Diclofenac sodium

Introduction: Nonsteroidal anti-inflammatory drugs used to relieve the inflammation, swelling, stiffness, and joint pain associated with rheumatoid arthritis, osteoarthritis

Mechanism of action: The exact mechanism of action is not entirely known, but it is thought that the primary mechanism responsible for its anti-inflammatory / antipyretic / analgesic action is inhibition of prostaglandin synthesis by inhibition of cyclooxygenase (COX). Inhibition of COX also decreases prostaglandins in the epithelium of the stomach, making it more sensitive to corrosion by gastric acid. This is also the main side effect of diclofenac. Diclofenac has a low to moderate preference to block the COX2-isoenzyme (approximately 10-fold) and is said to have therefore a somewhat lower incidence of gastrointestinal complaints than noted with indomethacin and aspirin.

Indications: Diclofenac sodium delayed-release tablets, are indicated:

- For relief of signs and symptoms of osteoarthritis
- For relief of signs and symptoms of rheumatoid arthritis
- For acute or long-term use in the relief of signs and symptoms of ankylosing spondylitis

Dosage:

Osteoarthritis: The recommended dosage for maximal GI mucosal protection is diclofenac sodium 50 tid. For patients who experience intolerance, diclofenac sodium 75 bid or diclofenac sodium 50 bid can be used, but are less effective in preventing ulcers. This fixed combination product, diclofenac sodium, is not appropriate for patients who would not receive the appropriate dose of both ingredients. Doses of the components delivered with these regimens are as follows:

	OA regimen	Diclofenac sodium (mg/day)	Misoprostol (mcg/day)
Diclofenac Sodium 50	TID BID	150 100	600 400
Diclofenac Sodium 75	BID	150	400

Rheumatoid Arthritis: The recommended dosage is diclofenac sodium 50 tid or qid. For patients who experience intolerance, diclofenac sodium 75 bid or diclofenac sodium 50 bid can be used, but are less effective in preventing ulcers. This fixed combination product, diclofenac sodium, is not appropriate for patients who would not receive the appropriate dose of both ingredients. Doses of the components delivered with these regimens are as follows:

High Dose Schedule:	Adults	Children > 35kg	Children < 35kg
	RA regimen	**Diclofenac sodium (mg/day)**	**Misoprostol (mcg/day)**
Diclofenac sodium 50	QID TID BID	200 150 100	800 600 400
Diclofenac sodium 75	BID	150	400

Side effects: Gastrointestinal experiences including: abdominal pain, constipation, diarrhea, dyspepsia, flatulence, gross bleeding/perforation, heartburn, nausea, GI ulcers (gastric/duodenal) and vomiting. Abnormal renal function, anemia, dizziness, edema, elevated liver enzymes, headaches, increased bleeding time, pruritus, rashes and tinnitus. fever, infection, sepsis, congestive heart failure, hypertension, tachycardia, syncope, dry mouth, esophagitis, gastric/peptic ulcers, gastritis, gastrointestinal bleeding, glossitis, hematemesis, hepatitis, jaundice, ecchymosis, eosinophilia, leukopenia, melena, purpura, rectal bleeding, stomatitis, thrombocytopenia, weight changes, anxiety, asthenia, confusion, depression, dream abnormalities, drowsiness, insomnia, malaise, nervousness, paresthesia, somnolence, tremors, vertigo, asthma, dyspnea, alopecia, photosensitivity, sweating increased, blurred vision, cystitis, dysuria, hematuria, interstitial nephritis, oliguria/polyuria, proteinuria, renal failure

Precautions:

General: Diclofenac sodium cannot be expected to substitute for corticosteroids or to treat corticosteroid insufficiency. Abrupt discontinuation of corticosteroids may lead to disease exacerbation. Patients on prolonged corticosteroid therapy should have their therapy tapered slowly if a decision is made to discontinue corticosteroids.

Hematological Effects: Anemia is sometimes seen in patients receiving NSAIDs, including diclofenac sodium. This may be due to fluid retention, occult or gross GI blood loss, or an incompletely described effect upon erythropoiesis. Patients on long-term treatment with NSAIDs, including diclofenac sodium, should have their hemoglobin or hematocrit checked if they exhibit any signs or symptoms of anemia.

Aseptic meningitis: As with other NSAIDs, aseptic meningitis with fever and coma has been observed on rare occasions in patients on diclofenac therapy. Although it is probably more likely to occur in patients with systemic lupus and related connective tissue diseases, it has been reported in patients who do not have an underlying chronic disease. If signs or symptoms of meningitis develop in a patient on diclofenac, the possibility of its being related to diclofenac should be considered.

Porphyria: The use of diclofenac sodium in patients with hepatic porphyria should be avoided.

Nursing mothers: Diclofenac sodium has been found in the milk of nursing mothers. It is unlikely that misoprostol is excreted into milk since the drug is rapidly metabolized throughout the body.

Pediatric use: Safety and effectiveness of diclofenac sodium in pediatric patients have not been established.

Geriatric use: As with any NSAIDs, caution should be exercised in treating the elderly (65 years and older). Diclofenac is known to be substantially excreted by the kidney, and the risk of toxic reactions to diclofenac sodium may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function

Contraindications: Diclofenac sodium is contraindicated in patients with hypersensitivity to diclofenac or to misoprostol or other prostaglandins. Diclofenac sodium should not be given to patients who have experienced asthma, urticaria, or other allergic-type reactions after taking aspirin or other NSAIDs. Severe, rarely fatal, anaphylactic-like reactions to diclofenac sodium have been reported in such patients. Diclofenac sodium is contraindicated for the treatment of peri-operative pain in the setting of coronary artery bypass graft (CABG) surgery.

How supplied: Customized as per request.