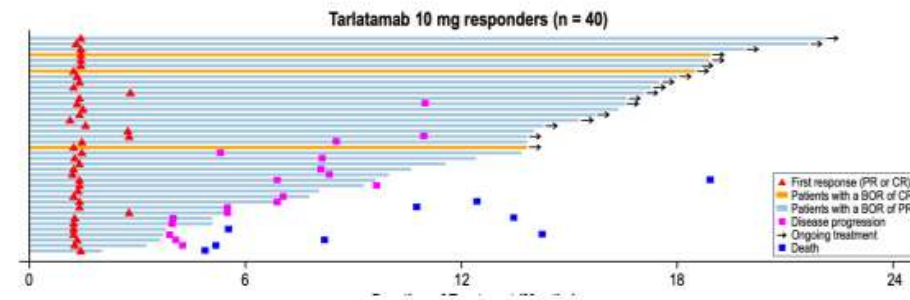
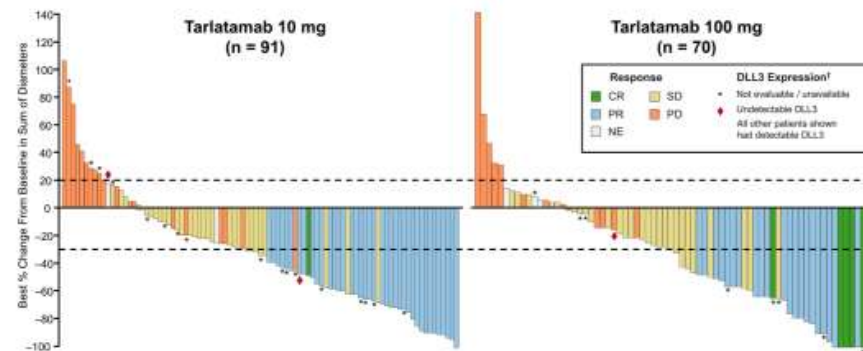




CD, cluster of differentiation; DLL3, delta-like ligand 3; Fc, fragment crystallizable domain; HLE BiTE, half-life extended bispecific T-cell engager; SCLC, small cell lung cancer.

Oswin, ASCO 2021
Georgetown | Lombardi

- Phase II DeLLphi-301 Study
 - 10mg dose comparable to 100mg in efficacy, better safety
 - RR 40% at 10mg, 32% at 100mg, 58-61% lasting $\geq 6m$



