HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use NAPROXEN SODIUM
TABLETS safely and effectively. See full prescribing information for NAPROXEN SODIUM
TABLETS.

NAPROXEN SODIUM tablets, for oral use Initial U.S. Approval: 1976

WARNING: RISK OF SERIOUS CARDIOVASCULAR AND GASTROINTESTINAL EVENTS See full prescribing information for complete boxed warning.

Nonsteroidal anti-inflammatory drugs (NSAIDs) cause an increased risk of serious cardiovascular thrombotic events, including myocardial infarction and stroke, which of use. (5.1) line the way occur easily in testiment and may increase with duration of use. (5.1) line the way core usery in the extension of may increase with duration of use. (5.1) line of the way of the way of the property of the

| Naproxen sodium tablets are non-steroidal arth-inflammatory drugs indicated for: (1)

the relief of the signs and symptoms of:
• rheumatoid arthritis

the management of:
 pain
 primary dysmenorrhea

Use the lowest effective dosage for shortest duration consistent with individual patient treatment goals.

(2.1)

Rheumatoid Arthritis, Osteoarthritis, and Ankylosing Spondylitis

Naproxen sodium 275 mg twice daily tablets 550 mg

The dose may be adjusted up or down depending on the clinical response of the patient. In patients who tolerate lower doses well, the dose may be increased to naproxen sodium 1650 mg (equivalent to 1500 mg naproxen) per day for up to 6 months.

Polyaricular Journel: Mispathic Arthritis

Naprover tablets may not allow for the flexible dose titration needed in pediatric patients with polyaricular journel displants with polyaricular journel displants with polyaricular p

Management of Pain, Primary Dysmenorrhea, and Acute Tendonitis and Bursitis Recommended starting dose 550 mg of naproxen sodium as naproxen sodium tablets follow

every 12 hours or 275 mg every 6 to 8 hours as required. The initial total daily dose should not exceed 1375 mg of naproxen sodium. Thereafter, the total daily dose should not exceed 1100 mg of naproxen sodium. Naproxen sodium tablets are recommended for the management of acute painful conditions when prompt onset of pain releft is desired. Acute Gout

hours. DOSAGE FORMS AND STREAGHTS

Naprosen sodium tablets: 275 mg every 8

Naprosen sodium tablets: 275 mg in eyer 250 mg with 250 mg inchem

CONTRAINDICATIONS

• Known hypersensibility to naprosen or any components of the drug product (4)

• In the setting of CABIG surgey (4)

• In the setting of CABIG surgey (2)

In the setting of CABG surpey (4)

**MANNINGS AND PRECAUTIONS

**MANNINGS AND PRECAUTI

(5.10). Efall Tookty. Limit use of NSAIDs, including naproven sodium, between about 20 to 30 weeks in pregnancy due to the risk of oligibnyhaamniositeid ejabinction. Avoid use of NSAIDs in women at about 30 pregnancy due to the risk of oligibnyhaamniositeid en risky oligibnyh

Most common adverse reactions to naproxen were dyspepsia, abdominal pain, nausea, headache. rash ecchymosis, and relema 16.11

FULL PRESCRIBING INFORMATION: CONTENTS* WARNING: RISK OF SERIOUS CARDIOVASCULAR AND GASTROINTESTINAL EVENTS 1 INDICATIONS AND USAGE 2 DOSAGE AND ADMINISTRATION 2.1 General Dosing Instructions 2.2 Rheumatod Arthritis, Osteoarthritis and Ankylosing Spondylitis 2.3 Polyarticular Juvenile Idiopathic Arthritis 2.3 Hoyarticular Juvenile Idiopathic Arthritis 2.3 A Cutte Gout 2.5 Acute Gout 2.6 Non-Inter-Changeability with Other Formulations of Naproxen

- 1.6 Non-Interchangeability with Other Formulations of Naproxen

4 CONTRAINDICATIONS 5 WARNINGS AND PRECAUTIONS

- 5.1 Cardiovascular Thrombotic Events
 5.2 Gastrointestinal Bleeding, Ulceration, and Perforation
 5.3 Hepatotoxicity

- 5.3 Hepatotoxicky
 5.4 Hypertension
 5.5 Heart Falure and Edema
 5.5 Heart Falure and Edema
 5.5 Heart Falure and Edema
 7.5 Heart Falure and Edema
 7.5 Anaphylactic Reactions
 5.8 Exacerbation of Asthma Related to Aspirin Sensitivity
 5.9 Serious Skin Reactions
 5.10 Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS)
 5.11 Fetal Toxicity Links
- 5.11 Fetal Toxicity
 5.12 Hernatologic Toxicity
 5.13 Masking of Inflammation and Fever
 5.14 Long-Term Use and Laboratory Monitoring
 6.40VERSE REACTIONS
 6.4 Clinical Tries Experience
 6.2 Postmarketing Experience
 7 DRUG INTERACTIONS
 8 USE IN SPECIFIC POPULATIONS

- USE IN SPECIFIC POPULATIONS
 8.1 Pregnancy
 8.2 Lactation
 8.3 Females and Males of Reproductive Potential
 8.4 Pediatric Use
 8.5 Geriafric Use
 8.6 Hepatic Impairment
 9.7 Renal Impairment
 0 OVERDOSAGE

- 12.3 Pharmacokinetics
 13 NONCLINICAL TOXICOLOGY

- 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
 14 CLINICAL STUDIES
 16 HOW SUPPLIED/STORAGE AND HANDLING
 17 PATIENT COUNSELING INFORMATION cribing information are not listed.

FULL PRESCRIBING INFORMATION

WARNING: RISK OF SERIOUS CARDIOVASCULAR AND GASTROINTESTINAL EVENTS

- Cardiovascular Thrombotic Events

 Nonsteroidal anti-inflammatory drugs (NSAIDs) cause an increased risk of serious cardiovascular thrombotic events, including myocardial infarction and stroke, which can be fatal. This risk may occur early in treatment and may increase with duration of use fsee Warnings and Precautions (3.31).

 Naprosen sodium tablets are contraindicated in the setting of coronary artery bypass graft (CAB) surgery [see Contraindications (4), Warnings and Precautions (3.1)].

Gastrointestinal Bleeding, Ulceration, and Perforation

NSAIDs cause an increased risk of serious gastrointestinal (GI) adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. These events can occur at any time during use and without warning symptoms. Elevelry patients and patients with a prior history of peptic ulcer disease and/or GI bleeding are at greater risk for serious GI events (see Warnings and Precautions (5.2)).

1 INDICATIONS AND USAGE

- · rheumatoid arthritis
- osteoarthritis ankylosing spondylitis Polyarticular Juvenile Idiopathic Arthritis
- tendonitis
 bursitis
 acute gout

pain
 primary dysmenorrhea

2 DOSAGE AND ADMINISTRATION

2.1 General Dosing Instructions

Carefully consider the potential benefits and risks of naproxen sodium tablets and other treatment options before deciding to use naproxen sodium tablets. Use the lowest effective dose for the shortest duration consistent with individual patient treatment goals (see Warnings and Precautions (5)).

After observing the response to initial therapy with naproxen sodium tablets, the dose and frequency should be adjusted to suit an individual patient's needs.

Naproxen-containing products such as naproxen sodium tablets, and other naproxen products should not be used concomitantly since they all circulate in the plasma as the naproxen anion.

2.2 Rheumatoid Arthritis. Osteoarthritis and Ankylosing Spondylitis

The recommended dosages of naproxen sodium tablets are shown in Table 1

Table 1: Recommended dosages for naproxen sodium tablets

Naproxen	sodium	275 mg	(naproxen	250	mg	with	25	twice daily
tablets		mg sodi						
			(naproxen	500	mg	with	50	
		mg sodi	um)					

During long-term administration, the dose of naproxen may be adjusted up or down depending on the clinical response of the patient. A lower daily dose may suffice for long-term administration.

In patients who tolerate lower doses well, the dose may be increased to naproxen sodium 1550 mg (equivalent to 1500 mg naproxen) per day for limited periods of up to 6 months when a higher level of anti-inflammatory/anabesic activity is required. When treating such patients with naproxen sodium 1650 mg/day, the physician should observe sufficient increased clinical benefits to offset the potential increased risk.

2.3 Polyarticular Iuvenile Idiopathic Arthritis

Naprozen solid-oral dosage forms may not allow for the flexible dose titration needed in pediatric patients with polyarticular juvenile diopathic arthritis. A liquid formulation may be more appropriate for weight-based dosing and due to the need for dose flexibility in children.

