

What's new in COPD?

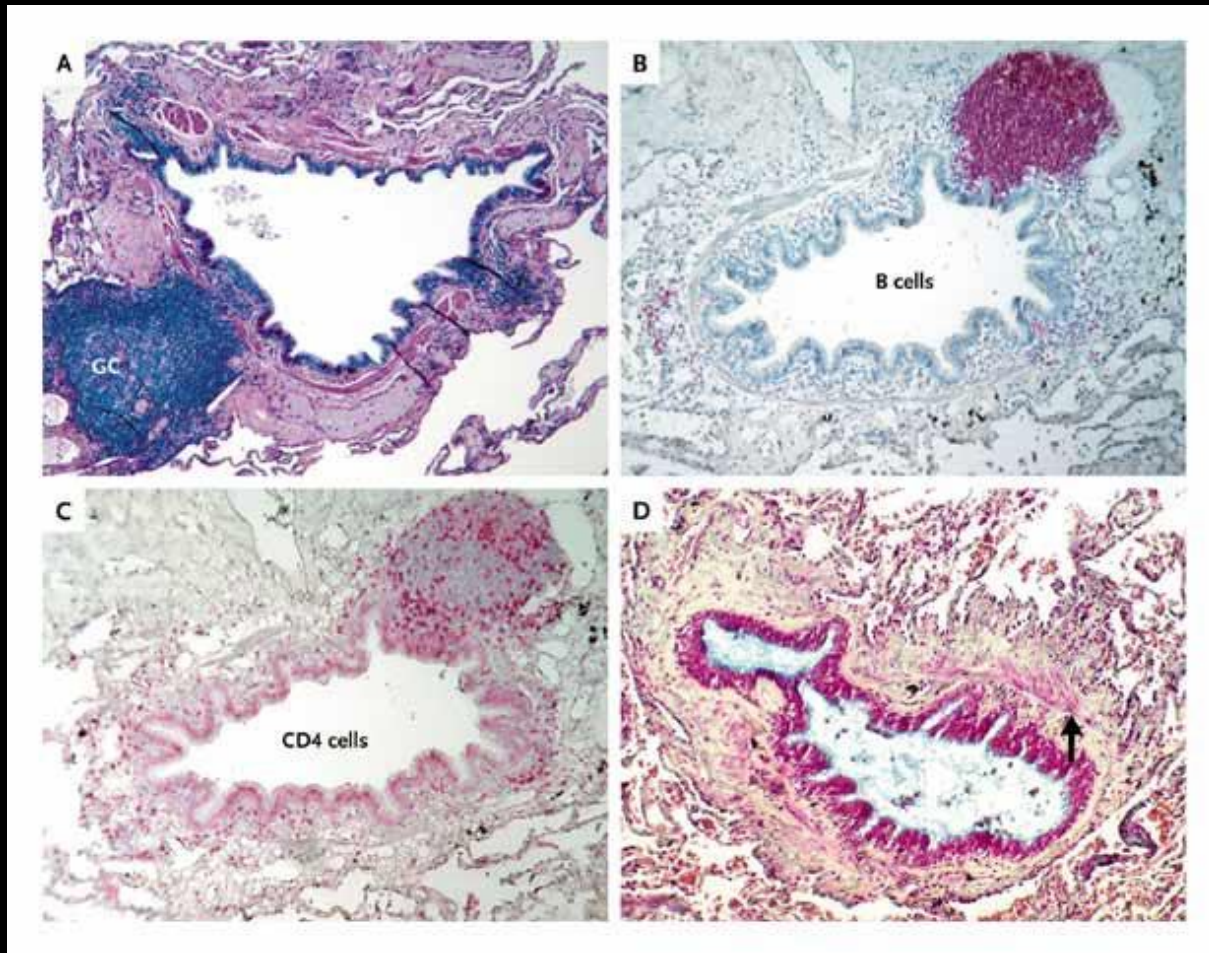
Dr Robert Stone

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Somerset Lung Centre

What's new in COPD?

- Mechanisms of Disease
- Diagnosis
- Phenotyping
- Treatments
- Exacerbations
- The Care Pathway

