Standards of Care- Lung Pathway

Initial assessments to be considered:

Prehabilitation Assessment: (Three pillars of prehabilitation)	Treat tobacco addiction
	Physical activity
	Prevention and management of malnutrition
Consider prehab4cancer: any patient PS≤2 CF≤5 and being referred for curative treatment should be referred	

Physiology tests (to be completed simultaneously with other assessments)				
	Spirometry and transfer factor	Shuttle walk or stair climbing test	ECG	Creatinine clearance/ eGFR
Group 1	✓	✓	✓	
Group 2	✓	✓	✓	
Group 3	✓	✓	✓	✓
Group 4	✓			✓
Group 5				✓

Notes and guidance for staging EBUS

A systematic examination of the mediastinal and hilar lymph nodes beginning with N3 stations, followed by N2 stations and finally N1 (a suggested systematic approach is outlined in the table below). Any lymph node measuring >5mm in short axis based on sonographic measurement, is sampled.

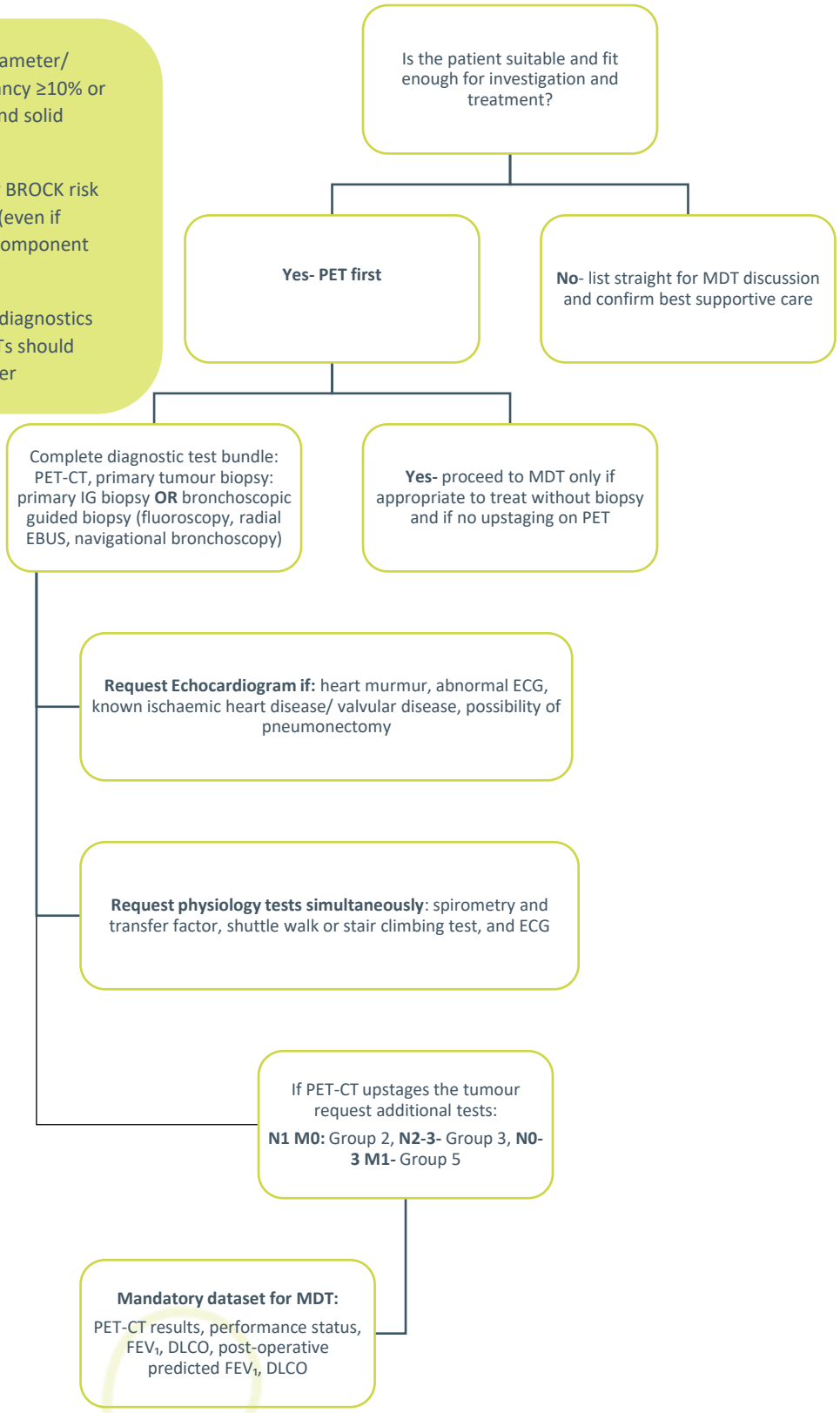
N3	N2	N1
Contralateral station 11	Station 7	Ipsilateral station 19
Contralateral station 10	Ipsilateral station 2	Ipsilateral station 11
Contralateral station 4	Ipsilateral station 4	
Contralateral station 2		