In pediatric patients, doses of 5 mg/kg/day produced plasma levels of naproxen similar to those seen in adults taking 500 mg of naproxen [see Clinical Pharmacology (22)]. The recommended total daly dose of naproxen sa paroximately 10 mg/kg given in 2 divided doses. Dosing with naproxen tablets is not appropriate for children weighing less than 50 klograms.

2.4 Management of Pain, Primary Dysmenorrhea, and Acute Tendonitis and Bursitis

The recommended starting dose of naproxen sodium tablets is 550 mg followed by 550 mg every 12 hours or 275 mg every 6 to 8 hours as required. The initial total daily dose should not exceed 1375 mg of naproxen sodium. Thereafter, the total daily dose should not exceed 1376 mg of naproxen sodium. Because the sodium salt of naproxen is more rapidly absorbed, naproxen sodium because the sodium salt of naproxen is more rapidly absorbed, naproxen sodium tablets are recommended for the management of acute painful conditions when prompt onset of pain relief is desired.

2.5 Acute Gout

Naproxen sodium tablets may also be used at a starting dose of 825 mg followed by 275 mg every 8 hours.

2.6 Non-Interchangeability with Other Formulations of Naproxer

Different dose strengths and formulations (e.g., tablets, suspension) of naproxen are not interchangeable. This difference should be taken into consideration when changing strengths or formulations.

3 DOSAGE FORMS AND STRENGTHS

Naproxen Sodium Tablets USP, 275 mg are light blue color, oval shaped, film-coated tablets engraved with "T 21" on one side & plain on the other side.

Representations and the other side.

Naproxen Sodium Tablets USP, 550 mg are dark blue color, modified capsule shaped, fifth-coated tablets engraved with "T & 22" on either side of scoreline on one side & with scoreline on the other side.

Naproxen sodium tablets are contraindicated in the following patients:

- Known hypersensitivity (e.g., anaphylactic reactions and serious skin reactions) to naproxen or any components of the drug product (see Warnings and Precautions
- Known hypersensibity (e.g., anaphysuccr reacutis an aeroscoping and Precautions (5.7., 5.9))
 History of may components of the drug product (See Warnings and Precautions (5.7., 5.9))
 History of seathma, urticaria, or other alergic-type reactions after taking asystric or History of seathma, urticaria, or other alergic-type reactions after taking asystric or reported in such patients (see Warnings and Precautions (5.7., 5.8))
 In the setting of cronary artery bypass graft (CABG) surgery (see Warnings and Precautions (5.1.)]

5 WARNINGS AND PRECAUTIONS

5.1 Cardiovascular Thrombotic Events

5.1 Cardiovascular Thrombotic Events
Clinical trisk of several COV.2 sebective and nonselective NSAIDs of up to three years duration have shown an increased risk of serious cardiovascular (CV) thrombotic events, including myocardial infection (Mi) and stroke, which can be fatal. Based on available data, it is unclear that the risk for CV thrombotic events is similar for all NSAID her relative increase in serious CV thrombotic events over baseline conferred by NSAID use appears to be similar in those with and without known CV disease or risk factors for CV disease. However, patients with known CV disease or risk factors had a higher absolute incidence of excess serious CV thrombotic events, due to their increased buseline risk. Some observation is the first verses. In extension factor of the control of

To minimize the potential risk for an adverse CV event in NSAID-treated patients, use the lowest effective dose for the shortest duration possible. Physicians and patients should remain alert for the development of such events, throughout the entire treatment course, even in the absence of previous CV symptoms. Patients should be informed

about the symptoms of serious CV events and the steps to take if they occur.

There is no consistent evidence that concurrent use of aspirin mitigates the increased risk of serious CV thrombotic events associated with NSAID use. The concurrent use of aspirin and an NSAID, such as naproxen, increases the risk of serious gastrointestinal (GI) events (See Warnings and Precautions (5.21).

Status Post Coronary Artery Bypass Graft (CABG) Surgery

Two large, controlled clinical trials of a COX-2 selective NSAID for the treatment of pain in the first 10 to 14 days following CABG surgery found an increased incidence of myocardial infarction and stroke. NSAIDs are contraindicated in the setting of CABG (see Contraindications (4)).

Post-MI Patients

Observational studies conducted in the Danish National Registry have demonstrated that Observational studies conducted in the Danish National Registry have demonstrated this patients breaded with NSAIDs in the post-All period were at increased risk of reinfarction. CV-related death, and al-cause mortally beginning in the first week of treatment. In this same cohort, the incidence of death in the first year post-M was 20 per 100 person years in NSAID-treated platents compared to 12 per 100 person years in NSAID-treated platents compared to 12 per 100 person years in NSAID-treated platents compared to 12 per 100 person years in NSAID-treated platents. Although the absolute rate of death ductined somewhat Although the absolute rate of death in NSAID users persisted over at least the next four years of follow-up.

Avoid the use of naproxen sodium in patients with a recent MI unless the benefits are expected to outweigh the risk of recurrent CV thrombotic events. If naproxen sodium is used in patients with a recent MI, monitor patients for signs of cardiac ischemia.

5.2 Gastrointestinal Bleeding, Ulceration, and Perforation

NSAIDs, including naproxen, cause serious gastrointestinal (GI) adverse events including inflammation, bleeding, ulceration, and perforation of the esophagus, stomach, small intestine, or large intestine, which can be falla These serious adverse events can occur at any time, with or without warning symptoms, in patients treated with NSAIDs.

Only one in five patients who develop a serious upper GI adverse event on NSAID therapy is symptomatic. Upper GI ulcers, gross bleeding, or perforation caused by NSAIDs occurred in approximately 3% of patients treated for 3 to 6 months, and in about 2% to 4% of patients treated for one year. However, even short-term NSAID therapy is not without risk.

Risk Factors for GI Bleeding, Ulceration, and Perforation

Patents with a prior history of peptic uker disease and/or GI bleeding who used NSAIDs had a greater than 10-fold increased risk for developing a GI bleed compared to patients whoult these risk factors. Other factors that increase the risk of Gi bleeding in patients treated with NSAIDs include binger duration of NSAID therapy; concomitant use of oral corticosteroids, aspirin, anticoagulants, or selective serotion in requirable inhibitors (ISSRIs); smoking; use of alcohol older age; and poor general health status. Most postmarketing periors of fatal Gi events occurred in electry or defibilitated patients. Additionally, patients with advanced liver disease and/or coagulopathy are at increased fats for GI bleeding.

Strategies to Minimize the GI Risks in NSAID-treated patients:

- Use the lowest effective dosage for the shortest possible duration.
 Avoid administration of more than one NSAID at a time.
 Avoid use in patients at higher risk unless benefits are expected to outweigh the increased risk of bleeding. For such patients, as well as those with active GI bleeding, consider atternate therapies other than NSAIDs.
 Remain alert for signs and symptoms of GI ulceration and bleeding during NSAID therapy.
- therapy.

 If a serious GI adverse event is suspected, promptly initiate evaluation and treatment, and discontinue naproxen sodium until a serious GI adverse event is ruled out.

 In the setting of concomitant use of low-dose spirin for cardiac prophylaxis, monitor patients more closely for evidence of GI bleeding (see Drug Interactions (7)).

5.3 Hepatotoxicity

Elevations of ALT or AST (three or more times the upper limit of normal [ULN]) have been reported in approximately 1% of INSAID-treated patients in clinical trials. In addition, rare, sometimes fatal, cases of severe hepatic injury, including fulminant hepatitis, liver necrosis, and hepatic failure have been reported.

Elevations of ALT or AST (less than three times ULN) may occur in up to 15% of patients treated with NSAIDs including naproxen.

Inform patients of the warning signs and symptoms of hepatotoxicity (e.g., nausea, fatigue, lethargy, diarrhea, pruritus, jaundice, right upper quadrant tenderness, and 'flui-like' symptoms, Ostastent with her disease develop, or if systemic manifestations occur (e.g., eosinophila, rash, etc.), discontinue naproxen sodium immediately, and perform a clinical evaluation of the patient.

NSAIDs, including naproxem sodium can lead to new onset of hypertension or worsening of pre-existing hypertension, either of which may contribute to the increased incidence of CV events. Patients taking angiotensin converting enzyme (ACE) inhibitors, thiazide diuretics, or loop diuretics may have impaired response to these therapies when taking NSAIDs (see Drug Interactions (7)).

Monitor blood pressure (BP) during the initiation of NSAID treatment and throughout the course of therapy.

The Coxib and traditional NSAID Trialists' Collaboration meta-analysis of randomized controlled trials demonstrated an approximately two-fold increase in hospitalizations of controlled trials demonstrated an approximately two-fold increase in hospitalizations of compared to place-benerated patients in a Daniel National Registry study of patients with heart failure, NSAID use increased the risk of MI, hospitalization for heart failure, and death.

