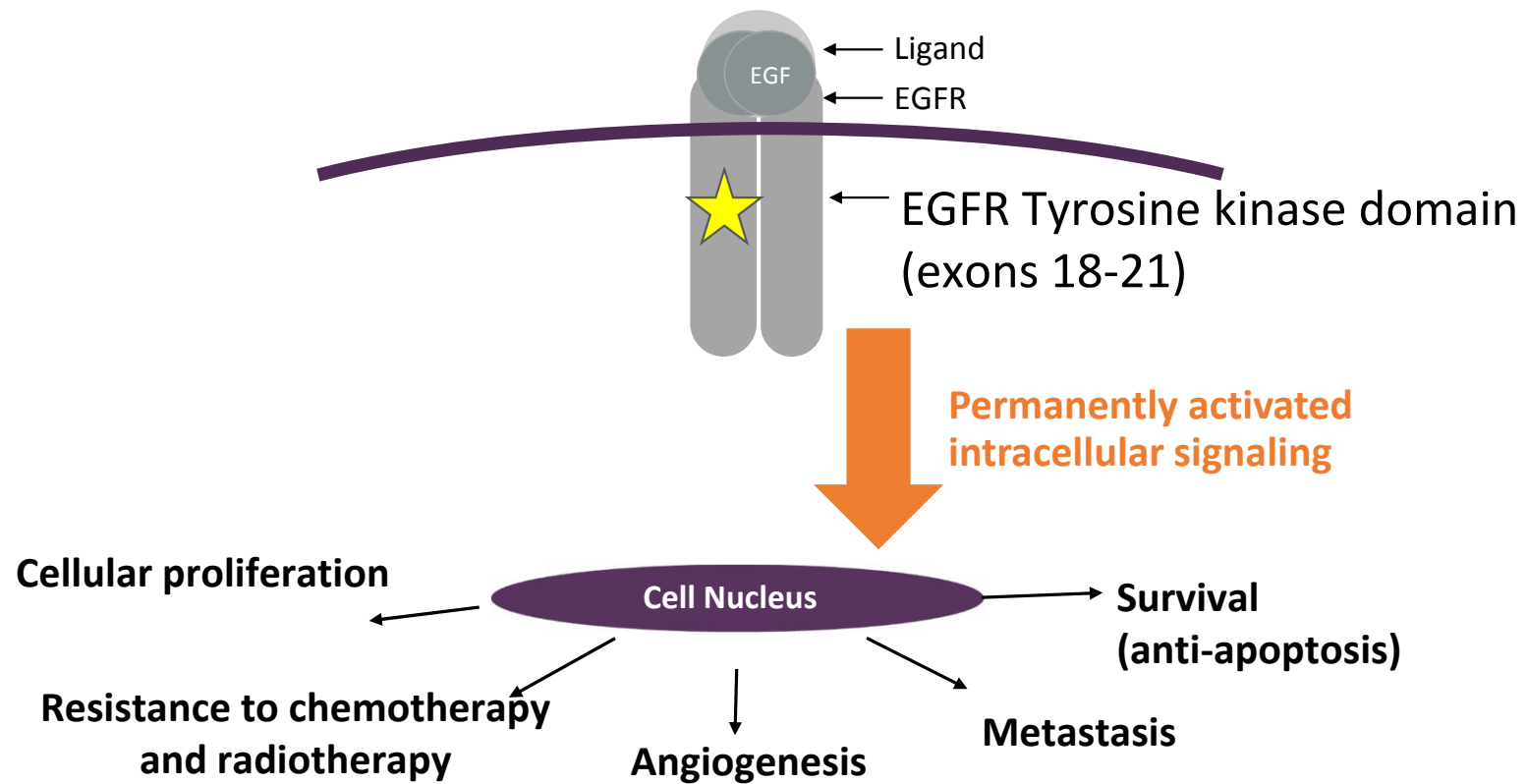