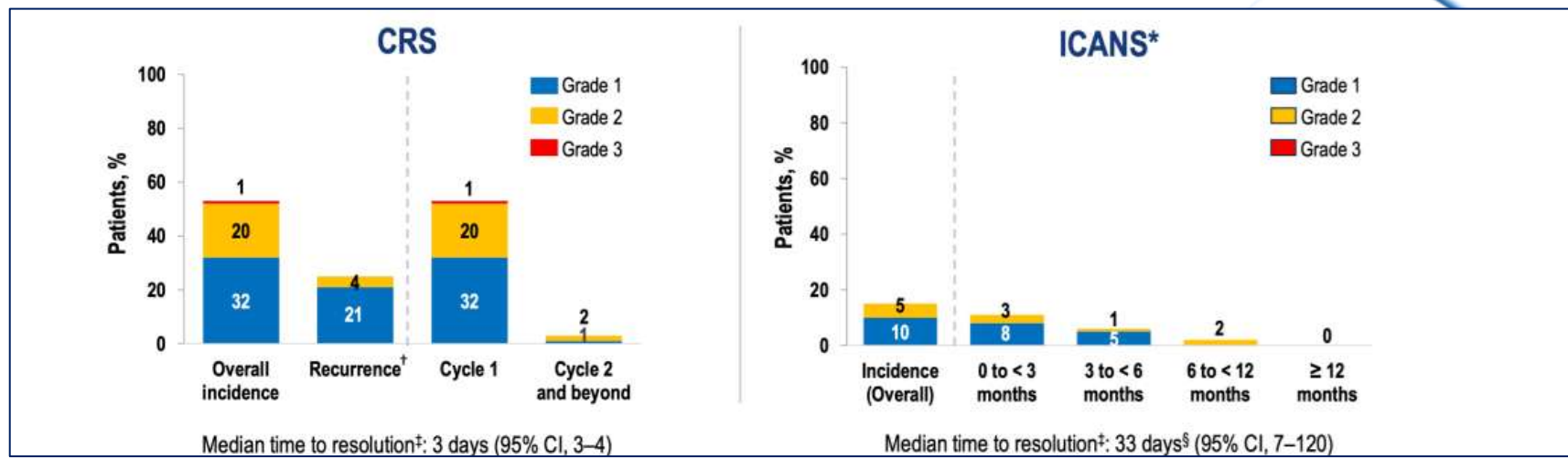


Table 1. Recommended Dosage and Schedule of IMDELLTRA

Dosing Schedule	Day	Dose of IMDELLTRA	Administration Instructions	Recommended Monitoring
Step-up Dosing Schedule Cycle 1	Day 1 ^a	Step-up dose ^a 1 mg	Administer IMDELLTRA as a 1-hour intravenous infusion in an appropriate healthcare setting.	Monitor patients from the start of the IMDELLTRA infusion for 22 to 24 hours on Cycle 1 Day 1 and Cycle 1 Day 8 in an appropriate healthcare setting.
	Day 8 ^a	10 mg ^a		Recommend that patients remain within 1-hour of an appropriate healthcare setting for a total of 48 hours from start of the infusion with IMDELLTRA, accompanied by a caregiver.
	Day 15	10 mg		Observe patients for 6-8 hours post IMDELLTRA infusion ^b .

Dosing Schedule	Day	Dose of IMDELLTRA	Administration Instructions	Recommended Monitoring
Cycle 2	Day 1 and 15	10 mg		Observe patients for 6-8 hours post IMDELLTRA infusion ^b .
Cycles 3 and 4	Day 1 and 15	10 mg		Observe patients for 3-4 hours post IMDELLTRA infusion ^b .
Cycle 5 and subsequent infusions	Day 1 and 15	10 mg		Observe patients for 2 hours post IMDELLTRA infusion ^b .

Update (ASCO, 2025): DeLLphi-304, Randomised Ph3, 2L
Improved OS (HR 0.60), Improved PFS (HR 0.71), Improved ORR (35% vs. 20%)

