

BRONCHODILATORS

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INTRODUCTION

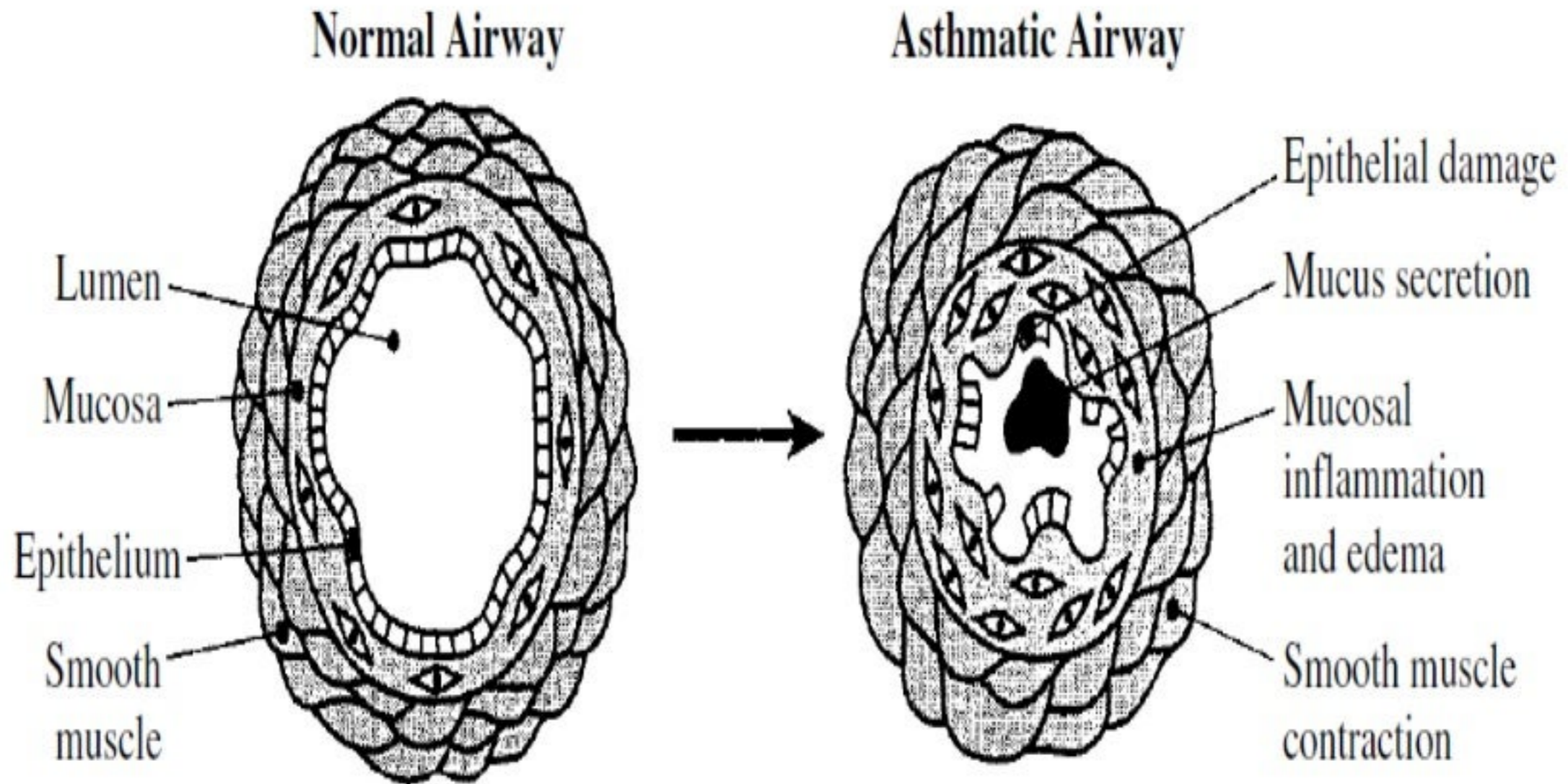
★ An agent that causes an increase in the caliber of a bronchus

