Celebrex

Description

Celebrex (celecoxib)

Background

Celebrex is commonly referred to as a COX-2 selective inhibitor. The mechanism of action of Celebrex is believed to be inhibition of prostaglandin synthesis, primarily via inhibition of cyclooxygenase-2 (COX-2). It is classified as a NSAID, which have become synonymous with the management of acute musculoskeletal injuries. NSAIDs reduce pain through their inhibition of the enzyme cyclooxygenase (COX), leading to a significant decrease in prostaglandin production. COX exists as two isoenzymes, COX-1 and COX-2 (1). COX-1 enzyme exists in many body tissues, including the stomach. Most frequent side effects on the gastrointestinal tract are a result of the COX-1 inhibition, the most common being gastritis and upper gastrointestinal ulcer and bleeding. COX-2 enzyme is associated with inflammation in the joints. Selective inhibition of COX-2 should lead to decreased inflammation in musculoskeletal tissues and, by sparing COX-1, to a decrease in the incidence of GI mucosal injury (2-3).

Regulatory Status

FDA-approved indication: Celebrex is a nonsteroidal anti-inflammatory drug FDA indicated for osteoarthritis (OA), rheumatoid Arthritis (RA), juvenile Rheumatoid Arthritis (JRA) in patients 2 years and older, ankylosing Spondylitis (AS), acute Pain (AP), primary Dysmenorrhea (PD) (1).

Celebrex has a boxed warning regarding the gastrointestinal, cardiovascular, bleeding and renal risk. Celebrex can cause peptic ulcers, GI bleeding, and/or perforation of the stomach or intestines, which can be fatal. NSAIDS may cause an increased risk of serious CV thrombotic events, myocardial infarction, and stroke, which can be fatal. This risk may increase with...
duration of use. Patients with CV disease or risk factors for CV disease may be at greater risk. Celebrex is contraindicated for treatment of peri-operative pain in the setting of coronary artery bypass graft (CABG) surgery. Celebrex is contraindicated in patients with peptic ulcer disease or history of GI bleeding. Celebrex is contraindicated in patients with advanced renal impairment and in patients at risk for renal failure due to volume depletion (1).

Principal risk factors for serious GI events and hospitalization were age, smoking, use of alcohol, a history of prior NSAID-related ulceration and its complications, corticosteroid or anticoagulant use, and debilitating disorders such as cardiovascular disease. The use of low-dose aspirin alone, in the absence of other risk factors is associated with an increased risk for both GI bleeding and death from GI complications (3).

NSAIDs should be prescribed with extreme caution in patients with a prior history of ulcer disease or gastrointestinal bleeding. To minimize the potential risk for an adverse GI event, the lowest effective dose should be used for the shortest duration consistent with individual patient treatment goals. Physicians and patients should remain alert for signs and symptoms of GI ulceration and bleeding during Celebrex therapy and promptly initiate additional evaluation and treatment if a serious GI adverse event is suspected. For high-risk patients, alternate therapies that do not involve NSAIDs should be considered. Celebrex is contraindicated in patients with active GI bleeding (1).

The safety and effectiveness of Celebrex have not been established in pediatric patients under the age of 2 years, in patients with body weight less than 10kg (22 lbs), and in patients with active systemic features (1).

**Related policies**
Celebrex Powder

**Policy**

This policy statement applies to clinical review performed for pre-service (Prior Approval, Precertification, Advanced Benefit Determination, etc.) and/or post-service claims.

Celebrex may be considered **medically necessary** in patients 2 years of age or older for the treatment of acute pain, osteoarthritis, rheumatoid arthritis, ankylosing spondylitis or primary dysmenorrheal; and patient is not at risk for adverse GI events, not at risk for bleeding, not at risk for cardiovascular events and not at risk for renal impairment.
Celebrex may be considered **investigational** for patients below 2 years of age and for all other indications.