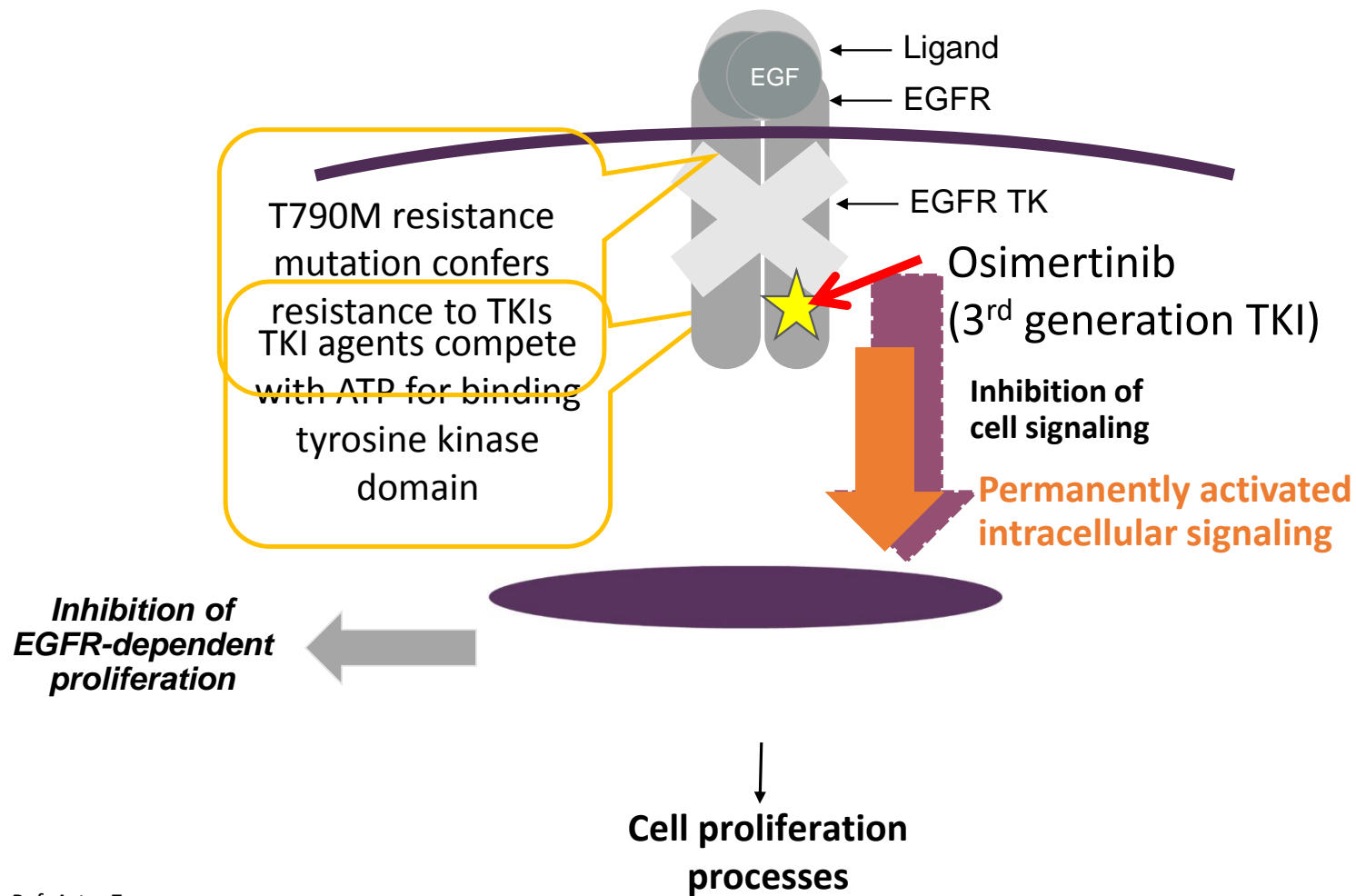


