

CROMOLYN SODIUM

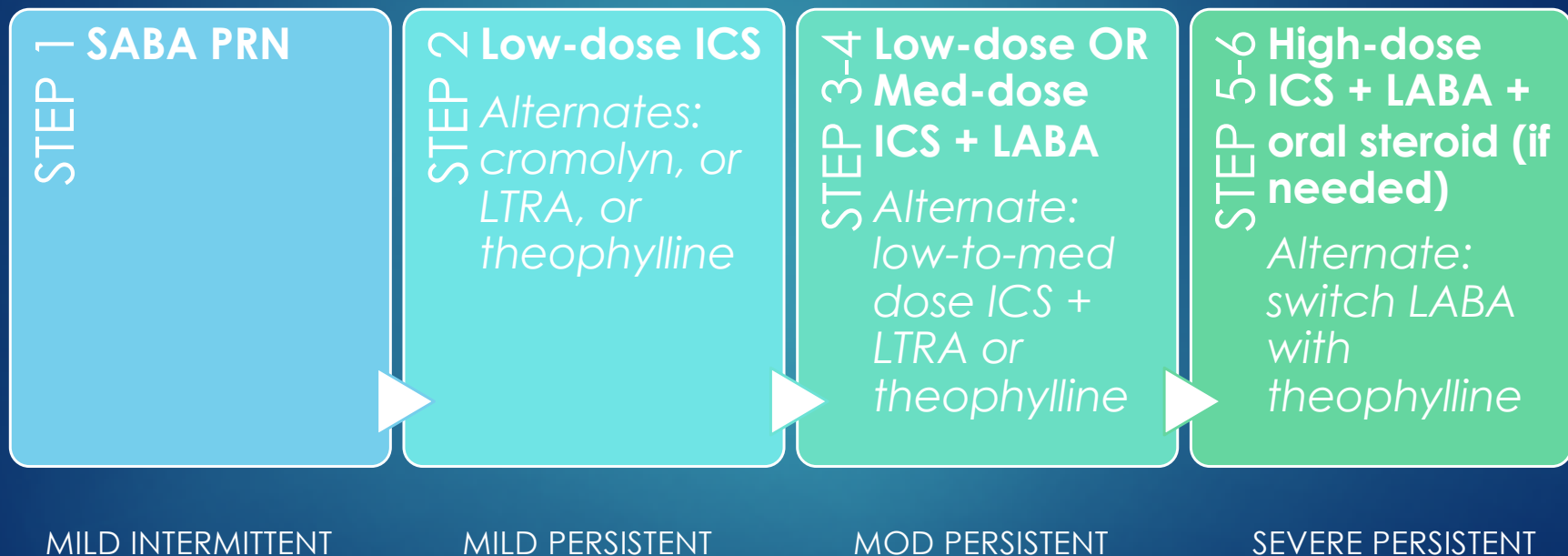
FLAME LECTURE: 33

HARBOLOVIC 8.19.19

LEARNING OBJECTIVES

- ▶ To understand the mechanism of action of Cromolyn
- ▶ To counsel the patient regarding the benefits, risks, and uses for Cromolyn
- ▶ Prerequisites:
 - ▶ NONE
- ▶ See also – for closely related topics
 - ▶ Other FLAMEs on Asthma

REVIEW OF MAINTENANCE MGMT



OVERVIEW

- ▶ Used as an alternative therapy in Step 2 of maintenance asthma management
- ▶ Is considered a preventative nebulizer therapy rather than a medication that can acutely assist with exacerbation
- ▶ Includes the following medications in the USA:
 - ▶ APO-Cromolyn Sterules
 - ▶ DOM-Sodium Cromoglycate
 - ▶ PMS-Sodium Cromoglycate
- ▶ MDI (metered dose inhaler) and DPI (dry powder inhaler) were withdrawn from the market in most countries

MECHANISM OF ACTION

- ▶ Prevents mast cell release of acute phase reactants (histamine, leukotrienes, and slow-reacting substance of anaphylaxis)
- ▶ Inhibits degranulation of mast cells following contact with antigens
- ▶ Does not have acute bronchodilator properties, thus can be used with Beta₂-selective adrenergic agonists for acute bronchodilation

INDICATIONS / BENEFITS

- ▶ Prophylactic agent for chronic control of asthma
- ▶ Cromolyn vs Nedocromil
 - ▶ Cromolyn preferred in younger children
 - ▶ Nedocromil preferred in adolescents/adults
- ▶ Minimal systemic absorption after inhalation
- ▶ Prevention of exercise-induced bronchospasm

ADVERSE EFFECTS

- ▶ No known toxicity
- ▶ Mild local throat irritation and cough
- ▶ Category B pregnancy rating

IMPORTANT LINKS / REFERENCES

- ▶ <https://www.aaaai.org/practice-resources/statements-and-practice-parameters/practice-parameter-guidelines>
- ▶ Parada MD, Nereida, Bochner MD, Bruce. (2017, July 27) The use of chromones (cromoglycates in the treatment of asthma)