What's new: Mechanisms of disease



What's new: Mechanisms of disease

- Local Effects

- Cough
- Sputum
- Dyspnoea
- Wheeze

- Flare Up/Exacerbation

- Systemic Effects

- Muscles
- Heart
- Bones
- Mood
- Endocrine

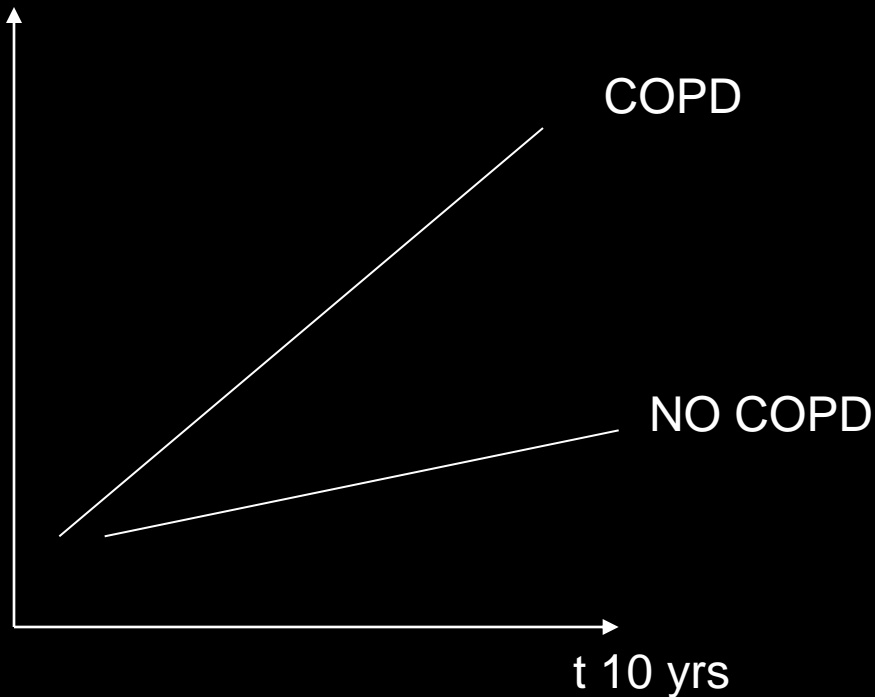
What's new: Mechanisms of disease

- Cardiovascular Co-Morbidity

- UK COPD Audit: 37% cardiac co-morbidity in AE COPD
- Crsafulli: 60% CVS co-morbidity in COPD
- Hoiseth: cTn up in 18 – 27% COPD exacerbation
25% die < 30 days if cTn > 0.5
> 85% mortality within 5 years if cardiac Tnt up at time of AECOPD
- McGarvey 26% mortality form CVS disease in TORCH
- Soltani Odds Ratio for death in COPD if previous MI 52

Progress after PCI (Mayo)

% Died



Kanecny 2010

Beta-Blockers are OK in COPD patients with CVS disease

What's new: mechanism

Accelerated Ageing



Telomere Shortening



What's new: Diagnosis

NICE: Consider a diagnosis of COPD for people who are

- over 35, and
- smokers or ex-smokers/other risk factors and have any of these symptoms:
 - exertional breathlessness
 - chronic cough
 - regular sputum production
 - frequent winter 'bronchitis'
 - wheeze

What's new: Diagnosis

NICE

The presence of airflow obstruction should be confirmed by performing post-bronchodilator spirometry [new 2010]

All health professionals involved in the care of people with COPD should have access to spirometry and be competent in the interpretation of the results [2004]

What's new: Diagnosis

- Symptoms
 - Post-BD Spirometry
 - Is there airflow obstruction?
 - (FEV₁/FVC < 70%)
 - How severe is it?
- Mild (GOLD I)
 - Symptoms
 - Obstruction
 - FEV₁ > 80% predicted
 - Moderate (GOLD II)
 - FEV₁ 50-80% predicted
 - Severe (GOLD III)
 - FEV₁ 30-50% predicted
 - Very Severe (GOLD IV)
 - FEV₁ < 30% predicted