Additionally, fluid retention and edema have been observed in some patients treated with NSAIDs. Use of naproxen may blunt the CV effects of several therapeutic agents used to treat these medical conditions (e.g., diuretics, ACE inhibitors, or angiotensin receptor blockers [ARBs]) [see Drug Interactions (7)].

Avoid the use of naproxen sodium in patients with severe heart failure unless th benefits are expected to outweigh the risk of worsening heart failure. If naproxet sodium is used in patients with severe heart failure, monitor patients for signs of worsening heart failure.

Since each naproxen sodium tablet contains 25 mg or 50 mg of sodium (about 1 mEq per each 250 mg of naproxen), this should be considered in patients whose overall intake of sodium must be severely restricted.

5.6 Renal Toxicity and Hyperkalemia

Renal Toxicity
Long-term administration of NSAIDs has resulted in renal papillary necrosis and other renal injury.

Renal toxicity has also been seen in patients in whom renal prostaglandins have a compensatory role in the maintenance of renal perfusion. In these patients, administration of an NSAID may accuse a done-dependent reduction in prostaglandin demonstration of an NSAID may accuse a done-dependent reduction in prostaglandin decompensation. Patients at greatest risk of this reaction are those with imparied renal function, delyrotation, hypovolemia, heart failure, liver dysfunction, those taking diuretics and ACE inhibitors or ARBs, and the elderly. Discontinuation of NSAID therapy is usually followed by recovery to the pretreatment state.

No information is available from controlled clinical studies regarding the use of naprox sodium in patients with advanced renal disease. The renal effects of naproxen sodium may hasten the progression of renal dysfunction in patients with preexisting renal disease.

Correct volume status in dehydrated or hypovolemic patients prior to initiating naproxen sodium. Monitor renal function in patients with renal or hepatic impairment, heart failure, dehydration, or hypovolemia during use of naproxen sodium [see Drug Interactions]. Avoid the use of naproxen sodium in patients with advanced renal disease unless the benefits are expected to outweight the risk of workening renal function. If naproxen sodium is used in patients with advanced renal disease, monitor patients for signs of worsening renal function.

Hyperkalemia

Increases in serum potassium concentration, including hyperkalemia, have been reported with use of NSAIDs, even in some patients without renal impairment. In patients with normal renal function, these effects have been attributed to a hyporeninemic-hypoaldosteronism state.

5.7 Anaphylactic Reactions

Naproxen has been associated with anaphylactic reactions in patients with and without known hypersensitivity to naproxen and in patients with asprin-sensitive asthma (see Contraindications (4) and Warnings and Precautions (5.8)).

Seek emergency help if an anaphylactic reaction occurs.

5.8 Exacerbation of Asthma Related to Aspirin Sensitivity

A subpopulation of patients with asthma may have aspirin-sensitive asthma which may

include chronic rhinosinustis complicated by nasal polyps; severe, potentially fatal bronchospasm; and/or intolerance to aspirin and other NSAIDs. Because cross-reactively between aspirin and other NSAIDs has been reported in such aspirin-sensitive patients, naproxen sodum is contrandicated in patients with this form of aspirin sensibility face for contrandications (dl). When naproxen sodum is used in patients with preexisting asthma (without known aspirin sensitivity), monitor patients for changes in the signs and symptoms of asthmatications.

5.9 Serious Skin Reactions

5.9 Serious Skin Reactions
NSAIDs, including naproxen, can cause serious skin adverse reactions such as exfoliative dermatités, Stevens-Johnson syndrome (SJS), and toxic epidermal necrolysis (TEN), which can be fatal. These serious events may occur without warning. Inform patients about the signs and symptoms of serious skin reactions, and to discontinue the use of naproxen sodium at the first appearance of skin rash or nay other sign of hypersensibility. Naproxen sodium is contraindicated in patients with previous serious skin reactions to NSAIDs [see Centraindications].

5.10 Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS)

3.10 Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) Drug Reaction with Eosinophilia and Eystemic Synthomic (DRESS) has been reported in obtaint laking (MSMDs such as naproxen sodiam Some of these events have been fast or life-threatening, DRESS bypack), although note exclusively, presents with fever ratal or life-threatening, DRESS bypack), although note exclusively, presents with fever ratal expatits, nephris, hematological abnormalities, mycardits, or myostis. Sometimes symptoms of DRESS may resemble an acute viral infection. Eosinophilia is often present. Because this doorder is variable in its presentation, other organ systems not noted here may be involved. It is important to note that early manifestations of hypersensibility, such signs or symptomic are present, discontinue naproxen sodium and evaluate the patient immediately.

5.11 Fetal Toxicity

Premature Closure of Fetal Ductus Arteriosus

Avoid use of NSAIDs, including naproxen sodium, in pregnant women at about 30 weeks of gestation and later. NSAIDs, including naproxen sodium, increase the risk of premature closure of the fetal ductus arteriosus at approximately this gestational age

Oligohydramnios/Neonatal Renal Impairment

Use of MSAIDs, including naproxem sodium, at about 20 weeks gestation or later in pregnancy may cause fetal renal dysfunction leading to oligohydramnios and, in some cases, neonatal renal impairment. These adverse outcomes are seen, on average, after days to weeks of treatment, although oligohydramnios has been infrequently reported as soon as 48 hours after NSAID initiation. Oligohydramnios is often but not always, reversible with treatment discontinuation. Compications of probinged oligohydramnios any, for example, include into contractures and deleyed fung mutarriot, in some postmarketing cases of impaired neonatal renal function, invasive procedures such as sexchange transfusion or dialysis were required.

If NSAID treatment is necessary between about 20 weeks and 30 weeks gestation, limit haproxen sodium use to the lowest effective dose and shortest duration possible. Consider utrasound monitoring of amnotic fluid in aproxen sodium treatment extends beyond 48 hours. Discontinue naproxen sodium if eight polypriarminos occur and follow lpy according to chiral practice feee Use in Specific Populations (8.1)[.

5.12 Hematologic Toxicity

Anemia has occurred in NSAID-treated patients. This may be due to occult or gross blood loss, fluid retention, or an incompletely described effect on erythropoiesis. If a patient treated with naproxen sodium has any signs or symptoms of anemia, monithemoglobin or hematocrit.

NSAIDs, including naproxen sodium may increase the risk of bleeding events. Co-morbid conditions such as coagulation disorders or concomitant use of warfarin and other anticoagulants, antiplateled agents (e.g., aspfrin), serotionin reuptake imbilitors (SRRIs), and secondin noreprinery explaints in this constitution of the control of t

5.13 Masking of Inflammation and Fever

The pharmacological activity of naproxen sodium in reducing inflammation, and possibly fever, may diminish the utility of diagnostic signs in detecting infections.

5.14 Long-Term Use and Laboratory Monitoring

Because serious GI bleeding, hepatotoxicity, and renal injury can occur without warning symptoms or signs, consider monitoring patients on long-term NSAID treatment with a CBC and a chemistry profile periodically [see Warnings and Precautions (5.2,5.3, 5.6)].

Patients with initial hemoglobin values of 10g or less who are to receive long-term therapy should have hemoglobin values determined periodically.

ecause of adverse eye findings in animal studies with drugs of this class, it is ecommended that ophthalmic studies be carried out if any change or disturbance in

6 ADVERSE REACTIONS

The following adverse reactions are discussed in greater detail in other sections of the

- blacking

 Cardiovascular Thrombotic Events [see Warnings and Precautions (5.1)]

 GI Bleeding, Ulceration, and Perforation (see Warnings and Precautions (5.2)]

 Hepatorics (y See Warnings and Precautions (5.3)]

 Hypertension (see Warnings and Precautions (5.3)]

 Heart failure and Edema [see Warnings and Precautions (5.5)]

 Renal Toxicity and Hypertalemia (see Warnings and Precautions (5.6))

 Renal Toxicity and Hypertalemia (see Warnings and Precautions (5.6))

 Serbius Skin Reactions [see Warnings and Precautions (5.9)]

 Hematologic Toxicity (see Warnings and Precautions (5.12))

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

Adverse reactions reported in controlled clinical trials in 960 patients treated for rheumatoid arthritis or osteoarthritis are listed below. In general, reactions in patients treated chronically were reported 2 to 10 times more frequently than they were in short-term studies in the 962 patients treated for mild to moderate pain or for dysmenorrhea. The most frequent complaints reported related to the gastrorintestant tract.

A clinical study found gastrointestinal reactions to be more frequent and more severe in rheumatoid arthritis patients taking daily doses of 1500 mg naproxen compared to those taking 750 mg naproxen.