Group 1- Peripheral tumour with normal hilar and mediastinum on staging CT with no distant metastases

Including: Solid pulmonary nodules ≥8mm diameter/ ≥300mm3 volume and BROCK risk of malignancy ≥10% or persistent sub-solid nodules for ≥3 months and solid component ≥5mm.

Excluding: solid nodules <8mm/<300mm3 or BROCK risk <10%, pure ground glass nodules of any size (even if enlarging), and sub-solid nodules with solid component <5mm.

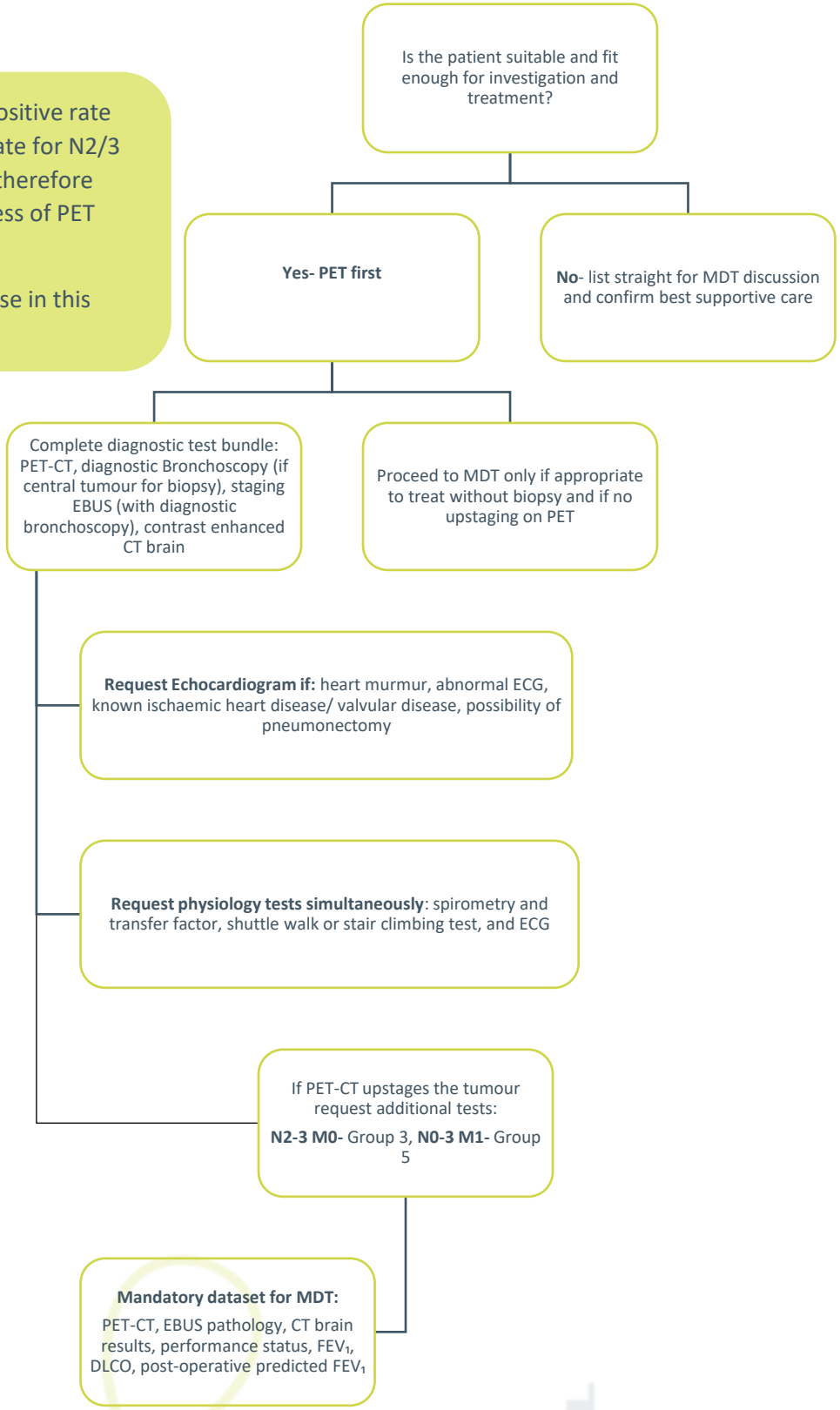
Ground glass nodules do not require further diagnostics and should continue under surveillance. MDTs should exercise extreme caution if considering further



