

CORTCOSTEROIDS

FLAME LECTURE: 29
MARSHBURN 8.17.19

LEARNING OBJECTIVES

- ▶ To describe the use of inhaled corticosteroids in the treatment of asthma
- ▶ To describe the use of systemic corticosteroids in the treatment of asthma
- ▶ Prerequisites:
 - ▶ NONE
- ▶ See also – for closely related topics
 - ▶ FLAMEs on ASTHMA

REVIEW OF MAINTENANCE MGMT

STEP 1 — **SABA PRN**

STEP 2 **Low-dose ICS**
Alternates:
*cromolyn, or
LTRA, or
theophylline*

STEP 3-4 **Low-dose OR
Med-dose
ICS + LABA**
Alternate:
*low-to-med
dose ICS +
LTRA or
theophylline*

STEP 5-6 **High-dose
ICS + LABA +
oral steroid (if
needed)**
Alternate:
*switch LABA
with
theophylline*

MILD INTERMITTENT

MILD PERSISTENT

MOD PERSISTENT

SEVERE PERSISTENT

OVERVIEW

- ▶ Low dose inhaled corticosteroids (ICS) are the preferred first line treatment for step-wise control in asthma and are featured starting in Step 2
 - ▶ They assist in preventing bronchospasm
- ▶ ICS treatments have been shown to reduce symptom severity, systemic steroid use, ED visits, hospitalizations, and deaths caused by asthma, and improve asthma control, quality of life, and objective measures of lung function
- ▶ Adverse effects of inhaled corticosteroids are limited
 - ▶ Decreased growth of ~0.5 cm per year noted in children
 - ▶ Increased risk for thrush, but this does decrease when patients rinse their mouths following the use of ICS

SYSTEMIC CORTICOSTEROIDS

- ▶ When patients with asthma have advanced beyond their asthma action plans, they need prompt medical attention
- ▶ In the ambulatory and emergency department settings, we aim to improve oxygenation and rapidly reverse airflow obstruction
- ▶ In children 5 to 12 years of age with frequent acute exacerbations, a short course of oral prednisolone at the onset of worsening symptoms demonstrated decreased symptoms, health resource use, and absence from school
- ▶ The administration of systemic corticosteroids within one hour of emergency department presentation decreases the need for hospitalization
- ▶ Patients can be discharged with a 5-day course of systemic corticosteroids to decrease relapse of asthma symptoms and future hospitalizations
- ▶ Of note, systemic steroid courses of 5 days have been shown to be as effective as steroid course of 7-10 days

REFERENCES

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