Small Cell Lung Cancer

Limited Stage

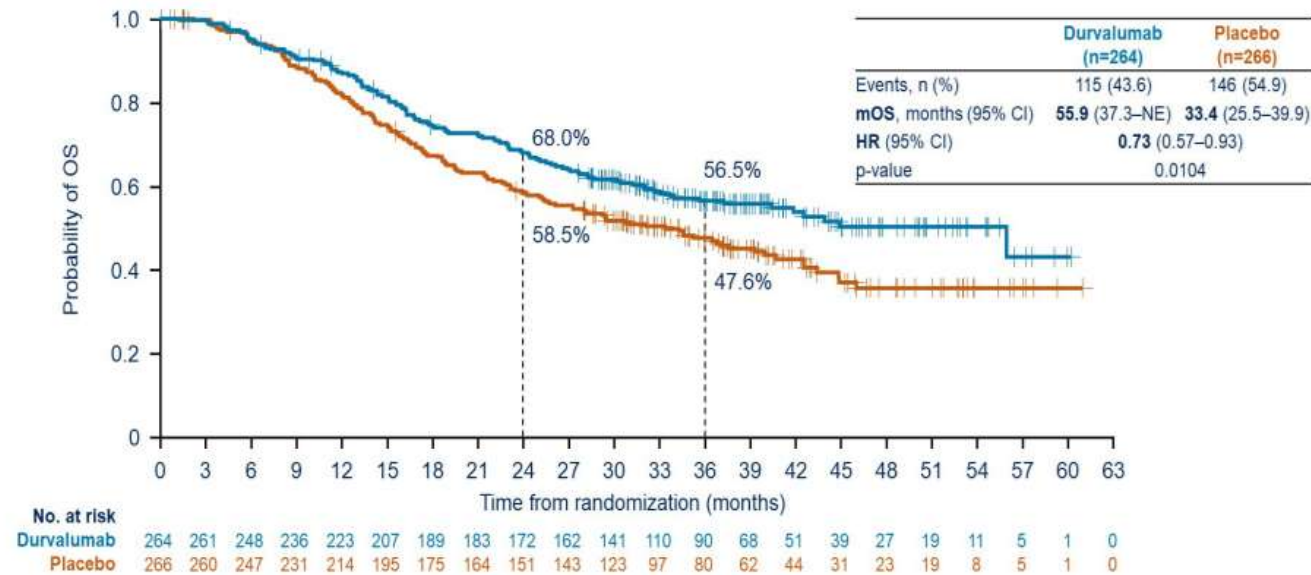


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ADRIATIC Trial

Overall Survival: co-primary endpoint

- Median duration of follow up in censored patients: 37.2 months (range 0.1–60.9)



NCT06469879	III	TQB2450 + Anlotinib hydrochloride following chemoradiation vs placebo	358	Not yet recruiting
SURPASS	II/III	Sugemalimab for 1 year vs placebo	346	Recruiting
DeLLphi-306	III	Tarlatamab following chemoradiation vs placebo	400	Recruiting
TIGOS-LS	II	BM5-986489 (atigotatug + nivolumab) 2 years vs maintenance Durvalumab	250	Not yet recruiting
NCT06789796	III	Arm A: Ipamorelimab and Tuvonralimab + placebo for QL1604 Arm B: QL1604 + placebo for Ipamorelimab and Tuvonralimab	636	Not yet recruiting
NCT06784206	II	Adebrelimab Maintenance Therapy After Concurrent Chemoradiotherapy with Hyperfractionated Radiotherapy	30	Not yet recruiting
NCT06095583	III	Arm A: Tifcemalimab and toripalimab Arm B: Placebo for tifcemalimab and toripalimab; Arm C: Placebos for both tifcemalimab and toripalimab	756	Recruiting
NCT05443646	II	platinum-etoposide concurrently with hypofractionated radiotherapy, followed by HLX10 (Serplulimab) x 1 year	55	Recruiting