In controlled clinical trials with about 80 pediatric patients and in well-monitored, open-label studies with about 400 pediatric patients with polyarticular juvenile diopatric arthrists treated with naproxen, the incidence of rash and prolonged bleeding times were greater, the incidence of gastrointestinal and central nervous system reactions were about the same, and the incidence of other reactions were lower in pediatric patients than in adults.

In patients taking naproxen in clinical trials, the most frequently reported adverse experiences in approximately 1% to 10% of patients were:

Gastrointestinal (GI) Experiences, including: heartburn*, abdominal pain*, nausea*, constination*, diarrhea, dyspensia, stomatifis

us System: headache*, dizziness*, drowsiness*, lightheadedness, vertigo

<u>Dermatologic:</u> pruritus (itching)*, skin eruptions*, ecchymoses*, sweating, purpura

Special Senses: tinnitus*, visual disturbances, hearing disturbances

Cardiovascular: edema*, palpitations

General: dyspnea*, thirst

*Incidence of reported reaction between 3% and 9%. Those reactions occurring in less than 3% of the patients are unmarked.

In patients taking NSAIDs, the following adverse experiences have also been reported in approximately 1% to 10% of patients.

<u>Gastrointestinal (GI) Experiences, including:</u> flatulence, gross bleeding/perforation, GI ulcers (gastric/duodenal), vomiting

General: abnormal renal function, anemia, elevated liver enzymes, increased bleeding

The following are additional adverse experiences reported in <1% of patients taking naproxen during clinical trials.

Gastrointestinal: pancreatitis, vomiting

Hepatobiliary: jaundice

Hemic and Lymphatic: melena, thrombocytopenia, agranulocytosis

Nervous System: inability to concentrate

Dermatologic: skin rashes

6.2 Postmarketing Experience

The following adverse reactions have been identified during post approval use of naproxen. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

The following are additional adverse experiences reported in <1% of patients taking naproxen during clinical trials and through postmarketing reports. Those adverse reactions observed through postmarketing reports are ka

 \underline{Body} as a <u>Whole:</u> anaphylactoid reactions, angioneurotic edema, menstrual disorders, pyrexia (chills and fever)

<u>Cardiovascular:</u> congestive heart failure, vasculitis, hypertension, pulmonary edema

Gastrointestinal: inflammation, bleeding (sometimes fatal, particularly in the elderly), ulceration, perforation and obstruction of the upper or lower gastrointestinal tract. Esophagiks, stomatish, hematemesis, collis, exacerbation of inflammatory bowel disease (ulcerative collis, Crohn's disease).

Hepatobiliary: abnormal liver function tests, hepatitis (some cases have been fatal)

Hemic and Lymphatic; eosinophilia, leucopenia, granulocytopenia, hemolytic anemia, aplastic anemia

Metabolic and Nutritional: hyperglycemia, hypoglycemia

 $\underline{Nervous\ System}; depression, dream\ abnormalities,\ insomnia,\ malaise,\ myalgia,\ muscle\ weakness,\ aseptic\ meningitis,\ cognitive\ dysfunction,\ convulsions$

Respiratory: eosinophilic pneumonitis, asthma

<u>Permatologic:</u> alopecia, urticaria, toxic epidermal necrolysis, erythema multiforme, erythema nodosum, fixed drug eruption, Ichen planus, pustular reaction, systemic lupus erythematoses, bullous reactions, including Stevens-Johnson syndrome, photosenstible dermatibles, photosenstibly reactions, including rate cases resembling porphyria cutanea tarda (pseudoporphyria) or epidermolysis bullosa. If skin fragility, bistering or other symptoms suggestive of pseudoporphyria occur, treatment should be discontinued and the patient monitored.

Special Senses: hearing impairment, corneal opacity, papillitis, retrobulbar optic neuritis, papilledema

<u>Uroqenital:</u> glomerular nephritis, hematuria, hyperkalemia, interstitial nephritis, nephrotic syndrome, renal disease, renal failure, renal papillary necrosis, raised serum creatinine

Reproduction (female); infertility

In patients taking NSAIDs, the following adverse experiences have also been reported in <1% of patients.

Body as a Whole: fever, infection, sepsis, anaphylactic reactions, appetite changes, death

<u>Cardiovascular:</u> hypertension, tachycardia, syncope, arrhythmia, hypotension, myocardial infarction

Gastrointestinal: dry mouth, esophagitis, gastric/peptic ulcers, gastritis, glossitis,

Hepatobiliary: hepatitis, liver failure

Hemic and Lymphatic: rectal bleeding, lymphadenopathy, pancytopenia

Metabolic and Nutritional: weight changes

<u>Nervous System:</u> anxiety, asthenia, confusion, nervousness, paresthesia, somnolence, tremors, convulsions, coma, hallucinations

