Traitements de l'asthme et de la BPCO: la jungle des inhalateurs

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Xavier Van der Brempt

Pneumologie-Allergologie

Allergopôle – Clinique Saint-Luc à Bouge

Dinant - Marche-en-Famenne



Plan

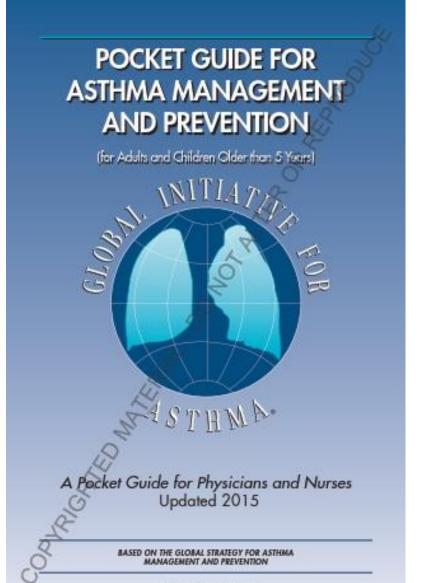
Asthme: recommandations GINA

BPCO: recommandations GOLD

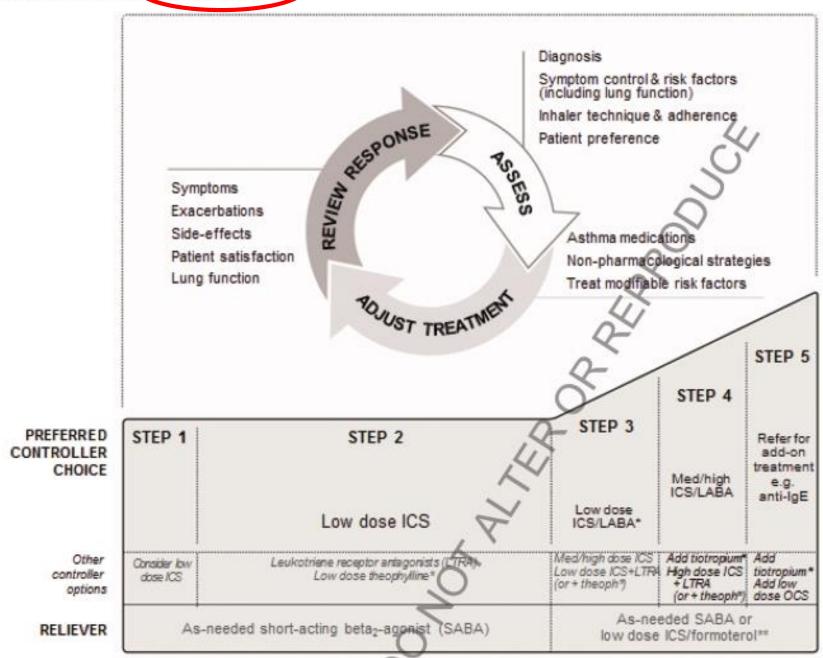
Syndrome de recouvrement: "ACOS"

Exercices pratiques de thérapeutique

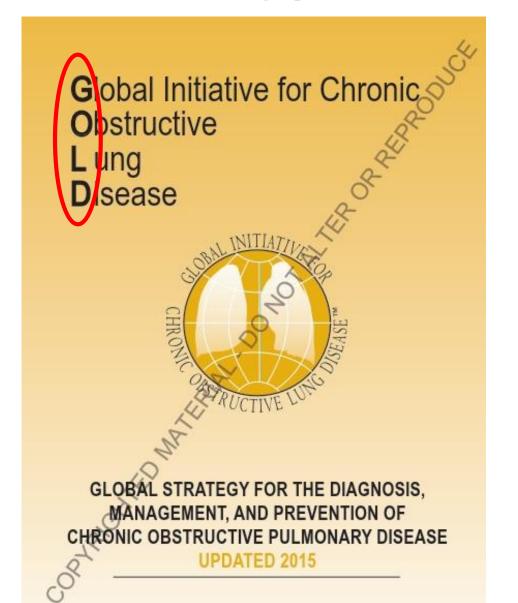
ASTHME:



Box 7. Stepwise approach to asthma treatment



BPCO:



Classification oGOLD (ancienne)

Table 2.5. Classification of Severity of Airflow Limitation in COPD (Based on Post-Bronchodilator FEV,)

In patients with FEV,/FVC < 0.70:

