saquinavir (sa kwin-a-vir)

**Indications**

HIV infection with ritonavir (may also add other antiretrovirals).

**Contraindications/Precautions**

Contraindicated in:
- Hypersensitivity
- Concurrent amiodarone, dihydroergotamine, methylergonovine, methysergide, nifedipine, prazosin, ritonavir, verapamil, warfarin
- Severe hepatic impairment
- Pregnancy or children <16 yr (safety not established)
- OB, Pedi:
  - Pregnancy Category B
  - Lactation: Breast-feeding not recommended in HIV-infection

**Pharmacokinetics**

**Time/Action Profile (blood levels)**

- Absorption: Incompletely absorbed after oral administration; rapidly undergoes extensive first-pass hepatic metabolism
- Distribution: Mostly metabolized by the liver
- Metabolism and Excretion: Widely metabolized by the liver; <1% excreted unchanged in urine
- Half-life: 2–3 hr

**Drug-Drug Interactions**

**Interaction**

- **Increased CD4 cell counts and decreased viral load.**
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**Adverse Reactions/Side Effects**

**GI:**
- Nausea
- Abdominal discomfort
- Thrombophlebitis

**CV:**
- Pulmonary edema
- Acute myeloblastic leukemia, hemolytic anemia, thrombocytopenia

**Hemat:**
- Acute myeloblastic leukemia, hemolytic anemia, thrombocytopenia

**Neuro:**
- Ataxia

**Ophth:**
- Photosensitivity, severe cutaneous reactions

**Respir:**
- Bronchospasm

**Skin:**
- Stevens-Johnson syndrome, immune reconstitution syndrome

**Other:**
- Severe hepatic impairment

**Overdosage:**

**Signs/Symptoms:**

- Nausea
- Diarrhea
- Severe hepatic impairment

**Management:**

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not recommended. May increase bosentan levels; initiate bosentan at 62.5 mg once daily or every other day; if patient already receiving bosentan, discontinue bosentan at least 36 hr before initiation of tipranavir and then restart bosentan at least 10 days later at 62.5 mg once daily or every other day. May increase tadalafil (Adcirca) levels; initiate tadalafil (Adcirca) at 20 mg once daily; if patient already receiving tadalafil (Adcirca), discontinue tadalafil (Adcirca) at least 24 hr before initiation of tipranavir and then restart tadalafil (Adcirca) at least 7 days later at 20 mg once daily. May increase colchicine levels; do not administer colchicine if patient have renal or hepatic impairment.

Drug-Natural Products: St. John’s wort levels and effects. Food significantly increases the absorption of saquinavir. Garlic can significantly decrease colchicine levels and effectiveness; may promote development of drug resistance. Drug-Food: Grapefruit juice significantly increases serum levels and effects. Food significantly increases the absorption of saquinavir. Garlic can significantly decrease colchicine levels and effectiveness; may promote development of drug resistance.

Route/Dosage
PO (Adults): 1000 mg twice daily in combination with ritonavir 100 mg twice daily.

NURSING IMPLICATIONS
Assessment
● Assess for change in severity of symptoms of HIV and for symptoms of opportunistic infections during therapy.
● Assess patient for rash (mild to moderate rash usually occurs in the 2nd wk of therapy and resolves within 1–2 wk of continued therapy). If rash is severe (extensive erythematous or maculopapular rash with moist desquamation or angioedema) or accompanied by systemic symptoms (serum sickness-like reaction, Stevens-Johnson syndrome, toxic epidermal necrolysis), therapy must be discontinued immediately.
● Lab Test Considerations: Monitor viral load and CD4 count regularly during therapy.

Patient/Family Teaching
● Instruct patient to take saquinavir as directed at the same time each day, within 2 hr after a full meal. Take missed doses as soon as possible if not almost time for next dose; do not double doses. Do not discontinue without consulting health care professional.
● Instruct patient that saquinavir should not be shared with others.
● Instruct patient that saquinavir does not cure HIV or prevent associated or opportunistic infections. Saquinavir does not reduce the risk of transmission of HIV to others through sexual contact or blood contamination. Caution patient to use a condom during sexual contact and to avoid sharing needles or donating blood to prevent spreading HIV to others. Advise patient that the long-term effects of saquinavir are unknown at this time.
● Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and consult health care professional before taking any new medications.
● Instruct patient that saquinavir 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. Rare but serious bullous skin eruptions with polyarthritis may also occur.

Implementation
● Do not combine saquinavir with trimethoprim (deseril). PO: Administer within 2 hr after a full meal to increase effectiveness. Taking without food causes decreased blood concentrations and may result in no antiviral activity.

Evaluation/Desired Outcomes
● Slowing of the progression of HIV infection and its sequelae.
● Decrease in viral load and improvement in CD4 cell counts.

Why was this drug prescribed for your patient?