

International ERS/ATS Consensus Definition, Mechanisms, Evaluation, and Treatment of Severe Asthma

ONLINE-ONLY SUPPLEMENT 2

1. Clinical questions about the management of severe asthma identified by the committee as potentially important but not addressed in this document

- Should low-dose oral glucocorticosteroids (equivalent of ≤ 10 mg prednisone per day) be used long-term in maintenance treatment of patients with severe asthma?
- Should the number of inhalations of SABA used daily be limited, compared to unlimited as-needed use, in patients with severe symptomatic asthma?
- Should the number of inhalations of ICS/LABA combination used daily as a reliever and controller from one device be limited, compared to unlimited as-needed use, in patients with severe symptomatic asthma?
- Should LABA be discontinued and SABA be continued, compared to continued use of both LABA and SABA, in patients with severe asthma and persistent symptoms who have been regularly using LABA and needed multiple doses of SABA per day for several weeks?
- Should SABA be discontinued and short-acting anticholinergic agent be initiated, compared to continued use of SABA, in patients with severe asthma and persistent symptoms who have been regularly using LABA and needed multiple doses of SABA per day for several weeks?
- Should LABA be discontinued and a long-acting anticholinergic agent be initiated, compared to continued use of both LABA and SABA, in patients with severe asthma and persistent symptoms who have been regularly using LABA and needed multiple doses of SABA per day for several weeks?
- Should inhaled long-acting anticholinergic agent be used in patients with severe asthma who already receive inhaled glucocorticosteroid and LABA?
- Should a leukotriene receptor antagonist be used in patients with severe asthma who already receive inhaled glucocorticosteroid and LABA?
- Should a 5-lipoxygenase inhibitor be used in patients with severe asthma who already receive inhaled glucocorticosteroid and LABA?
- Should slow-release theophylline be used in patients with severe asthma who already receive inhaled glucocorticosteroid and LABA?
- Should laryngoscopy be done in patients with severe asthma?
- Should 24 h esophageal pH monitoring be done in patients with severe asthma and no symptoms of gastro-esophageal reflux?
- Should esophagoscopy be done in patients with severe asthma and no symptoms of gastro-esophageal reflux?
- Should gastro-esophageal reflux questionnaire be administered in patients with severe asthma and no symptoms of gastro-esophageal reflux?
- Should rhinoscopy be done in patients with severe asthma and no symptoms of rhinosinusitis?
- Should sinus computed tomography be done in patients with severe asthma and no symptoms of rhinosinusitis?
- Should investigation of rhinosinusitis questionnaire be administered in patients with severe asthma and no symptoms of rhinosinusitis?

2. Electronic search strategies

Nitric oxide

PubMed MEDLINE: (nitric oxide OR eNO OR FeNO) AND (asthma* OR wheez*) AND ((“randomized controlled trial”[pt] OR “controlled clinical trial”[pt] OR randomized[tiab] OR randomized[tiab] OR placebo [tiab] OR “clinical trials as topic”[mh:noexp] OR randomly[tiab] OR trial[ti]) NOT (animals[mh] NOT humans[mh]))

Last search: June 2012

Sputum eosinophils

PubMed MEDLINE: (Therapy/Narrow[filter]) AND (eosinophil* AND asthma)

Last search: July 2012

Methotrexate

PubMed MEDLINE: methotrexate AND asthma

Last search: April 2012

Anti-IgE monoclonal antibody

PubMed MEDLINE: (anti-IgE OR Omalizumab OR rhuMAb-E25) AND (asthma* OR wheez*)

Last search: November 2011

Macrolide antibiotics

PubMed MEDLINE: (macrolide* OR macrolides[mh] OR azithromycin OR clarithromycin OR dirithromycin OR erythromycin OR roxithromycin OR telithromycin OR carbomycin OR josamycin OR kitasamycin OR midecamycin OR oleandomycin OR spiramycin OR troleandomycin) AND asthma

Last search: May 2011

Antifungal agents

Ovid MEDLINE:

- 1 exp asthma/
- 2 asthma*.ti,ab.
- 3 1 or 2
- 4 (allergic adj3 aspergillosis).mp.
- 5 Aspergillosis, Allergic Bronchopulmonary.sh.
- 6 4 or 5
- 7 3 or 6
- 8 exp Antifungal Agents/
- 9 antifung*.ti,ab.
- 10 (Amphotericin B or Antimycin A or Azaserine or Benzoates or Brefeldin A or Candicidin or Cerulenin or Clotrimazole or Cycloheximide or Cyclosporine or Dichlorophen or Echinocandins or Econazole or Filipin or Fluconazole or Flucytosine or Griseofulvin or Hexetidine or Itraconazole or Ketoconazole or Lucensomycin or Mepartricin or Miconazole or Monensin or Mycobacillin or Natamycin or Nifuratel or Nystatin or Pentamidine or Rutamycin or Salicylic Acid or Sirolimus or Sodium Benzoate or Thymol or Tomatine or Tolnaftate or Triacetin or Trimetrexate or Venturicidins or Mycoses).ti,ot,ab,nm.

- 11 (acivicin or ajoene or amorolfin or amphotericin b or amphotericin b-deoxycholate or anidulafungin or antimycin or bafilomycin or bifonazole or butoconazole or candicidin or candidin or caspofungin or cilofungin or clotrimazole or compactin or cordycepin or cryptocylin or cycloheximide or echinocandin* or econazole or fenticonazole or fluconazole or flucytosine or griseofulvin or hamycin or hydroxyitraconazole or isoconazole or itraconazole or ketoconazole or lapachol or leptomycin or lucensomycin or mepartricin or methylamphotericin or micafungin or miconazole or miltefosine or monensin or monorden or mucidin or muconaldehyde or mycobacillin or myxothiazol or natamycin or nifuratel or nikkomycin or nitroxoline or nystatin or oxiconazole or pentamidine or posaconazole or pradimicin or rutamycin or saperconazole or sertaconazole or sinefungin or sulconazole or terbinafine or terconazole or tioconazole or vibunazole or voriconazole).ti,ab,ot,nm.
- 12 8 or 9 or 10 or 11
- 13 7 and 12
- 14 (randomized controlled trial or controlled clinical trial).pt. or randomized.ab. or groups.ab. or clinical trials as topic.sh. or randomly.ab. or trial.ti.
- 15 (animals not humans).sh. or ((comment or editorial or meta-analysis or practice-guideline or review or letter or journal correspondence) not "randomized controlled trial").pt. or ((random sampl\$ or random digit\$ or random effect\$ or random survey or random regression).ti,ab. not "randomized controlled trial".pt.)
- 16 14 not 15
- 17 exp cohort analysis/ or exp longitudinal study/ or exp prospective study/ or exp follow up/ or cohort\$.tw.
- 18 16 or 17

19 13 and 18

Last search: July 2012

Bronchial thermoplasty

Ovid MEDLINE and Cochrane Register of Controlled Trials (CENTRAL) using the keyword "thermoplasty"

Last search: June 2013