GOLD 1: Mild FEV, ≥ 80% predicted

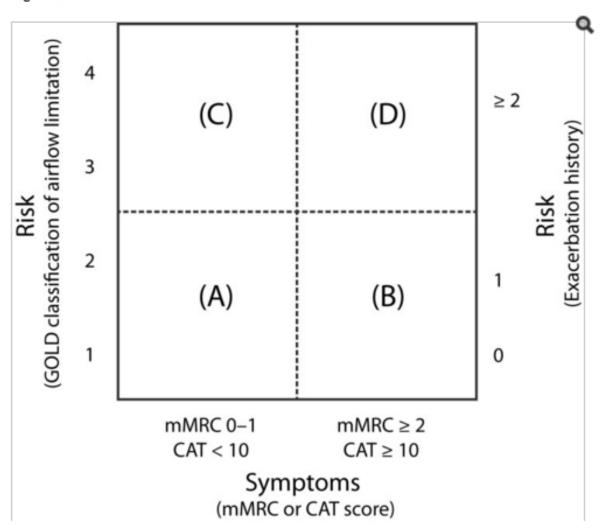
GOLD 2: Moderate 50% ≤ FEV, < 80% predicted

GOLD 3: Severe 30% ≤ FEV₁ < 50% predicted

GOLD 4: Very Severe FEV, < 30% predicted

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Figure 1

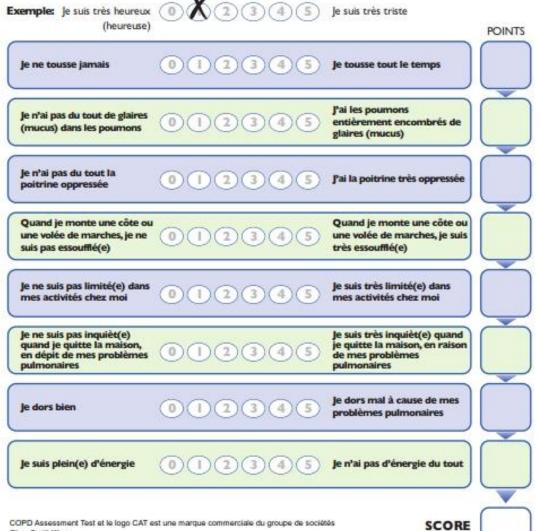


Combined assessment of chronic obstructive pulmonary disease according to GOLD guidelines [1].

Quel est l'état de votre BPCO? Répondez au questionnaire CAT (COPD Assessment Test™) pour évaluer votre BPCO

Ce questionnaire vous aidera, ainsi que votre médecin, à mesurer l'impact de la BPCO (BronchoPneumopathie Chronique Obstructive) sur votre bien-être et votre vie au quotidien. Vous pourrez, ainsi que votre médecin, utiliser les réponses et les scores du questionnaire pour mieux prendre en charge votre BPCO et obtenir le meilleur bénéfice de votre traitement.

Pour chaque élément ci-dessous, veuillez indiquer d'une croix (x) la case qui correspond le mieux à votre état actuel. Prenez soin de ne sélectionner qu'une seule réponse par question.



TOTAL

Modified Medical Research Council test for COPD (mMRC)

PLEASE TICK IN THE BOX THAT APPLIES TO YOU	
(ONE BOX ONLY)	
mMRC Grade 0. I only get breathless with strenuous exercise.	
mMRC Grade 1. I get short of breath when hurrying on the level or walking up a slight hill.	
mMRC Grade 2. I walk slower than people of the same age on the level because of breathlessness, or I have to stop for breath when walking on my own pace on the level.	
mMRC Grade 3. I stop for breath after walking about 100 meters or after a few minutes on the level.	
mMRC Grade 4. I am too breathless to leave the house or I am breathless when dressing or undressing.	

Table 1

Pharameotherapy for chronic obstructive pulmonary disease.

