AIR TRAVEL

CI: LTOT >4L/min
major haemoptysis
PTX with persistent leak
infectious TB

Hypoxic Challenge test [SATS ≤94%]
PaO_2 <6.6 kPa (<50 mmHg) = 2L/min
Sats <85%

O_2 inflight in pulm HTN + NYHA 3-4

PARAPNEUMONIC EFFUSION / EMPYEMA

CAP:
strep milleri
strep pneumonia
staph aureus
Anaerobes

HAP:
MRSA
staph aureus
Enterobacter
Enterococci

Lemierres syndrome = fusobacterium

TB = deaminase adenosine

Post CABG

Early <30 days
Bloody
Eosinophilic

Late >30 days
Clear
Lymphocytic

Chylothorax

Triglyceride >1.24 mmol/L Exclude if <0.56
Chylomicrons

Trauma
Thoracotomy
Malignancy inc lymphoma
LAM
TB
Cirrhosis

Pseudochylothorax

Cholesterol >5.17
Cholesterol crystals

TB
RA

TRANSUDATE

LVF | CCF
CIRRHOSIS
LOW ALBUMIN
PD
↓ T4
Nephrotic syndrome
Mitral stenosis
Constrictive pericarditis
Meigs syndrome

EXUDATIVE

Malignancy
Parapneumonic
TB
PE
RA
Asbestos
Pancreatitis
Post MI
Post CABG
Yellow nail syndrome
Fungal infections

LIGHTS CRITERIA

Pleural: serum protein >0.5
Pleural: serum LDH >0.6
pleural LDH > 2/3 upper limits serum LDH

RA glucose <1.6 mmol/L

Drugs: amiodarone
Beta blockers
methotrexate
nitrofurantoin
phenytoin
Bromocriptine

LYMPHOCYTES

TB
Malignancy
CCF
Sarcoid
Lymphoma
Rheumatoid
post CABG
Chylothorax

Neutrophilic effusion

parapneumonic
PE
TB
Benign asbestos effusion

EOSINOPHILIC EFFUSIONS

Parapneumonic
Drug inc valproate
Benign asbestosis effusion
Churg strauss
Lymphoma
PE
parasite
malignancy

HAEMOTHORAX

Malignancy
PE
Trauma
Asbestosis benign effusion
Post cardiac injury

Drug causes of Effusion

MTX
Amiodarone
Beta blockers
phenytoin
nitrofurantoin

CTEPH Risk factors

Idiopathic PE
large PE + RV dysfunction on Echo
Splenectomy
Thrombophilia disorders
Hypothyroidism
Cancer
Myeloproliferative disorders
IBD
osteomyelitis
Shunts.
NON O BLOOD GROUP
INFECTED LINES OR PPM

ARDS

Tidal volume $\leq$ 6ml/kg IBW
Plateau pressure $\leq$30
Prone positioning 12hrs/day $\leq$ 20KPA
Conservative fluid management
High PEEP
27-20 KPA
Neuromuscular Blockade
ECMO - Murray lung injury score

Rehab
nutrition

PaO_2/FiO_2
MILD
200 $\leq$ 300

MOD
100- $\leq$200

SEVERE
$\leq$ 100

Acute onset $\leq$ 1 week
$\leq$300 + PEEP 5
CXR changes
not CCF

ECMO

SEVERE ARDS

LIS >2.5

pH <7.2

FiO2 <0.8

No CI to anticoagulation

Plateau pressure <30

GBS

Risk of Resp failure = bulbar dysfunction
facial weakness
MIP < 30
MEP < 40
FVC drop > 30% from base
FVC < 15 ml/kg.