# EGFR\* as a Treatment Target in NSCLC

\*Epidermal Growth Factor Receptor

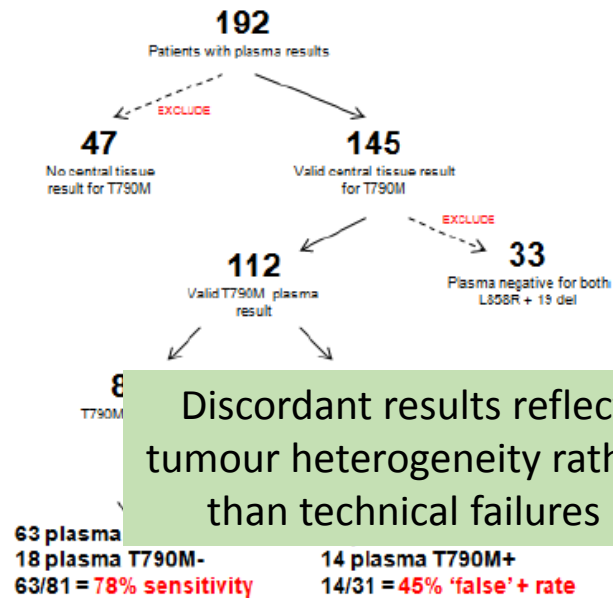


# EGFR Can Gain Resistance to TKIs



# Sensitivity an

## Performance of T790M plasma assay



The same 0.02% plasma threshold applied to plasma

**Table 4**

Discordant results with two different plasma assays for detection of the EGFR T790M mutation from circulating tumor DNA.

Patient	Tissue <sup>a</sup> cobas® EGFR Mutation Test	Plasma		
		BEAMing dPCR (% mutant)	cobas® EGFR Mutation Test	
1	Positive	Positive (0.021%)	Negative	'False' negatives by cobas® EGFR Mutation Test
2	Positive	Positive (0.048%)	Negative	
3	Positive	Positive (0.064%)	Negative	
4	Positive	Positive (0.202%)	Negative	
5	Positive	Negative	Negative	'False' positives by BEAMing dPCR
6	Positive	Negative	Negative	
7	Positive	Negative	Negative	
8	Positive	Negative	Negative	
9	Positive	Negative	Negative	
10	Positive	Negative	Negative	
11	Positive	Negative	Negative	
12	Negative	Positive (0.026%)	Negative	
13	Negative	Positive (0.027%)	Positive	
14	Negative	Positive (0.054%)	Positive	
15	Negative	Positive (0.080%)	Negative	
16	Negative	Positive (0.283%)	Positive	
17	Negative	Positive (0.340%)	Positive	
18	Negative	Positive (0.344%)	Positive	
19	Negative	Positive (0.491%)	Positive	
20	Negative	Positive (1.113%)	Positive	

BEAM, beads, emulsions, amplification, and magnetics; dPCR, digital polymerase chain reaction; EGFR, epidermal growth factor receptor.

<sup>a</sup> Central T790M tissue results.

Thress et al 2015. Lung cancer 90, 509

# Education

- Attendance at MDTs
- Seminars
- Website
- Regularly updated literature



## Advice for clinicians on the handling of blood samples and separation of plasma for samples requiring circulating tumour DNA (ctDNA) analysis

1. Due to the unstable nature of ctDNA, there are specific sample requirements needed to ensure the quality of testing.  
For ctDNA testing from blood the following sample is required:
  - 1x 8-10ml blood (whole) in Streck Cell-Free DNA BCT® tube or Janssen CellSave Preservative Tubes (at room temperature)