Respiratory: asthma, respiratory depression, pneumonia

Dermatologic: exfoliative dermatitis

Special Senses: blurred vision, conjunctivitis

Urogenital: cystitis, dysuria, oliguria/polyuria, proteinuria

Con Table 2.4s	
See Table 2 to	r clinically significant drug interactions with naproxen.
Table 2: Clin	ically Significant Drug Interactions with naproxen
	Interfere with Hemostasis
ClinicalImpact:	Naproxen and anticoaquiants such as warfarin have a synergistic effect on bleeding. The concomitant use of naproxen and anticoaquiants have an increased risk of serious bleeding compared to the use of either due to either the concentration of the concentration
	Seculonian Telegos by placents plays an important role in Temporasis. Cose-control and confort epidemiological studies showed that Controllinant use of drugs that interfere with Seculonian Telephane and an institutional many potentiate the risk of breeding more than an INSAID along. NSAID along.
Intervention:	works with concomitant use of naproxen sodium with anticoagulants (e.g., warfarin), antiplatelet agents (e.g., aspirin), selective serotonin reuptake inhibitors (SSRIs), and serotonin norepinephrine reuptake inhibitors (SNRIs) for signs of bleeding [see
	Warnings and Precautions (5.12)].
Aspirin	
	A pharmacodynamic (PD) study has demonstrated an interaction in which lower dose naproxen (220 mg/day or 220 mg twice daily) interfered with the antibateket effect of low-dose immediate-release aspirin, with the interaction most marked during the washout period of naproxen [see Clinical Pharmacodynamics (12.2)]. There is reason to expect that the interaction would be present with prescription doses of naproxen or with enteric-coated low-dose aspirin; however, the peak interference with aspirin function may be later than observed in the PD study due to the longer washout period.
	Controlled clinical studies showed that the concomitant use of NSAIDs and analgesic doses of aspirin does not produce any greater therapeutic effect than the use of NSAIDs abne. In a clinical study, the concomitant use of an NSAID and aspirin was associated with a significantly increased incidence of GI adverse reactions as compared to use of the NSAID alone [see <u>Warnings and Precautions (5.2.1</u>].
	Because there may be an increased risk of cardiovascular events following discontinuation of naproxen due to the interference with the antiplatelet effect of aspirin during the washout period, for patients taking low-dose aspirin for cardioprotection who require intermittent analgesics, consider use of an NSAID that does not interfere with the antiplatelet effect of aspirin, or non-NSAID analgesics where appropriate.
	Concomitant use of naproxen sodium and analgesic doses of aspirin is not generally recommended because of the increased risk of bleeding [see <u>Warnings and Procautions (5,12)</u>].
	Naproxen sodium is not substitutes for low dose aspirin for cardiovascular protection.
ACE Inhibitor	rs, Angiotensin Receptor Blockers, and Beta-Blockers NSADS may demish the anthrovertensive effect of anoptensin converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), or beta-blockers (including propranolol).
	In patients who are elderly, volume-depleted (including those on diuretic therapy), or have renal impairment, co-administration of an NSAID with ACE inhibitors or ARBs may result in deterioration of renal function, including possible acute renal failure. These effects are usually reversible.
Intervention:	During concomitant use of naproxen sodium and ACE-inhibitors, ARBs, or beta-bickers, monitor blood pressure to ensure that the desired blood pressure is obtained. During concomitant use of naproxen sodium and ACE-inhibitors, ARBs, no patients who are elderly, volume-depleted, or have impaired renal function, monitor for signs of worsening renal function [see <u>Warnings and Precautions (5.6.1)</u> .
Diuretics	When these drugs are administered concomitantly, patients should be adequately hydrated. Assess renal function at the beginning of the concomitant treatment and periodically thereafter.
	Clinical studies, as well as post-marketing observations, showed that NSAIDs reduced the natriuretic effect of loop diuretics (e.g., furosemide) and thiazide diuretics in some patients. This effect has been attributed to the NSAID inhibition of renal prostaglandin synthesis.
	During concomitant use of naproxen sodium with diuretics, observe patients for signs of worsening renal function, in addition to assuring diuretic efficacy including antihypertensive effects [seeWarnings and Precautions (5.6.1)].
Digoxin	
	The concomitant use of naproxen with digoxin has been reported to increase the serum concentration and prolong the half-life of digoxin During concomitant use of naproxen sodium and digoxin, monitor serum digoxin levels.
Lithium	buring Concominant use on naproxen social manufacture and adjoint neves.
ClinicalImpact:	NSAIDs have produced elevations in plasma lithium levels and reductions in renal lithium clearance. The mean minimum lithium concentration increased 15%, and the renal clearance decreased by approximately 20%. This effect has been attributed to NSAID inhibition of renal prostaglandin synthesis.
	During concomitant use of naproxen sodium and lithium, monitor patients for signs of lithium toxicity.
Methotrexat	
Intervention:	Concombant use of NSAIDs and methotrexate may increase the risk for methotrexate toxicity (e.g., neutropenia, thrombocytopenia, renal dysfunction). During concombant use of Inaproven sodium and methotrexate, monthor patients for methotrexate monthor patients for methotrexate monthor patients for methotrexate monthor patients for methotrexate monthor patients for method research
Cyclosporine	
ClinicalImpact:	Concomitant use of naproxen sodium and cyclosporine may increase cyclosporine's nephrotoxicity.
	During concomitant use of naproxen sodium and cyclosporine, monitor patients for signs of worsening renal function.
NSAIDs and	Salikyaires Concomitant use of naproxen with other NSAIDs or salicylates (e.g., diffunisal, salsalate) increases the risk of GI toxicity, with little or no increase in efficacy (see Warnings and Precautions (5.2)].
	Controllinations of halp observed in what other instructs or satisfyates (e.g., ultimitisal, satisfate) in least of its own to the concentration use of insprovem with other NSAIDs or satisfyates is not recommended.
Pemetrexed	
	Concomitant use of naproxen sodium and pemetrexed may increase the risk of pemetrexed-associated myelosuppression, renal, and GI toxicity (see the pemetrexed prescribing information).
Intervention:	During concomitant use of naproxen sodium and pemetrexed, in patients with renal impairment whose creatinine clearance ranges from 45 to 79 mL/min, monitor for myelosuppression, renal and GI toxicity.
	NSAIDs with short elimination half-lives (e.g., dicbfenac, indomethacin) should be avoided for a period of two days before, the day of, and two days following administration of pemetrexed.
Antacidsand	In the absence of data regarding potential interaction between pemetrexed and NSAIDs with longer half-lives (e.g., meloxicam, nabumetone), patients taking these NSAIDs should interrupt dosing for at least five days before, the day of, and two days following pemetrexed administration.
ClinicalImpact:	Concomitant administration of some antacids (magnesium oxide or aluminum hydroxide) and sucralfate can delay the absorption of naproxen.
	Concomitant administration of antacids such as magnesium oxide or aluminum hydroxide, and sucralfate with naproxen sodium is not recommended.
Cholestyram	ine Concomiant administration of cholestyramine can delay the absorption of naproxen.
	Concomitant administration of cholestyramine with narroxen sodium is not recommended.
Probenecid	
	Probenecid given concurrently increases naproxen anion plasma levels and extends its plasma half-life significantly.
	Patients simultaneously receiving naproxen sodium and probenecid should be observed for adjustment of dose if required. in-bound drugs
	m-bound drugs Maproxen is highly bound to plasma albumin; it thus has a theoretical potential for interaction with other albumin-bound drugs such as coumarin-type anticoaquiants, sulphonylureas, hydantoins, other NSAIDs, and aspirin.
	resprises is ingliny bodin to plasma committee, it tus mas a medicate processing of the administration of the

Drug/Laboratory Test Interactions

Intervention: This effect should be kept in mind when bleeding times are determined
Porter-Silbertest
CircialImpactTime administration st e administration of naproxen may result in increased urinary values for 17 ogenic steroids because of an interaction between the drug and/or its metabolites with m-di nitrobenzene used in this assay. Although 17-hydroxy-corticosteroid measurements (Porter-Silber test) do not appear to be artifactually altered, it is suggested that therapy with naproxen be temporarily discontinued 72 hours before adrenal function tests are performed if the Porte Siber test is to be used.

Urnaryassays of 5-hydroxy indoeacetic acid (5HAA)

Eincalmpact Naproxen may interfere with some urnary assays of 5-hydroxy indoeacetic acid (5HIAA).

Intervention: His effect should be kept in mind when urnary 5-hydroxy indoeacetic acid is determined.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Use of VSADD, including naproxer sedium, can cause premature closure of the feal ductus afteriosus and fetal renal dysfunction leading to elgohydramnios and, in some naproxen sodium use between about 20 and 30 weeks of gestation, and avoid naproxen sodium use between about 20 and 30 weeks of gestation, and avoid naproxen sodium use at about 30 weeks of gestation and later in pregnancy (see Clinical Considerations, Data).

Premature Closure of Fetal Ductus Arteriosus

Use of NSAIDs, including naproxen sodium, at about 30 weeks gestation or later in pregnancy increases the risk of premature closure of the fetal ductus arteriosus.

Oligohydramnios/Neonatal Renal Impairment

Use of NSAIDs at about 20 weeks gestation or later in pregnancy has been associated with cases of fetal renal dysfunction leading to oligohydramnios, and in some cases, neonatal renal impairment.

neonatal renal impartment.

Data from observational studies regarding other potential embryofetal risks of NSAID use in women in the first or second trimesters of pregnancy are inconclusive, in animal reproduction studies in reals, radibles, and mice no evidence of testralogenicity or feal harm when naproxen was administered during the period of organogenesis at doses 0.13, 0.26, and 0.6 times the maximum recommended human daly obse of 1500 mg/day, respectively (see Data). Based on animal data, prostaglandins have been shown to have an important role in endometrial vascular premability, blastocyst implantation, and decidualization. In animal studies, administration of prostaglandin synthesis inhibitors such as naproxen, resulted in increased pre- and post-implantation loss. Prostaglandins also have been shown to have an important role in fetal kidney development. In published animals studies, prostaglandin synthesis inhibitors have been reported to impair kidney development when administered at clinically relevant doses.

The estimated background risk of major birth defects and miscarriage for the indicated population(s) is unknown. All pregnancies have a background risk of birth defect, bss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively.

Clinical Considerations

Premature Closure of Fetal Ductus Arteriosus:

Avoid use of NSAIDs in women at about 30 weeks gestation and later in pregnancy, because NSAIDs, including naproxen sodium, can cause premature closure of the fetal ductus arteriosus (see *Data*).

Oliqohydramnios/Neonatal Renal Impairment:

If an NSAID is necessary at about 20 weeks gestation or later in pregnancy, limit the use to the lowest effective dose and shortest duration possible. If naproxen sodium treatment extends beyond 48 hours, consider mombering with ultrasound for oligohydramnios. If oligohydramnios occurs, discontinue naproxen sodium, and follow up according to clinical practice (see Data).

Labor or Delivery

There are no studies on the effects of naproxen sodium during labor or delivery. In animal studies, NSAIDS, including naproxen, inhibit prostaglandin synthesis, cause delayed parturition, and increase the incidence of stillbirth.

<u>Data</u>

Human Data

Human Data
There is some evidence to suggest that when inhibitors of prostaglandin synthesis are used to delay preterm labor, there is an increased risk of neonatal complications such as necrotking neterocollist, patent ductus arteriosus, and intracranial hemorrhage. Naproxen treatment given in late pregnancy to delay parturition has been associated with persistent pulmonary hypertension, renal dysfunction, and abnormal prostaglandin E levels in preterm infants. Because of the known effects of nonsteroidal anti-infarmantory drugs on the felal cardiovascular system closure of ductus arteriosus), should be avoided.

Premature Closure of Fetal Ductus Arteriosus:

Published literature reports that the use of NSAIDs at about 30 weeks of gestation and later in pregnancy may cause premature closure of the fetal ductus arteriosus.

Oligohydramnios/Neonatal Renal Impairment:

Olgohydramnios/Neonatal Renal Impairment:
Published studies and postmarketing reports describe maternal NSAID use at about 20 weeks gestation or later in pregnancy associated with fetal renal dysfunction leading to weeks gestation or later in pregnancy associated with retail renal dysfunction leading to understand the properties of th

Reproduction studies have been performed in rats at 20 mg/kg/day (0.13 times the maximum recommended human daily dose of 1500 mg/day based on body surface area comparison), rabbles at 20 mg/da(g/d (0.26 times the maximum recommended human daily dose, based on body surface area comparison), and mice at 170 mg/kg/day (0.6 times the maximum recommended human daily dose based on body surface area comparison) with no evidence of impaired fertility or harm to the fetus due to the drug.