CFTR MUTATION CLASSIFICATION

1. Defective protein synthesis G542X
2. Defective protein maturation and trafficking F508Del
3. Impaired chloride channel opening (gating) G551D
4. Defective channel ion transport (conductance) R117H
5. Defective splicing
6. Accelerated turnover at cell surface

Treatment of infection in CF

1. Pseudomonas
   colomycin nebs + PO ciprofloxacin 3months
   IV Abx eg Ceftazadine, Tazocin, Aztreonam,
   meropenam 2 weeks
   + Tobramycin, Amikacin or colomycin
   FOSFOMYCIN

Maintenance
   colomycin or tobramycin nebs or DPI
   aztreonam nebs
   levofloxacin nebs
   Amikacin

2. Staph aureus

IV flucloxacillin 2wks

Erythromycin

Rifampicin, SODIUM FUSIDATE

3. MRSA

Rifampicin + Sodium fusidate 4WKS

Linezolid, vancomycin or teicoplanin

4. Haemophilus

co-amoxiclav

doxycycline

ceftriaxone

Treatment of infection in CF

5. Maltophilia
   cotrimoxazole
   doxycycline
   Tigecycline

6. Burkholderia
   Meropenam, ceftazadine, Tazocin,
   aminoglycosides, temocillin
   doxycycline, ciprofloxacin, cotrimoxazole

CFTR MODULATORS

1. Ivacaftor (Kalydeco) - Gating mutations
   G551D
2. Tezacaftor + Ivacaftor (Symkevi, Symdeko)
   Homozygous F508del or Heterozygous F508del and residual function mutation
3. Lumacaftor + Ivacaftor (Orkambi)
   Homozygous F508del
4. Tezacaftor + Ivacaftor + Elexacaftor (Kaftrio, Trikafta) [>12YRS]
   Homozygous F508del or Heterozygous F508del and one minimal function mutation

BRONCHIECTASIS SEVERITY INDEX

Age
BMI
FEV_1
Hospital admissions in 2year
Exacerbations in 12 months
MRC
Pseudomonas
colonisation
Radiological severity

BXS Infection treatment

Pseudomonas Eradication
ciprofloxacin 2 weeks
IV antipseudomonal + IV aminoglycoside
+ colomycin, tobramycin, gentamicin nebs
3 months

Colonisation:
Colomycin neb
Gentamicin neb
+/- Azithromycin

Non pseudomonas colonisation

Azithromycin

Gentamicin neb

Doxycycline

LATENT TB

mantoux $\geq$ 5mm or positive IGRA

Refampian + ~~ethan~~ isoniazid 3 months

isoniazid 6 months

NTM

MAC

Rifampicin + ethambutol + clarithromycin
severe + neb/IV amikacin 3 months

macrolide susceptibility

macrolide resistance - isoniazid or quinolone

Malmoense
Rifampicin + ethambutol + clarithromycin

kansasii

Rifampicin + ethambutol + isoniazid or macrolide or quinolone

Rifampicin susceptibility

xenopii

Rifampicin + ethambutol + clarithromycin + isoniazid or quinolone

M. Abscessus

4 weeks: IV amikacin, tigecycline, imipenem
oral clarithromycin

continuation: neb amikacin, macrolide
+ 1-3 other: moxifloxacin, minocycline
cotrimoxazole, clofazimine,
linezolid

clarithromycin, cefoxitin, amikacin susceptibility

Flow volume loops

Fixed upper airway obstruction
- Tracheal stenosis
- Fixed central airway tumour
- Fibrotic stricture
- Goitre

Variable intrathoracic obstruction
- Tracheomalacia
- Bronchogenic cysts
- Lower tracheal lesions eg tumour
- polychondritis

vanable extrathoracic obstnetion
- vocal cord paralysis
- subglottic stenosis
- extrathoracic tracheomalacia
- polychondritis
- mobile upper tracheal tumours
- Gortre