What's new: Phenotyping

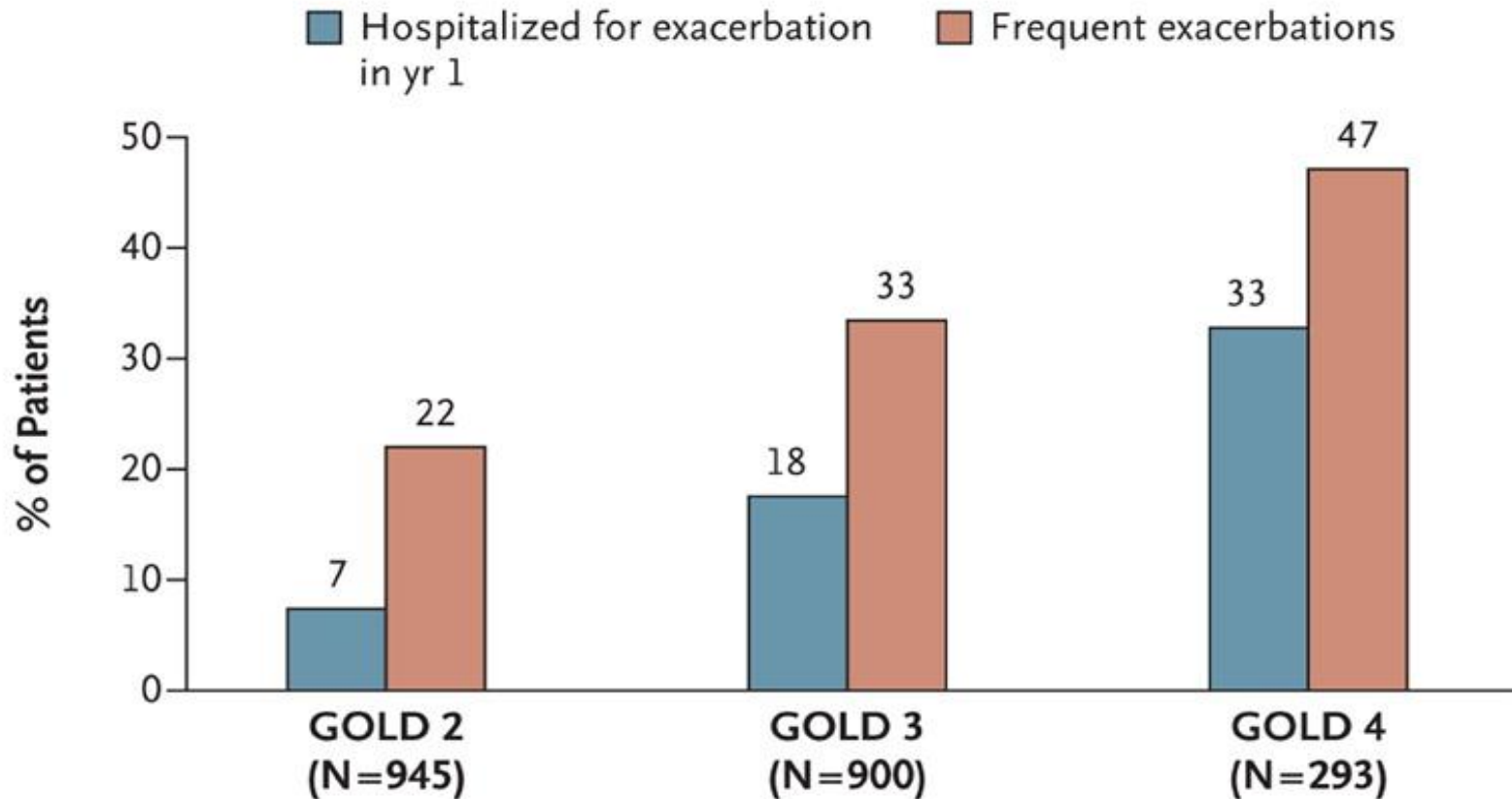
Frequent Exacerbators

- More than 2 per annum
- More hospital admissions
- Faster decline
- Slower Recovery
- Poorer quality of life
- More consultations

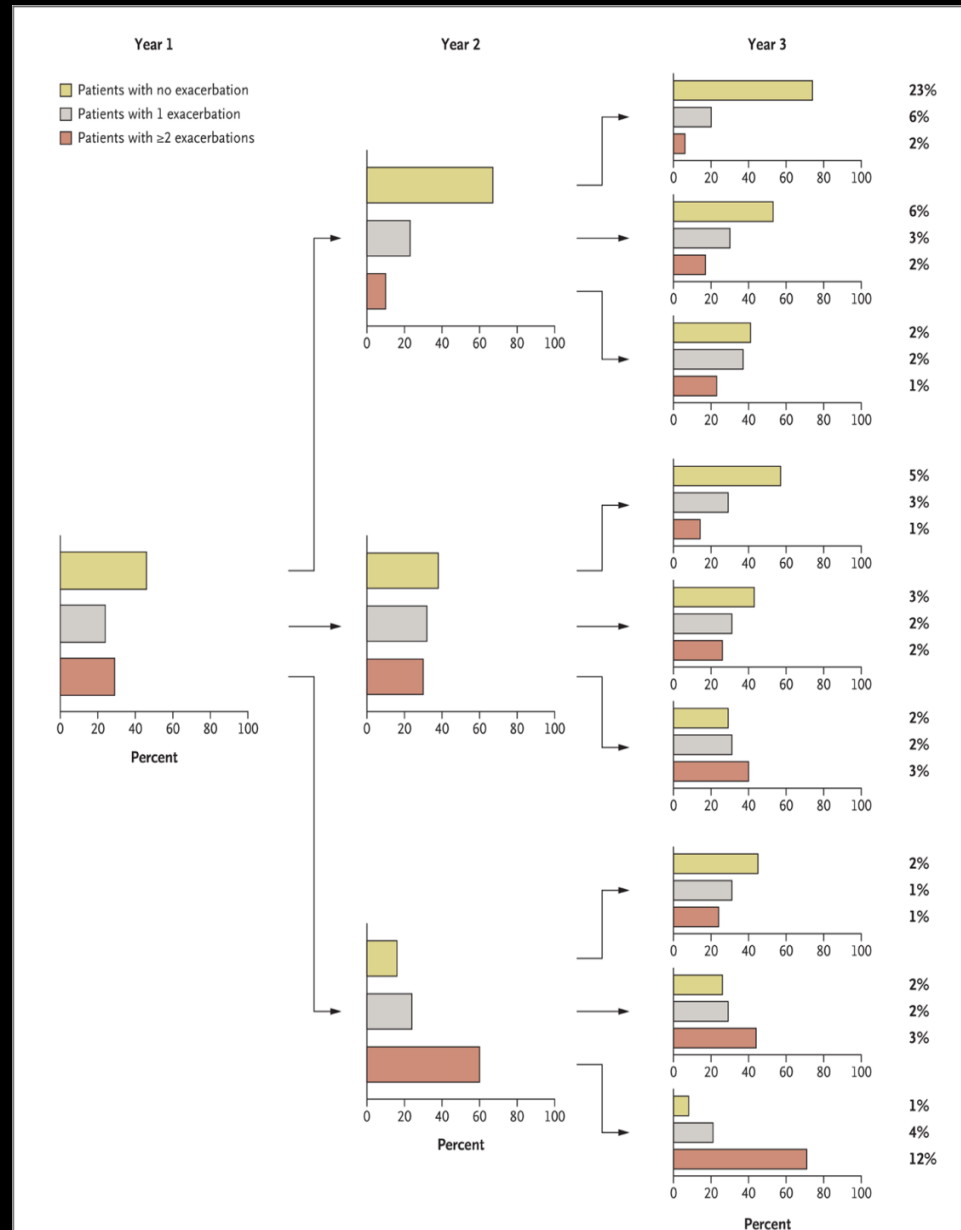
Infrequent Exacerbators

- 2 or less per annum
- Less hospital admissions
- Slower decline
- Faster Recovery
- Better quality of life
- Fewer consultations

