

# LEUKOTRIENE RECEPTOR ANTAGONISTS (LTRAs)

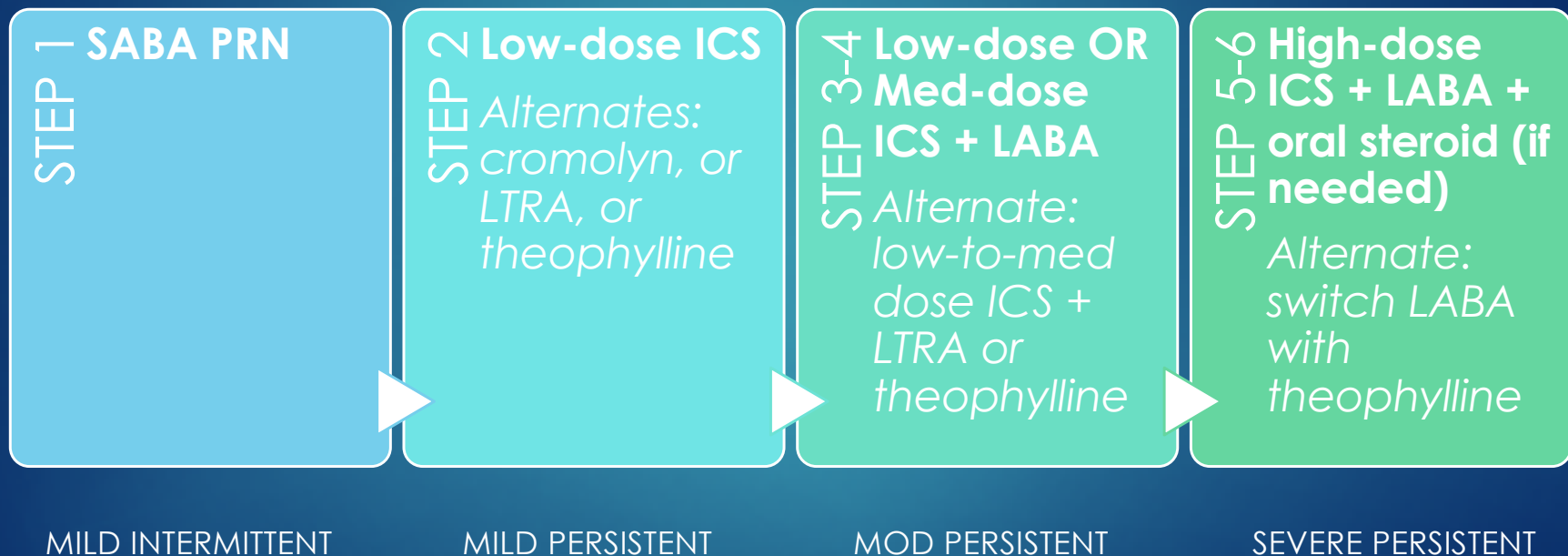
FLAME LECTURE: 31

NIKAMAL 8.18.19

# LEARNING OBJECTIVES

- ▶ Describe what Leukotriene inhibitors (LTRAs) are and their uses
- ▶ Understand their mechanism of action
- ▶ Detail types of LTRAs available
- ▶ Prerequisites:
  - ▶ NONE
- ▶ See also – for closely related topics
  - ▶ Other asthma-related FLAMEs