Saw tooth patter
- Neuromuscular disease
- Parcinsons disease
- OSA

TLCO

↑: lying flat
Exercise
Asthma
pulm haemorrhage
polycythaemia
L→R shunt

↓: emphysema
fibrosis
anaemia
R→L shunt
PE
CO poisoning
pregnancy

normal KCO + ↓TLCO
chest wall disease
NMD
kyphoscoliosis
obesity
lung resection
pleural thickening

isolated ↓TLCO = pulm HTN

isolated ↓MVV = NMD

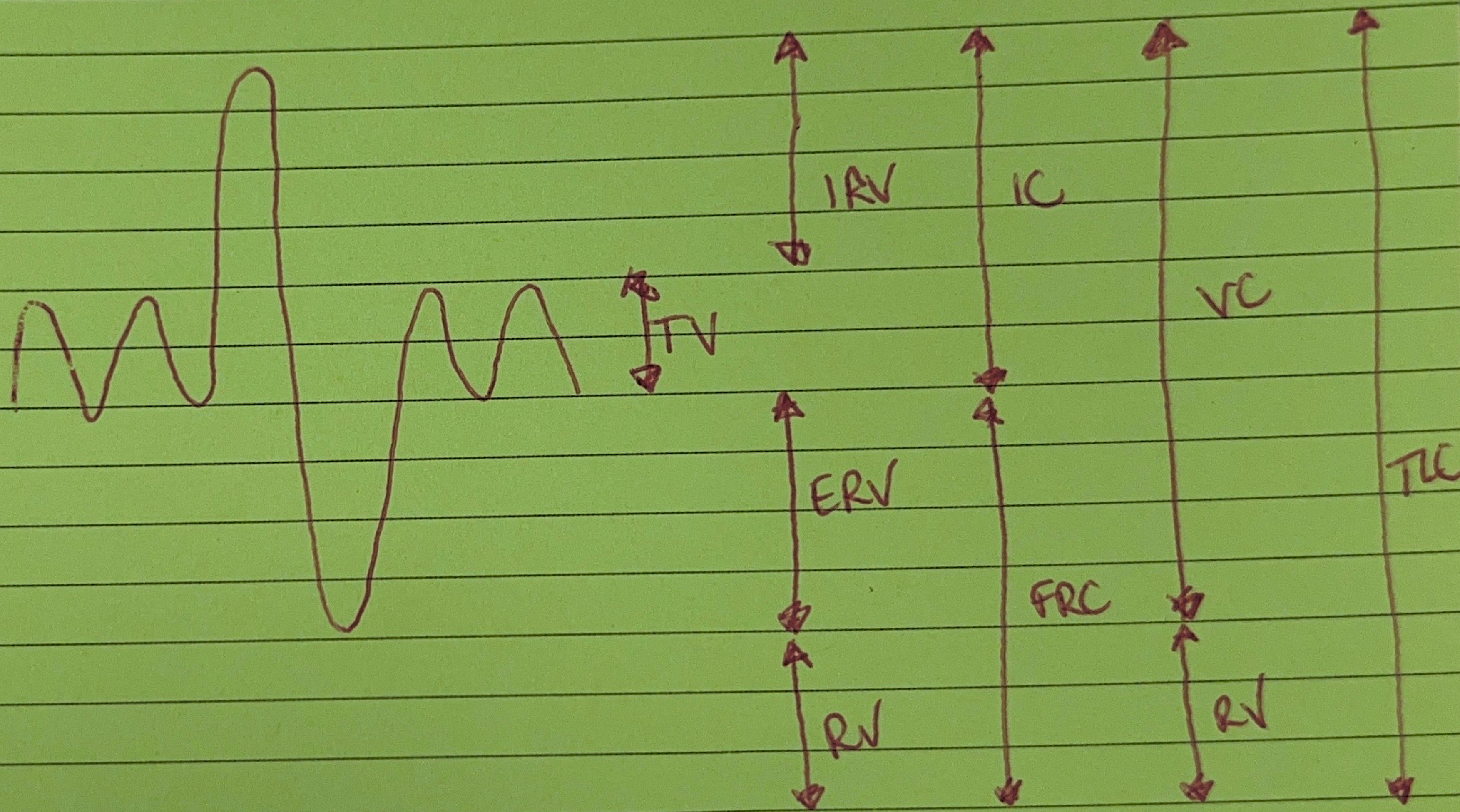
CPET

1. Normal - VO_2 max >80%.
2. Cardiac - High HR
   ventilatory reserve
3. Respiratory - VE > 80%.
   Heart rate reserve
   low V_T