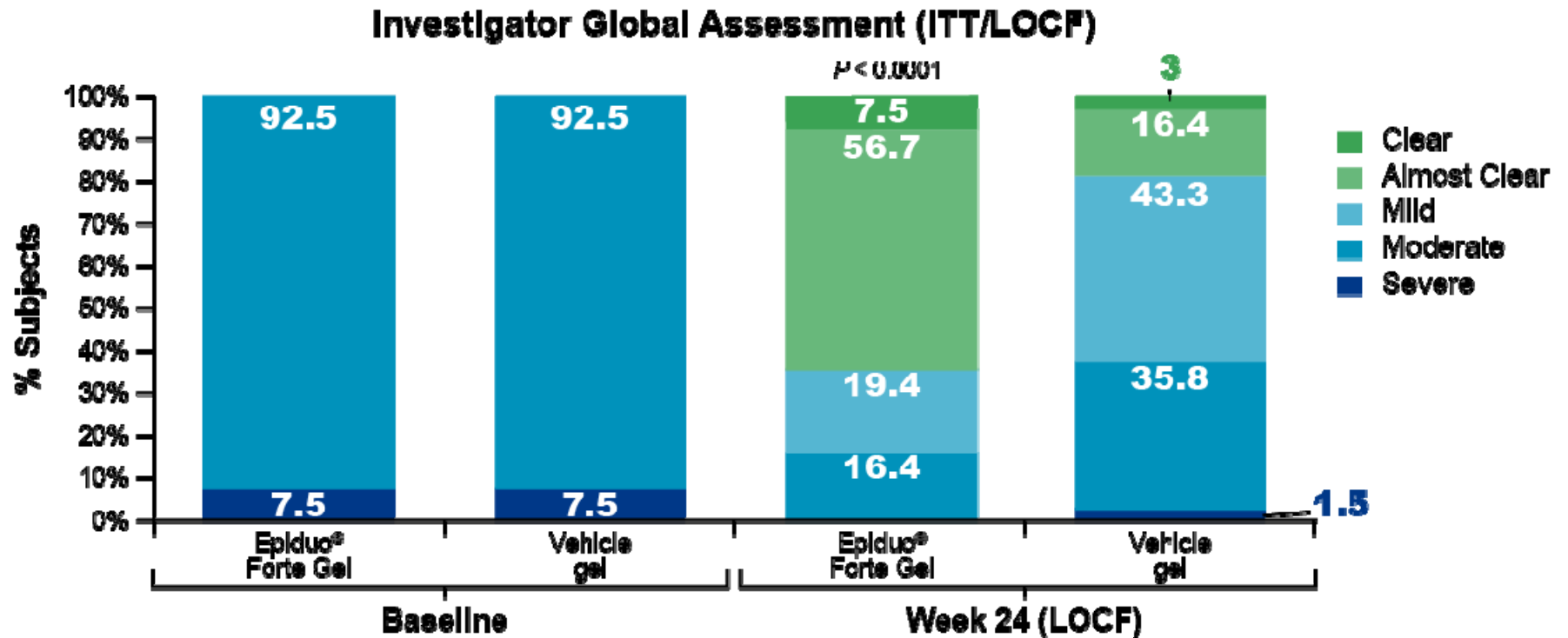
When taking blood in a Streck or CellSave tube, ensure the tube is inverted at least 10 times to ensure full mixing of the blood and preservative.

All Wales Genetics Laboratory Protocol 2017



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# 64.2% of Subjects Were Clear/Almost Clear With Epiduo® Forte Gel at Week 24



- IGA assessments were significantly better with Epiduo® Forte Gel at all post-baseline study visits

# What is the morbidity of lung biopsy?

## BTS GUIDELINES

### Guidelines for radiologically guided lung biopsy

A Manhire, *Chairman*, M Charig, C Clelland, F Gleeson, R Miller, H Moss, K Pointon, C Richardson, E Sawicka

*Thorax* 2003;**58**:920-936

These guidelines have been developed at the request of the Standards of Care Committee of the British Thoracic Society (BTS) and with the agreement of the Royal College of Radiologists and the British Society of Interventional Radiology, and approval of the Royal College of Pathologists in respect of the

working group and decisions on levels of evidence for each paper were made by two or more members. The guidelines were sent for comment to the Royal College of Radiologists, the British Thoracic Society, the British Society of Interventional Radiology, the Royal College of Pathologists, and the Society of Cardiothoracic

*“The most common complication is pneumothorax which occurs in 0–61% of lung biopsies. Between 3.3% and 15% of all patients will require a chest drain”*

sions, result in the death of the patient. It is a multidisciplinary procedure involving respiratory physicians, surgeons, and radiologists with an interest in chest diseases.