Goal	Classes of medications
Dyspnea relief [1, 18]	21 01 10 NO 10 NO 10 PROPERTY.
	 Short-acting β₂-adrenergic bronchodilators
	 Short-acting anticholinergic bronchodilators
	 Long-acting β₂-adrenergic bronchodilators (LABAs)
	 Long-acting anticholinergic (or antimus carinic) bronchodilators (LAMAs)
	Combination LABA/LAMA
Improvement in quality of life [19-21]	
	• LABAs
	• LAMAs
	 LABA/inhaled corticosteroid (ICS) combinations
	 Combination LABA/ICS plus LAMAs
	Combination LAMA/ICS
Improvement in exercise capacity $[1, 18]$	
	 Short-acting β₂-adrenergic bronchodilators
	 Short-acting anticholinergic bronchodilators
	• LAMAs
	• LABAs
	 Combination LABA/ICS
	Combination LABA/LAMA
	Combination LAMA/ICS

(suite)

Reduction in the number of exacerbations [1, 18]

- LAMAs
- LABAs
- Combination LABAs/ICS
- · Combination LABA/LAMA
- Combination LAMA/ICS

Possible reduction in age-related loss of lung function [19, 20, 22, 23]

- LAMAs
- LABAs/ICS combinations
- · Combination LABA/ICS plus LAMAs
- · Combination LABA/LAMA
- · Combination LAMA/ICS

Possible increase in lifespan [19, 20, 23]

- LAMAs
- LABAs alone
- Combination LABA/ICS
- · Combination LABA/LAMA
- Combination LAMA/ICS

Combinations being tested in Phase I to Phase III clinical trials are denoted in italics.

Abbreviations

, LABAs, long-acting β2-adrenergic bronchodilators; LAMAs, long-acting anticholinergic (or muscarinic) bronchodilators; ICS, inhaled corticosteroid

Table 3.3. Formulations and Typical Doses of COPD Medications*						
Drug	Inhaler (mcg)	Solution for Nebulizer (mg/ml)	Oral	Vials for Injection (mg)	Duration of Action (hours)	
Beta ₂ -agonists	•				.()*	
Short-acting						
Fenoterol	100-200 (MDI)	1	0.05% (Syrup)		4-6	
Levalbuterol	45-90 (MDI)	0.21, 0.42			6-8	
Salbutamol (albuterol)	100, 200 (MDI & DPI)	5	5 mg (Pill), 0.024%(Syrup)	0.1, 0.5	4-6	
Terbutaline	400, 500 (DPI)		2.5, 5 mg (Pill)		4-6	
Long-acting				.0		
Formoterol	4.5-12 (MDI & DPI)	0.01¶		(/)	12	
Arformoterol		0.0075		2	12	
Indacaterol	75-300 (DPI)				24	
Salmeterol	25-50 (MDI & DPI)			Q-	12	
Tulobuterol			2 mg (transdermal)	0	24	
Anticholinergics						
Short-acting			.<	2-		
Ipratropium bromide	20, 40 (MDI)	0.25-0.5	.4/		6-8	
Oxitropium bromide	100 (MDI)	1.5			7-9	
Long-acting						
Aclidinium bromide	322 (DPI)		6		12	
Glycopyrronium bromide	44 (DPI)		/ \		24	
Tiotropium	18 (DPI), 5 (SMI)				24	
Umeclidinium	62.5 (DPI)				24	

Combination short-acti	ng betaagonist plus a	nticholinergic in one	inhaler		
Fenoterol/Ipratropium	200/80 (MDI)	1.25/0.5			6-8
Salbutamol/Ipratropium	100/20 (SMI)				6-8
Combination long-acting	g beta,-agonist plus ant	icholinergic in one in	haler		
Formoterol/adidinium	12/340 (DPI)				12
Indacaterol/ glycopyrronium	85/43 (DPI)	/			24
Vilanterol/umeclidinium	25/62.5 (DPI)				24
Methylxanthines	,	· D.			
Aminophylline		0/1	200-600 mg (Pill)	240	Variable, up to 24
Theophylline (SR)	/		100-600 mg (Pill)		Variable, up to 24
Inhaled corticosteroids	/<	/			
Beclomethasone	50-400 (MDI & DPI)	0.2-0.4			
Budesonide	100, 200, 400 (DPI)	0.20. 0.25, 0.5			
Fluticasone	50-500 (MD) & DPI)				
Combination long-actin	ig beta ₂ -agonists plus o	orticosteroids in on	e inhaler		
Formoterol/beclometasone	6/100 (MDI)				
Formoterol/budesonide	4,5/160 (MDI) 9/320 (DPI)				
Formoterol/mometasone	10/200, 10/400 (MDI)				
Salmeterol/Fluticasone	50/100, 250, 500 (DPI)				
Vilanterol/Fluticasone furcate	25/100 (DPI)				
Systemic corticosteroid	ds				
Prednisone			5-60 mg (Pill)		
Methyl-prednisolone			4, 8, 16 mg (Pill)		
Phosphodiesterase-4 in	nhibitors				
Roflumilast			500 mcg (Pill)		24
					_