VO_2 max <15 ml/kg/min (40%) = severe
Anaerobic Threshold <40% VO_2 = abnormal

Contraindications

	Relative
Acute MI, angina	
arrhythmia + HD instability	uncontrolled HTN
syncope	severe AS
infective endocarditis	Pulm HTN
acute myocarditis / pericarditis	HOCM
uncontrolled CCF	VTE < 2 weeks
AAA leaking or dissection	pregnancy
uncontrolled asthma	Tachy / Brady
desat < 85% RA	


IRV
IC
TV
VC
ERV
TLC
FRC
RV
RV

End expiration pleural pressure $-4kPa$

Aa gradient $pAO_2 - paO_2$

$pAO_2 = piO_2 - (paCO_2 / 0.8)$

$>4 =$ V/Q mismatch

Lobectomy mortality ~2-3%. FEV_1 >1.5L

Pneumonectomy mortality ~6-8%. >2L

$$\text{POST OP } FEV_1 = \text{PRE OP } FEV_1 \times \frac{\text{SEG AFTER RESECTION}}{19}$$

<40% ↑ RISK → CPET

SURGICAL LUNG BIOPSY ILD 90 DAY MORTALITY 4%.

TRANSPLANT

COPD: BODE >7
Hospitalisations with exacerbations
pulm HTN
Cor pulmonale
FEV_1 <25%
TLCO <20%
Homogenous distribution of emphysema
smoking cessation >6 months
completed pulm rehab
Respiratory failure $\uparrow CO_2$ $\downarrow O_2$

CF

$FEV_1 \leq 30\%$
Rapid progression
Increase frequency of exacerbations
ITU admission
Respiratory failure, LTOT
Pulm HTN
Severe recurrent haemoptysis
Recurrent or refractory PTX
6MWT <400

Burkholderia + abscessus Relative CI

TRANSPLANT

IPF : TLCO <40% or drop by ≥15%

FVC drop by ≥10% over 6 months

6MWT desat to ≤88% or <250m

or decline in 50m over 6 months

pulm HTN

exacerbations

Age <65

Pulm HTN

NYHA ≥3
Rapidly progressuve disease
6MWT <350
MAP 15mmHg ↓
Cardiac index <2L/min/m²
IV inbtropic support
haemoptysis
pericardial effusion

Lung volume Reduction surgery

$FEV_1 > 20\%$
TLC $> 100\%$
RV $> 150\%$
$CO_2 < 7.3$
$O_2 > 6$
6MWT > 140
< 3 exacerbations in 12 months
heterozygous emphysema - upper lobe
intact fissures

CI: DIFFUSE EMPHYSEMA
ILD
GIANT BULLA
CLINICALLY SIGNIFICANT BXS
PULM HTN

COMPLICATIONS:
PERSISTENT AIR LEAK
PNEUMONIA
T2RF
POST OP MORTALITY 2-15%.

LVRS CRITERIA

upper lobe heterogenious emphysema

RV : TLC > 60
TLCO >20
BMI >18

Not suitable

severe comorbidities
chronic resp disease
malignancy
pulm HTN

Referral Criteria

Nonsmoker >4 months
Pulm rehab
MRC ≥3
6MWD >140
FEV_1 <50%
TLCO >20%
RV >150%
RV : TLC >55%
CO_2 <7
BMI >18

EBV criteria

upper or lower lobe
heterogeneous
collateral ventilation negative

RV >180%
TLCO >20
BMI >18

IHC MESOTHELIOMA

Positive
Calretinin
CK5/6
Wilm Tumour 1
D240
Thrombomodulin
CAM 5.2
EMA
Vimentin
HMBE1
Desmin
P53
GLUT1
CD90

Negative:

Ber ~~E~~p4
CEA
TTF1
MOC 31
Leu M1
CD15
B72.3
B98
Claudin 4.