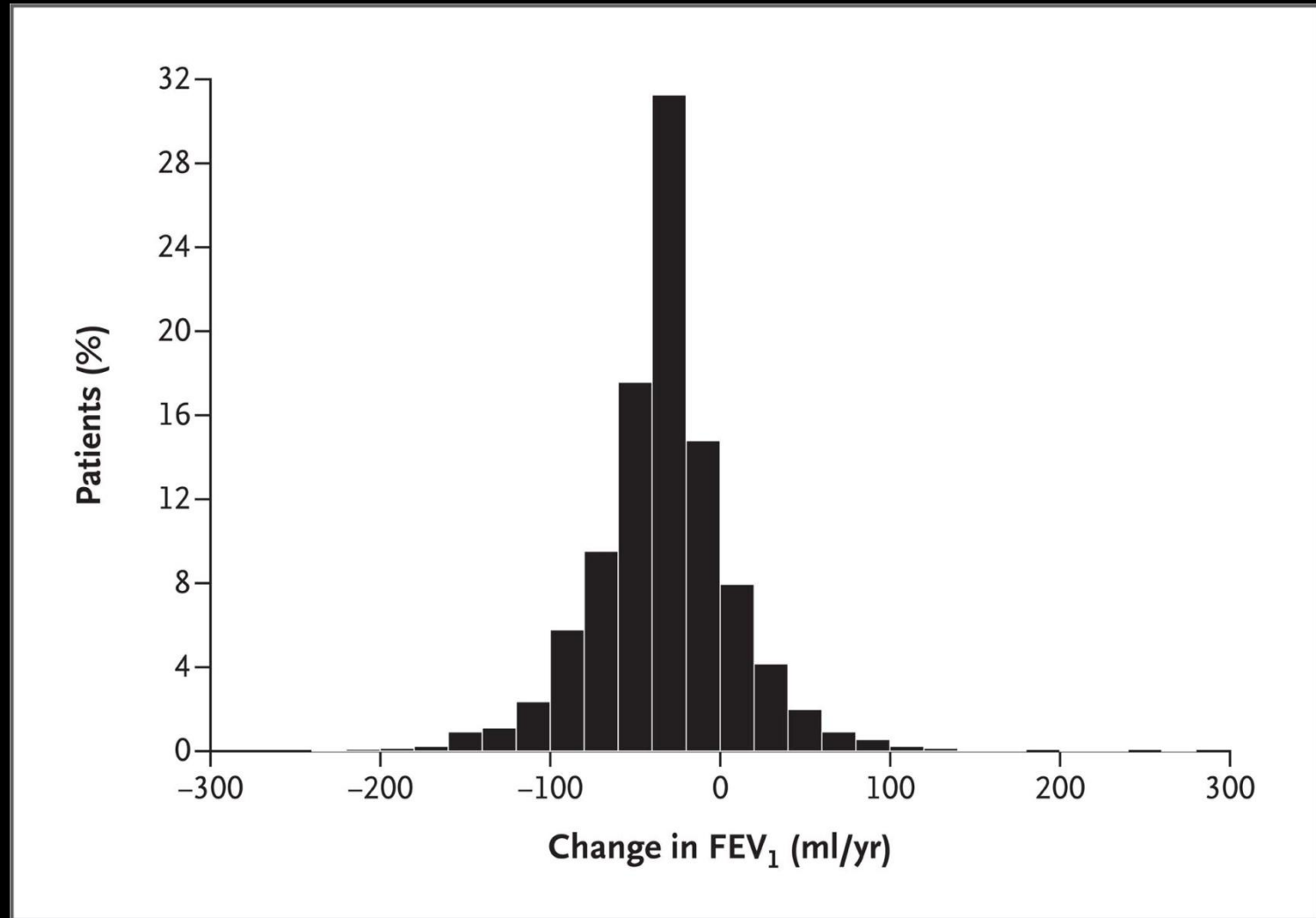
Phenotyping: ECLIPSE



Phenotyping: ECLIPSE



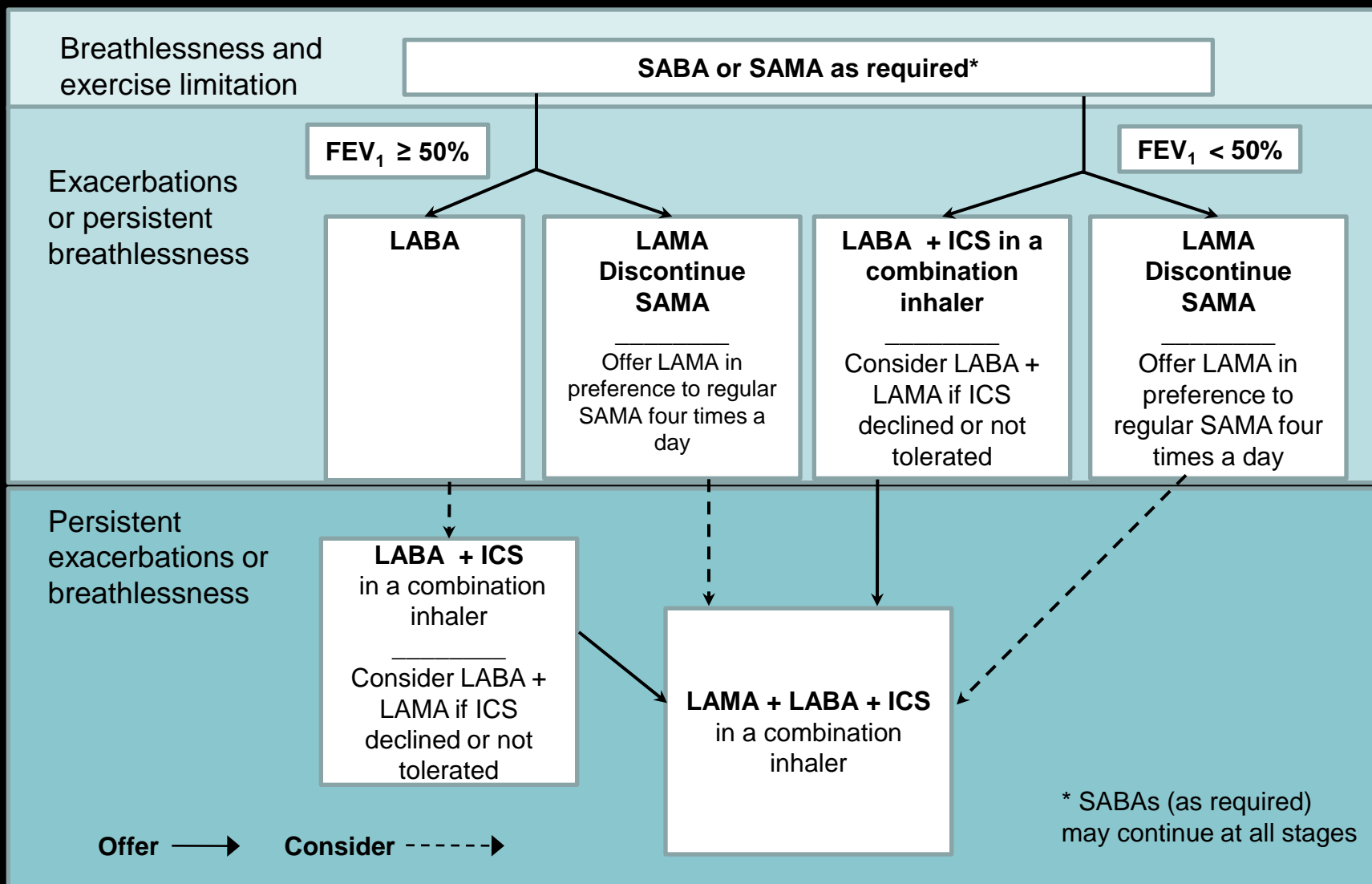
Distribution of Estimated Annual Rates of Change in Forced Expiratory