8.2 Lactation

Risk Summary

The naproxen anion has been found in the milk of lactating women at a concentration equivalent to approximately 1% of maximum naproxen concentration in plasma.

e developmental and health benefits of breastfeeding should be considered along with e mother's clinical need for naproxen sodium and any potential adverse effects on the eastfed infant from the naproxen sodium or from the underlying maternal condition.

8.3 Females and Males of Reproductive Potential

Infertility

Based on the mechanism of action, the use of prostaglandin-mediated NSAIDs, including Based on the mechanism of action, the use of prostaglandin-mediated NSAIDs, includ naproxen sodium may delay or prevent rupture of ovarian folicies, which has been associated with reversible infertility in some women. Published animal studies have shown that administration of prostaglandin synthesis inhibitors has the potential to disrupt prostaglandin-mediated folicular rupture required for ovulation. Small studies women treated with NSAIDs have also shown a reversible delay in ovulation. Consider withdrawal of NSAIDs, including naproxen sodium, in women who have difficulties conceiving or who are undergoing investigation of infertility.

Safety and effectiveness in pediatric patients below the age of 2 years have not been established. Pediatric dosing recommendations for polyarticular juvenile idiopathic arthrits are based on well-controlled studies [see Dosage and Administration (2)]. There are no adequate effectiveness or dose-response data for other pediatric conditions, but the experience in polyarticular juvenile idiopathic arthrits and other use experience have established that single doses of 2.5 to 5 mg/kgs an aproxen suspension, with total daily dose not exceeding 15 mg/kg/day, are well tolerated in pediatric patients over 2 years of age.

8.5 Geriatric Use

3.70 he hepatic and renal tolerability of long-term naproxen administration was studied in two double-bilnd citrals involving 586 patients. Of the patients studied, 98 patients were age 675 and older and 10 of the 98 patients were age 75 and older. NAPROXEN was administered at doses of 375 mg twice daily or 750 mg twice daily for up to 6 months. Transient above marrials of alloward types the same special people of renal function were noted in some patients, although there were no differences noted in the occurrence of abnormal values among different age groups.

Elderly patients, compared to younger patients, are at greater risk for NSAID-associated

serious cardiovascular, gastrointestinal, and/or renal adverse reactions. If the anticipated beneft for the elderly patient outweighs these potential risks, start dosing at the low end of the dosing range, and monitor patients for adverse effects [see Warning: and Precautions (5.1, 5.2, 5.3, 5.6, 5.14)].

Studies indicate that although total plasma concentration of naproxen is unchanged, the Studes indicate that athough total passma concentration of naproxens suchanged, the unbound plasma fraction of naproxens is noreased in the editer. The Chinal Significance concentration could be associated with an increase in the rate of adverse events per a given dosage in some deletry plastins. Caution is advised when high doses are required and some adjustment of dosage may be required in elderly patients. As with other drugs used in the elderly, it is prudent to use the lowest effective dose.

Experience indicates that geriatric patients may be particularly sensitive to certain adverse effects of nonsteroidal anti-inflammatory drugs. Etlerly or debilitated patients seem to tolerate peptic uteration or beleding less well when these events do occur. Most spontaneous reports of fatal GI events are in the geriatric population (see Warnings and Precautions (5.2)!

Naproxen is known to be substantially excreted by the kidney, and the risk of toxic reactions to this drug 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 [see Clinical Pharmacology (IZ-3)]. Gerlafter, patients may be at a greater risk for the development of a form of rena toxicity precipitated by reduced prostagiland in formation during administration of nonsteroidal anti-finalmentory drugs [see Warnings and Pre-caucitons (5.6)].

8.6 Hepatic Impairment

Caution is advised when high doses are required and some adjustment of dosage may be required in these patients. It is prudent to use the lowest effective dose [see Clinical Pharmacology (12.3)].

8.7 Renal Impairment

Naproxen-containing products are not recommended for use in patients with moderate to severe and severe renal impairment (creatinine clearance <30 mL/min) [see Warnings and Precautions (5.6), Clinical Pharmacology (12.3)].

Symptoms folowing acute NSAID overdosages have been typically limited to lethargy, drowsiness, nausea, womking, and epigastric pain, which have been generally reversibly with supportive care. Gastrointestinal bleeding has occurred. Hypertension, acute renfailure, respiratory depression, and coma have occurred, but were rare [see Warnings and Prezadutions (5.1, 5.2)]. Because naproxen sodium may be rapidly absorbed, high and early blood levels should be anticipated.

A few patients have experienced convulsions, but k is not clear whether or not these were drug-related. It is not known what dose of the drug would be life threatening. [see Warnings and Precautions (5.1, 5.2, 5.4, 5.6)].

Manage patients with symptomatic and supportive care following an NSAID overdosage. There are no specific antitotes. Consider emesis and/or activated charcoal (60 to 100 grams in a duls., 1 to 2 grams per kg of body weight in pediatr; patients) and/or osmotic cathartic in symptomatic patients seem within four hours of fingestion or in patients with a frage overdosage (5 to 10 times the recommended dosage). Forced diuresis, akalinization of urine, hemodialysis, or hemoperfusion may not be useful due to high protein binding.

For additional information about overdosage treatment contact a poison control center (1-800-222-1222).

Naproxen sodium tablets, USP are nonsteroidal anti-inflammatory drugs and available as light blue color tablets containing 275 mg of naproxen sodium and dark blue color tablets containing 550 mg of naproxen sodium for or

Naproxen sodium is a member of the arylacetic acid group of nonsteroidal anti-inflammatory drugs. The chemical name for naproxen sodium is (5)-6-methoxy- α -methy-2-naphthaleneacetic acid, sodium salt. Naproxen sodium has a molecular weight of 252.23 and a molecular formula of C_1d_1 _NNO $_3$. It has the following structural

Naproxen sodium USP is a white to creamy crystalline powder, freely soluble in water at neutral pH.

Each naproxen sodium tablet, USP contains the following inactive ingredients: colloida silicon dioxide, FD&C Blue #2, hypromellose, magnesium stearate, microcrystalline cellulose, PEG 8000, povidone, talc, and titanium dioxide.

12.1 Mechanism of Action

Naproxen has analgesic, anti-inflammatory, and antipyretic properties. Naproxen sodium has been developed as a more rapidly absorbed formulation of naproxen for use as an

The mechanism of action of naproxen, like that of other NSAIDs, is not completely understood but involves inhibition of cyclooxygenase (COX-1 and COX-2).

Naproxen is a potent inhibitor of prostaglandin synthesis *in vitro*. Naproxen concentrations reached during therapy have produced *in vitro* effects. Prostaglandins and animal models. Prostaglandins are mediators of inflammation. Because approxen is an inhibitor of prostaglandins synthesis, its mode of action may be due to a decrease of prostaglandins in perpheral tessure.

12.2 Pharmacodynamics

12.2 Pharmacodynamics
In a healthy volunteer study, 10 days of concomitant administration of naproxen 220 mg once-daily with low-dose immediate-release aspiri (all: mg) showd an interaction with the antiplatelate activity of aspiri as measured by 8 serum thromboxane B2 inhibition at 24 hours following the day 10 dose [98.7% (aspiri abne) vs 93.1% (naproxen and aspirint). The interaction was observed even following discontinuation of naproxen on day 11 (while aspirin dose was continued) but normalized by day 13. In the same study, the interaction was observed even followinistered 30 minutes prior to aspirin [98.7% vs 97.7%] and minute with majoroxen was administered 30 minutes prior to aspirin [98.7% vs 95.7%] and minutes prior to approach [96.7% vs 95.4%].

Following administration of naproxen 220 mg twice-daily with low-dose immediate-release aspirin (first naproxen dose given 30 minutes prior to aspirin), the interaction was minimal at 24 h following day 10 dose 198.7% by 95.7%; However, the interaction was more prominent after discontinuation of naproxen (washout) on day 11 [98.7% vs 84.3%] and did no normalize completely by day 13 [98.5% vs 90.7%], [see Drug Interactions (7)].

Naproxen sodium is rapidly and completely absorbed from the gastrointestinal tract with an in vivo bioavailability of 95%. The elimination half-life of naproxen ranging from 12 to 17 hours. Steady-state levels of naproxen are reached in 4 to 5 days, and the degree of naproxen accumulation is consistent with this half-life.