Severe Asthma comorbidities

Rhinosinusitis / polyps
psychological factors
vocal cord dysfunction
obesity
smoking
OSA
Hyperventilation
Hormonal - eg thyroid
GORD
Drugs

DIFFICULT ASTHMA

POOR ADHERENCE
PSYCHOSOCIAL ISSUES
DYSFUNCTIONAL BREATHING
ALLERGEN TEST

ACUTE SEVERE

PF 33-50%

RR ≥ 25

HR ≥ 110

INABILITY TO COMPLET SENTENCES

LIFE THREATENING

PF <33%
SATS <92%
paO_2 <8
NORMAL / HIGH CO_2
Altered conscious level
Exhaustion
Arrhythmias
Hypotension
Cyanosis
Silent chest
Poor respiratory effort.

RISK OF FATAL | NEAR FATAL ASTHMA

PREV NEAR FATAL ATTACK - I+V
ADMISSION IN LAST YEAR
≥3 CLASSES OF MEDICATIONS
↑ SABA USE
REPEATED A+E ATTENDANCES
BEHAVIOURAL OR PSYCHOSOCIAL ISSUES

RISK OF FUTURE ASTHMA ATTACKS

PREV ATTACKS
POOR CONTROL
↑ SABA USE
↑ AGE
FEMALE
REDUCED LUNG FUNCTION
OBESITY
SMOKING
DEPRESSION

MEPOLUZUMAB

EOSINOPHILIC ASTHMA

ANTI IL5 ANTIBODY

≥300 + 4 EXAC NEEDING STEROIDS IN 12 MONTHS

≥400 + 3 EXAC NEEDING STEROIDS IN 12 MONTHS

[or continuous steroids]

or ≥5mg PRED / DAY IN 6 MONTHS

100mg every 4weeks

12 month trial

BENRALIZUMAB - IL5 AS FOR MEPOLUZIMAB

RESLIZUMAB - IL5 >400 + 3 EXAC IN 12 MONTHS

IMMUNOTHERAPY

OMALIZUMAB

ALLERGIC ASTHMA

ANTI IGE MONOCLONAL ANTIBODY

≥ 4 courses steroids in 12 months

OR CONTINUOUS STEROIDS

FEV_1 <80%.

IgE 30-700

16 WK TRIAL

Staging

50% I – Hilar lymphadenopathy
25% II – Hilar lymphadenopathy + infiltrates
15% III – pulmonary infiltrates
10% IV – fibrosis

LOFGRENS

Fever
Bilateral hilar lymphadenopathy
Erythema nodosum
Arthralgia

80% spontaneous remission in 2yrs

HEERFORDTS

FACIAL NERVE PALSY
PAROTITIS
ANTERIOR UVEITIS

GRANULOMATOUS DISEASE

Sarcoid
TB / NTM
HP
GPA
DRUGS - Ab / Ib / Ept
Fungal
Berylliosis
RA
Malignancy
IBD

SARCOID POOR PROGNOSIS

Lupus Pernio
Nasal mucosa involvement
Chronic uveitis
Chronic hypercalcaemia
nephrocalcinosis
neural involvement
>40 yrs old
Black race

Risk factors for OSA

↑ BMI
large tonsils
Craniofacial shape
Myxoedema (↓T4)
NMD
Sedatives / alcohol
↑ age
male
Post menopause
Acromegaly
Marfans
Downs
Pregnancy

Complications

HTN
NASH
2-3x ↑ CVD RISK
CCF
RTA
Polycythaemia
DM retinopathy
Aneurysms
Pulm HTN.
Arrhythmias
Nocturia

SLEEP + DRIVING

Sleepiness due to medical reason, suspected OSAS or mild OSAS
→ must not drive + resume when symptom control <15
if not controlled at 3 months then notify DVLA

sleepiness due to OSAS mod 15-29 or severe ≥30
→ must not drive and notify DVLA
control of condition, sleepiness improved, treatment adherence
GROUP 1 - 3yr renew GROUP 2 - annual renew

Doctors can inform if patient refuses and is still driving + sleepy.