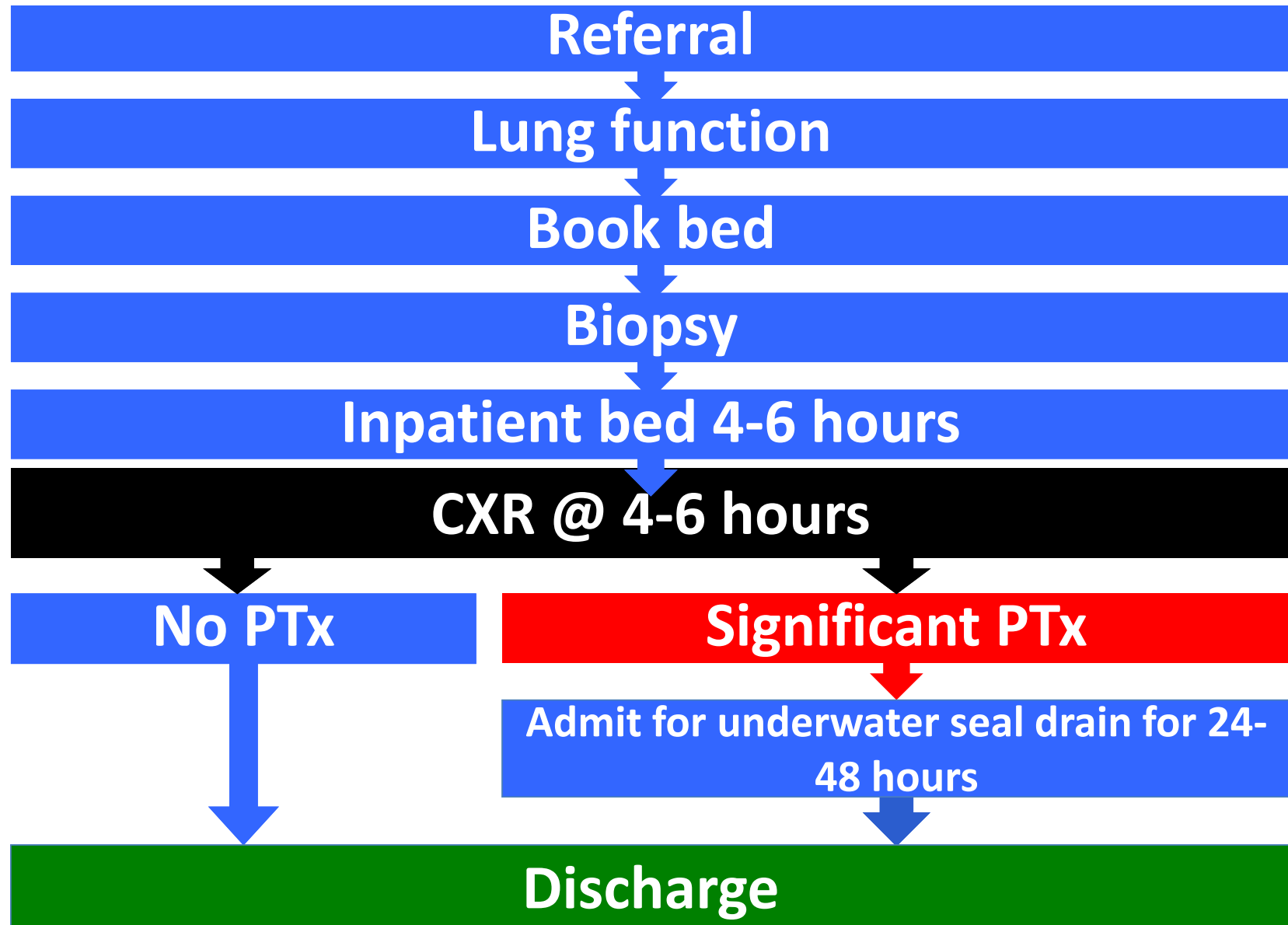
The aim of the group was to produce formal

will be reviewed.