Absorption

After oral administration of naproxen sodium tablets, peak plasma levels are attained in 1 to 2 hours

Distribution

Naproven has a volume of distribution of 0.16 L/kg. At therapeutic levels naproxen is greater than 99% abumin-bound. At doses of naproxen greater than 500 mg/day there is less than proportional increase in plasma levels due to an increase in clearance caused by saturation of plasma protein binding at higher doses (average trough C.g. 46.5, 49.2 and 56.4 mg/L with 500.1000 and 1500 mg/dally doses of naproxen, respectively). The naproxen anion has been found in the milk of lactating women at a concentration equivalent to approximately 1% of maximum naproxen concentration in plasma [see Use in Specific Populations (8.2)].

Metabolism

Naproxen is extensively metabolized in the liver to 6-0-desmethyl naproxen, and both parent and metabolites do not induce metabolizing enzymes. Both naproxen and 6-0-desmethyl naproxen are further metabolized to their respective acyglucuronide conjugated metabolites.

Excretion

The clearance of naproxen is 0.13 mL/min/kg. Approximately 95% of the naproxen from any dose is excreted in the urine, primarly as naproxen (<13%), 6-0-desmethyl naproxen (<13%) of their conjugates (66% to 92%). The plasma half-life of the naproxen ainoin in humans ranges from 12 to 17 hours. The corresponding half-lives of both naproxen's metabolites and conjugates are shorter than 12 hours, and their rates of excretion have

been found to coincide closely with the rate of naproxen clearance from the plasma. Small amounts, 3% or less of the administered dose, are excreted in the feces. In patients with renal failure metabolites may accumulate [see Warnings and Precautions (5.6)].

Specific Populations

Pediatric:

In pediatric patients aged 5 to 16 years with arthrits, plasma naproxen levels following a 5 mg/kg single dose of naproxen suspension [see Dosage and Administration (2)] were found to be similar to those found in normal adults following a 500 mg dose. The terminal half-life appears to be similar in pediatric and adult patients. Pharmacokhetic studies of naproxen were not performed in pediatric patients younger than 5 years of age. Pharmacokinetic parameters appear to be similar following administration of naproxen tablets in pediatric patients.

Geriatric:

Studies indicate that although total plasma concentration of naproxen is unchanged, the unbound plasma fraction of naproxen is increased in the delerly, although the unbound fraction is <1% of the total naproxen concentration. Unbound trough naproxen concentrations in edierly subjects have been reported to range from 0.12% to 0.19% of total naproxen concentration, compared with 0.05% to 0.075% in younger subjects.

Hepatic Impairment:

Naproxen pharmacokinetics has not been determined in subjects with hepatic insufficiency.

Chronic alcoholic liver disease and probably other diseases with decreased or abnormal plasma proteins (albumin) reduce the total plasma concentration of naproxen, but the plasma concentration of unbound naproxens is increased.

Renal Impairment:

Naproxen pharmacokinetics has not been determined in subjects with renal insufficiency. Given that naproxen, its metabolites and conjugates are primarly excreted by the kidney, the potential exists for naproxen metabolites to accumulate in the presence of renal insufficiency. Elimination of naproxen is decreased in patients with severe renal impairment.

Drug Interaction Studies

Aspirin: When NSAIDs were administered with aspirin, the protein binding of NSAIDs were reduced, although the clearance of free NSAID was not altered. The clinical significance of this interaction is not known. See Table 2 for clinically significant drug interactions of NSAIDs with aspirin [see Drug Interactions (7)].

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenesis

A 2-year study was performed in rats to evaluate the carcinogenic potential of naproxen at rat doses of 8, 16, and 24 mg/kg/day (0.05, 0.1, and 0.16 times the maximum recommended human daily dose (MRHD) of 1500 mg/day based on a body surface area comparison). No evidence of tumorigenicity was found.

Mutagenesis

Naproxen tested positive in the *in vivo* sister chromatid exchange assay for but was not mutagenic in the *in vitro* bacterial reverse mutation assay (Ames test).

Impairment of Fertility

Male rats were treated with 2, 5, 10, and 20 mg/kg naproxen by oral gavage for 60 days prior to mating and female rats were treated with the same doses for 14 days prior to mating and for the first 7 days of pregnancy. There were no adverse effects on fertility noted (up to 0.13 times the MRDH based on body surface area).

14 CLINICAL STUDIES

Naproxen has been studied in patients with rheumatoid arthritis, osteoarthritis, polyarticular juvenile dispathic arthritis, anylosing spondylist, tendonitis and bursitis, polyarticular juvenile dispathic arthritis, anylosing spondylist, tendonitis and bursitis, demonstrated by a reduction in joint swelling, a reduction in divarion of morning stiffness, a reduction in disease activity as assessed by both the investigator and patient, and by increased mobility as demonstrated by a reduction in walking time. Generally, response to naproxen has not been found to be dependent on age, sex, seventy or duration of rheumatoid arthritis.

In patients with osteoarthrits, the therapeutic action of naproxen has been shown by a reduction in joint pain or tenderness, an increase in range of motion in knee joints, increased mobility as demonstrated by a reduction in waking time, and improvement in capacity to perform activities of daily living impaired by the disease.

In a clinical trial comparing standard formulations of naproxen 375 mg twice a day (750 mg a day) vs 750 mg twice a day (1500 mg/day), 9 patients in the 750 mg group terminated prematurely because of adverse events. Nineteen patients in the 1500 mg group terminated prematurely because of adverse events. Most of these adverse events were gastroitestimal events.

In clinical studies in patients with rheumatoid arthritis, osteoarthritis, and polyarticular juvente dispathic arthritis, naproxen has been shown to be comparable to aspirin and indomethach in controlling the aforementioned measures of disease activity, but the frequency and severely of the midder gastor intestinal adverse effects (inausea, dispension), and nervous system adverse effects (timinus, distances), and approxen-treated patients than in those treated with aspirin or indomethach.

In patients with ankylosing spondylitis, naproxen has been shown to decrease night pain, morning stiffness and pain at rest. In double-blind studies the drug was shown to be as effective as aspirin, but with fewer side effects.

In patients with acute gout, a favorable response to naproxen was shown by significant clearing of inflammatory changes (e.g., decrease in swelling, heat) within 24 to 48 hours as well as by relief of pain and tenderness.

Naproxen has been studied in patients with mild to moderate pain secondary to postoperative, orthopedic, postpartum episiotomy and uterine contraction pain and dysmenorrhea. Onset of pain relief can begin within 1 hour in patients taking naproxen and within 30 minutes in patients taking naproxen sodum. Analgesic effect was shown by such measures as reduction of pain intensity scores, increase in pain relief scores, decrease in numbers of patients requiring additional analges criedication, and delay in time to remodiation. The analgesic effect has been found to last for up to 12 hours.

Naproven may be used safely in combination with gold safes and/or corticosteroids; however, in controlled clinical trials, when added to the regimen of patients receiving corticosteroids. It did not appear to cause greater improvement over that seen with corticosteroids alone. Whether naproven has a "steroid-sparing" effect has not been adequately studied. When added to the regimen of patients receiving gold safs, naproxen did result in greater improvement. Its use in combination with safelylates in commended because there is evidence that saferin in creases the rate of excretion of naproxen and data are hadequate to demonstrate that naproxen and aspirin produce greater improvement over that acheved with saperin alone. In addition, as with other NSAIDs, the combination may result in higher frequency of adverse events than demonstrated for either product alone.

In \$^1Cr blood loss and gastroscopy studies with normal volunteers, daily administration of 1100 mg of naproxen sodium has been demonstrated to cause statistically significantly less gastric bleeding and erosion than 3250 mg of aspirin.

16 HOW SUPPLIED/STORAGE AND HANDLING

NDC: 71335-0822-1: 20 Tablets in a BOTTLE NDC: 71335-0822-2: 100 Tablets in a BOTTLE

NDC: 71335-0822-3: 30 Tablets in a BOTTLE

NDC: 71335-0822-4: 120 Tablets in a BOTTLE

NDC: 71335-0822-5: 60 Tablets in a BOTTLE NDC: 71335-0822-6: 90 Tablets in a BOTTLE

NDC: 71335-0822-6: 90 Tablets in a BOTTLE NDC: 71335-0822-7: 42 Tablets in a BOTTLE

NDC: 71335-0822-8: 14 Tablets in a BOTTLE

NDC: 71335-0822-9: 56 Tablets in a BOTTLE NDC: 71335-0822-0: 6 Tablets in a BOTTLE

17 PATIENT COUNSELING INFORMATION

Advise the patient to read the FDA-approved patient labeling (Medication Guide) that accompanies each prescription dispensed. Inform patients, families, or their caregiver of the following information before in kitaint pterapy with naproxen sodium tablets and periodically during the course of ongoing therapy.