Nintedanib

Tyrosine kinase inhibitor 150mg BD

CI: Anticoagulation, ↑ risk of bleeding
Peanut/soy allergy
Liver disease
Pregnancy + breast feeding

SE: Diarrhoea, nausea, vomiting, weight loss
abnormal LFTs

improves all cause + respiratory related mortality
by 30-40%.
Reduces time to exacerbation

ANTIFIBROTICS

Perfenidone

267 TDS
801 TDS

CI: Pregnancy and breastfeeding
Smoking
eGFR <30
Child pugh C liver disease
<50% FVC >80%

SE: GI: nausea, pain, anorexia
headache, insomnia
Rash, Photosensitivity
Fatigue

NOT SUITABLE FOR CTPA OUTPATIENT

1. SATS <90%.
2. BP <100
3. HR >110
4. PAIN NEEDING OPIATES
5. INR ≥2 , ON ANTICOAG, ACTIVE BLEEDING, RECENT BLEEDING, PLT <75, STROKE<10, GI <14
6. HIT
7. CRCL <30 , LIVER DISEASE
8. OBESITY >150 kg
9. SOCIAL / MEDICAL REASONS

SIMPLIFIED PESI

1. AGE > 80
2. CANCER
3. CARDIORESPIRATORY DISEASE
4. HR ≥ 110
5. BP < 100
6. Sats < 90%

0 = 30 DAY MORTALITY 1%

≥ 1 11%

WELLS SCORE DVT

1. ACTIVE CANCER < 6 MONTHS
2. IMMOBILISATION OF LOWER LIMB
3. BEDRIDDEN ≥ 3 DAYS OR MAJOR SURGERY < 12 WKS
4. LOCALISED TENDERNESS IN DVT DISTRIBUTION
5. ENTIRE LEG SWOLLEN
6. CALF SWELLING > 3CM ON ONE SIDE
7. UNILATERAL PITTING OEDEMA
8. unilateral superficial vein
9. Previous DVT
10. Alternate diagnosis at least as likely

DVT likely ≥ 2
unlikely < 2

WELLS SCORE PE

1. FEATURES OF DVT
2. NO ALTERNATE DIAGNOSIS
3. HR >100
4. IMMOBILISATION ≥3 DAYS OR SURGERY <4 WKS
5. PREVIOUS VTE
6. HAEMOPTYSIS
7. MALIGNANCY <6 MONTHS

PE LIKELY >4
UNLIKELY ≤4

RISK FACTORS PE

1. FRACTURE OF LOWER LIMB
2. Hip or knee replacement
3. major trauma
4. spinal cord injury
5. previous VTE
6. Recent MI <3 months
7. Hospitalisation for CCF or AF <3 months

AIR TRAVEL + VTE

MOD RISK - TED Stockings
FH, PREV VTE, Thrombophilia, BMI > 30, unwell in last 6wks, immobility, cardio disease, COCP, pregnancy, post partum

HIGH RISK - Px LMWH
Idiopathic VTE, < 6wks, of surgery or trauma, active malignancy

Can fly after 4wks or DVT symptoms resolved + no evidence of pre/post exercise desaturation.

SEVERITY

1. MILD $\geq 80\%$

2. MOD $50\% \leq \ <80\%$

3. SEVERE $30\% \leq \ <50\%$

4. VERY SEVERE $<30\%$ or $<50\%$ + T2RF

ABCD

	mMRC 0-1 CAT <10	mMRC ≥2 CAT ≥10
0-1 Exac in community	A	B
≥2 Exac or ≥1 hospital admission	C	D

BODE SCORE

All cause mortality

BMI
obstruction
Dyspnoea
Exercise tolerance

DECAF

Inpatient mortality

Dyspnoea	0-3=1	4 =2
Eosinopenia	<0.05	
Consolidation		
Acidaemia	pH <7.3	
Fibrillation		

0 = 0%.
1 = 1.5%.
2 = 5%.
3 = 15%.
4 = 30%.
5 = 40%.
6 = 50%.

