

**Asthma Guidelines – EPR3 Literature Review
Search Strategy Progress Summary**

Leukotriene Modifiers, Cromolyn, Theophylline

Search Strategies

March 24, 2006 Mini-Update Search (Covering Dec. 1, 2005 – Mar. 15, 2006):

Run the strategy—with just updated dates:

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND 2005/12/01:2006/03/15[dp] AND English[la] AND human[mh] AND hasabstract

8 hits

Now limit to specific types of studies (RCTs, meta-analysis, and systematic review):

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND 2005/12/01:2006/03/15[dp] AND English[la] AND human[mh] AND hasabstract AND (randomized controlled trial[pt] OR meta-analysis[pt] OR ("systematic review" AND review[pt]))

3 hits

Get the residual set, which is the first set NOT second set. In my Pubmed session, it was:

#1 NOT #2

5 hits

January 10, 2006 Mini-Update Search (Covering Oct 2, 2005 – Jan 1, 2006):

Run the strategy—with just updated dates:

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND 2005/10/02:2006/01/01[dp] AND English[la] AND human[mh] AND hasabstract

1 hit

November 2, 2005 Mini-Update Search (covering July 3, 2005 – Nov 2, 2005):

Run original strategy—with just updated dates:

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND 2005/07/03:2005/11/02[dp] AND English[la] AND human[mh] AND hasabstract

7 results

Now limit to specific types of studies (RCTs, meta-analysis, and systematic review):

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND 2005/07/03:2005/11/02[dp] AND English[la] AND human[mh] AND hasabstract AND (randomized controlled trial[pt] OR meta-analysis[pt] OR ("systematic review" AND review[pt]))

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5 results

Compared set of 7 to set of 5 to find unique titles. Found 2 new citations.

2 results

August 3, 2005 UPDATE (covering Nov. 1, 2004 – Aug. 3, 2005):

Run strategy—with updated dates, and adding term 'leukotriene antagonists[mh]':

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND (adverse effects[sh] OR treatment outcome[mh] OR therapeutic equivalency[mh] OR exacerbation*) AND 2004/11/01:2005/08/03[dp] AND English[la] AND human[mh] AND hasabstract

26 results

Limit to specific types of studies (RCTs, meta-analysis, and systematic review):

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND (adverse effects[sh] OR treatment outcome[mh] OR therapeutic equivalency[mh] OR exacerbation*) AND 2004/11/01:2005/08/03[dp] AND English[la] AND human[mh] AND hasabstract AND (randomized controlled trial[pt] OR meta-analysis[pt] OR ("systematic review" AND review[pt]))

16 results

Compared set of 26 to set of 16:

10 results

Run the search again with updated dates WITHOUT 'adverse effects' string:

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND 2004/11/01:2005/08/03[dp] AND English[la] AND human[mh] AND hasabstract

47 results

Run the search again with updated dates WITHOUT 'adverse effects' string and limit to specific types of studies:

Asthma[mh] AND (leukotriene antagonists[mh] OR zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast [Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND 2004/11/01:2005/08/03[dp] AND English[la] AND human[mh] AND hasabstract AND (randomized controlled trial[pt] OR meta-analysis[pt] OR ("systematic review" AND review[pt]))

23 results

Compare the set of 23 to the set of 26 to find unique titles:

7 results

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November 2004 MEDLINE Search Strategy:

Asthma[mh] AND (zafirlukast [Substance Name] OR zileuton [Substance Name] OR montelukast[Substance Name] OR Receptors, leukotriene[mh] OR methylxanthine [Substance Name] OR Cromolyn Sodium[mh] OR cromolyn sulfate [Substance Name] OR Phosphodiesterase Inhibitors[mh] OR Theophylline[mh] OR Aminophylline[mh]) AND (adverse effects[sh] OR treatment outcome[mh] OR therapeutic equivalency[mh] OR exacerbation*) AND 1997/01/01:2004/11/01[dp] AND English[la] AND human[mh] AND has abstract

281 results – compared to set from October, duplicates removed = 221 results

October 2004 MEDLINE Search Strategy:

Asthma AND leukotriene antagonists AND clinical trial[pt] AND 2000/01/01:2004/10/15[dp] AND English[la] AND human[mh] AND hasabstract
136 results