Cardiovascular Thrombotic Events

Advise patients to be alert for the symptoms of cardiovascular thrombotic events, including chest pain, shortness of breath, weakness, or slurring of speech, and to report any of these symptoms to their health care provider immediately [see Warnings and Precautions (5.1)].

Gastrointestinal Bleeding, Ulceration, and Perforation

Advise patients to report symptoms of ulcerations and bleeding, including epigastric pain, dyspepsia, melena, and hematemess to their health care provider. In the setting of concomitant use of low-dose aspirin for cardiac prophysias, inform patients of the increased risk for and the signs and symptoms of GI bleeding [see Warnings and Precautions (5.)

Inform patients of the warning signs and symptoms of hepatotoxicity (e.g., nausea, fatigue, lethargy, prurbus, diarrhea, jaundice, right upper quadrant tenderness, and "flu-like" symptoms). If these occur, instruct patients to stop naproxen sodium tablets and seek immediate medical therapy [see Warnings and Precautions (5.3)].

Advise patients to be alert for the symptoms of congestive heart failure including shortness of breath, unexplained weight gain, or edema and to contact their healthcare provider if such symptoms occur [see Warnings and Precautions (5.5)].

Anaphylactic Reactions

Inform patients of the signs of an anaphylactic reaction (e.g., difficulty breathing, swelling of the face or throat). Instruct patients to seek immediate emergency help if these occur [see Contraindications (4) and Warnings and Precautions (5.7)].

Serious Skin Reactions, including DRESS

Advise patients to stop taking naproxen sodium tablets immediately if they develop any type of rash or fever and to contact their healthcare provider as soon as possible [see Warnings and Precautions (5.9, 5.10)].

Advise females of reproductive potential who desire pregnancy that NSAIDs, including naproxen sodium tablets, may be associated with a reversible delay in ovulation [see Use in Specific Populations (8.3)].

Fetal Toxicity

Inform pregnent women to avoid use of naprovar socium tablets and other NSAIDs starting all on weeks gestation hosteause of the risk of the premature dosing of the fetal ductus arteriosus. If treatment with naproven sodium is needed for a pregnant woman between about 20 to 30 weeks gestation, advise her that she may need to be monitored for oligohydramnios, if treatment continues for longer than 48 hours [see Warnings and Precautions (5.11) and Use in Specific Populations (6.11).

Inform patients that the concomitant use of naproxen sodium tablets with other NSAIDs or salicylates (e.g., diffuniad, salsable) is not recommended due to the increased risk of gastrointestaind taxikty, and little or no increase in efficacy [see Warnings and Precautions (5.2) and Drug Interactions (7)]. Alert patients that NSAIDs may be present in "over the counter" medications for treatment of colds, fever, or insomnia.

Use of NSAIDS and Low-Dose Aspirin

Inform patients not to use low-dose aspirin concomitantly with naproxen sodium tablets until they talk to their healthcare provider [see Drug Interactions (7)].

Dispense with Medication Guide available at: www.aurobindousa.com/medication-guides

Distributed by: **Aurobindo Pharma USA, Inc.** 279 Princeton-Hightstown Road East Windsor, NJ 08520

Manufactured by: Aurobindo Pharma Limited Revised: 05/2021

What is the most important information I should know about medicines called Nonsteroidal Anti-inflammatory Drugs (NSAIDs)?

Medication Guide for Nonsteroidal Anti-inflammatory Drugs (NSAIDs)

- NSAIDs can cause serious side effects, including:
 Increased risk of a heart attack or stroke that can lead to death. This risk may happen early in treatment and may increase:
- with increasing doses of NSAIDs
 with longer use of NSAIDs

Do not take NSAIDs right before or after a heart surgery called a "coronary artery bypass graft (CABG)."

Avoid taking NSAIDs after a recent heart attack, unless your healthcare provider tells you to. You may have an increased risk of another heart attack if you take NSAIDs after a recent heart attack.

- Increased risk of bleeding, ulcers, and tears (perforation) of the esophagus (tube leading from the mouth to the stomach), stomach and intestines:
- anytime during use
 without warning symptoms
 that may cause death

- The risk of getting an uker or bleeding increases with:

 past history of stomach ukers, or stomach or intesthal bleeding with use of NSAIDs taking medicine called "corticosteroids", "anticoagulants", "SSRIs", or "SNRIs" increasing doses of NSAIDs bloger use of NSAIDs

- older age
 poor health
 advanced liver disease
 bleeding problems

- NSAIDs should only be used:
 exactly as prescribed
 at the lowest dose possible for your treatment
 for the shortest time needed

NSAIDs are used to treat pain and redness, swelling, and heat (inflammation) from medical conditions such as different types of arthritis, menstrual cramps, and other types of short-term pain.

Who should not take NSAIDs?

- Do not take NSAIDs:

 if you have had an asthma attack, hives, or other allergic reaction with aspirin or any other NSAIDs.

 right before or after heart bypass surgery.

- Before taking NSAIDs, tell your healthcare provider about all of your medical conditions, including if you:

 have liver or kidney problems
 have high blood pressure
 have asthma
 have high blood pressure
 have asthma
 have asthma
 have asthma
 have high blood pressure
 have look blood pressure
 have look blood pressure, blood pressure, blood pressure, your
 healthcare provider may need to monitor the amount of fluid in your womb around
 your bably. You should not take NSAIDs after about 30 weeks of
 presnancy.
- pregnancy.

 are breastfeeding or plan to breast feed.

Tell your healthcare provider about all of the medicines you take, including prescription or over-the-counter medicines, vitamins or herbal supplements NSAIDs and some other medicines can interact with each other and cause serious side effects. Do not start taking any new medicine without taking to your healthcare provider first.

What are the possible side effects of NSAIDs?

NSAIDs can cause serious side effects, including:

See "What is the most important information I should know about medicines called Nonsteroidal Anti-inflammatory Drugs (NSAIDs)?"

new or worse high blood pressure
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to red blood cells (anemia)
if el-threatening skin reactions
if el-threatening skin reactions
if el-threatening allergic reactions

- Other side effects of NSAIDs include: stomach pain, constipation, diarrhea, gas, heartburn, nausea, yomiting, and dizziness.

Get emergency help right away if you get any of the following symptoms:

- shortness of breath or trouble breathing
 chest pain
 weakness in one part or side of your body
 slurred speech
 swelling of the face or throat

Stop taking your NSAID and call your healthcare provider right away if you get any of the following symptoms: • nausea

- more tired or weaker than usual

Induced or weaker than the control of the control o If you take too much of your NSAID, call your healthcare provider or get medical help right away.

These are not all the possible side effects of NSAIDs. For more information, ask your healthcare provider or pharmacist about NSAIDs.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

- Other information about NSAIDs

 Aspirin is an NSAID but it does not increase the chance of a heart attack. Aspirin can cause bleeding in the brain, stomach, and intestines. Aspirin can also cause utkers in the stomach and intestines.

 Some NSAIDs are sold in lower doses without a prescription (over-the-counter). Talk to your heathcare provider before using over-the-counter NSAIDs for more than 10 days.

General information about the safe and effective use of NSAIDs

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use NSAIDs for a condition for which it was not prescribed. Do not give NSAIDs to other people, even if they have the same symptoms that you have. It may harm them.

If you would like more information about NSAIDs, talk with your healthcare provider. You can ask your pharmacist or healthcare provider for information about NSAIDs that is written for health professionals.

For more information, call Aurobindo Pharma USA, Inc. at 1-866-850-2876.

Dispense with Medication Guide available at: www.aurobindousa.com/medication-guides

Distributed by: Aurobindo Pharma USA, Inc. 279 Princeton-Hightstown Road East Windsor, NJ 08520

Manufactured by: **Aurobindo Pharma Limited** Hyderabad-500 032, India

Revised: 05/2021

This Medication Guide has been approved by the U.S. Food and Drug Administration.



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			6) (UNII: OWZ8WG20P6)					
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10	NDC:71335- 0822-0	6 in 1 BOTTLE; Type 0: Not a Combination Product	12/27/2021	
9	NDC:71335- 0822-9	56 in 1 BOTTLE; Type 0: Not a Combination Product	12/27/2021	
8	NDC:71335- 0822-8	14 in 1 BOTTLE; Type 0: Not a Combination Product	12/27/2021	
7	NDC:71335- 0822-7	42 in 1 BOTTLE; Type 0: Not a Combination Product	12/27/2021	

 Labeler - Byyant Ranch Prepack (17)2714327)

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