

## Cyclo-oxygenase (COX)-2 Inhibitors and Non-steroidal Anti-inflammatory Drugs (NSAIDs)

### Key Questions and Inclusion Criteria

#### Update #3

#### Key Questions

1. In head-to-head comparisons, are there differences in effectiveness or safety between different COX-2 inhibitors?
2. Are there differences in effectiveness between coxibs and other NSAIDs?
3. Are there clinically important differences in safety or adverse effects between coxibs, other NSAIDs, and the combination of an NSAID plus antiulcer medication when used acutely for musculoskeletal pain?
4. Are there clinically important differences in safety or adverse effects between coxibs, other NSAIDs, and the combination of an NSAID plus antiulcer medication when used chronically?
5. Are there subgroups of patients based on demographics, other medications (e.g., aspirin), or co-morbidities for which one medication is more effective or associated with fewer adverse effects?

#### Inclusion Criteria

##### Populations

- Chronic pain from osteoarthritis
- Rheumatoid arthritis
- Soft-tissue pain
- Back pain
- Ankylosing spondylitis

##### Interventions

### **Nonsteroidal Antiinflammatory Drugs**

<b>Generic Name</b>	<b>Proprietary Name</b>	<b>Dosage Forms</b>
CELECOXIB	Celebrex	100, 200, 400 mg
DICLOFENAC SODIUM	Voltaren, Voltaren-XR	25, 50, 75, 100 mg
DICLOFENAC POTASSIUM	Cataflam	25, 50 mg
DIFLUNISAL	Dolobid	250, 500 mg
ETODOLAC	Lodine, Lodine XL	200, 300, 400, 500 mg
FENOPROFEN	Nalfon	200, 300, 600 mg
FLURBIPROFEN	Ansaid	50, 100 mg
IBUPROFEN	Motrin	300, 400, 600, 800 mg
INDOMETHACIN	Indocin, Indocin SR	25, 50, 75 mg
KETOPROFEN		25, 50, 75 mg
KETOPROFEN XR	Oruvail	100, 150, 200 mg
KETOROLAC	Toradol	10 mg
MECLOFENAMATE		50, 100 mg
MEFENAMIC ACID		250 mg

## ***Nonsteroidal Antiinflammatory Drugs***

<b>Generic Name</b>	<b>Proprietary Name</b>	<b>Dosage Forms</b>
MELOXICAM	Mobic	7.5, 15 mg
NABUMETONE	Relafen	500, 750 mg
NAPROXEN		250, 375, 500 mg
NAPROXEN delayed release		375, 500 mg
NAPROXEN SODIUM	Anaprox, Anaprox DS	250, 500 mg
	Naprelan	375, 500, 750 mg
OXAPROZIN	Daypro	600 mg
PIROXICAM	Feldene	10, 20 mg
ROFECOXIB	Vioxx	12.5, 25, 50 mg
SALSALATE	Disalcid	100, 500 mg
SULINDAC	Clinoril	150, 200 mg
TOLMETIN	Tolectin	200, 400, 600 mg
VALDECOXIB	Bextra	10, 20 mg

### Effectiveness outcomes

- Pain
- Functional status
- Discontinuations due to lack of effectiveness

### Safety outcomes

- Serious GI events (GI bleeding, symptomatic ulcer disease, perforation of the GI tract, and death).
- Serious cardiovascular events (myocardial infarction, angina, stroke, transient ischemic attack, cardiovascular death, hypertension, congestive heart failure, and related measures).
- Tolerability and adverse event (e.g., discontinuation due to any adverse event; any serious adverse event; the overall rate of adverse events; the rate of GI adverse events; the combined rate of adverse events related to renal and cardiovascular function, including increased creatinine, edema, hypertension, or congestive heart failure; and the frequency of, and discontinuations due to, abnormal laboratory tests, primarily elevated transaminases)

### Study designs

1. For effectiveness, controlled clinical trials and systematic reviews
2. For safety, controlled clinical trials and observational studies