PROGNOSIS IN COPD

1. FEV1
2. Smoking
3. MMRC
4. Cor pulmonale / hypoxia
5. low BMI
6. Exacerbations
7. Hospital admissions
8. CAT score
9. 6MWT
10. TLCO
11. Frailty

mMRC

0: Not troubled except on strenuous exercise
1: SOB when hurrying or walking up hill
2: walks slower on ground level or SOB when walking at own pace
3: Stops for breath at 100m or few min on ground level
4: Too SOB to leave house or when dressing

CURB 65

Confusion AMT ≤ 8
UREA > 7 mmol/L
RR ≥ 30
BP < 90 systolic
≤ 60 diastolic
Age ≥ 65

0-1	<3%
2	9%
3-5	15-40%

LEMIERRES DISEASE

FUSOBACTERIUM NECROPHORUM

oropharyngeal infection
internal jugular vein thrombophlebitis
abscess - pulmonary, cerebral
young patient

CAVITATING ORGANISMS

Strep
Staph
Klebsiella
Nocardia
Haemophilus
Fungal
Fusobacterium

Allergic Bronchopulmonary Aspergillosis

1. Acute or subacute clinical deterioration
2. Total IgE >1000
3. IgE Antibody (RAST) to A fumigatus
4. precipitating antibodies to A fumigatus
5. infiltrates or mucous plugging on CXR/CT not cleared with antibiotics and physio

PO Pred 0.5-1 mg/kg 2 weeks then taper over 2-3 months
add itraconazole 5mg/kg/day max. 200mg BD 3-6 months
Check LFTs 1 and 3 months

SIDE EFFECTS OF ANTIFUNGALS

transaminitis
skin rash
visual disturbance
GI disturbance
peripheral neuropathy

Risk factor for PCP

HIV CD4 <200
Chemo
Steroids
immunosuppression
malnutrition
Post transplant
malignancy

RISK FACTORS FOR INVASIVE ASPERGILLOSIS

CHEMO
NEUTROPENIC
STEM CELL TRANSPLANT BONE MARROW SUPPRESSION
HIV
TRANSPLANT
ANTI TNF α
COPD

TNM STAGING

T1A ≤1cm T1B >1 ≤2cm T1C >2 ≤3cm

T2A >3 ≤4cm T2B >4 ≤5cm
involving main bronchus
invading visceral pleura
atelectasis
past obstructive pneumonitis extending into hilum

T3 >5 ≤7
involving chest wall, pericardium, phrenic nerve
satellite nodules in the same lobe

T4 >7cm
invading mediastinum, diaphragm, heart, great vessels, recurrent laryngeal nerve, carina, trachea, oesophagus, spine
seperate tumour in different lobe of ipsilateral lung

N1 ipsilateral peribronchial / hilar / intrapulmonary node
N2 ipsilateral mediastinal or subcarinal nodes
N3 contralateral nodes or scalene / supraclavicular

M1A Tumour in contralateral lung, pleural & pericardial nodule or malignant effusion
M1B single extrathoracic metastases
M1C multiple extrathoracic mets in one or more organs

PERFORMANCE STATUS

0: Able to carry out normal activity without restriction

1: Restricted in strenuous activity but ambulatory and able to carry out light work

2: ambulatory and capable of all self care but not able to carry out any work activities. up and about ≥50% waking hours

3: symptomatic and in chair >50%. but not bedridden

4: completely disabled. cannot carry out any self care. confined to bed or chair

DONT REQUIRE FOLLOW UP

Diffuse, central, laminated or popcorn pattern of calcification or macroscopic fat