Volume in 1 Second (FEV₁) over a 3-Year Period in Patients with Chronic Obstructive Pulmonary Disease.



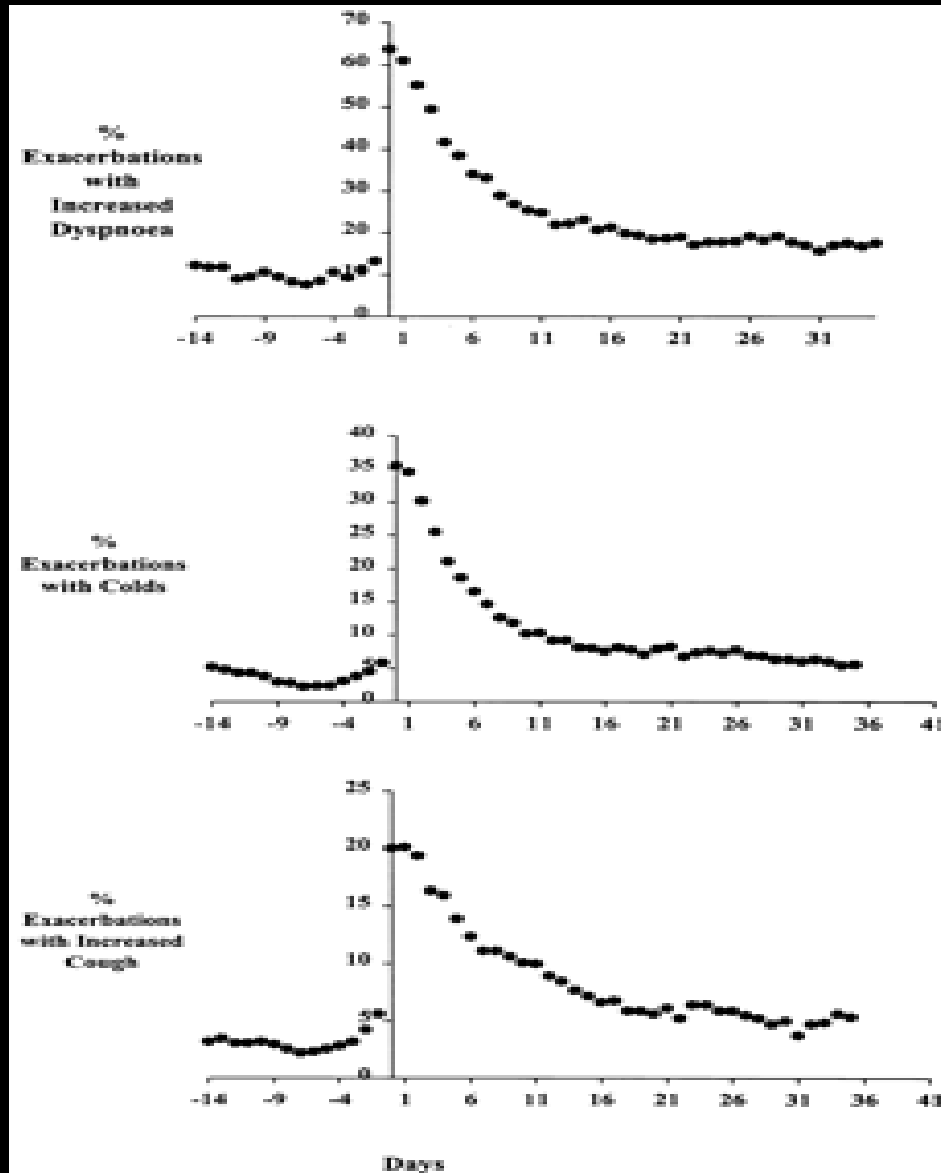
Vestbo J et al. N Engl J Med 2011;365:1184-1192