Group 2: Central tumour on N1 lymphadenopathy with normal mediastinum on staging CT with no distant metastases

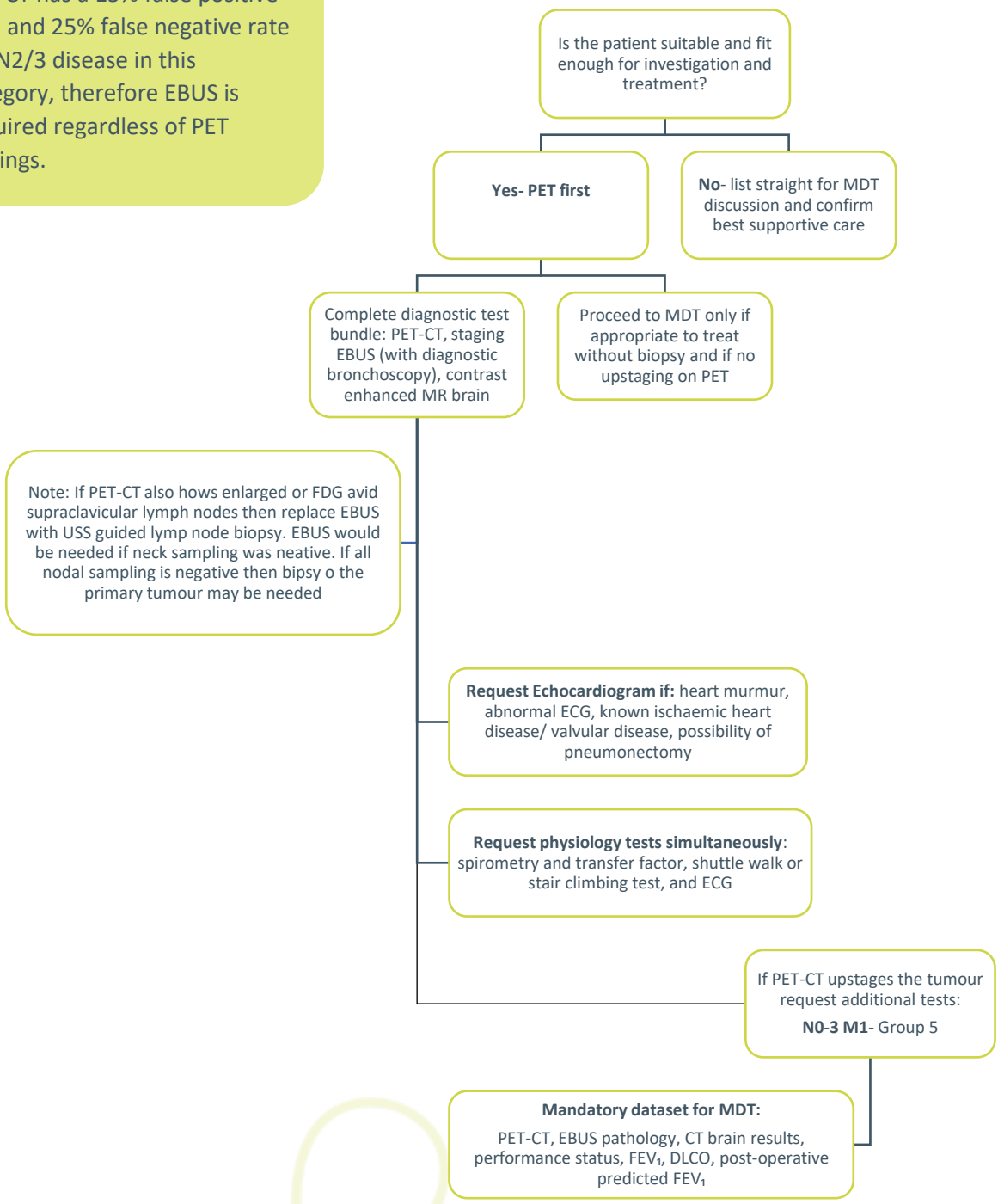
PET-CT has a 15% false positive rate and 25% false negative rate for N2/3 disease in this category, therefore EBUS is required regardless of PET findings.

