Interferon alfacon-1 (in-ter-feer-ahn-ka-con)

**Interferon alfacon-1 (in-ter-feer-ahn-ka-con)**

**Therapeutic: immune modifiers**

**Pharmacologic: interferons**

**Pregnancy Category C**

### Indications
Treatment of chronic hepatitis C infection (HCV) (as monotherapy or in combination with ribavirin) (monotherapy not recommended unless patient is unable to take ribavirin).

### Action
Antiproliferative, antiviral, and immunomodulatory effects. Therapeutic Effects: Improvement in liver function studies, liver histology, and decreased hepatitis C viral RNA concentration.

### Pharmacokinetics
- **Absorption:** Well absorbed following subcut administration.
- **Distribution:** Unknown.
- **Metabolism and Excretion:** Unknown.
- **Half-Life:** Up to 7 hours.

### Contraindications/Precautions
Contraindicated in: Hypersensitivity to alfa interferons or Escherichia coli–derived products, autoimmune hepatitis.

### Adverse Reactions/Side Effects
- **CNS:** Suicidal thoughts, anxiety, depression, dizziness, insomnia, nervousness, agitation, aggression, balance disorders, tremor, weakness, fatigue, headache, heart failure, hypotension, flushing, pyrexia, edema, loss of usual appetite or weight, neuralgia, optic neuritis, ophthalmoplegia, optic atrophy, ophthalmic paresthesias, papilledema, retinopathy, tinnitus, visual acuity or visual field loss.
- **CV:** Myocardial infarction, angina, arrhythmia, heart failure, hypotension, tachycardia.
- **EENT:** Loss of visual acuity or visual field, papilledema, retinopathy, tinnitus.
- **GI:** Hemorrhagic or ischemic colitis, pancreatitis, abdominal pain, anorexia, diarrhea, dyspepsia, vomiting, constipation, dry mouth, flatulence.
- **Resp:** Pulmonary hypertension, sarcoidosis, dyspnea, interstitial pneumonitis, pneumonia.
- **Derm:** Alopecia, pruritus, rash.
- **Endo:** Hyperglycemia, hypothyroidism.
- **GU:** Renal failure, serum creatinine.
- **Hemat:** Anemia, leukopenia, thrombocytopenia.
- **Metab:** Hypertriglyceridemia.
- **Local:** Injection site reactions.
- **MS:** Body pain.
- **Neuro:** Paresthesia.
- **Misc:** Allergic reactions including anaphylaxis.
- **Other:** Headache, fatigue, fever.

### Drug-Drug
- **Drug-Agent:** Concurrent use of antineoplastics or agents known to cause myelosuppression may increase the risk of myelosuppression. May alter the effects of other drugs sharing common liver metabolic pathways.

### Drug-Natural Products
- **Avoid concomitant use with immunomodulating products, such as echinacea, melatonin, and astragalus.

### Route/Dosage
- **Subcut (Adults):**
  - Monotherapy (initial treatment): 9 mcg 3 times weekly for 24 weeks.
  - Combination therapy with ribavirin: 15 mcg daily for up to 48 weeks.

### Nursing Implications
- **Assessment:**
  - Assess patient for improvement in hepatic or end-stage renal disease.
  - Assess patient mood periodically throughout and for 6 mos following therapy.
- **Nursing Considerations:**
  - Depression, suicidal ideation, and other severe psychiatric disorders may require discontinuation of interferon alfacon-1.
Ophthalmologic exams should be performed prior to therapy in patients with hypertension or diabetes. Ophthalmologic exams should also be performed in any patient complaining of visual anxiety or visual field.

Monitor patients with a history of cardiovascular or pulmonary disorders closely during therapy. If condition worsens or pulmonary infiltrates or impairment occurs, discontinue therapy.

Lab Test Considerations: Monitor liver function studies prior to and periodically during therapy.

Monitor platelet count, hemoglobin, hematocrit, absolute neutrophil count (ANC), serum creatinine, bilirubin, and albumin concentrations, and TSH and T4 prior to and at Weeks 2 and 4 after initiation of therapy and periodically during therapy. