Εθνικές οδηγίες χωρών για ΧΑΠ

Στέλιος Λουκίδης MD Phd FCCP FERS
ERS educational council
Ιατρική σχολή ΕΚΠΑ

Conflicts [Honorarium fees]

- AstraZeneca Greece & Bulgaria & Poland
- Boehringer Ingelheim Greece& Europe
- Chiesi
- GlaxoSmithKline Greece & Denmark
- Elpen
- Menarini Helllas
- Novartis Hellas & Europe
- Pharmaten Hellas
- Vianex/MSD

Σχεδιασμός

- Εισαγωγικά στοιχεία-Διαφορές Ευρωπαϊκών προσεγγίσεων?
- Η Ευρώπη

Στη διαστρωμάτωση

Στις παροξύνσεις

- Η Ασία & Ωκεανία
- Μηνύματα για το σπίτι

Σε ποιους απευθύνονται –από ποιους συντάσσονται

Table 1 The development of national guidelines in Europe and Russia: participants and intended audiences

Country	Evidence system used	Organisation involved in the development	Participants involved in the development	Intended audience	Reference
Czech Republic	Consensus	The Czech Pneumological and Phthisiological Society (CPPS) commissioned an expert group to draft recommended guidelines for the management of stable COPD. Subsequent revisions were further discussed at the National Consensus Conference. Reviewers' comments contributed to the establishment of the final version.	Pulmonologists and pharmacologists	Pulmonologists (full version), internists, GPs, and emergency physicians (reduced version). The Czech national recommendation was fully accepted by the State Institute for Drug Control (SUKL).	[43]
England	NICE technical manual methodology (includes GRADE)	National Institute for Health and Care Excellence (NICE)	Pulmonologists, GPs, respiratory nurses, physiotherapists patients, NICE technical team (including health economists), feedback from registered stakeholders (payors, professional bodies, hospitals etc.)	Pulmonologists, GPs, other specialists, all other healthcare professionals involved in caring for people with COPD, payors and managers	https://www.nice.org.uk/process/pmg20/chapter/introduction-and-overview [44]
Finland	Evidence-based medicine and GRADE methodology	The Current Care Guidelines were developed by the Finnish Medical Society Duodecim in association with various medical specialist societies. The guidelines were produced with public funding and are open to all healthcare professionals and the general public, and include patient versions. A large reviewing group including GPs was asked to comment on the guideline.	Pulmonologists, GPs and internists	Pulmonologists, GPs, other specialists, all other healthcare professionals (including nurses, physiotherapists, pharmacists) and citizens	www.kaypahoito.fi/web/english/home [41, 45]
France	(A) Position paper/ statement on pharmacological treatment optimisation of stable COPD	A restricted expert group was commissioned by the national society (SPLF) to produce an initial proposition. A larger reviewing group including GPs was asked to comment.	Pulmonologists and GPs	Pulmonologists and GPs	[46]
	(B) GRADE method for guidelines on exacerbations	An extensive multidisciplinary group of experts and end-users was commissioned to produce the initial document, which was commented on by a panel of external reviewers.	Pulmonologists, GPs, intensivists, emergency physicians, physiotherapists and nurses	Pulmonologists, GPs, intensivists, emergency physicians, physiotherapists and nurses	[47]
Germany	Consensus	The German Respiratory Society (DGP) and the German Airway League (AWL) commissioned an expert group to develop a guideline for the diagnosis, assessment and management of COPD.	Pulmonologists	Pulmonologists, GPs, intensivists, emergency physicians, physiotherapists, nurses and patients	Vogelmeier CF et al. Pneumologie 2017; in preparation
Italy	Consensus	The document was prepared by a working group appointed by the three major national respiratory societies (AIMAR, AIPO and SIMeR) and the Italian Society of General Medicine (SIMG). Representatives of the Italian Ministry of Health and AGENAS, were involved as external independent observers to ensure ethical, social and solidarity principles.	Pulmonologists and GPs	Pulmonologists and other specialists working either inside or outside the hospital setting, GPs, other healthcare professionals, patient associations, and institutions at national, regional, or local level	[48]

Miravitlles M et al Res Research 2018

Καταδεικνύουν τη διαφορετική άποψη σε διάφορα θέματα –προσπαθούν να διαφοροποιηθούν από τα GOLD?

TABLE 1 Stratification of chronic obstructive pulmonary disease (COPD) severity/future risk

	Severity of airflow limitation	Symptom severity	Exacerbation risk
Czech Republic	GOLD stages 1, 2, 3 and 4	mMRC or CAT	Low risk: 0–1 exacerbations High risk: ⩾2 exacerbations
England and Wales[#]	FEV_1/FVC <70% pred **and** Mild: FEV_1 ⩾80% pred; moderate: FEV_1 50–79% pred; severe: FEV_1 30–49% pred; very severe: FEV_1 <30% pred	Presence of systemic symptoms BMI Health status: measure not specified (CAT in NICE quality standard) Exercise capacity (*e.g.* 6-min walking distance) P_{aO_2}	Not specified
Finland	Low risk: FEV_1 ⩾50% pred High risk: FEV_1 <50% pred[¶]	CAT score <10 or ⩾10	High risk: ⩾2 exacerbations or one leading to hospitalisation in the past year
France	GOLD stages 1, 2, 3 and 4	mMRC Episodic *versus* daily occurrence of dyspnoea on exercise	History of exacerbations (⩾2)
Germany	GOLD stages 1, 2, 3 and 4	Not graded or used for assessment	Not graded or used for assessment
Italy	Mild: FEV_1 ⩾80% pred; moderate: FEV_1 <80% pred and ⩾50% pred; severe: FEV_1 <50% pred	None stated	None stated
Poland	Mild: FEV_1 ⩾80% pred; moderate: FEV_1 <80% pred and ⩾50% pred; severe: FEV_1 ⩾30% pred and <50% pred; very severe: FEV_1 <30% pred	mMRC or CAT	High risk: FEV_1 <50% pred, **or** ⩾2 exacerbations treated with antibiotics or 1 hospitalisation due to exacerbation within past 12 months
Portugal	GOLD stages 1, 2, 3 and 4 Overall: GOLD A, B, C and D classification used	mMRC or CAT	Low risk: 0–1 moderate exacerbations High risk: ⩾2 moderate or ⩾1 severe exacerbation
Russia	Mild: FEV_1 ⩾80% pred; moderate: FEV_1 <80% pred and ⩾50% pred; severe: FEV_1 ⩾30% pred and <50% pred; very severe: FEV_1 <30% pred	mMRC, CAT or CCQ	High risk: according to GOLD 2011 classification (high risk ⩾2 exacerbations or ⩾1 hospitalisation per year)
Spain	GOLD stages 1, 2, 3 and 4	CAT	Low risk: 0–1 exacerbations High risk: ⩾2 exacerbations
Sweden	FEV_1	CAT, CCQ or mMRC	Number per year

Miravitlles M et al ERJ 2016

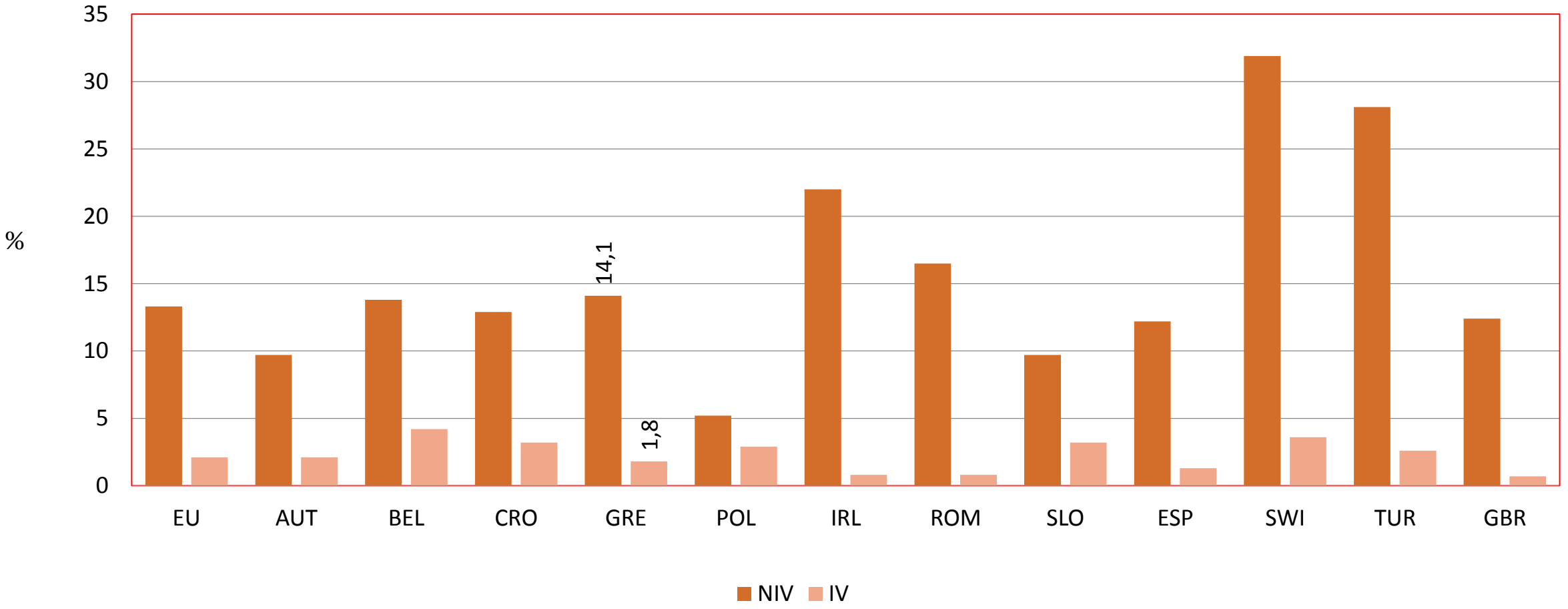
Καταδεικνύουν τη διαφορετική άποψη σε διάφορα θέματα –προσπαθούν να διαφοροποιηθούν από τα GOLD?

TABLE 4 Use of long-acting β_2-agonist (LABA) + long-acting muscarinic antagonist (LAMA) combinations and inhaled corticosteroids (ICS)

	LABA + LAMA	ICS
Czech Republic **England and Wales**	Option for all patients; depends on severity Consider in patients indicated for ICS + LABA if ICS refused or cannot be tolerated Consider in patients with persistent breathlessness despite treatment with LAMA, LABA or ICS + LABA	Patient with ACOS or frequent exacerbator Patients who remain breathless or have exacerbations despite using short-acting bronchodilators and FEV_1 <50% pred **and** in patients with FEV_1 ≥50% pred who remain breathless or have exacerbations despite maintenance therapy with a LABA; increased risk of pneumonia is mentioned
Finland	Alternative choice	Patient belongs to high exacerbation risk group (frequent exacerbations despite the use of appropriate bronchodilator therapy, FEV_1 <50–70% pred) or presents with ACOS; increased risk of pneumonia is mentioned
France	GOLD stage 2 patients if there is dyspnoea during usual activities despite single long-acting bronchodilator GOLD stages 3 and 4	Used only as part of fixed-dose combinations; FEV_1 <50% pred (<60% pred for salmeterol/fluticasone) **and** repeated exacerbations (≥2 per year) **and** symptoms despite regular treatment with bronchodilator(s) (LABA and/or LAMA)
Germany	GOLD stage 2 and higher (possibly triple therapy and additional treatments in GOLD stages 3 and 4)	FEV_1 <50% pred and ≥1 exacerbation treated with systemic steroids and/or antibiotics in the past year
Italy	A second long-acting bronchodilator with a complementary mechanism of action may be added if the patient and/or physician are not satisfied with the response to single-agent therapy	In symptomatic patients, with prebronchodilator FEV_1 <60% pred and ≥2 exacerbations per year; ICS may be added to LABA
Poland	Alternative choice	≥2 COPD exacerbations treated with antibiotics/oral steroids or ≥1 hospitalisation due to COPD exacerbation within past 12 months, or FEV_1 <50% pred
Portugal	Alternative choice	ICS are recommended in GOLD classes C and D; no specific criteria are stated for use in these classes, but frequent exacerbations should prompt augmentation of therapy
Russia	First choice in GOLD D patients Alternative choice in GOLD B and C patients	Frequent exacerbations, sputum eosinophilia or systemic inflammation; increased risk of pneumonia is mentioned
Spain	Alternative choice (nonexacerbator)	ACOS, exacerbator phenotype despite optimal bronchodilation; increased risk of pneumonia is mentioned
Sweden	Alternative choice in GOLD B patients First choice in GOLD C and D patients	Repeated exacerbations or FEV_1 <50–60% pred

Miravitlles M et al ERJ 2016

NIV vs. IV



Jose Luis López-Campos et al. Eur Respir J 2014;43:754-762

Αναγνώριση-φαινοτύπηση-διαστρωμάτωση-Αντιμετώπιση: Η Φιλανδική άποψη

When should COPD be suspected?	• Post-bronchodilatation $FEV_1/FVC < 0.7$ in spirometry • Risk factors: smoking history > 10 pack-years (sometimes long-term heavy exposure to dust or alpha-1-antitrypsin deficiency) • Symptoms typical to COPD: cough, sputum production, dyspnoea (in exercise), wheezing – Of note: some of the patients are asymptomatic
Is it un-treated asthma?	• If obstruction can be totally reversed ($FEV_1/FVC \geq 0.7$) with treatment (inhaled glucocorticoid, long-acting β_2-agonist can be added) itis not COPD • Consider whether the criteria for asthma is met
Diagnose COPD if	• Despite possible therapy, obstruction (post-bronchodilator $FEV_1/FVC < 0.7$) remains • There is identifiable risk-factor for COPD (smoking > 10 pack-years, heavy long-term dust exposure or alpha-1-antitrypsin deficiency) • Disease presentation conforms COPD (e.g. not untreated asthma) • The patient may have both COPD and asthma (see below)
Treatment for all patients with COPD	• Smoking cessation • Frequent exercise (consider special pulmonary rehabilitation) • Vaccination: influenza (yearly), pneumococcal
Phenotype-specific therapy	• Is it asthma-COPD overlap syndrome (ACOS)? • What is the exacerbation risk?

Is it asthma-COPD overlap?

see criteria

Criteria for asthma-COPD overlap syndrome
2 main criteria, or
1 main and 2 additional criteria

Main criteria
- Significant bronchodilatory response (FEV_1 > 15 % and > 400 ml)
- Sputum eosinophilia or elevated (>50 ppb) exhaled NO
- Previous asthma symptoms (starting age at < 40 y)

Additional criteria
- Elevated total IgE
- Atopy
- Repeated significant bronchodilatory response (FEV_1 > 12 % and > 200 ml)
- PEF-follow-up typical to asthma

No

Yes

Has there been ≥ 2 COPD exacerbations *or* one leading to hospitalization during last year *or* is FEV_1 < 50 % predicted ?

No

Yes

Low exacerbation risk

Less symptoms (CAT® score <10)
• SABA and/or SAMA as needed

More symptoms (CAT® score ≥10)
• Daily LABA and/or LAMA
• Consider alternative diagnosis, especially cardiac disease
• (Theophylline)

High exacerbation risk

Try these, combination possible
Consider risks and benefits individually
• LAMA
• ICS + LABA
• LAMA + LABA
• Roflumilast (if frequent exacerbations, chronic bronchitis and FEV_1 < 50 % predicted)

Asthma-COPD overlap syndrome (ACOS)

Drug therapy is a combination from COPD and asthma guidelines

Notice both diseases! Generally, medication includes at least the following
• ICS + LABA or
• ICS + LABA + LAMA

Consider referral to respiratory specialistif	• There are diagnostic problems • There are therapeutic problems • The ability to work is in question • Long-term oxygen therapy is considered (SaO_2 < 90 % at rest and stopped smoking)

Long-term pharmacological treatment of COPD has two separate aims, but same medication may help in achieving therapeutic benefit in both aims.

Aim 1: Controlling symptoms

Bronchodilation; reduction of symptoms either short-term or long-term

- SABA: fenoterol, salbutamol, terbutaline
- SAMA: ipratropium
- LABA: formoterol, indacaterol, olodaterol, salmeterol
- LAMA: aclidinium, glycopyrronium, tiotropium, umeclidinium
- Teophylline (?)

Aim 2: Reducing future risk

Preventing future exacerbations of COPD

- LAMA: Tiotropium, aclidinium, glycopyrronium, umeclidinium
- ICS + LABA
- LABA: salmeterol, formoterol, olodaterol, indacaterol
- LABA + LAMA
- Roflumilast

How to evaluate the effectiveness of the medication and how to decide whether to stop or continue medication?

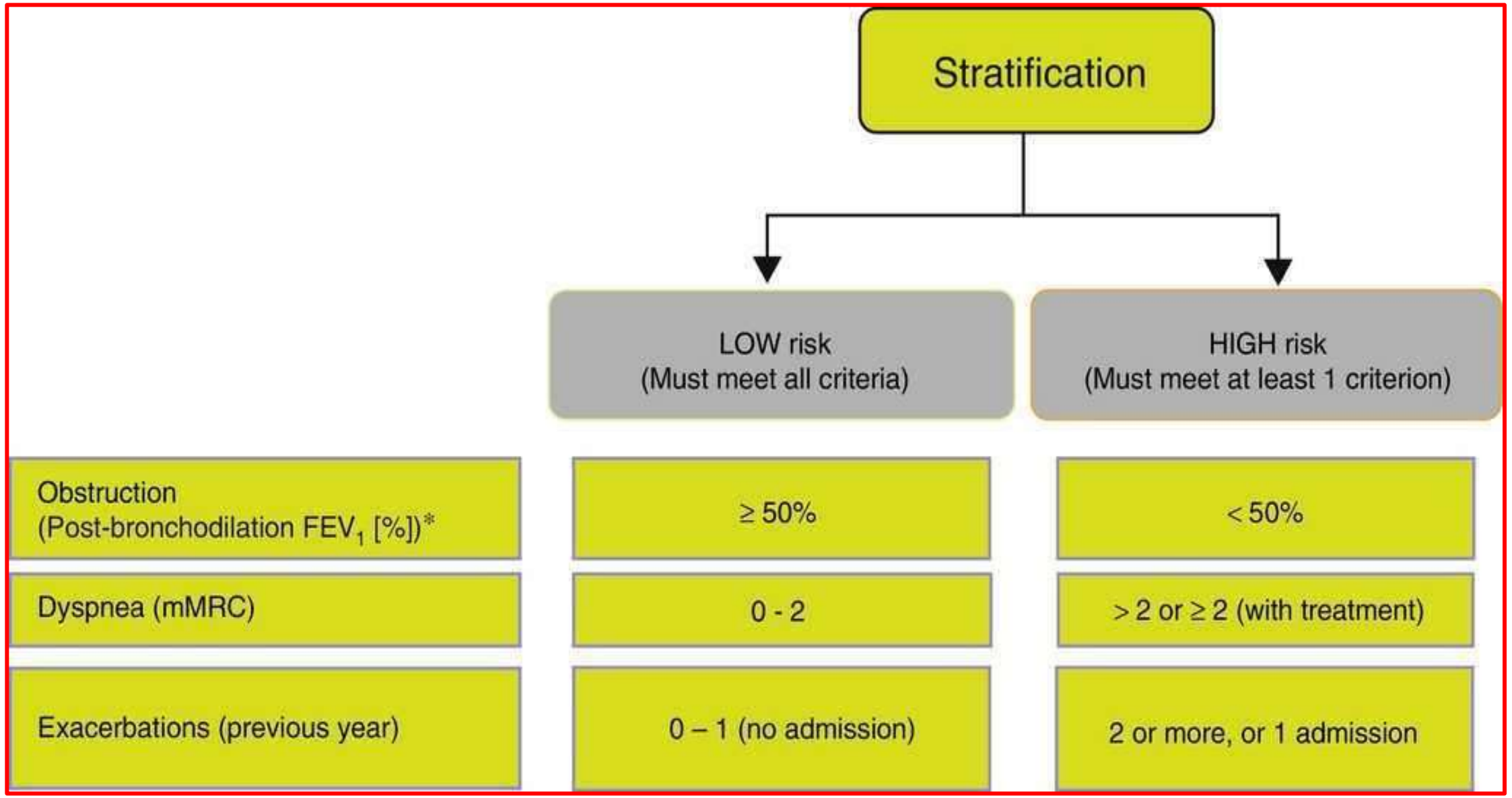
Evaluate first whether the given medication is used to achieve aim 1 or aim 2.
If the given drug is used to achieve both aims, the decision whether or not to continue is made based on the criteria shown for the aim 2.

Aim 1: One or more of the following findings in the absence of severe adverse events support the continuation of the given medication
- Reduction in daily symptoms
  - symptom assessment e.g. by CAT®-test
- Improvement in exercise tolerance
- Improvement in objective lung function measurements (e.g. FEV_1, FVC or PEF; however, this is not a prerequisite to continue medication)

Aim 2: One or more of the following findings supports stopping the medication:
- Appearance of a severe adverse effect
- Appearance of a mild to moderate adverse effect that is frequent and/or affects the quality of life (e.g. repeating episodes of candidiasis or diarrhoea) and disappears after stopping the medication
- Of note! Lack of improvement in symptoms or lung function is not a reason to stop medication!

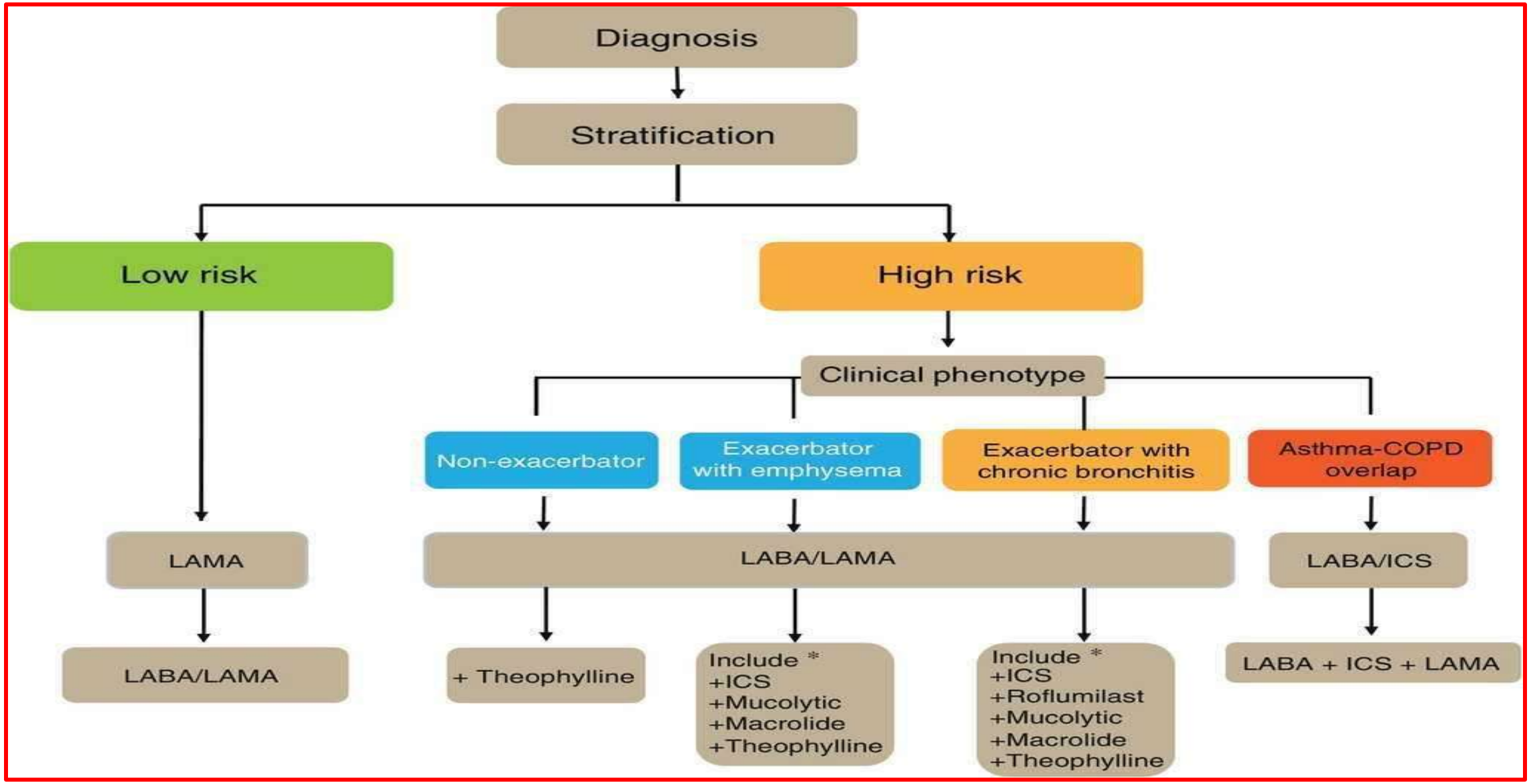
Hannu Kankaanranta et al Basic Clin Pharmacol Toxicol. 2015

Διαστρωμάτωση κινδύνου-Ισπανία



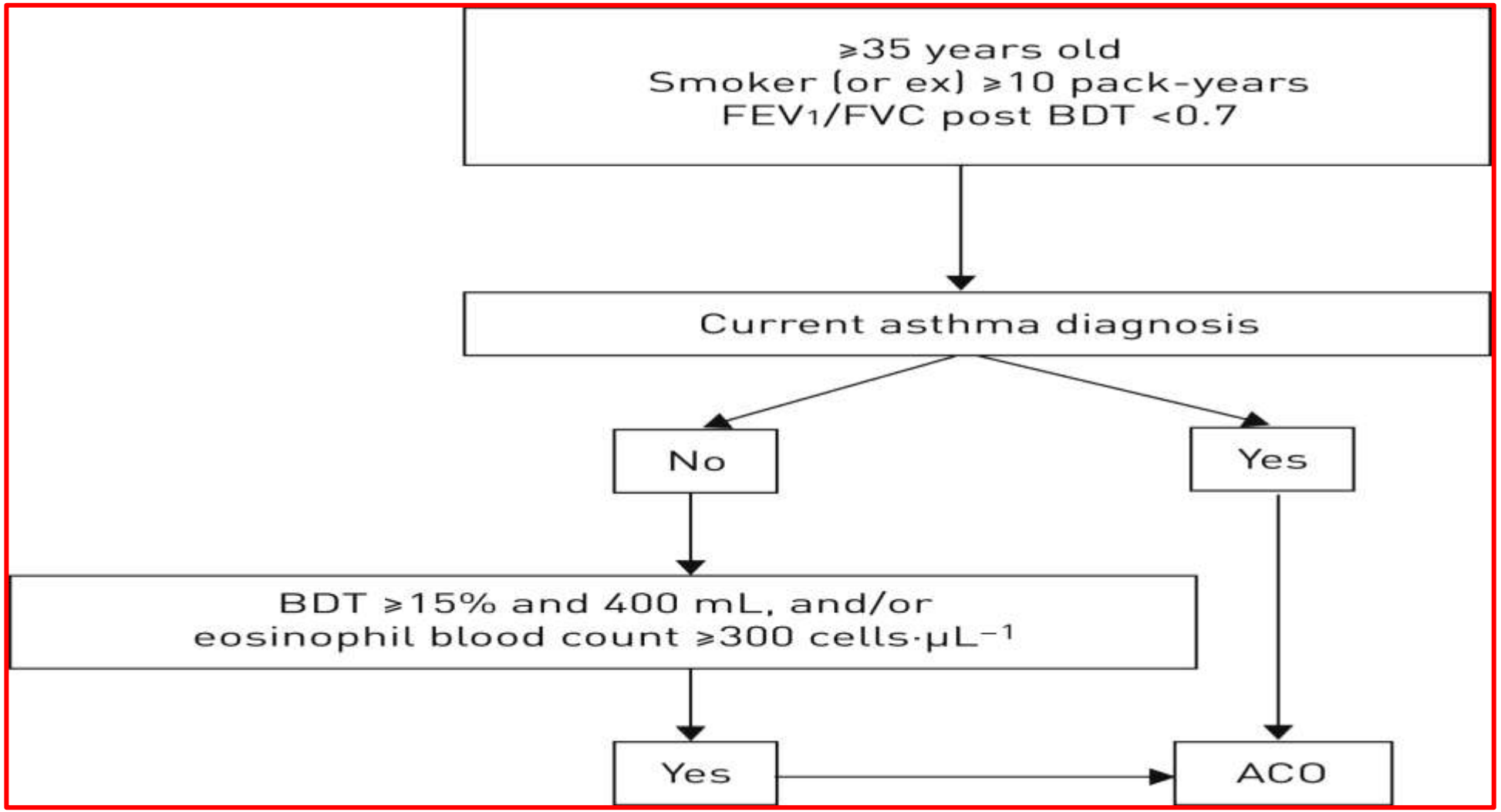
Miraviltes M et al Arch Bronconeumol. 2017

Θεραπεία βάσει κινδύνου-Ισπανία



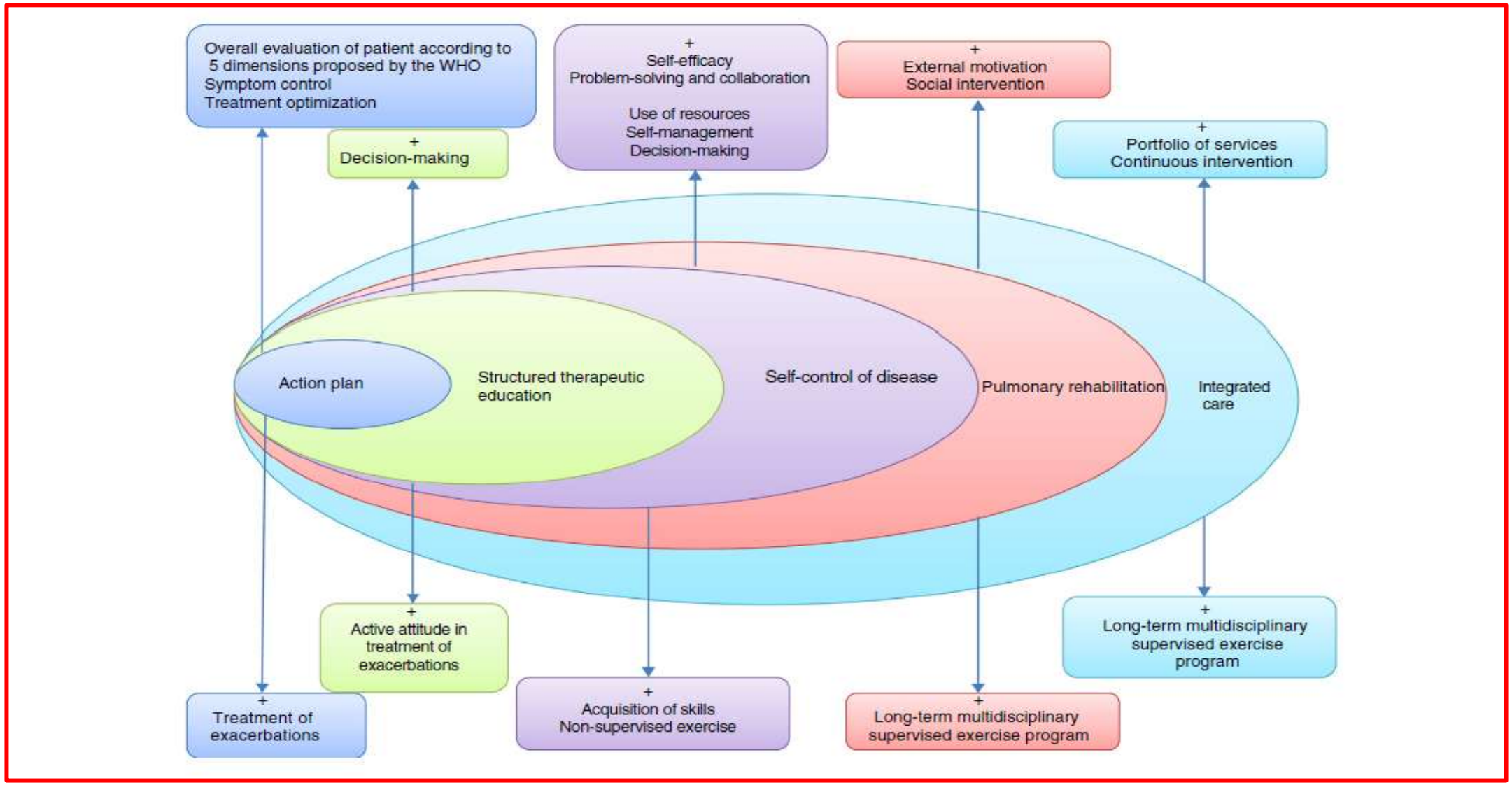
Miraviltes M et al Arch Bronconeumol. 2017

Διαγνωστικός αλγόριθμος για ACO: Ισπανία



Marc Miravitlles et al. Eur Respir J 2017;49:1700068

Μη φαρμακολογική προσέγγιση: Ισπανία



Pleguezuelos E et al Arch Bronconeumol 2018

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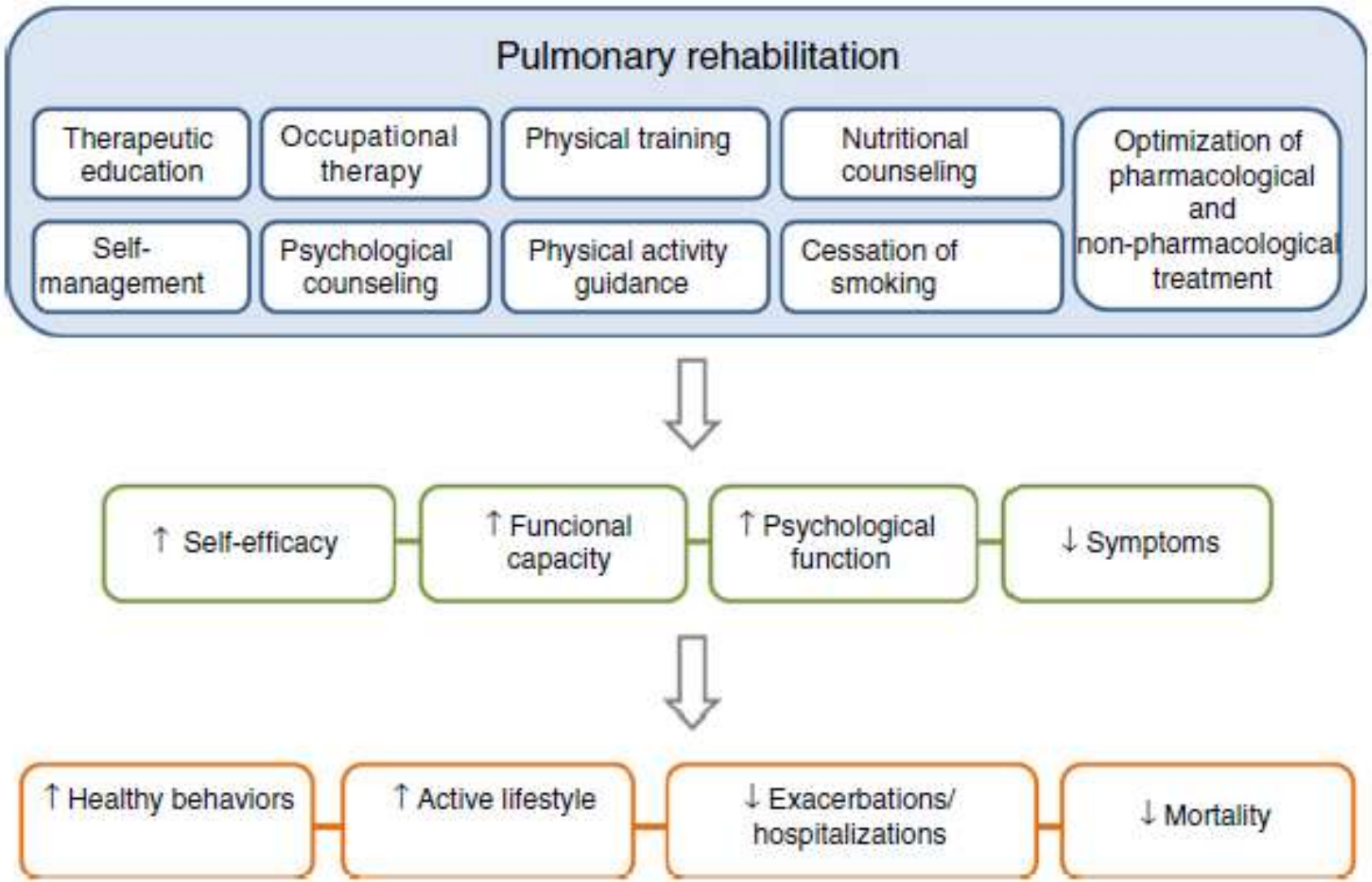
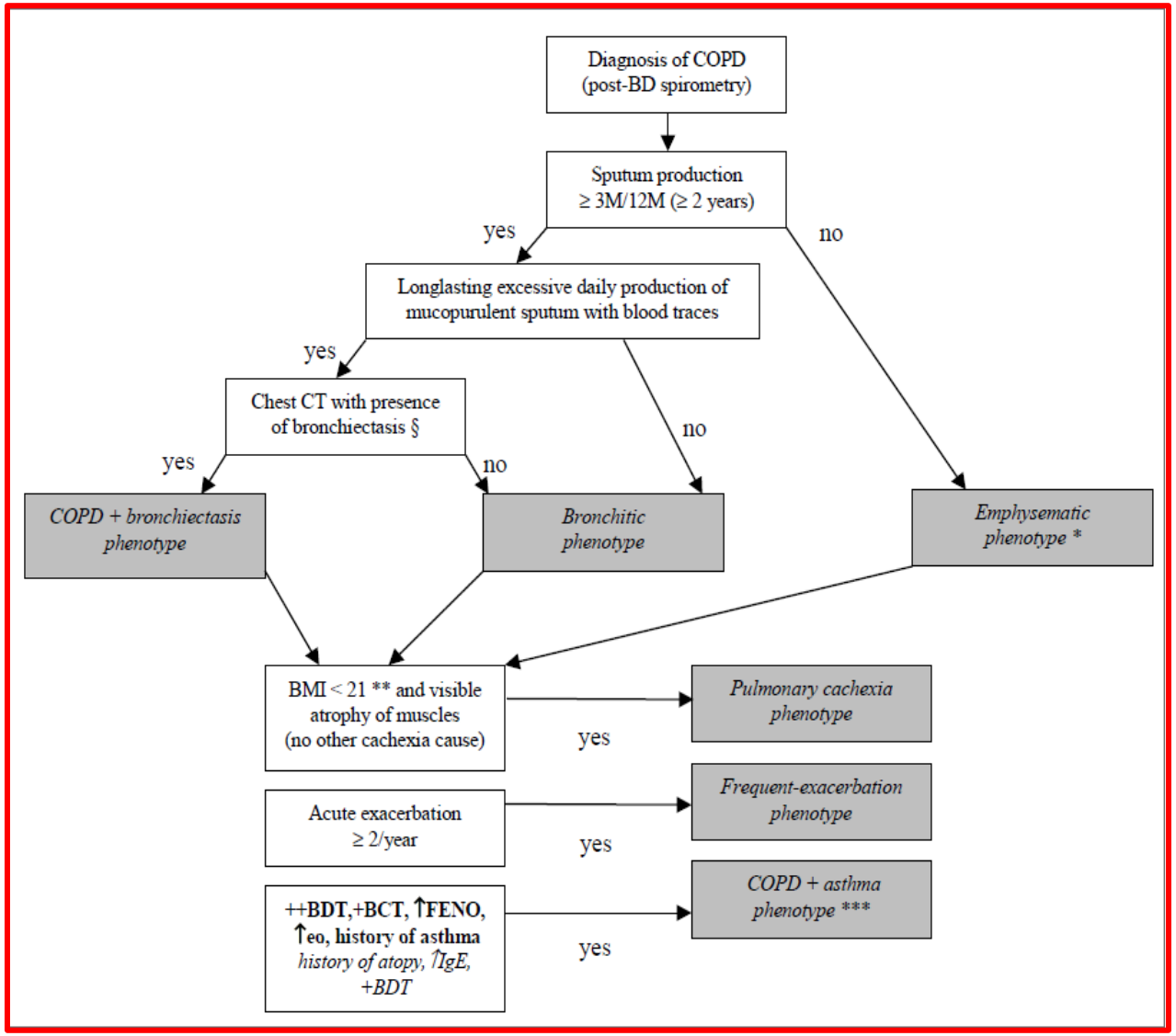


Φαινοτυπική θεραπευτική προσέγγιση-Τσεχία

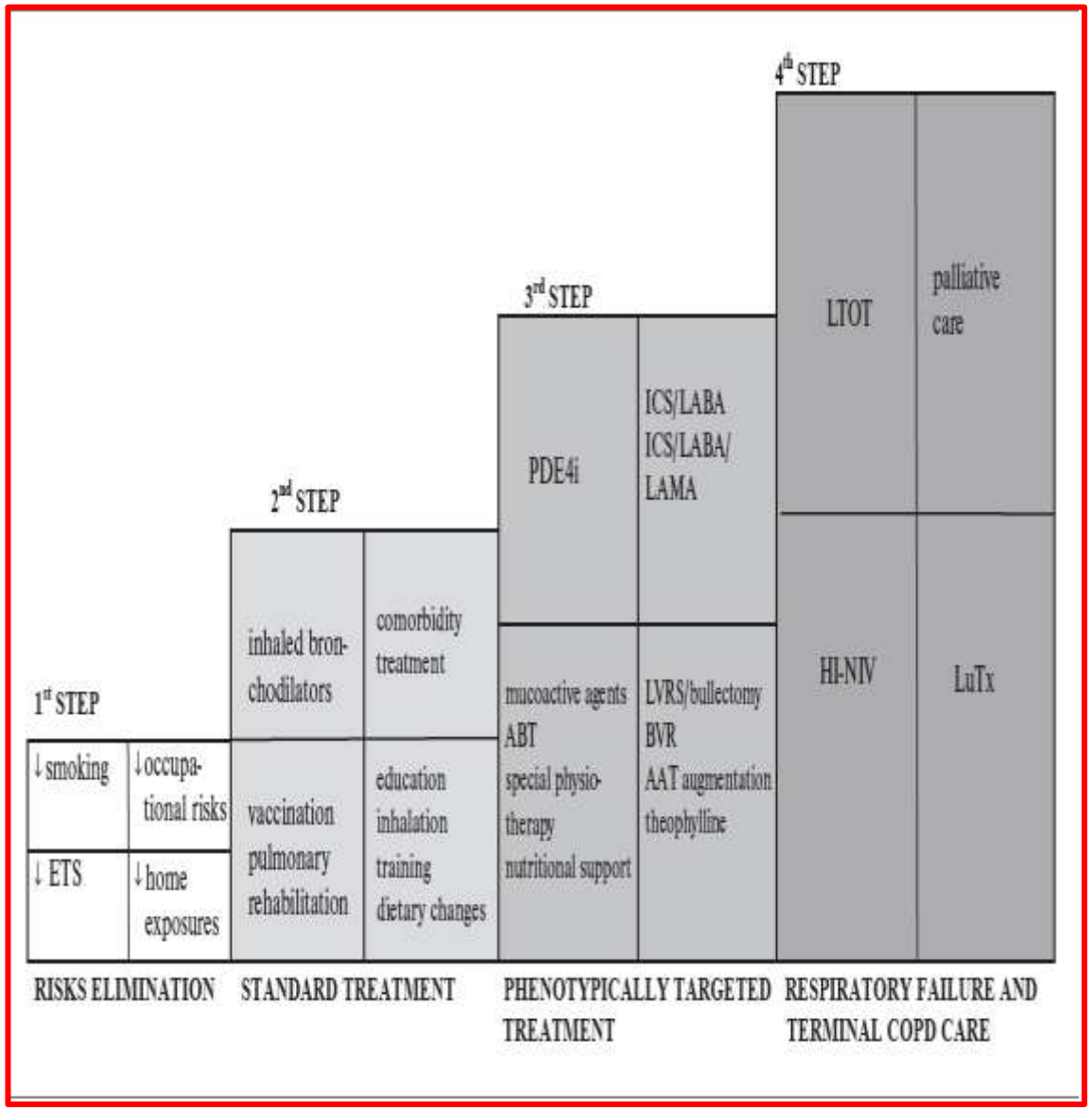
Table 1. Summary of elementary COPD phenotypes.

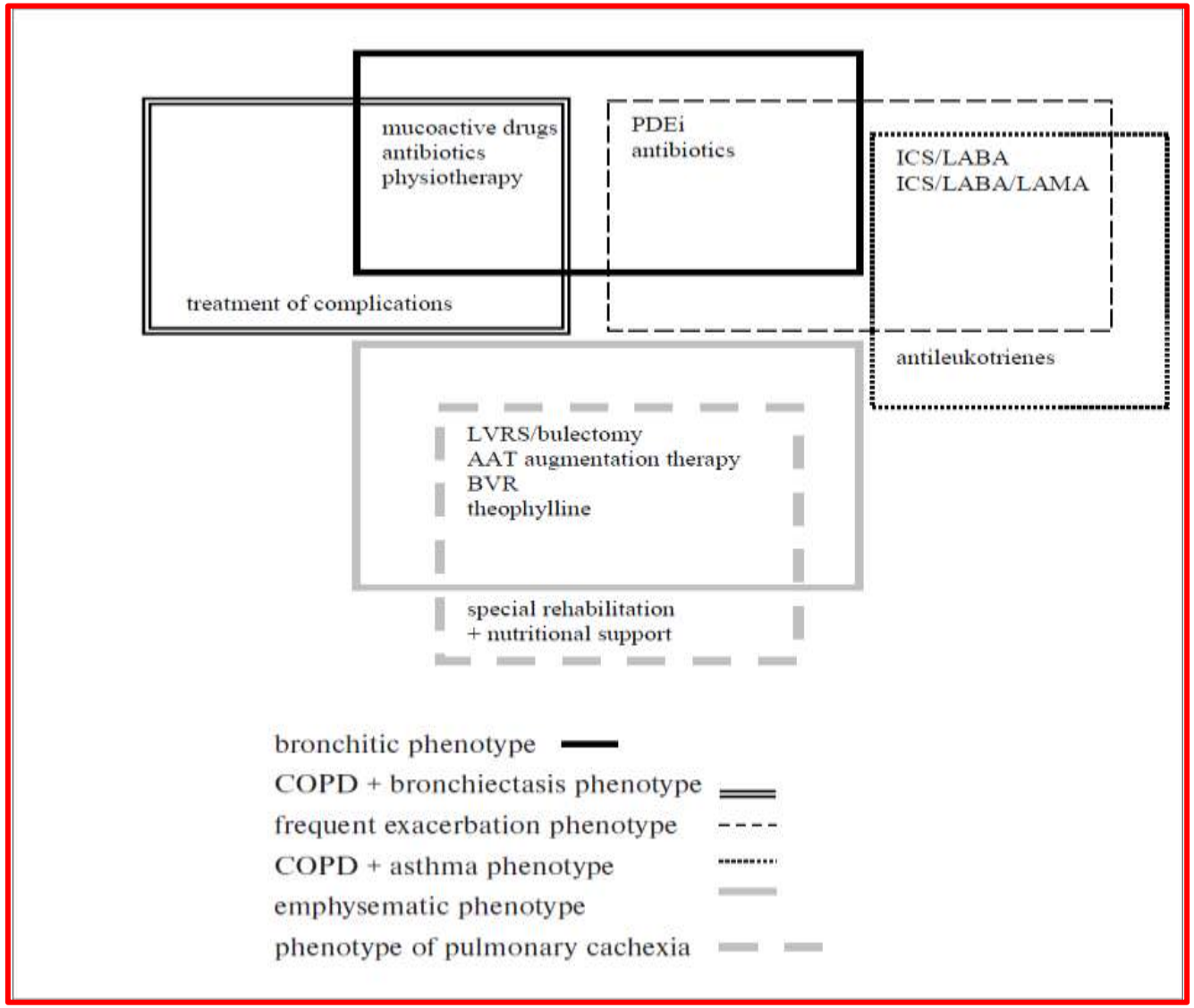
COPD phenotypes	Basic features of COPD phenotypes
Bronchitic phenotype	The presence of productive cough (≥ 3 months/year in two or more consecutive years)
Emphysematic phenotype	Lifetime absence of productive cough and clinical signs of pulmonary emphysema*
Overlap COPD + asthma **	Major criteria: (a) strong BDT positivity (FEV_1 >15% and > 400 mL), (b) BCT positivity, (c) FENO ≥ 45-50 ppb and/or ↑eo (sputum) ≥ 3%, (d) history of asthma Minor criteria: (a) mild BDT positivity (FEV_1 > 12% and > 200 mL), (b) ↑ total IgE, (c) history of atopy - and definite COPD diagnosis
Overlap COPD + bronchiectasis	Accented, almost daily, purulent sputum expectoration, younger age, lower or no smoking burden, history of prolonged/recurrent respiratory infections, hemoptysis, HRCT confirmation of bronchiectasis - and definite COPD diagnosis
Frequent-exacerbation phenotype	Presence of frequent exacerbations (≥ 2/year) treated with ABT and/or corticosteroids
Pulmonary cachexia phenotype ***	BMI < 21 kg/m^2 - no other cause (FFMI < 16 kg/m^2 in males or < 15 kg/m^2 in females)



Koblizek V et al Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub 2013

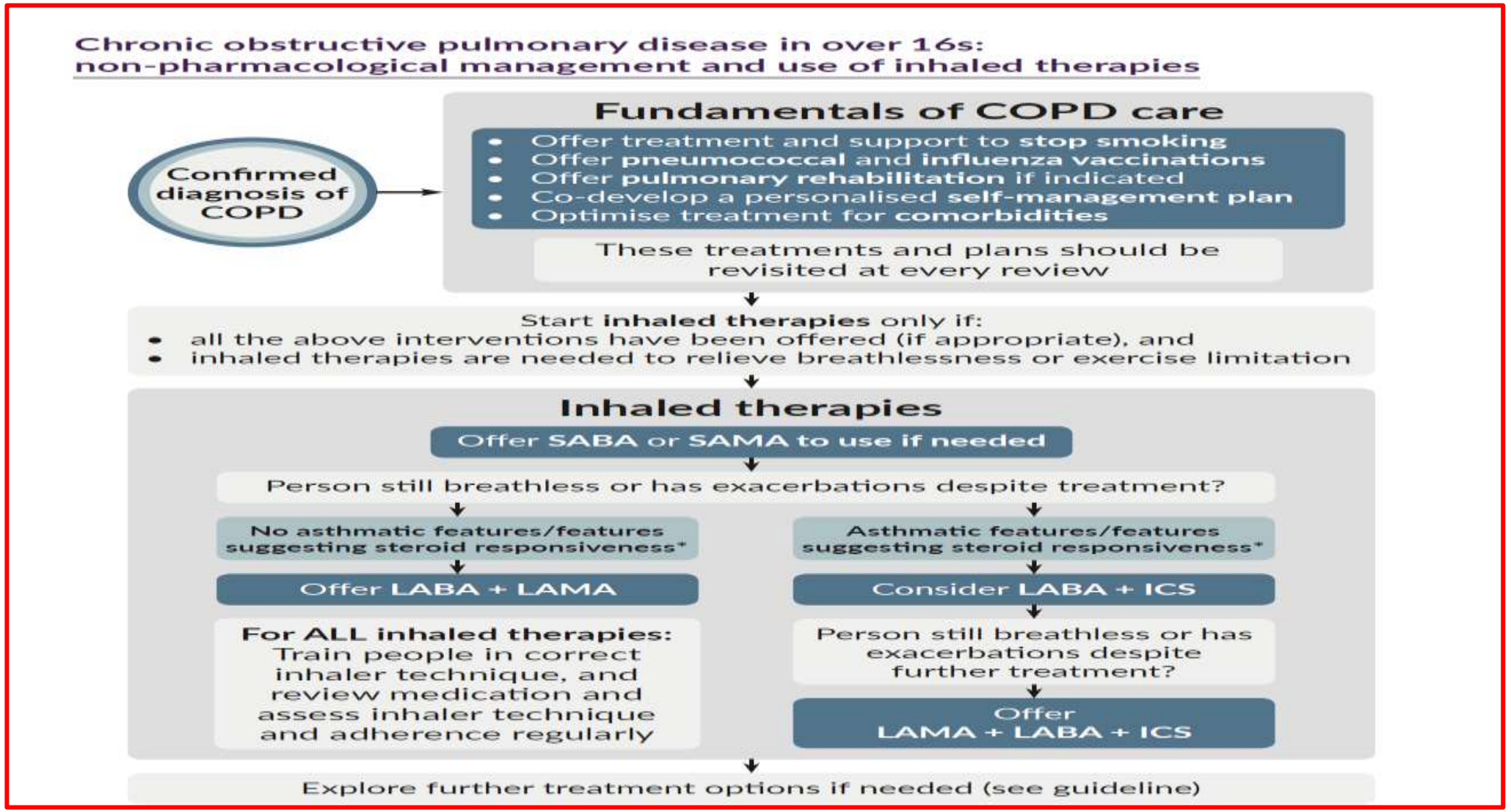
Φαινοτυπική θεραπευτική προσέγγιση-Τσεχία



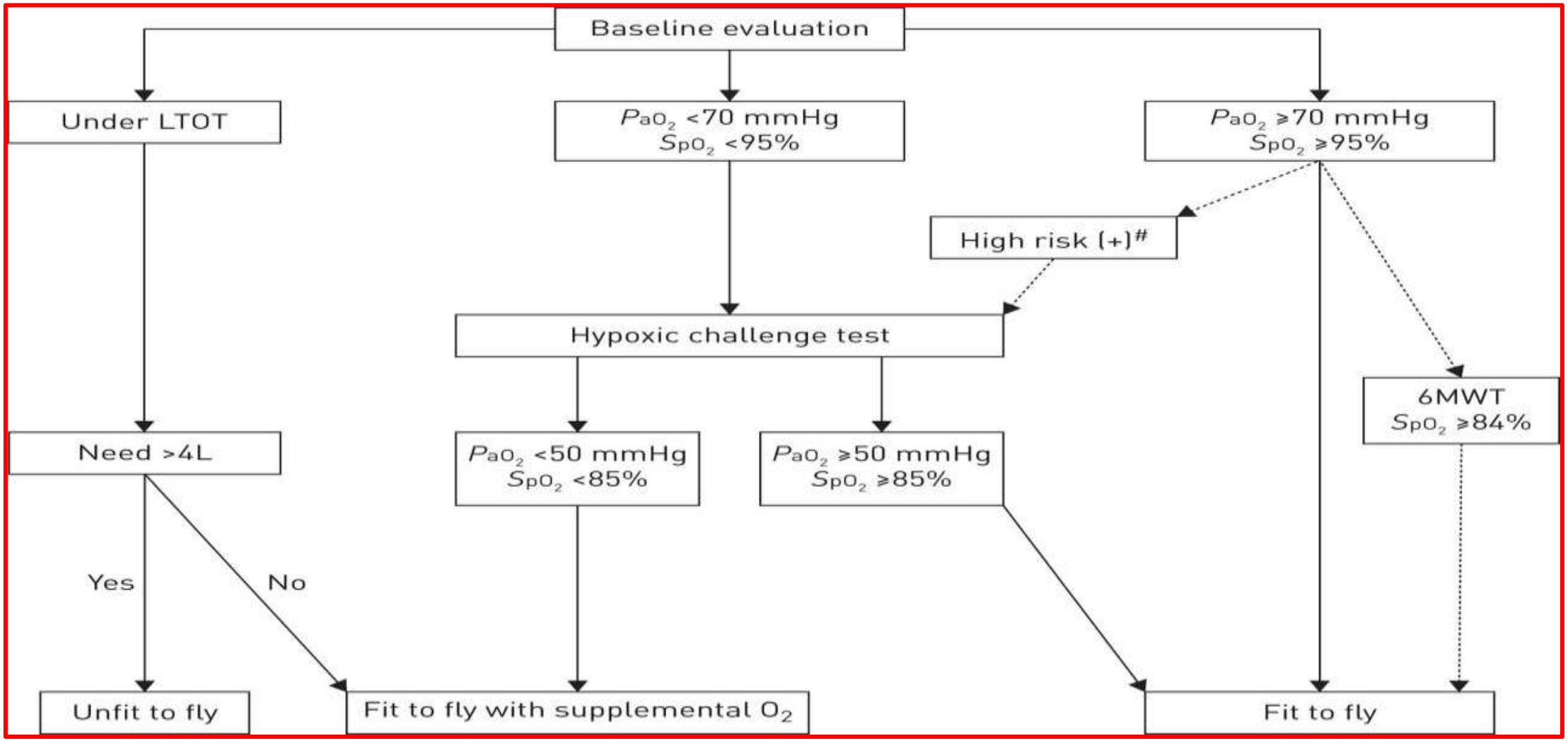


Koblizek V et al Biomed Pap Med Fac Univ Palacky Olomouc Czech Repub 2013

Τα τελευταία NICE 12/2018. Μ Βρετανία

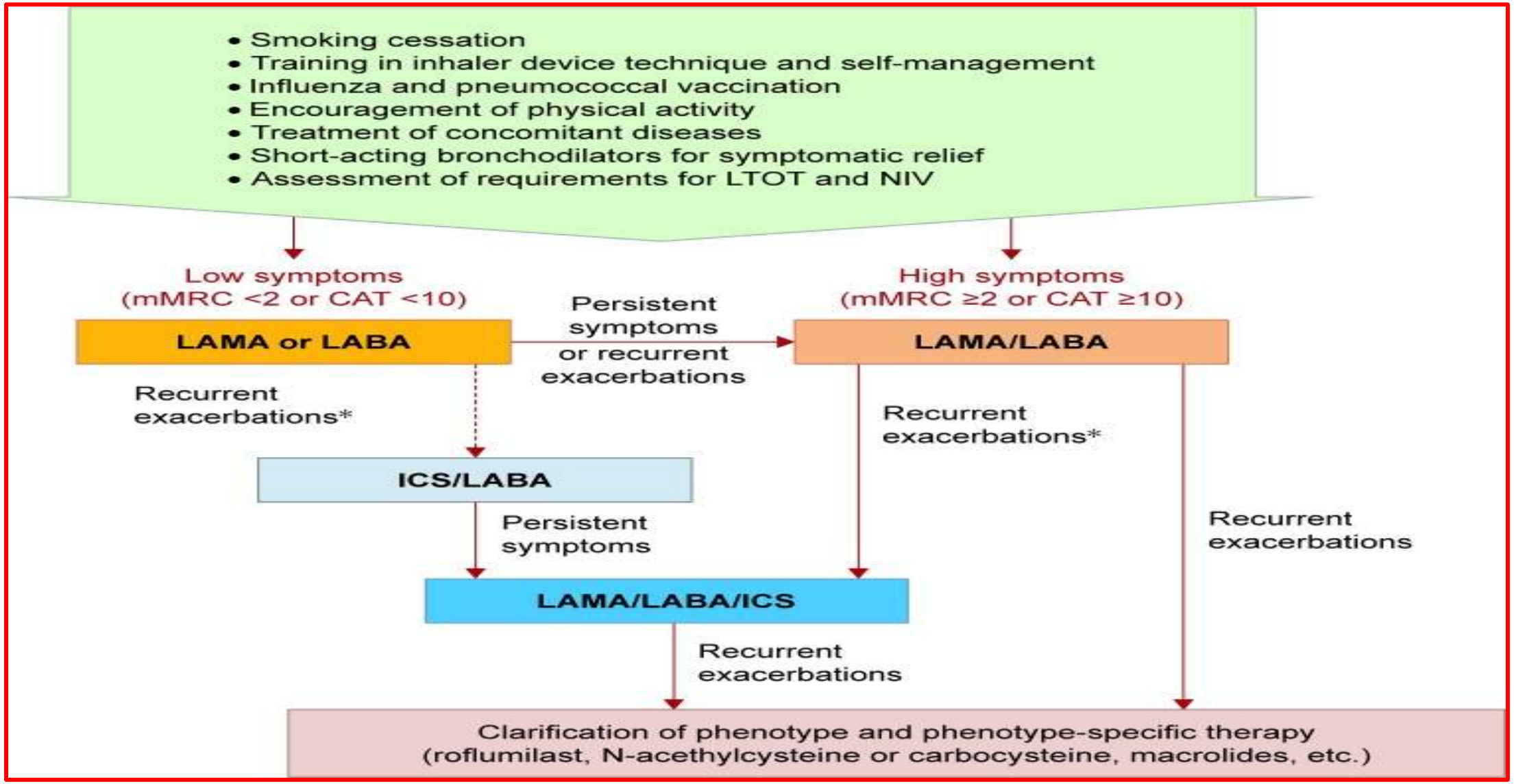


Αλγόριθμος ασφαλούς ταξιδιού.



Begum Ergan et al. Eur Respir Rev 2018;27:180030

Η Ρωσική άποψη



Aisanov S et al IJCOPD 2018

Επικέντρωση στη παρόξυνση: Γαλλία

Table 4 Hospitalization criteria for patients with AECOPD (level of evidence ''expert agreement'').

Criterion
Background
Age > 70 years
Socially-isolated patient
General condition
Activity level
Severity of the underlying COPD
Frequent exacerbations
Recent arrhythmia
Long-term oxygen therapy
History of OTI for ARF
Comorbidities
PVD
Coronary bypass
Failure of first treatment
Clinical
SpO_2 < 90%
Flapping tremor
Heart rate > 110/min
Cyanosis
LLE
Too sick for a simple 3-min walk test after first treatment in the admissions service and emergencies department
Diagnostic uncertainty
Biological or radiological anomalies
Radiological abnormalities
pH
PaO_2
EKG acute abnormalities
Anemia (Hb < 10 g/dL)
Renal failure: urea > 12 mmol/L
TCO_2 > 35 mmol/L

AECOPD: acute exacerbations of chronic obstructive pulmonary disease; PVD: peripheral vascular disease; Hb: hemoglobin; OTI: oro-tracheal intubation; ARF: acute respiratory failure; LLE: lower limb edema; EKG: electrocardiogram.

Table 9 Check-list for hospital discharge after AECOPD.

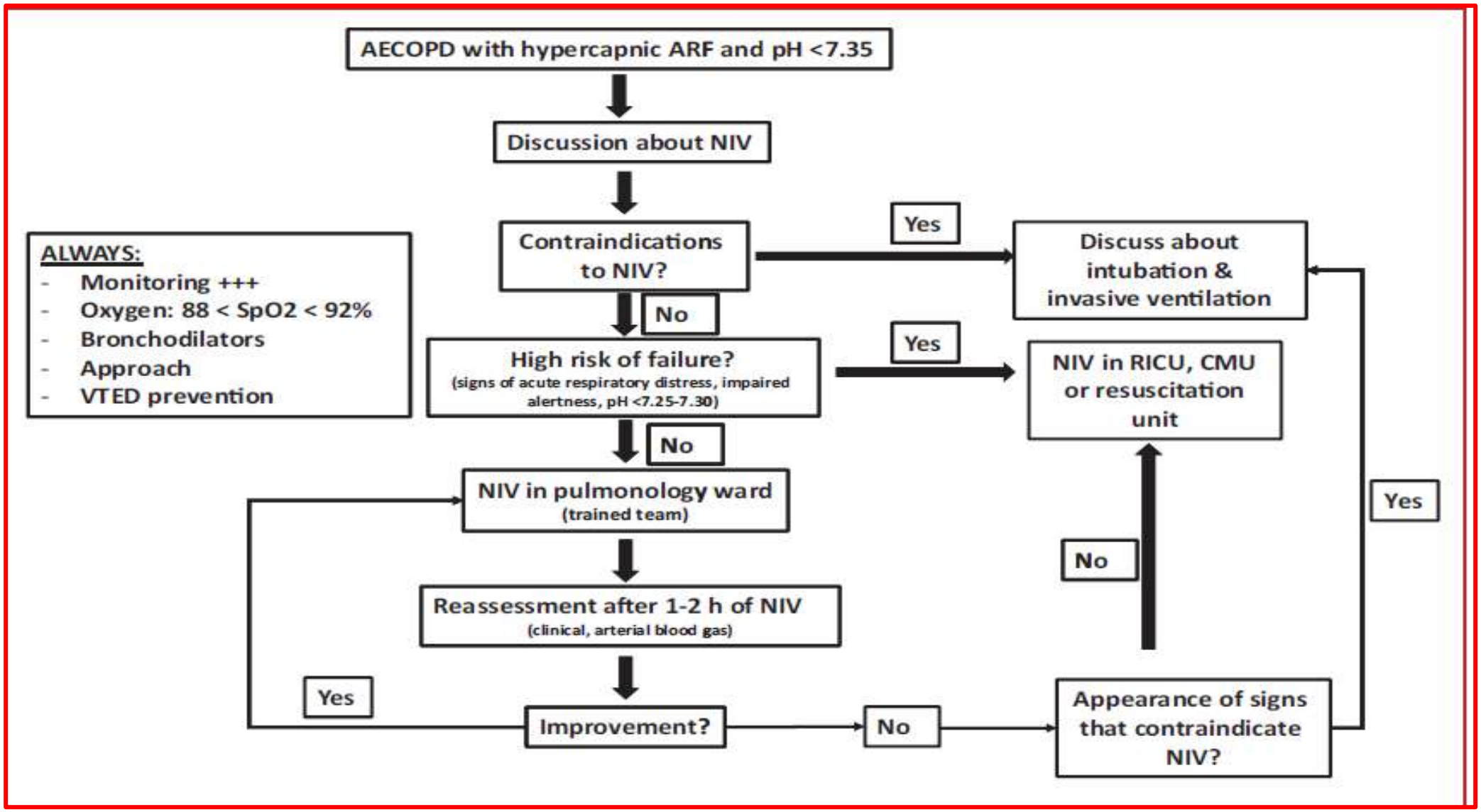
Clinical and functional parameters	
Involvement of respiratory muscles	Absent
SpO_2 on room air or under low oxygen flow	> 88–90%
Ambulation in the room	Possible without major dyspnea
Food intake	Possible without major dyspnea
Sleep	Possible without major dyspnea
Use of short-acting bronchodilators	< 3 times per day
Biological parameters	
Arterial blood gas testing	Absence of acidosis during the last 24 h
Socio-economic parameters	
Home support if necessary	Planned
Long-term oxygen therapy if necessary	Implemented
Respiratory physiotherapy if necessary	Implemented
Self-management parameters	
Handling of inhaler devices	Acquired
Promoting adherence to treatments	Performed
Recognizing the signs of exacerbation	Acquired
Individualized actions to be taken in case of exacerbation	Acquired
Smoking cessation	Proposed
Organization of the long-term monitoring	
Attending physician and/or attending pulmonologist	Planned upon hospitalization and discharge
Prescriptions	Written and explained
Pulmonology monitoring consultation	Planned
Smoking cessation consultation	Planned
Lung function testing	Planned
Walk test	Planned

AECOPD: acute exacerbations of chronic obstructive pulmonary disease.

classification has been proposed with several degrees of severity: mild (increased symptoms controlled with & without antibiotic treatment), moderate (requiring a treatment with antibiotics and corticosteroids), serious (or severe) characterized by hospitalization.

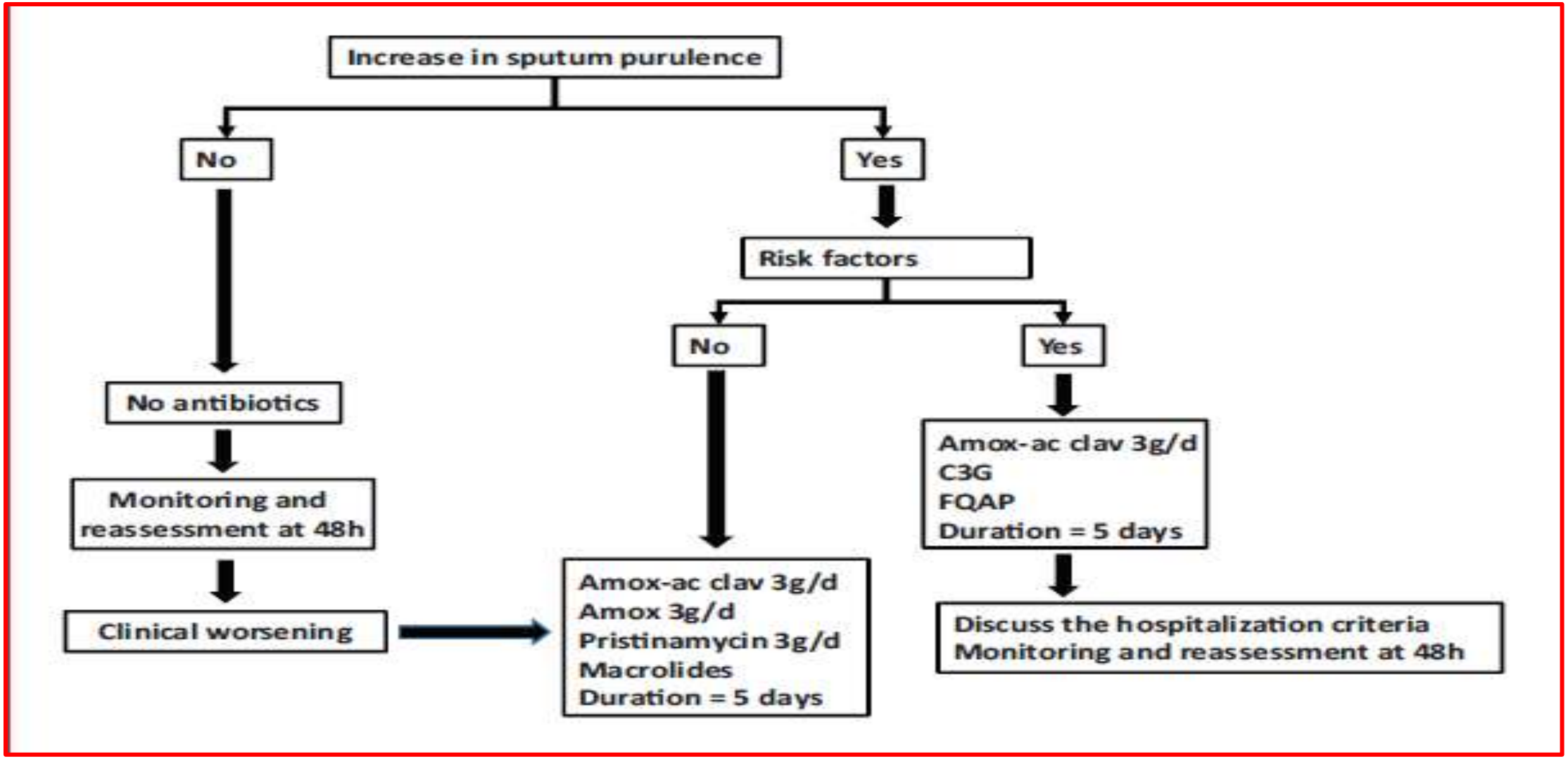
S. Jouneaua et ak Revue des Maladies Respiratoires (2017) 34, 282—322

Επικέντρωση στη παρόξυνση: Γαλλία



S. Jouneaua et ak Revue des Maladies Respiratoires (2017) 34, 282—322

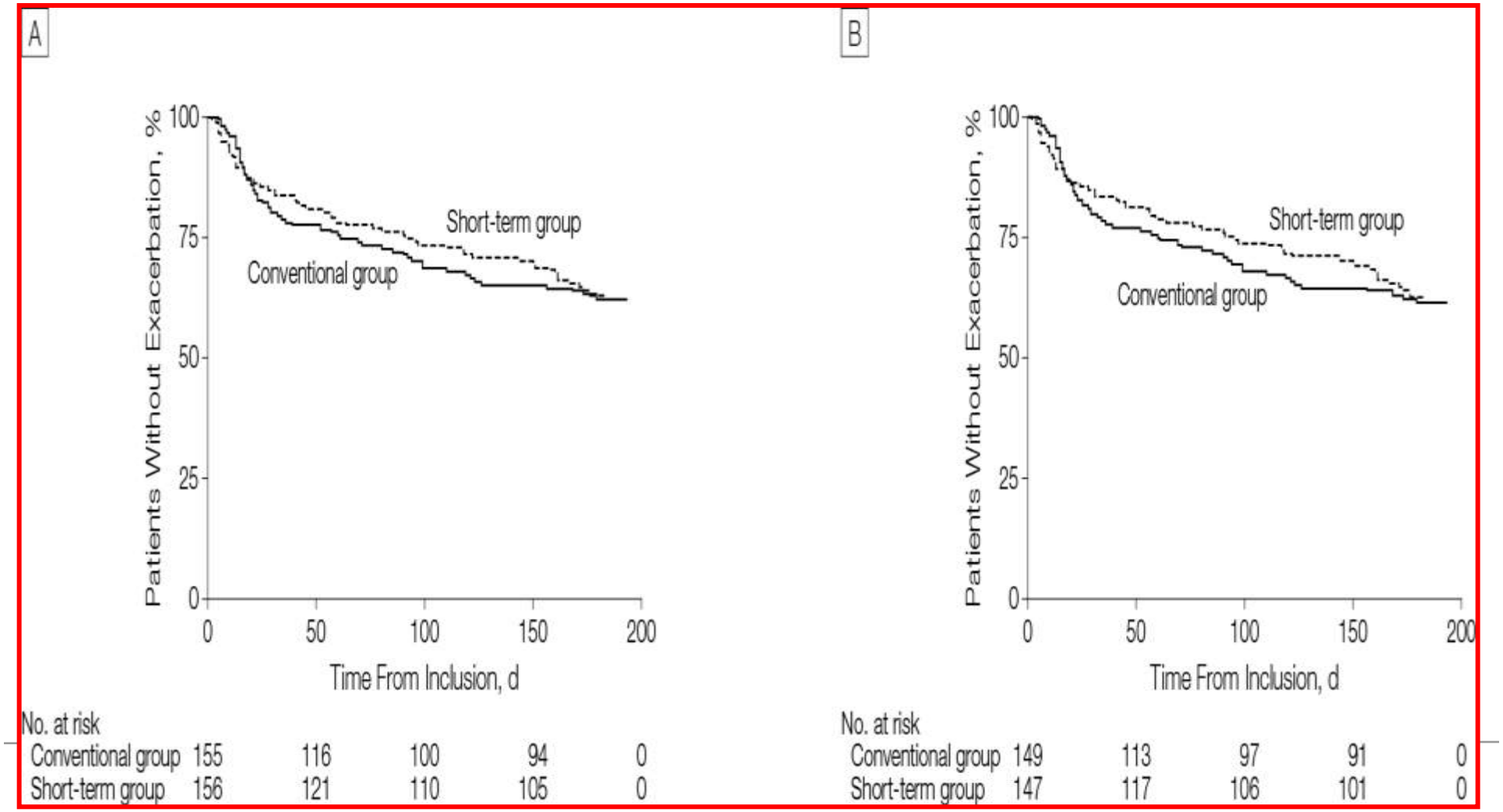
Αναγνώριση λοίμωξης –θεραπεία: Η Γαλλική άποψη

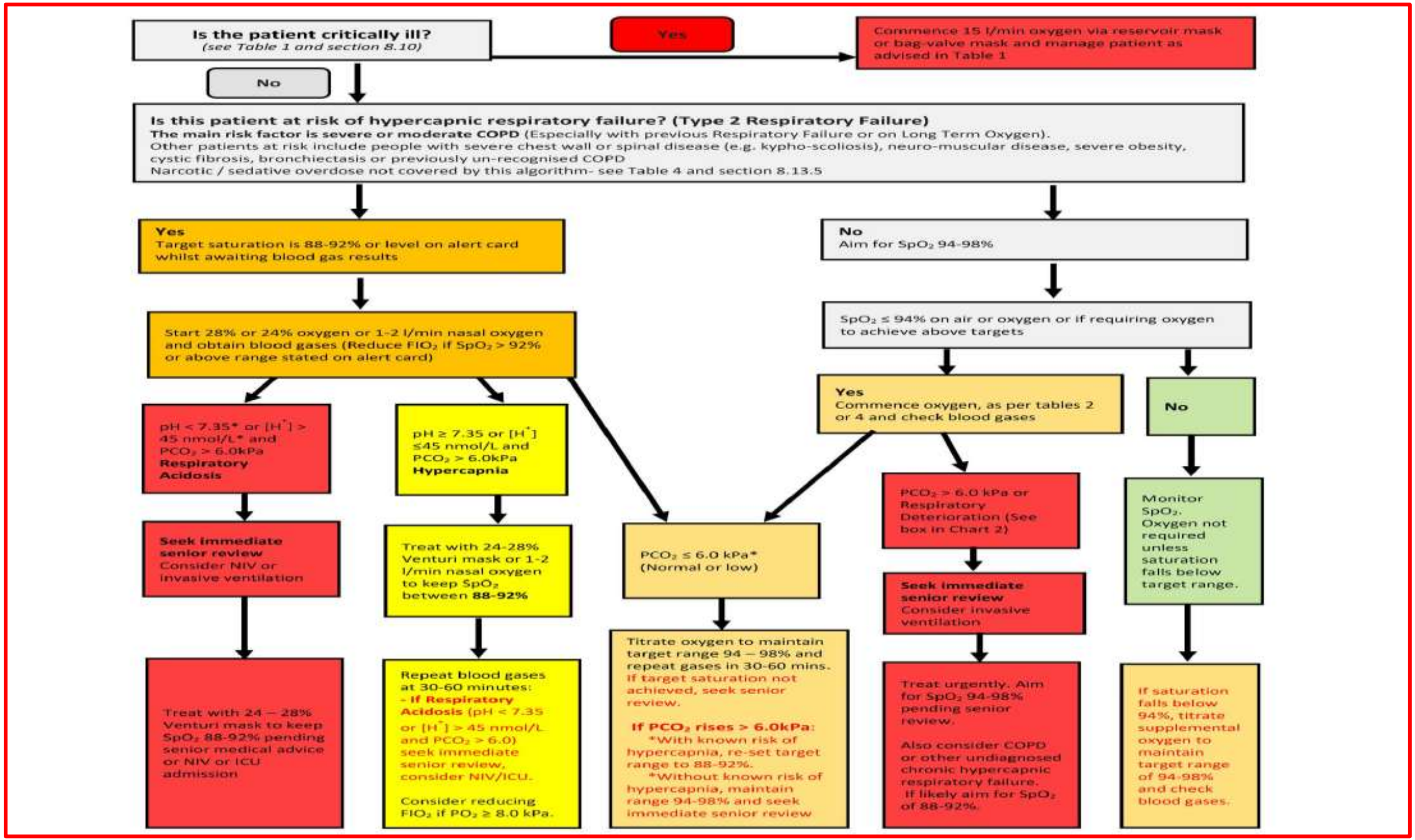


S. Jouneaua et ak Revue des Maladies Respiratoires (2017) 34, 282—322

From: **Short-term vs Conventional Glucocorticoid Therapy in Acute Exacerbations of Chronic Obstructive Pulmonary Disease: The REDUCE Randomized Clinical Trial**

JAMA. 2013;():1-9. doi:10.1001/jama.2013.5023




Is the patient critically ill?
(see Table 1 and section 8.10)
Yes
Commence 15 l/min oxygen via reservoir mask or bag-valve mask and manage patient as advised in Table 1
No
Is this patient at risk of hypercapnic respiratory failure? (Type 2 Respiratory Failure)
The main risk factor is severe or moderate COPD (Especially with previous Respiratory Failure or on Long Term Oxygen).
Other patients at risk include people with severe chest wall or spinal disease (e.g. kypho-scoliosis), neuro-muscular disease, severe obesity, cystic fibrosis, bronchiectasis or previously un-recognised COPD
Narcotic / sedative overdose not covered by this algorithm- see Table 4 and section 8.13.5
Yes
Target saturation is 88-92% or level on alert card whilst awaiting blood gas results
No
Aim for SpO2 94-98%
Start 28% or 24% oxygen or 1-2 l/min nasal oxygen and obtain blood gases (Reduce FIO2 if SpO2 > 92% or above range stated on alert card)
SpO2 ≤ 94% on air or oxygen or if requiring oxygen to achieve above targets
pH < 7.35* or [H+] > 45 nmol/L* and PCO2 > 6.0kPa
Respiratory Acidosis
pH ≥ 7.35 or [H+] ≤45 nmol/L and PCO2 > 6.0kPa
Hypercapnia
PCO2 ≤ 6.0 kPa*
(Normal or low)
Yes
Commence oxygen, as per tables 2 or 4 and check blood gases
No
PCO2 > 6.0 kPa or Respiratory Deterioration (See box in Chart 2)
Monitor SpO2. Oxygen not required unless saturation falls below target range.
Seek immediate senior review
Consider NIV or invasive ventilation
Treat with 24-28% Venturi mask or 1-2 l/min nasal oxygen to keep SpO2 between 88-92%
Titrate oxygen to maintain target range 94 – 98% and repeat gases in 30-60 mins. If target saturation not achieved, seek senior review.
If PCO2 rises > 6.0kPa:
*With known risk of hypercapnia, re-set target range to 88-92%.
*Without known risk of hypercapnia, maintain range 94-98% and seek immediate senior review
Seek immediate senior review
Consider invasive ventilation
Treat with 24 – 28% Venturi mask to keep SpO2 88-92% pending senior medical advice or NIV or ICU admission
Repeat blood gases at 30-60 minutes:
- If Respiratory Acidosis (pH < 7.35 or [H+] > 45 nmol/L and PCO2 > 6.0) seek immediate senior review, consider NIV/ICU.
Consider reducing FIO2 if PO2 ≥ 8.0 kPa.
Treat urgently. Aim for SpO2 94-98% pending senior review.
Also consider COPD or other undiagnosed chronic hypercapnic respiratory failure.
If likely aim for SpO2 of 88-92%.
If saturation falls below 94%, titrate supplemental oxygen to maintain target range of 94-98% and check blood gases.

