DICLOFENAC
(dyv-kloe-fen-ak)
diclofenac (oral)
Zyrtec

diclofenac potassium (oral)
Carbo-Cataflam, Zepor

diclofenac sodium (oral)
[a] soluble, [b] Voltaren, Voltaren SR

diclofenac sodium (topical gel)
Solaraze, Voltaren Gel

diclofenac sodium (topical solution)
Pennsaid

diclofenac epolamine (transdermal patch)
Flector

Classification
Therapeutic: nonopioid analgesics, nonsteroidal anti-inflammatory agents

Pregnancy Category B (3% gel), C (oral and topical solution [≤ 30 wk gestation]), D (1% gel, patch), X (oral and topical solution [≥ 30 wk gestation])

Indications
Topical Management of: Actinic keratoses (Solaraze), Osteoarthritis (Voltaren Gel, Pennsaid [for knees]).
Transdermal Acute pain due to minor strains, sprains, and contusions.

Action

Pharmacokinetics
Absorption: Undergoes first-pass metabolism by liver which results in 50% bioavailability. Oral diclofenac sodium is a delayed-release dose form. Diclofenac potassium is in an immediate release dose form. 6–10% of topical gel is systemically absorbed.
Distribution: Crosses the placenta.
Protein Binding: 99%.
Metabolism and Excretion: Metabolized by the liver (primarily by CYP2C9) to several metabolites. 65% excreted in urine, 35% in bile.
Half-life: 2 hr

TIME/ACTION PROFILE
ROUTE ONSET PEAK DURATION
PO (inflammation) few days-1 wk 2 wk unknown
PO (pain) 30 min unknown up to 8 hr unknown
Top (gel and patch) unknown 10–20 hr unknown
Top (solution) unknown unknown unknown

Contraindications/Precautions
Contraindicated in: Hypersensitivity to diclofenac or other components of formulation; Cross-sensitivity may occur with other NSAIDs including aspirin; Active GI bleeding/ulcer disease; Patients undergoing coronary artery bypass graft surgery; Exudative dermatitis, eczema, infectious lesions, burns, or wounds.
Use Cautiously in: Severe renal/hepatic disease; Cardiovascular disease or risk factors for cardiovascular disease (may q; risk of serious cardiovascular thrombotic events, myocardial infarction, and stroke, especially with prolonged use); Heart failure or edema; History of porphyria; History of peptic ulcer disease and/or GI bleeding; Severe renal impairment or concurrent anticoagulant therapy; OB: Lactation: Not recommended for use during second half of pregnancy; Pedi: Safety not established.

Adverse Reactions/Side Effects
CNS: dizziness, headache. CV: hypertension.
EENT: tinnitus. GI: abdominal pain, constipation, diarrhea, dyspepsia, flatulence, heartburn, nausea, vomiting. Derm: exfoliative dermatitis, Stevens-Johnson syndrome, toxic epidermal necrolysis.

Overdosage:
Symptoms: Central nervous system depression, bleeding, hypotension, cardiac arrest.

Notes:
Name: diclofenac

Indications: Diclofenac sodium is indicated for:
- The management of postoperative pain.
- Treatment of osteoarthritis.
- Treatment of rheumatoid arthritis.
- Treatment of osteoarthritis of the knee.
- Relief of osteoarthritis of the hand.
- Relief of osteoarthritis of the foot.
- Relief of osteoarthritis of the hand.
- Relief of osteoarthritis of the finger.
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CONTINUED

DICLOFENAC

- Monitor BUN and serum creatinine periodically during therapy. May cause increased BUN and serum creatinine.

Potential Nursing Diagnoses

- Impaired physical mobility (Indications)

Implementation

- Administration is not recommended when BUN and serum creatinine are increased.
- PO: Take with food or milk to minimize gastric irritation. May take first 1–2 doses on an empty stomach for more rapid onset. Do not crush or chew enteric-coated or extended-release tablets.
- Topical: Gel should be applied to intact skin; do not use on open wounds. An adequate amount of gel should be applied to cover the entire lesion.
- Transdermal: Apply patch to the most painful area twice a day. Do not apply to non-intact or damaged skin resulting from any etiology (exudative dermatitis, eczema, infected lesion, burns, wounds). Avoid contact with eyes; wash hands after applying, handling, or removing patch.