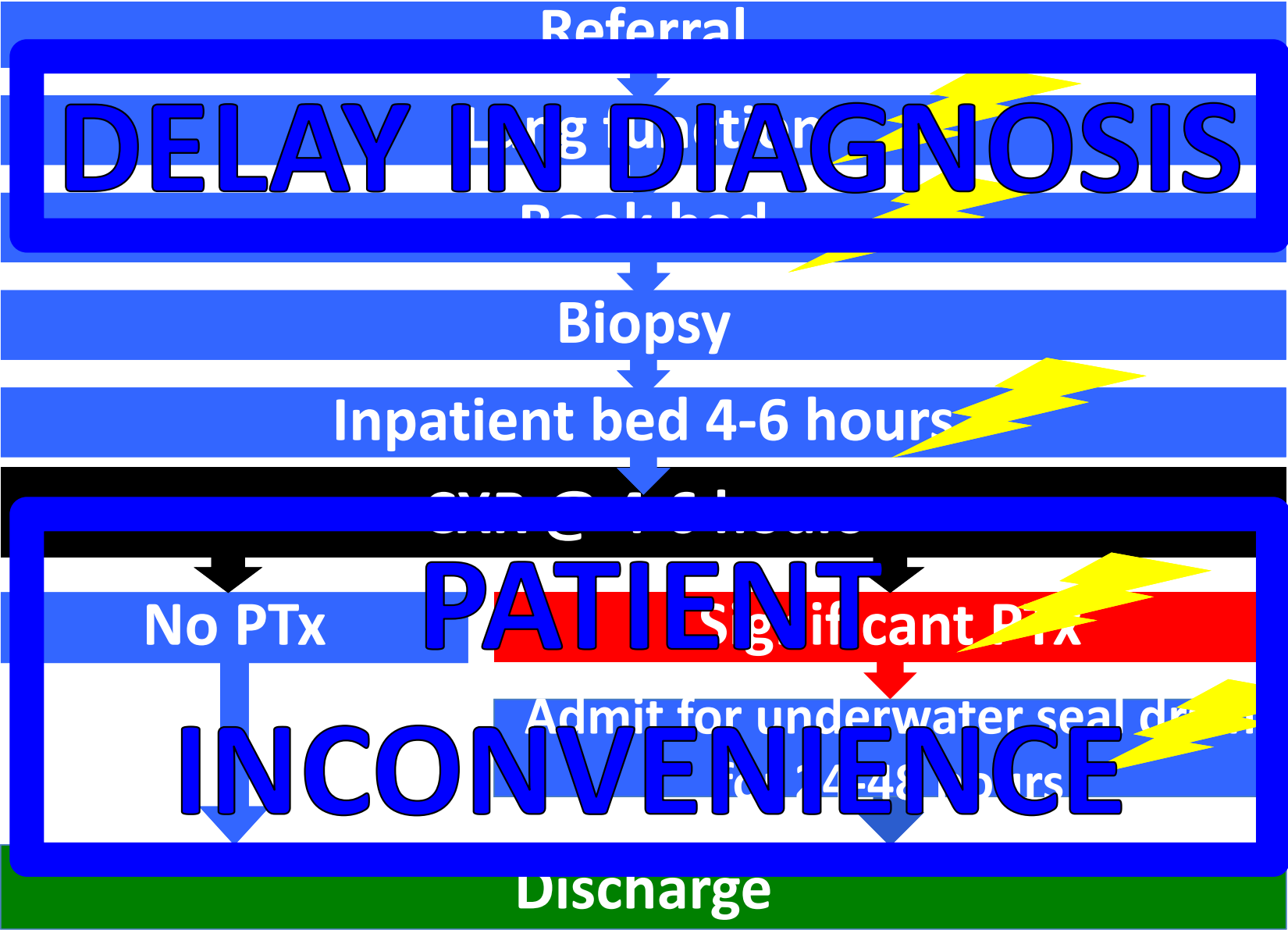
#### TYPES OF LUNG BIOPSY

Lung biopsies may be classified according to the method of access (percutaneously, bronchosco-

Manhire, A et al. (2003). *Thorax* 58;11:920-936



CXR = Check Xray  
PTx = PNEUMOTHORAX





# Post-biopsy CXR – when?

AJR Am J Roentgenol. 1986 May;146(5):1049-50.

## **Timing of chest film follow-up after transthoracic needle aspiration.**

Perlmutter LM, Braun SD, Newman GE, Oke EJ, Dunnick NR.