What's new: Treatments



What's new: Exacerbations



What's new: Exacerbations

If 'yes', for how long before the admission did you notice this change?

Less than 48 hours	21%	348/1638
Between 2 and 5 days	46%	747/1638
More than 6 days	26%	426/1638
Can't remember	6%	106/1638
Not stated	0.7%	11/1638

What's new: Exacerbations

Awareness of change in sputum by age

	Age Deciles					
	27-49	50-59	60-69	70-79	80-89	90-102
Increasing volume of sputum	72%	68%	67%	66%	64%	62%
Colour of sputum changed	71%	69%	64%	60%	56%	52%

What's new: Exacerbations

	Age Deciles					
	27-49	50-59	60-69	70-79	80-89	90-102
Peripheral oedema present	17%	21%	29%	32%	38%	38%
Chest X-Ray consistent w pneumonia	5%	10%	13%	17%	20%	20%
Serum albumin <34 g/dl	2%	8%	11%	14%	18%	22%
Urea > 7.1 mmol/l	7%	14%	22%	36%	52%	69%

What's new: Exacerbations



Somerset Chronic Obstructive Pulmonary Disease (COPD) Services

QUICK REFERENCE SELF MANAGEMENT PLAN

Belonging to:

Name:

Date of Birth:

MY CONTACT FOR ADVISING ME IS:

THEIR CONTACT NUMBER IS:

Baseline SaO₂:%

USEFUL TIPS

- If you are still smoking, then **STOP**. You can seek advice from your GP Practice or call Somerset NHS Stop Smoking Service Helpline 0303 0339840
- If you are breathless when you eat, try eating little but often to maintain your normal weight
- Have your flu vaccination (annually, October), Pneumonia once only
- See your GP or Practice Nurse or Specialist regularly or as requested
- Drink adequate fluids (1 litre a day if you are eating well, increase this amount if you are not)
- Exercise daily, you will do yourself no harm
- Plan ahead and allow time to do things
- Use fans in hot weather and wrap up in cold weather
- Keep note of the dates you take antibiotics and if you take more than one course in a month contact your Doctor or nurse.
- It may be helpful to use sputum clearance and relaxation techniques (please ask if you have not been taught these).

What's new: exacerbations



IF YOU HAVE ANY OF THE FOLLOWING COMBINATION OF SYMPTOMS FOR LONGER THAN 24hrs:

- Increased or different cough with more sputum than usual.
- Different coloured sputum i.e. yellow or green on more than one occasion.
- Feeling more breathlessness and wheezy at rest and during activity
- Waking up feeling short of breath at night?
- Your inhalers do not work as well as normal or not last as long

Together with:

- Increasing shortness of breath and unable to keep up with your normal activities.

If you experience two or more of the above symptoms and you have felt like this for more than a full day, please start your 'just in case' medication as shown on next page.

MY 'JUST IN CASE' PRESCRIPTION IS:

	Name	Dose/Frequency
Antibiotics		
Steroids		
Reliever		

START A COURSE OF ANTIBIOTICS AND START A COURSE OF STEROIDS

While taking "just in case" medications, you should also continue with your usual treatments unless otherwise advised.

Please inform your doctor if you start "just in case" medication. He/she will then know you are unwell and can also arrange for a repeat prescription.

You may also increase your 'reliever medication' during this time of difficulty to:

.....

Consult your Doctor or Nurse (see front sheet) if:

- There is still no improvement in temperature, sputum or cough after 3-4 days.
- Your ankles swell