Patient/Family Teaching

- Caution patient to avoid concurrent use of alcohol, aspirin, acetaminophen, other NSAIDs, or other OTC medications without consulting health care professional.
- Instruct patient to notify health care professional if they plan or suspect pregnancy.
- PO: Instruct patient to take diclofenac with a full glass of water and to remain in an upright position for 15–30 min after administration. Take missed doses as soon as possible within 1–2 hr if taking once or twice a day or unless almost time for next dose if taking more than twice a day. Do not double doses.
- May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Topical: Advise patient to apply topical NSAID to treated knee and allow to dry completely before covering with clothing.

- May cause serious side effects: CV (MI or stroke), GI (ulcers, bleeding), skin (exfoliative dermatitis, Steven-Johnson Syndrome, toxic epidermal necrolysis) and hypersensitivity (anaphylaxis). May occur without warning symptoms. Advise patient to stop medication and notify health care professional immediately if symptoms occur.

- Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult with health care professional before taking other medications.
- Advise patient to notify health care professional if they plan or suspect pregnancy.
- Instruct patient to avoid use of diclofenac in last trimester of pregnancy and to notify health care professional if breast feeding.

- Caution patient to notify health care professional promptly if unexplained weight gain, swelling of arms and legs or hands and feet, nausea, fatigue, lethargy, rash, pruritus, swelling of skin or eyes, itching, stomach pain, vomiting blood, bloody or tarry stools, or flu-like symptoms occur.
- Advise patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult with health care professional before taking other medications.
- Instruct patient to wear sunscreen and protective clothing to prevent photosensitivity reactions.

- Advise patient to avoid concurrent use of alcohol, aspirin, acetaminophen, other NSAIDs, or other OTC medications without consulting health care professional.
- Instruct patient to notify health care professional if they plan or suspect pregnancy.
- PO: Instruct patient to take diclofenac with a full glass of water and to remain in an upright position for 15–30 min after administration. Take missed doses as soon as possible within 1–2 hr if taking once or twice a day or unless almost time for next dose if taking more than twice a day. Do not double doses.
- May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Topical: Advise patient to apply topical NSAID to treated knee and allow to dry completely before covering with clothing.
pletely dry. Avoid covering lesion with occlusive dressing or tight clothing, and avoid applying sunscreen, insect repellent, lotion, moisturizer, cosmetics to the affected area. Do not use heating pads, sunlamps and tanning beds. Protect treated knee from sunlight; wear protective clothes when in sunlight. Avoid showers or baths for at least 30 minutes after application.

**Solaraze:** Advise patient that it may take up to 1 mo for complete healing of the lesion to occur.

**Transdermal:** Instruct patient on correct application procedure for patch: apply patch to most painful area. Change patch every 12 hr. Remove patch if irritation occurs. Fold used patches or adhesive sticks to itself and discard where children and pets cannot get them. Instruct patients to read the NSAID Medication Guide that accompanies the prescription.

**Instruct patients if patch begins to peel off to tape the edges. Do not wear patch during bathing or showering. Bathing should take place between scheduled patch removal and application.**

**Advise patient referred for MRI test to discuss patch with referring health care professional and MRI facility to determine if removal of patch is necessary prior to test and for directions for replacing patch.**

**Evaluation/Desired Outcomes**

- Decrease in severity of mild-to-moderate pain.
- Increased ease of joint movement. Patients who do not respond to one NSAID may respond to another. May require 2-6 wk or more for maximum effects.
- Decrease in or healing of lesions in actinic keratosis. Optimal effect may not be seen until 10 days after discontinuation of therapy. Lesions that do not heal should be re-evaluated.

**Why was this drug prescribed for your patient?**