or

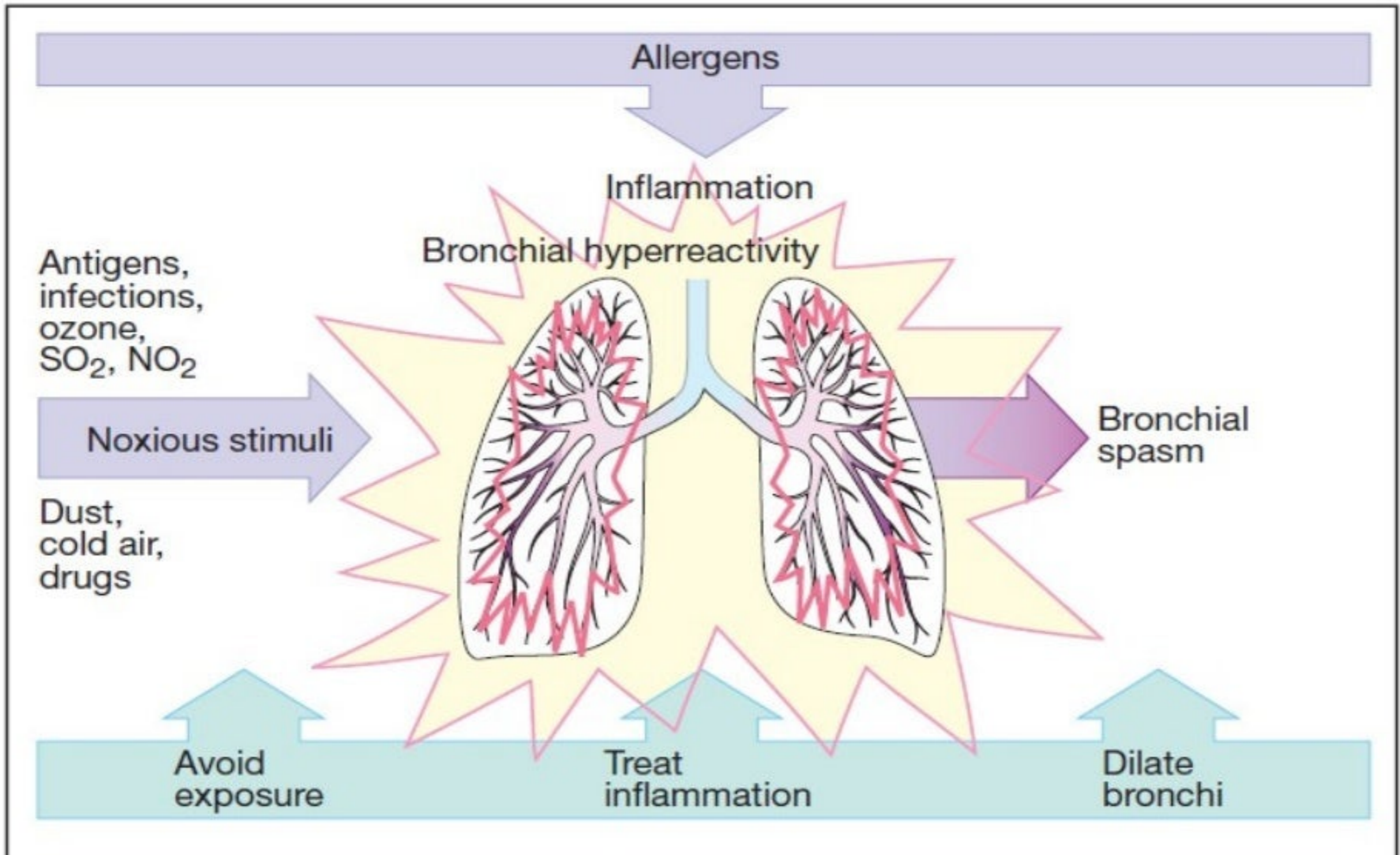
bronchial tube and eases breathing by relaxing bronchial
smooth muscle

★ Widely used as Antiasthmatic Drugs.

PATHOLOGY OF BRONCHOCONTRACTION (ASTHMA)