Typical perifissural or subpleural nodules
homogenous, smooth, solid nodules with lentiform or triangle shape within 1cm of fissure or pleural surface and <10mm

Harmatoma - pixel densitometry

Nodules <5mm or <80 mm^3
Subsolid nodules <5mm

BROCK MODEL

1. Age
2. Gender
3. FH lung cancer
4. Emphysema
5. Nodule size
6. Nodule count
7. Nodule type
8. Nodule in upper lobe
9. Spiculation

NODULE FOLLOW UP

Solid   5-6mm - CT 1 year
≥6 <8 or ≥80mm^3 <300   CT 3 months
VDT ≥ 400   CT 1 year
≥8 ≥300   BROCK model
<10% - CT 3 months as above
>10% - Herder risk model
<10% CT 3 months
10-70% Biopsy
>70% excise
VDT 400-600 Biopsy
VDT ≤ 400 Excise
Stable discharge (2D - 2years)

Subsolid

>5mm - Repeat CT 3months
Resolved - discharge
growth or altered morphology - excise
stable - Brock model
<10% CT 1, 2, 4 years
>10% Biopsy vs excise

Squamous Chemo

PDL1 ≥50 Pembrolizumab

PDL1 <50 Gemcitabine or vinorelbine
or + carboplatin or cisplatin
progression

Docetaxel

Atezolizumab
Nivolumab
pembrolizumab (PDL1 >1)

Adenocarcinoma chemo

EGFR: Afatinib, Dacomitinib, erlotinib, Gefitinib
osimertinib

ALK: Alectinib, Brigatinib, ceritinib, crizotinib
Lorlatinib

ROS1: Crizotinib, entrectinib

PDL1 > 50%: Pembrolizumab

PDL1 <50% or no mutation or progression
pemetrexed + cisplatin.

MESOTHELIOMA CHEMO

cisplatin + pemetrexed
+/- bevacizumab

cisplatin + raltitrexed

carboplatin + pemetrexed

SMALL CELL CHEMO

Etoposide + cisplatin
carboplatin
↳ impaired renal function
Poor PS
significant comorbidity

ADD RADIOTHERAPY IN WHO 0-1

Px cranial radiation if no progression after chemo in WHO 0-1

TOPITECAN PO 2nd line if IV chemo not tolerated

STAGE I + II – 42%. SURVIVAL 1 YR 82%.

64%.

STAGE III 34%. SURVIVAL 43%.

STAGE IV 24%. SURVIVAL 16%.

STAGING

	N0	N1	N2	N3
T1	IA	IIB	IIIA	IIIB
T2A	IB	IIB	IIIA	IIIB
T2B	IIA	IIB	IIIA	IIIB
T3	IIB	IIIA	IIIB	IIIC
T4	IIIA	IIIA	IIIB	IIIC
M1A	IVA	IVA	IVA	IVA
M1B	IVA	IVA	IVA	IVA
M1C	IVB	IVB	IVB	IVB

Paraneoplastic

Small cell
- LEMS
- limbic encephalitis anti Hu
- SIADH
- ACTH

Squamous
- PTH

IHC NON SMALL CELL

Adenocarcinoma
- TTF1
- CK7
- Napsin A
- E Cadherin

Squamous
- P63
- CK5
- CK6
- CEA

IHC small cell

TTF1
Neuroendocrine
CD56
Synaptophysin
Chromogranin

IA – IIA   ≤5   NO NODES   NO METS
T2 N0 M0   LOBECTOMY

III A   T4 N0   CHEMORAD BUT IF CANNOT
T3–T4 N1   TOLERATE THEN RADICAL RTx
T1–T2 N2

III B   T3–T4 N2   AS ABOVE
T1–T2 N3

T1 – T4 N1-2   POST OP CHEMO
WHO 0-1

or >4CM N0   AS ABOVE

T1 - T2 N2 - CHEMORAD PRIOR TO SURGERY