Stage II/III Disease



Challenges we face



Multiple trips to the hospital



Multiple investigations



Different preferences from surgeons

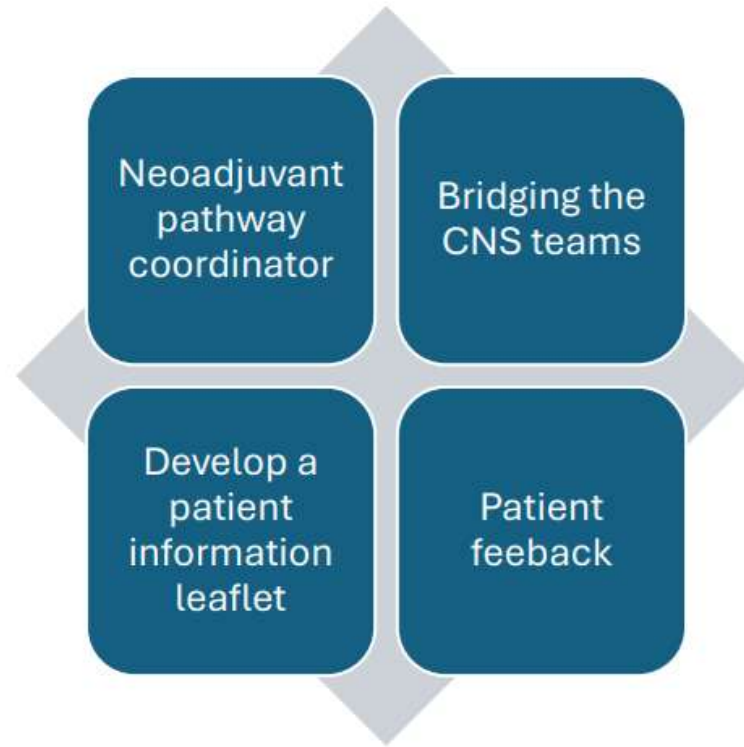


Patient expectations and education



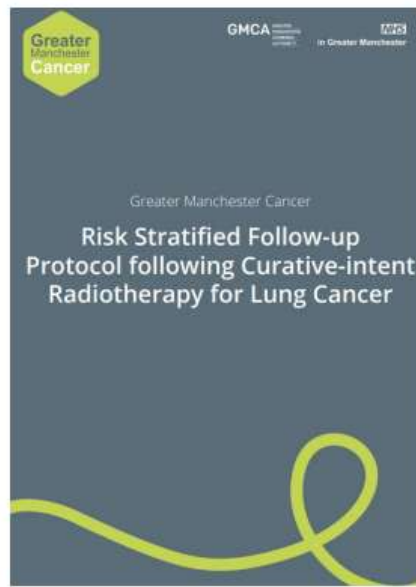
Who is the patients contact?

What's next....?



Risk-stratified follow up





STEP 2: Risk stratify surveillance protocol according to ASSENT score



Follow risk stratified protocol according to risk category

Surveillance Protocol for first 2 years following Radiotherapy

	Months following treatments			
	6 months	12 months	18 months	24 months
Low Risk	Low dose CT Chest		Low dose CT Chest	
Moderate Risk	contrast-enhanced CT chest and upper abdomen	contrast-enhanced CT chest and upper abdomen	contrast-enhanced CT chest and upper abdomen	
High Risk	contrast-enhanced CT chest and upper abdomen +/- MR Brain*	contrast-enhanced CT chest and upper abdomen	contrast-enhanced CT chest and upper abdomen +/- MR Brain*	contrast-enhanced CT chest and upper abdomen

*Pending local agreement and resource dependent

ASSENT –Age, PS, Smoking, staging EBUS, N-stage, T-STAGE



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Pneumonitis



Incidence of Pneumonitis in PACIFIC era

Pneumonitis	Any grade	Tx discontinuation	Grade 3+
PACIFIC <i>Antonia NEJM 2017</i>	33.9%	6.3%	3.4%
PACIFIC-R <i>Filippi ESMO open 2024</i>	17.9%	9.5%	
PACIFIC-6 <i>Garassino JTO 2022</i>		10.3%	
GEMSTONE 301 <i>Zhou Lancet Oncol 2022</i>	20%	2%	3%

- Incidence of pneumonitis consistent
- Clinically relevant in 3 – 10%

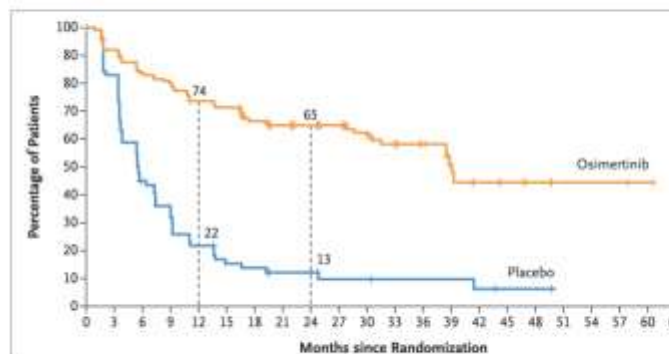




[@thoracicuk](#)

Unresectable Stage III NSCLC mEGFR

Osimertinib following RCT in mEGFR unresectable NSCLC



	Any grade	Grade 3+
Pneumonitis	6%	1%
Pneumonia	11%	2%
RT pneumonitis	48%	2%

- Increased risk of low-grade pneumonitis
- Severe pneumonitis increased

Risk factors

Significance for decision-making

Factors

Expert advice

High

ILD
V20 > 45%
MLD > 30 Gy

These cases require a **very individualized approach** including **potential compromises in dose-coverage or sequencing of treatment**. Recommendations for radiotherapy need to be **critically discussed with the patient**.