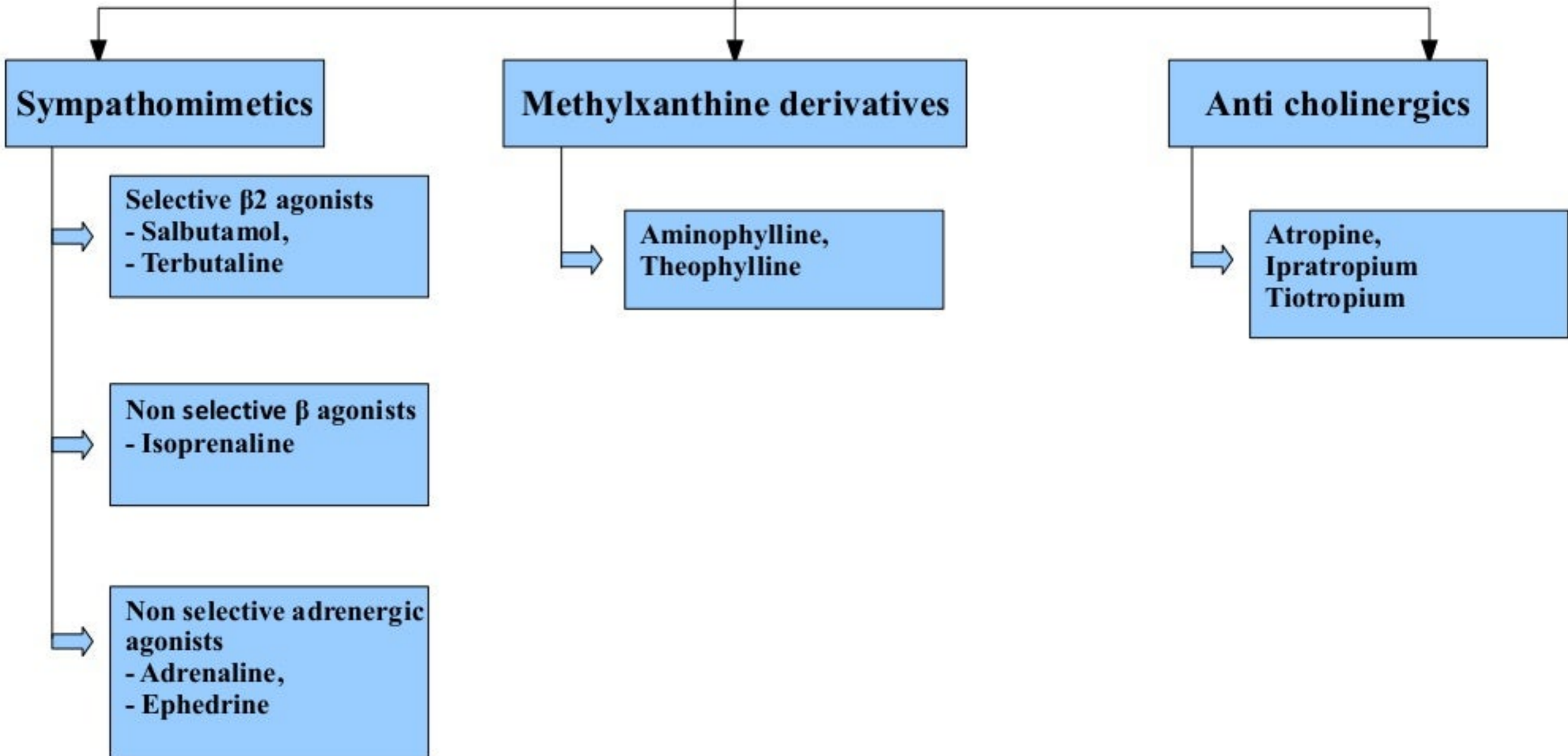


APPROACH FOR TREATMENT OF ASTHMA



CLASSIFICATION

BRONCHODILATORS



MECHANISM OF ACTION

SYMPATHOMIMETICS

Drug	Formulation	Dosage	
		Adult	Child
Salbutamol (Aerojet [®] , Aerol [®] , Asmasal [®] , Asthalin [®])	Oral tablet (C.R)	8 mg twice daily	4 mg twice daily
	Inhaler (MDI), 100mcg/dose	100-200mcg up to three to four times daily	Same as adult
	Syrup, 2mg/5ml	4 mg three to four times daily	1-2 mg three to four times daily (≥2 yr)
Terbutaline (Brethine [®])	Oral tablet (S.R)	5-7.5 mg two times daily	-
	Inhaler 500mg / dose (Turbuhaler)	500 mcg up to four times daily	-
	Inhaler 250mg / dose (MDI)	250-500mcg up to 3-4 times daily	Same as adult

METHYLXANTHINE DERIVATIVES

Drug	Formulation	Dosage	
		Adult	Child
Aminophylline (Phyllocontin[®], Truphylline[®])	Injection 25 mg / ml 10 ml	500 mcg / kg / hr IV infusion, adjust when necessary	1 mg / kg /hr (6 months – 9 years) 800 mcg / kg /hr (10 – 16 yrs) IV infusion, adjust when necessary
Theophylline (Theo-24[®], Asmalix[®])	Tablet 200 / 300 mg (S.R.)	200 – 300 mg twice daily	10 mg / kg (\geq 2yrs) twice daily
	Capsule 50 / 100 mg (Slow release)	7-12 mg/ kg / day in two divided doses	10-16 mg / kg / day in two divided doses (9– 16yrs) 13-20 mg / kg / day in two divided doses (30 months – 8 yrs)
	Syrup 80 mg / 15 ml	25 ml q6h	1 ml / kg (Max 25 ml) q6h (\geq 2yrs)

ANTI CHOLINERGICS

Drug	Formulation	Dosage	
		Adult	Child
Ipratropium (Atrovent®)	Inhaler 20 mcg / dose (MDI)	20-80 mcg three to four times a day	20-40 mcg three to four times a day (≥ 6 yrs)
Tiotropium (Spiriva®)	Inhaler 18 mcg/dose	18 mcg daily	Not recommended in children and adolescents

DEVICES USED IN TREATMENT OF ASTHMA

