**Nelfinavir** (nell-fin-a-veer)

**Viral:**

**Classification:** Antiretroviral

**Pharmacologic: Pro tease inhibitors**

**Pregnancy Category B**

**Indications**

HIV infection (with other antiretrovirals).

**Contraindications/Precautions**

**Route Onset Peak Duration**

**Half-life:** 3.5–5 hr.

**Metabolism and Excretion:** Mostly metabolized (CYP3A4 enzyme system) and excreted in feces as metabolites (78%) or unchanged drug (22%); minimal renal excretion.

**Protein Binding:** Unknown.

**Distribution:** Well absorbed after oral administration.

**Pharmacokinetics**

**Inhibits HIV protease and prevents cleavage of viral polyproteins.**

**Action**

HIV infection (with other antiretrovirals).

**Indications**

Increased CD4 cell count and decreased viral load. Slowed progression of HIV infection in HIV-infected patients.

**Use Caution (Continued):** Hemorrhoids (risk of bleeding); Diabetes mellitus (rare, exocrine condition); Hepatic impairment.

**Adverse Reactions/Side Effects**

**CNS:** Headache, dizziness, drowsiness, dysphoric mood, emotional lability, anxiety, depression, insomnia, memory impairment, paresthesia, tremor, vertigo, seizures, anaphylaxis, allergic reactions, fever, immune reconstitution syndrome.

**EENT:** Acute iritis, pharyngitis, rhinitis, sinusitis, acute conjunctivitis, keratitis, optic neuritis, conjunctival hyperemia, lacrimation, epiphora, blurred vision, cataracts, optic neuritis, posterior uveitis, photopsia, photophobia, ophthalmalgia, corneal deposits, corneal neovascularization, conjunctival hyperemia.

**GI:** Nausea, vomiting, diarrhea, anorexia, dyspepsia, abdominal pain, constipation, GERD, abdominal distention, pyloric stenosis, nausea, anorexia, weight gain, dysphagia, flatulence, constipation, fecal impaction, proctitis, rectal hemorrhage, nausea, vomiting, enteritis, jaundice, dyspepsia, pancreatitis, malabsorption, melena.

**GU:** Hematuria, dysuria, bacteruria, pyuria, urinary tract infection, impotence.

**Hemat:** Leukopenia, thrombocytopenia, anemia, lymphopenia, eosinophilia, neutropenia, immune reconstitution syndrome.

**MS:** Myalgia, myopathy, peripheral neuropathy, peripheral neuritis, arthralgia, myasthenia, paresthesia.

**RESP:** Asthma, dyspnea, cough, bronchospasm, bronchitis, pharyngitis, laryngitis, rhinitis, sinusitis.

**Skin:** Rash, pruritus, urticaria, flushing, photosensitivity reaction, angioedema, exfoliative dermatitis, Darier’s disease, toxic epidermal necrolysis.

**F and E:** Dehydration.

**Endo:** Abnormalities of liver enzymes, epigastric pain, flatulence, anorexia, dyspepsia, nausea, vomiting, pancreatitis, anorexia, nausea, vomiting, abdominal distention, gallbladder disease.

**Lactation:** Breast feeding should be avoided by HIV-infected patients.

**Drug-Drug:**

- Increased nelfinavir concentrations and an increased risk of adverse effects. Excreted in feces as metabolites (78%) or unchanged drug (22%); minimal renal excretion.

- Increased risk of bleeding; concurrent use is contraindicated.

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- Increased levels and effects of hormonal contraceptives or oral contraceptives. May \( \uparrow \) plasma levels and effectiveness of hormonal contraceptives or oral contraceptives. May \( \downarrow \) plasma levels and effectiveness of hormonal contraceptives or oral contraceptives.

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- May \( \downarrow \) plasma levels of phosphodiesterase type 5 inhibitors (PDE5) causing hypotension, visual changes, priapism; starting doses not to exceed 25 mg in 48 hr. Blood levels may be \( \downarrow \) by 50%.

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Route/Dosage
PO (Adults and Children ≥13 yr): 750 mg 3 times daily or 1250 mg twice daily.
PO (Children 2–13 yr): 20–30 mg/kg 3 times daily (not to exceed 750 mg 3 times daily).

NURSING IMPLICATIONS
Assessment
● Assess patient for change in severity of HIV symptoms and opportunistic infections during therapy.

Lab Test Considerations:
● Monitor viral load and CD4 cell counts regularly during therapy.

Potential Nursing Diagnoses
Risk for infection (Indications)
Noncompliance (Patient/Family Teaching)
Implementation
● Do not confuse nelfinavir (Viracept) with nevirapine (Viramune).

PO: Administer with a meal. Tablets are film-coated to make swallowing easier.

● Patients who are unable to swallow tablets may place tablet in small amount of water. Once dissolved, mix the cloudy liquid well and drink immediately. Rinse glass with water and swallow to make sure entire dose is consumed.

● Oral powder may be mixed with a small amount of water, milk, formula, soy formula, very milk, or dietary supplements. Do not mix with acidic, fruit, or juice (orange juice, apple juice, apricots); results in a bitter taste. Do not reconstitute powder with water in its original container. Once mixed, the contents must be consumed to obtain the full dose. Mixture is stable for up to 24 hr if refrigerated.

Drug-Natural Products: St. John’s wort induces metabolism of nelfinavir, may cause decreased blood levels and may promote resistance to its effects.

Drug-Food: Food may affect warfarin concentrations. Monitor INR frequently, especially when beginning warfarin therapy.

Patient/Family Teaching
● Emphasize the importance of taking nelfinavir exactly as directed at evenly spaced times throughout the day. Do not take more than prescribed amount and do not stop taking without consulting health care professional. Take missed doses as soon as remembered; do not double doses.

● Inform patient that nelfinavir should not be shared with others.

● 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, especially St. John’s Wort. Advise patient to find out which medications cannot be taken with nelfinavir.

● Inform patient that nelfinavir does not cure AIDS or prevent associated opportunistic infections. Nelfinavir does not reduce the risk of transmission of HIV to others through sexual contact or blood contamination. Caution patient to avoid sexual contact or to use a condom and to avoid sharing needles or donating blood to prevent spreading the AIDS virus to others. Advise patient that the long-term effects of nelfinavir are unknown at this time.

● Inform patient that nelfinavir may cause hyperglycemia. Advise patient to notify health care professional if increased thirst or hunger, unexplained weight loss, increased urination, fatigue, or dry, itchy skin occurs.

● Advise patient to discontinue use if dizziness occurs; it can usually be controlled with OTC antihypertensives, such as hydralazine, which does not hide the symptoms.

● Inform patient that redistribution and accumulation of body fat may occur, causing central obesity, dorsocervical fat enlargement (buffalo hump), peripheral wasting, breast enlargement, and cushingoid appearance. The cause and long-term effects are unknown.

● Inform patient that immune reconstitution syndrome may trigger opportunistic infections or autoimmune disorders. Notify health care professional if symptoms occur.

● Advise patient taking oral contraceptives to use a nonhormonal method of birth control during nelfinavir therapy. If pregnancy is suspected or occurs, notify health care professional promptly. Encourage pregnant women to enroll in the Antiretroviral Pregnancy Registry by calling 1–800–258–4263. Advise female patient to avoid breastfeeding during therapy.

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nelfinavir

- Emphasize the importance of regular follow-up and blood counts to determine progress and monitor for side effects.

**Evaluation/Desired Outcomes**

- Delayed progression of AIDS and decreased opportunistic infections in patients with HIV.
- Improvement in CD4 cell count and decrease in viral load.

Why was this drug prescribed for your patient?