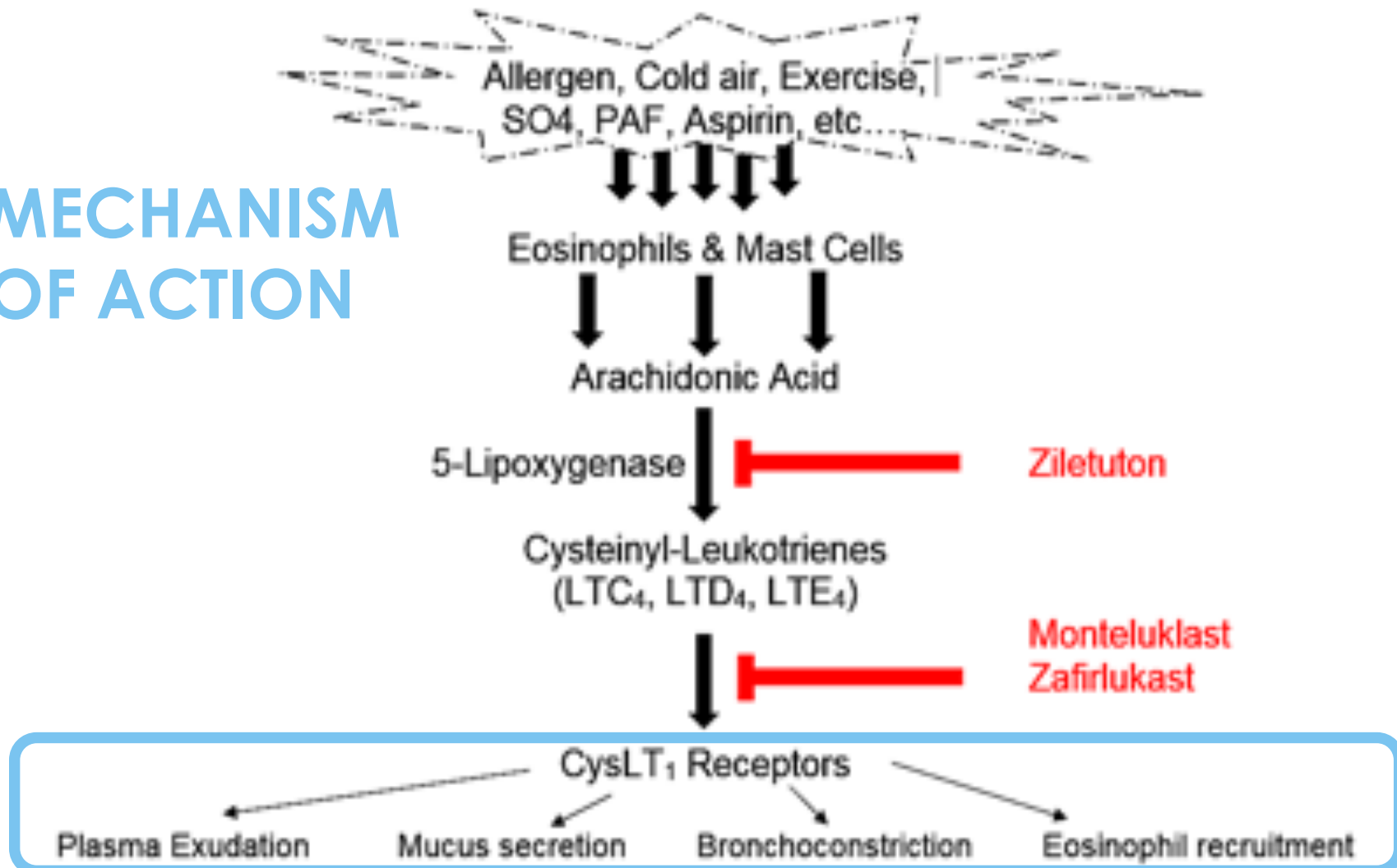
# REVIEW OF MAINTENANCE MGMT



## AVAILABLE MEDICATIONS

- ▶ Montelukast (Singulair)
- ▶ Zafirlukast (Accolate)
- ▶ Zileuton (Zyflo)

# MECHANISM OF ACTION



# INDICATIONS

- ▶ FDA labeled indications:
  - ▶ Step 2-4 of maintenance asthma management
  - ▶ Prophylaxis in exercise induced asthma
  - ▶ Perennial and seasonal allergic rhinitis
- ▶ Non-FDA labeled indications:
  - ▶ Aspirin-induced asthma
  - ▶ Atopic dermatitis
  - ▶ Obstructive sleep apnea, non-severe
  - ▶ Seasonal allergic conjunctivitis
  - ▶ As an adjunct in chronic/refractor urticaria

# CONTRAINDICATIONS

- ▶ Previous hypersensitivity to LRTAs
- ▶ Precautions:
  - ▶ Avoid with aspirin and NSAIDs in aspirin-sensitive patients, eosinophilic conditions, neuropsychiatric events (ex. agitation, hallucinations, tic, etc)
  - ▶ Use caution using chewable formulation in phenylketonuric patients

## SIDE EFFECTS

### ▶ Common:

- ▶ Abdominal pain, diarrhea, headache, Otitis, Cough, nasal discharge, pharyngitis, sinusitis, upper respiratory infections, fevers

### ▶ Serious:

- ▶ Allergic granulomatosis angiitis, aggressive behavior, obsessive-compulsive disorder



## REFERENCES

- ▶ Montelukast. Micromedex solutions. Truven Health Analytics, Inc. Ann arbor, MI. Available at <http://www.micromedexsolutions.com>. Accessed September 14, 2018.
- ▶ Randa Hilal-Dandan, Laurence L. Brunton: Goodman and Gilman's Manual of Pharmacology and Therapeutics, 2<sup>nd</sup> edition