Medium

V20 > 35%
MLD > 23 Gy
Concurrent treatment with
Carboplatin / Paclitaxel or
Immune Checkpoint Inhibitors

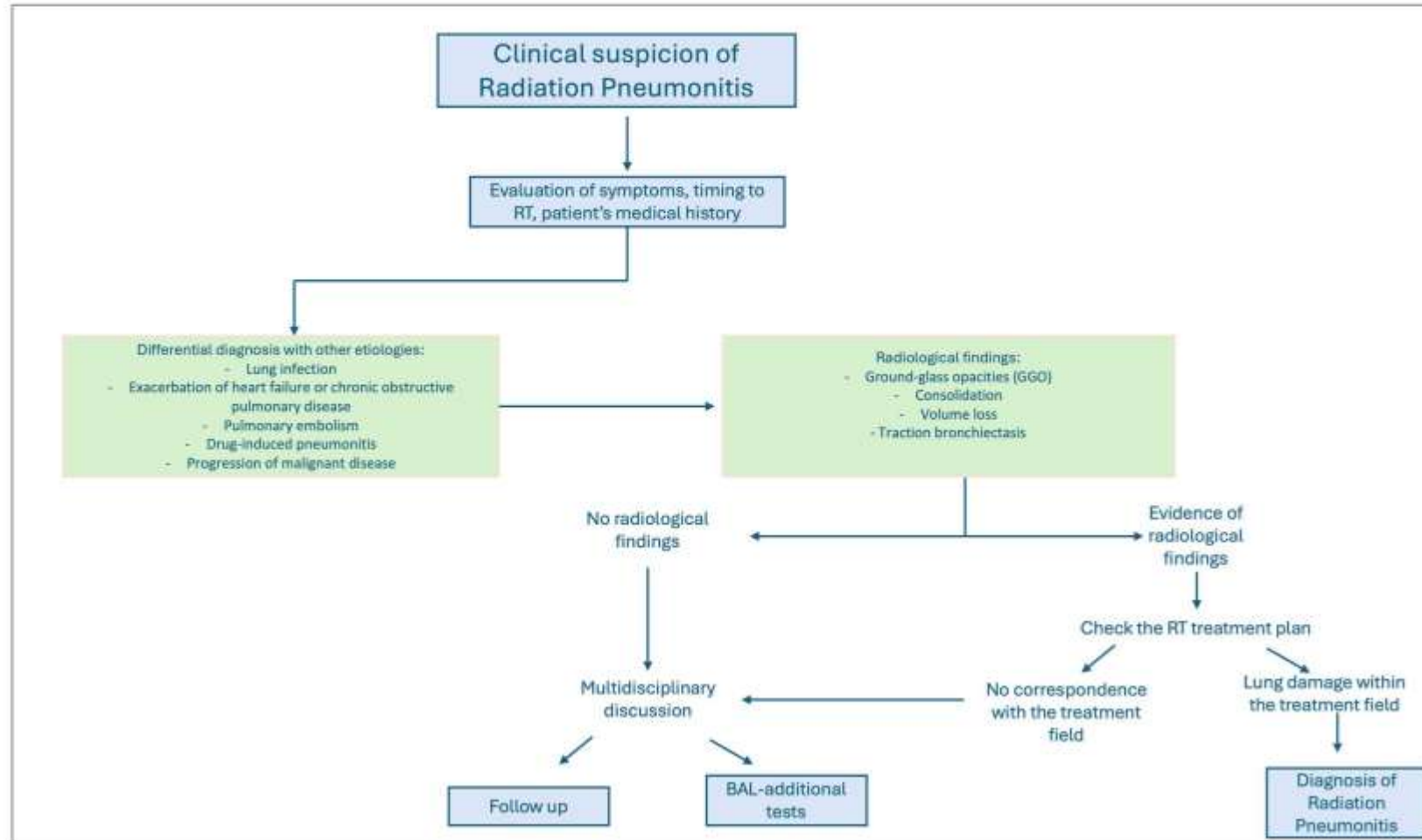
These situations are associated with a **higher risk for pneumonitis**. If possible these situations are to be avoided, but can be **considered routine after critical assessment**.

Typical

Established standard concurrent
systemic treatments.
V20 < 35%
MLD < 23 Gy

Even when special risk factors are present, radiation **pneumonitis is possible**. While the risk is kept as low as possible, it typically cannot be avoided completely. **This risk is routinely accepted**.

Diagnosis



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