Prevalence of N2/3 disease in this category is 20-25%.



Group 3: Primary tumour and discrete mediastinal lymphadenopathy on staging CT with no distant metastases

PET-CT has a 15% false positive rate and 25% false negative rate for N2/3 disease in this category, therefore EBUS is required regardless of PET findings.



Group 4: Conglomerate and invasive nodal malignancy on staging CT with no distant metastases

Radiology is considered diagnostic for malignancy and pathological confirmation only required.

Prevalence of N2/3 disease in this category is 100%

Is the patient suitable and fit enough for investigation and treatment?

Yes- PET first

No- list straight for MDT discussion and confirm best supportive care

Complete diagnostic test bundle: PET-CT, staging EBUS (with diagnostic bronchoscopy), contrast enhanced MR brain

Proceed to MDT only if appropriate to treat without biopsy and if no upstaging on PET

Note: If PET-CT also hows enlarged or FDG avid supraclavicular lymph nodes then replace EBUS with USS guided lymp node biopsy. EBUS would be needed if neck sampling was neative. If all nodal sampling is negative then bipsy o the primary tumour may be needed

Request Echocardiogram if: heart murmur, abnormal ECG, known ischaemic heart disease/ valvular disease, possibility of pneumonectomy

Request physiology tests simultaneously: spirometry and transfer factor, creatinine clearance/ eGFR

Invasive mediastinal lymphadenopathy has poorly defined borders and cannot be easily measured. It forms conglomerate disease with other nodal stations