### Prior-Approval Requirements

**Age**  
2 years of age or older

**Diagnoses**

Patient must have **ONE** of the following:

1. Acute Pain*  
   a. Location of pain
2. Rheumatoid Arthritis
3. Osteoarthritis
4. Juvenile rheumatoid arthritis (JRA)
5. Ankylosing Spondylitis
6. Primary Dysmenorrhea

### Prior – Approval *Renewal* Requirements

**Age**  
2 years of age or older

**Diagnoses**

Patient must have **ONE** of the following:

1. Acute Pain*  
   a. Location of pain  
   b. **NOT** continuous therapy for same location as previously treated
2. Rheumatoid Arthritis
3. Osteoarthritis
4. Juvenile rheumatoid arthritis (JRA)
5. Ankylosing Spondylitis
6. Primary Dysmenorrhea
Pre - PA Allowance
Age 55 years of age or older

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<th>Quantity</th>
<th>50 mg</th>
<th>100 mg</th>
<th>200 mg</th>
<th>400 mg</th>
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<td>180 capsules per 365 days</td>
<td>180 capsules per 365 days</td>
<td>90 capsules per 365 days</td>
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Duration 12 months

Prior - Approval Limits
Age 2 years of age or older

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<tr>
<td>960 capsules per 90 days OR 480 capsules per 90 days OR 240 capsules per 90 days OR 120 capsules per 90 days</td>
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Maximum daily limit of any combination: 400mg

Duration *3 months for a diagnosis of acute pain
12 months for all other diagnoses/conditions

Prior – Approval Renewal Limits
Same as above

Rationale
Summary
NSAIDs have become synonymous with the management of acute musculoskeletal injuries. They are some of the most widely used medications, and are reliable and effective when used appropriately for pain relief and to reduce inflammation. NSAIDs reduce pain through their inhibition of the enzyme cyclooxygenase (COX), leading to a significant decrease in prostaglandin production. COX exists as two isoenzymes, COX-1 and COX-2. COX-2 inhibitors
Celebrex are associated with a significantly lower incidence of gastric and duodenal ulcers when compared to traditional NSAIDs. Celebrex is contraindicated in patients with active GI bleeding. The mechanism of action of Celebrex is believed to be inhibition of prostaglandin synthesis, primarily via inhibition of cyclooxygenase-2 (COX-2). It does not inhibit the cyclooxygenase-1 (COX-1). Celebrex is commonly referred to as a COX-2 selective inhibitor (1).

Prior authorization is required to ensure the safe, clinically appropriate and cost effective use of Celebrex while maintaining optimal therapeutic outcomes.

References

Policy History

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<td>May 2007</td>
<td>In order to be consistent with current benefit design, we recommend that Celebrex 50mg capsules be included in the overall current upfront COX-2 standard allowance of 90 days’ supply per year.</td>
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<td>September 2008</td>
<td>The Prior Approval Limits were increased by a 30 day supply (1/3 increase) to allow for members to fill up to 90-day supply at mail order after a starter quantity is filled at retail.</td>
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<td>May 2012</td>
<td>Comprehensive criteria review and update. FAP deleted (no longer FDA-approved)</td>
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<td>March 2013</td>
<td>Annual editorial review and reference update. Minimum age 2 years.</td>
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<td>June 2014</td>
<td>Annual review and addition of contraindication: active GI bleeding</td>
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<td>June 2015</td>
<td>Annual review</td>
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<td>March 2016</td>
<td>Annual review and reference update</td>
<td>Policy number changed from 5.02.06 to 5.70.06</td>
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<td>March 2017</td>
<td>Annual editorial review and reference update</td>
<td>Addition requirements for acute pain and location of pain and no continuous use for same location in renewal</td>
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June 2017  Removal of at risk for adverse GI events, at risk for bleeding, at risk for cardiovascular events, at risk for renal impairment
September 2017 Annual review

**Keywords**

This policy was approved by the FEP® Pharmacy and Medical Policy Committee on September 15, 2017 and is effective on October 1, 2017.