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MDI=metered dose inhaler; DPI=dry powder inhaler; SMI=soft mist inhaler

*Not all formulations are available in all countries; in some countries, other formulations may be available. ¶Formoterol nebulized solution is based on the unit dose vial containing 20 mcg in a volume of 2.0 ml

Syndrome de chevauchement

- = "ACOS": Asthma COPD Overlap Syndrome
 - BPCO: 25% ont une réversibilité significative
 - ACOS:
 - Présence d'une obstruction bronchique fixée, mais partiellement réversible
 - Réponse moins favorable aux traitements de la BPCO
 - Evolution plus sévère que l'asthme ou la BPCO seuls (et notamment exacerbations plus fréquentes

Nom	Dispositif	Principe(s) actif(s)	Catégorie	Dosages (µg)	Posologie	Rem b	Asth/BP CO	Firme
Foradil	Aerolizer	formoterol	LABA	12	1-2 s/j	В	A/B	Novartis
Formagal	Inhal gél. poudre	formoteral	LABA	12	1-2 8/1	В	A/B	SMB
Formoair	AD	formoterol	LABA	12	1-2 s/j	В	A/B	Chiesi
Formotero	Novolizer	formoterol	LABA	12	1-2 8/j	В	A/B	Meda Pharma
Oxis	Turbohaler	formoterol	LABA	4,5-9	1-2 s/j	В	A/B	AstraZeneca
Onbrez	Breezhaler	indacaterol	LABA	150/300	1gélule 1x/j	В	BPCO	Novartis
Serevent	Diskus	salmeterol	LABA	25/50	1-2 s/j	В	A/B	GSK
Striverdi	Respimat	olodaterol	LABA	pas en Be				Boehringer
Bretaris	Genuair	aclidinium	LAMA	322	1aspir 2 x/j	Bf	BPCO	AstraZeneca
Incruse	Ellipta	umeclidinium	LAMA	55	1aspir1s/j	Bf	BPCO	GSK
Seebri	Breezhaler	glycopyrronium	LAMA	50	1gélule 1x/j	Bf	BPCO	Novartis
Spiriva	Handihaler	tiotropium	LAMA	18	1gélule 1x/j	Bf	BPCO	Boehringer
Spiriva	Respimat	tiotropium	LAMA	2,5	2 bouff 1x/j	Bf	BPCO	Boehringer
Anoro	Ellipta	vilanterol/umeclidinium	LABA/LAMA	22/55	18/j	Bf	BPCO	GSK
Duaklir	Genuair	formoterol/aclidinium	LABA/LAMA	343/12	2 8/j	Bř	BPCO	AstraZeneca
Spiolto	Respimat	olodaterol/tiotropium	LABA/LAMA	2,5/2,5	18/j	BF	BPCO	Boehringer
Ultibro	Breezhaler	indacaterol/glycopyrronium	LABA/LAMA	85/43	18/j	Bf	BPCO	Novartis
Bufomix	Easyhaler	formoterol/budesonide	LABA/CSI	160/4,5, 320/10	1-2 s/j	В	A/B	EG
Flutiform	AD	formoterol/fluticasone	LABA/CSI	50/5 - 125/5 - 250/10	1-2 s/j	В	Asthme	Mundipharma
Inuvair	AD ou Nexthaler	formoterol/beclometasone	LABA/CSI	6/100-6/200	1-2 s/j	В	A/(B)	Chiesi
Seretide	AD	salmeterol/fluticasone	LABA/CSI	-25(250	1-2 s/j	В	A/B	GSK
Seretide	Diskus	salmeterol/fluticasone	LABA/CSI	50/250 50/250	1-2 s/j	В	A/B	GSK
Symbicort	Turbohaler	formoterol/budesonide	LABA/CSI	160/4,5 - 320/9	1-2 s/j	В	A/B	AstraZeneca
Relvar	Ellipta	vilanterol/fluticasone	LABA/CSI	92/22-184/22 (pas 184 ds BPCO)	18/j	В	A/B	GSK
Zephirus	Inhal gél. poudre	salmeterol/budesonide	LABA/CSI	120/20-240/20	1-2 x/j	В	Asthme	SMB

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Exercices

- Comment différencier asthme et BPCO?
- Pourquoi est-ce important ?
- Comment savoir si un asthme ou une BPCO sont "contrôlés" ?
- Quels sont les principaux paramètres du traitement de la BPCO ?
- Utilisation pratique des différents systèmes d'inhalation ("devices")