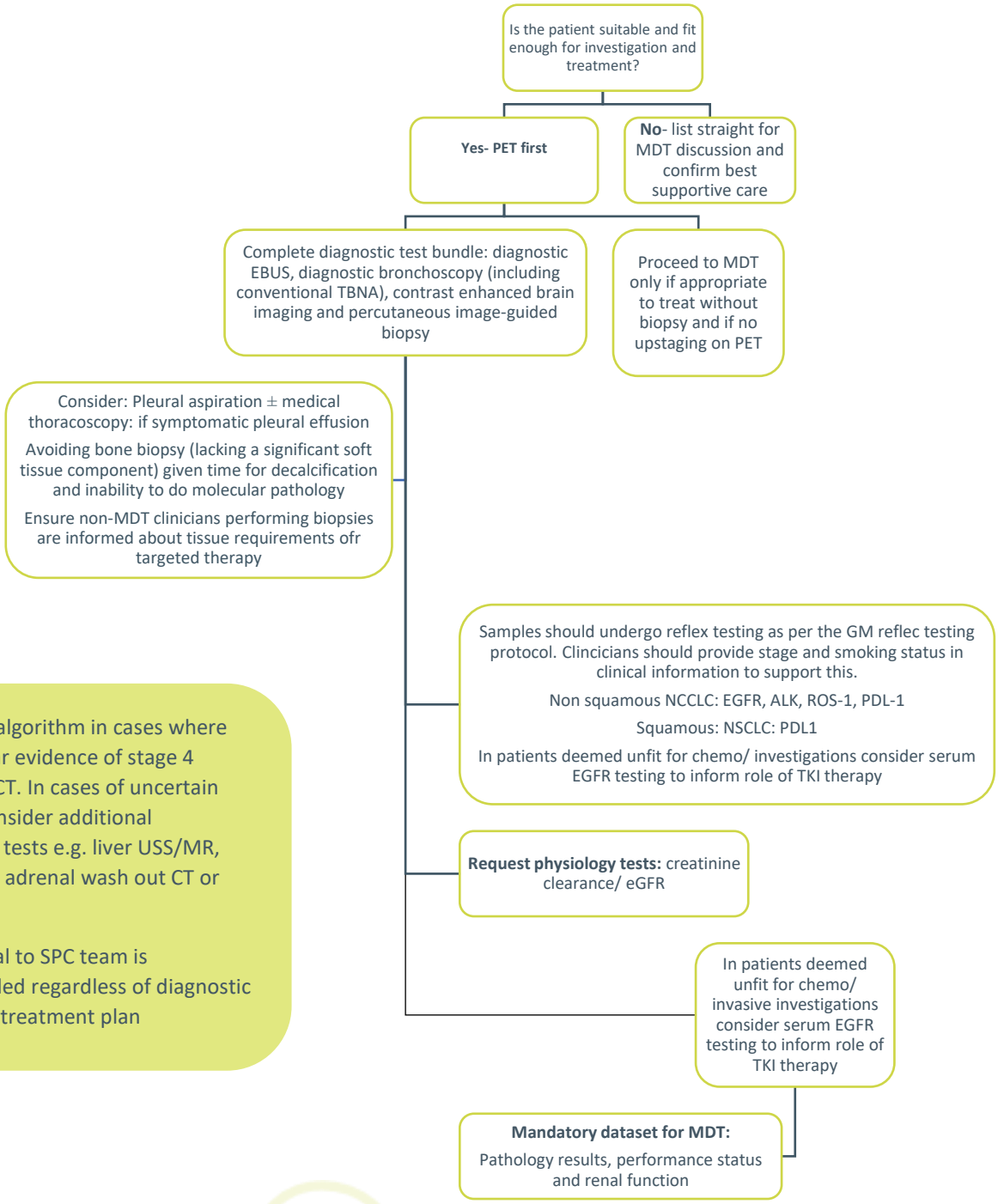
If PET-CT upstages the tumour request additional tests:

N0-3 M1- Group 5

Mandatory dataset for MDT:

PET-CT, EBUS pathology, CT brain results, performance status, FEV_1, DLCO, post-operative predicted FEV_1

Group 5: Distant metastases on staging CT



Follow this algorithm in cases where there is clear evidence of stage 4 disease on CT. In cases of uncertain findings, consider additional clarification tests e.g. liver USS/MR, triple phase adrenal wash out CT or PET-CT.

Early referral to SPC team is recommended regardless of diagnostic pathway or treatment plan