What's new: Exacerbations

Post Exacerbation PR

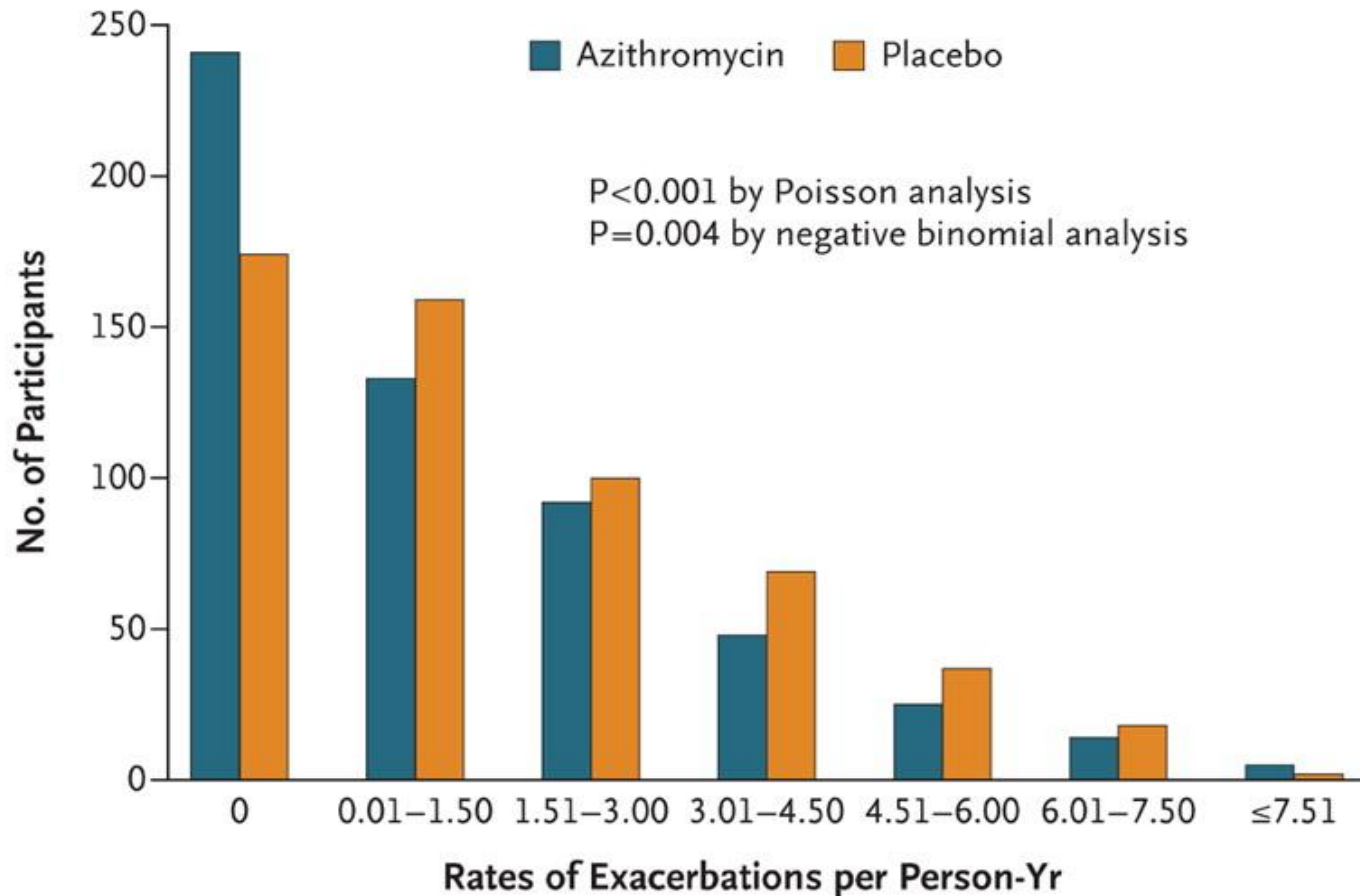


What's new: Exacerbations

Post- Exacerbation PR

	NUMBER (% within group)		OR (95% CI) PEPR versus UC	P Value
	UC (n=30)	PEPR (n=30)		
Hospital Admission for exacerbation	10 (33%)	2 (7%)	0.15 (0.03 to 0.72)	0.02
ED Attendance for exacerbation	7 (23%)	6 (20%)	0.66 (0.18 to 2.36)	0.02
Hospital or ED attendance for exacerbation	17 (57%)	8 (27%)	0.28 (0.1 to 0.82)	0.02

What's new: exacerbations

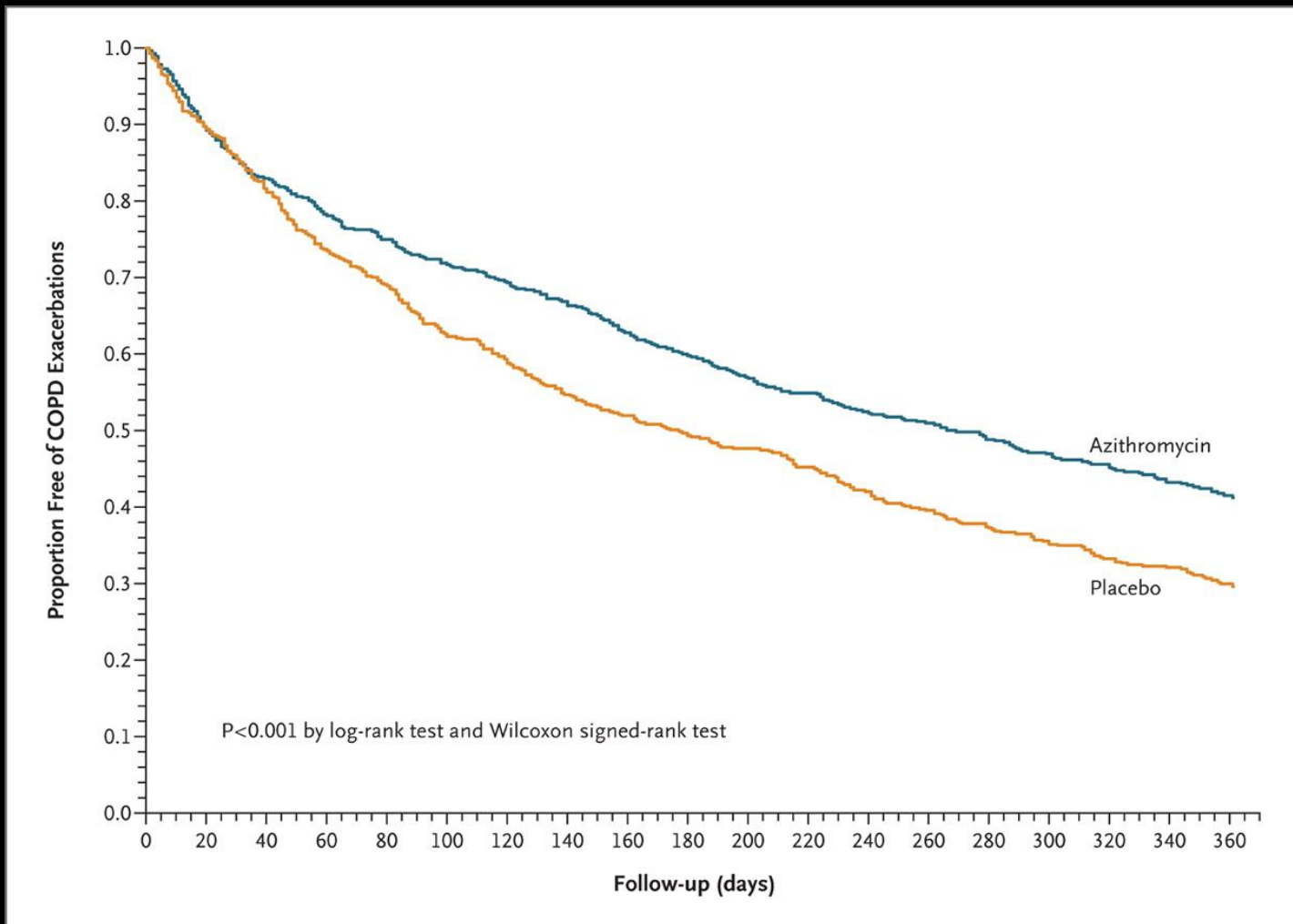


Albert RK et al. *New Eng J Med* 2011;365:689-698.



The NEW ENGLAND
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What's new: exacerbations



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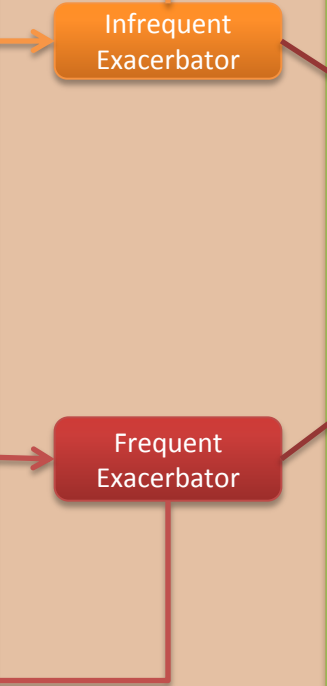
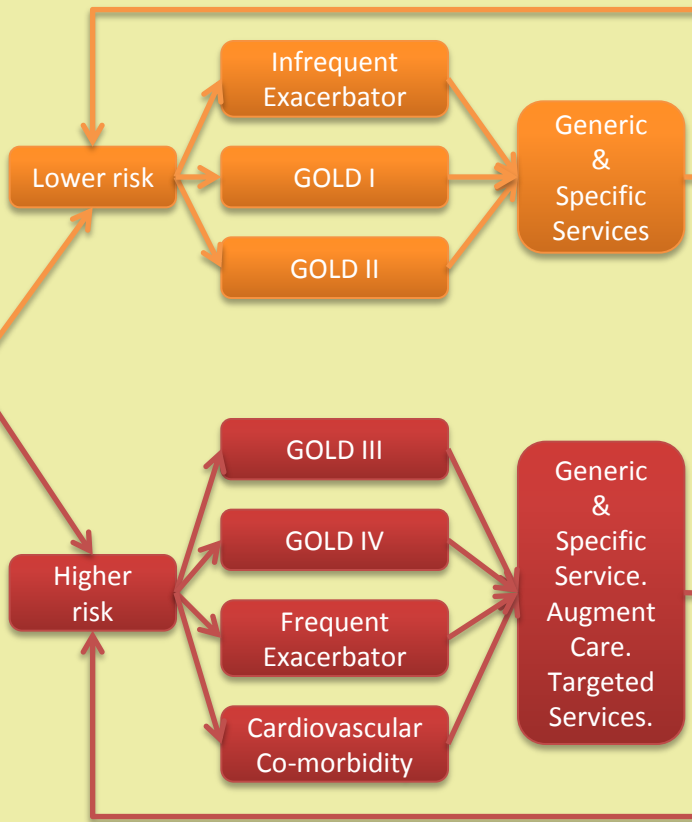
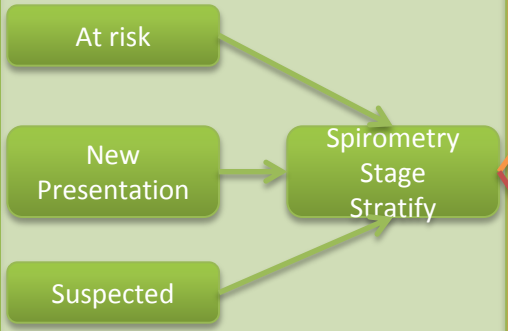
What's new: the Care Pathway

Early Identification & Diagnosis (Includes Finding missing millions)

Long – Term Disease Management

Management of Acute Exacerbations

End of Life Care



- What to do?
- Where to do it?
- How to do it?
- Outcome Measure?

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The Future

