

## Indiana Medicaid Therapeutics Committee Therapeutic Class Review Summary

### Therapeutic Class:

H<sub>2</sub> Receptor Antagonists

### Overview:

H<sub>2</sub> receptor antagonists are used in the treatment and maintenance of duodenal and gastric ulcers, and treatments of GERD and pathological hypersecretory conditions. The first agent, Tagamet<sup>®</sup>, was introduced in 1977. This class of drugs works by competitively inhibiting the binding of histamine to H<sub>2</sub> receptors thereby reducing basal and nocturnal gastric acid secretions. These agents do not affect H<sub>1</sub> receptors. Therefore, they do not produce any anticholinergic effects. The length of treatment varies with indication. Treatment should be at least eight weeks for gastric or duodenal ulcers, six weeks for GERD, and lifetime for hypersecretory conditions.

Four H<sub>2</sub> receptor antagonists currently are available on the U.S. market, all with multiple generics available. In addition, all agents in this class are available over-the-counter. The head-to-head clinical trials have not shown any significant difference in efficacy or safety among the various agents. However, more drug interactions are documented for cimetidine and ranitidine than for famotidine or nizatidine.

Generic Name	Brand Name	Manufacturer
Cimetidine	Tagamet <sup>®</sup> , Tagamet <sup>®</sup> HB	GlaxoSmithKline, Various
Famotidine	Pepcid <sup>®</sup> , Pepcid AC <sup>®</sup> , Pepcid <sup>®</sup> Complete, Fluxid <sup>™</sup>	Merck, Schwarz Pharma, Various
Nizatidine	Axid <sup>®</sup> , Axid <sup>®</sup> AR	Reliant, Various
Ranitidine	Zantac <sup>®</sup> , Zantac <sup>®</sup> 75, Zantac <sup>®</sup> 150	GlaxoSmithKline, Boehringer Ingelheim, Various

### Summary:

H<sub>2</sub> receptor antagonists are safe and effective medications. Selection of preferred agents should be based upon safety and cost.