Ορισμός από Ασιατική πλευρά

- COPD is a chronic lung disease that includes emphysema, chronic bronchitis, or a combination of these. It may develop due to exposure to cigarette smoke or other forms of noxious materials and pollution that leads to a chronic bronchial inflammatory response and parenchymal damage. COPD is characterized by persistent irreversible or potentially reversible airway obstruction that is associated with chronic symptoms (dyspnea, productive cough, and wheezing) and bouts of exacerbations.

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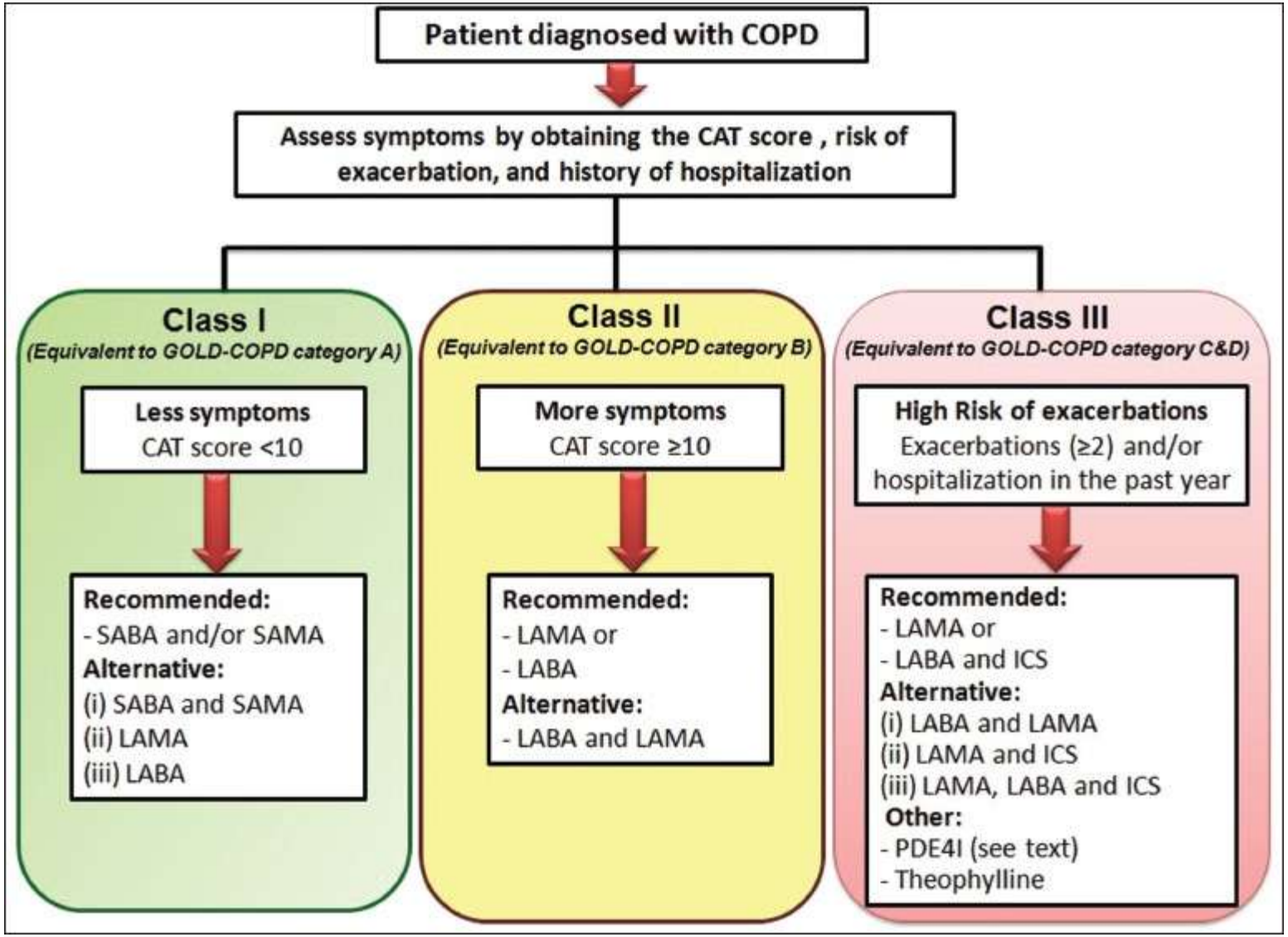
Απλότητα? Η κινέζικη άποψη

Class	Characteristics	Exacerbation in the past year	CAT score	GOLD equivalent
Class I	Less symptoms At low risk of exacerbation	0-1	≤10	Group A
Class II	More symptoms At low risk of exacerbation	0-1	≥10	Group B
Class III	At high risk of exacerbation	≥2	Any score	Group C and D



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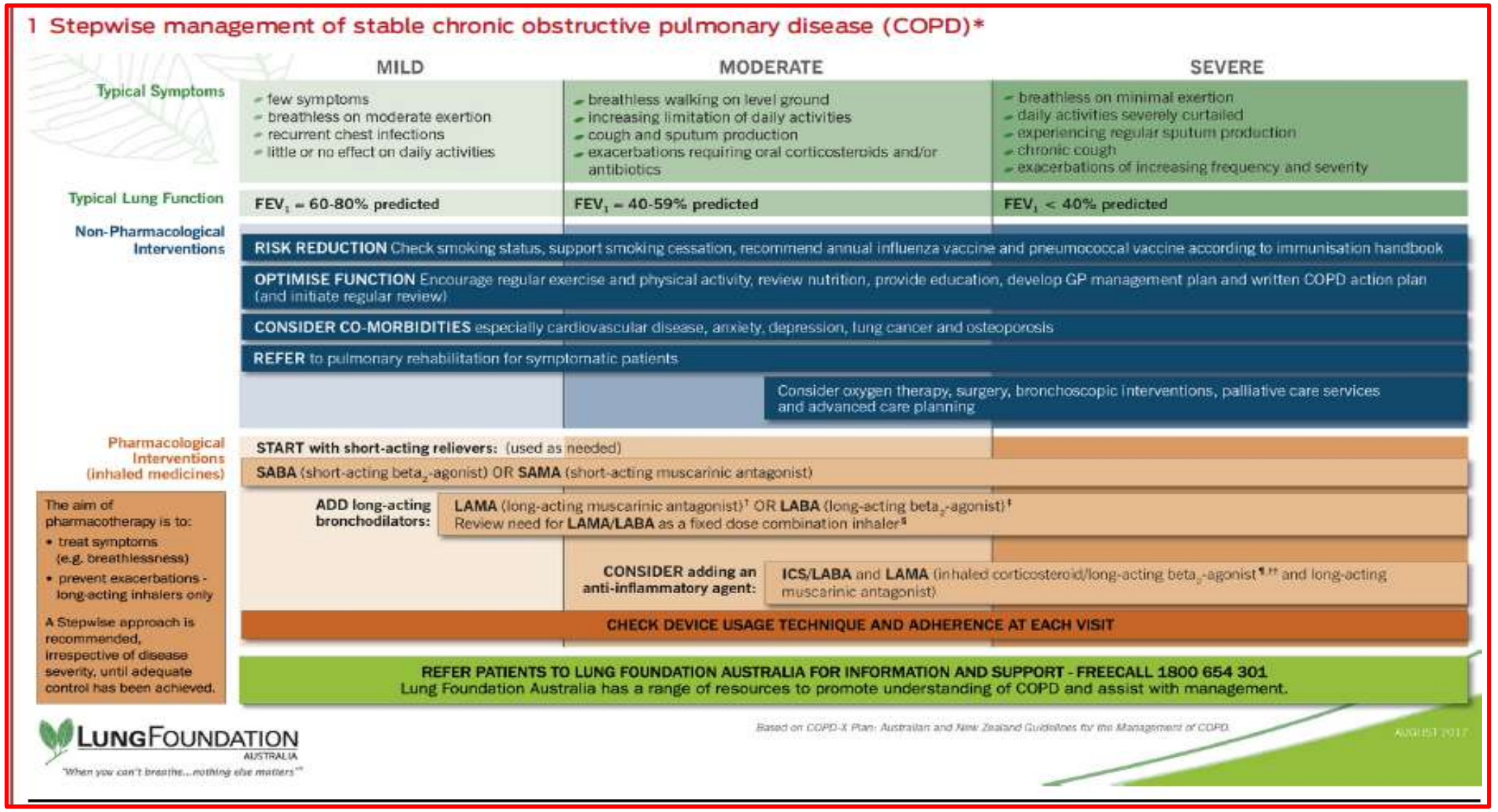
Διαστρωμάτωση και συνολική αντιμετώπιση: Αυστραλία



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Παραπομπή στον ειδικό: Αυστραλία

3 Referral to specialist respiratory services and indications for hospitalisation

Reason prompting referral	Purpose of referral
Diagnostic uncertainty and exclusion of asthma	Establish diagnosis and optimise treatment Obtain more detailed lung function testing
Unusual symptoms such as haemoptysis	Investigate cause urgently, including exclusion of malignancy
Rapid decline in functional performance	Optimise management and exclude other conditions
Persistent symptoms	Optimise management and exclude other conditions
Frequent chest infections (ie, more than annually)	Assess preventable factors and rule out coexisting bronchiectasis, optimise treatment
Onset of ankle oedema	Assess for cor pulmonale and optimise treatment
Spo_2 < 92% when stable	Optimise management, measure arterial blood gases and prescribe oxygen therapy if needed
Assessing suitability for pulmonary rehabilitation, if uncertain	Optimise treatment and refer to specialist or community-based rehabilitation service
Bullous lung disease on CXR or CT	Confirm diagnosis and refer to medical or surgical units for bullectomy if needed
Patient with COPD aged < 40 years	Establish diagnosis and exclude α_1-antitrypsin deficiency
Persistent dyspnoea, marked hyperinflation, severe airflow limitation or emphysema (refer for assessment for lung transplantation, or bronchoscopic or surgical lung volume reduction procedures)	Identify criteria for referral to transplant, thoracic surgery or interventional bronchoscopy centres
Dyspnoea associated with chest tightness, anxiety or dizziness (refer for consideration of dysfunctional breathing*)	Establish diagnosis and refer for further investigation to exclude other causes of these symptoms
Daytime sleepiness, complaints by partner of heavy snoring	Assess for sleep disordered breathing and refer for sleep studies if needed
Indications for hospitalisation of patients with COPD	Marked increase in intensity of symptoms Patient has an exacerbation characterised by increased dyspnoea, cough or sputum production, plus one or more of the following: • inadequate response to appropriate community-based management; • inability to walk between rooms when previously mobile; • inability to eat or sleep because of dyspnoea; • cannot manage at home even with homecare resources; • high-risk comorbid condition (pulmonary or non-pulmonary); • altered mental status suggestive of hypercapnia; • worsening hypoxaemia or cor pulmonale; • newly occurring arrhythmia; or • newly occurring hypoxaemia (Spo_2 < 92%)

COPD = chronic obstructive pulmonary disease. CT = computed tomography. CXR = chest x-ray. Spo_2 = arterial oxygen saturation measured by pulse oximeter. * Imprecise term covering breathlessness, hyperventilation, chest tightness, paraesthesiae, anxiety or dizziness. ◆

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Μηνύματα για το σπίτι

- Υπάρχουν σαφείς αποστάσεις από τα GOLD
- Σπιρομέτρηση : Λείπει
- Διαστρωμάτωση : Διχοτόμηση
- Η μεγαλύτερη συμφωνία επιτυγχάνεται στην διαχείριση της παρόξυνσης
- Γιατί η καθημερινότητα δεν τις ακολουθεί? Ανασφάλεια-άγνοια?
- Όλα δεν είναι κουτάκια
- Ήρθε η ώρα της Ελλάδας…..