### **Abstract**

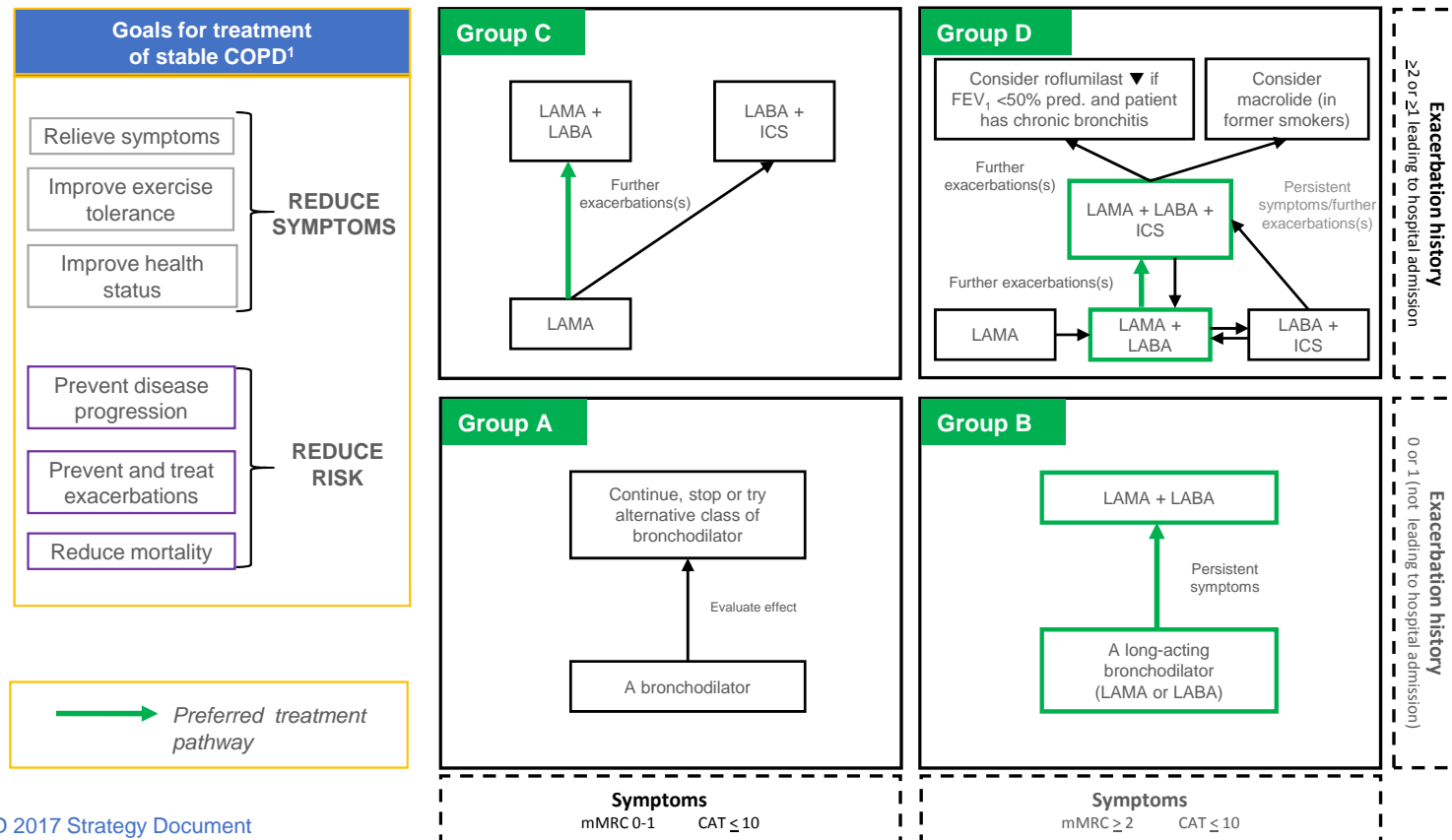
Transthoracic needle aspiration of pulmonary lesions is an extremely common procedure. Pneumothorax, the most common complication, is potentially life threatening. In an effort to determine the optimum time for obtaining chest radiographs to detect pneumothorax, all cases of pneumothorax that occurred after transthoracic needle aspiration between 1981 and 1984 were reviewed. During this period, 673 transthoracic-needle-aspiration procedures were performed. Pneumothorax occurred in 160 patients (23.8%), and 78 (11.5%) of these required a chest tube or aspiration. Of the total number of pneumothoraces, 142 (89%) were detected immediately, 15 (9%) were first seen after 1 hr, and only 3 (2%) were first seen on the 4-hr radiograph. Of the pneumothoraces requiring intervention, 69 (88%) were detected immediately while the remaining 9% were first identified after 1 hr. There were no significant

*Of the 160 (23.8%) pneumothoraces requiring intervention (78/160; 11.6%), 69 (88%) were detected immediately (<30 mins) while the rest were identified on the 1-hour radiograph*

*“There were no significant pneumothoraces detected after the 1-hr CXR”*

Perlmutter, LM et al. (1986). AJR Am J Roentgenol. 146;5:1049-50.

## GOLD 2017: treatment goals and pharmacological treatment algorithm by GOLD grade<sup>1</sup>



Adapted from GOLD 2017 Strategy Document

1. Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2017.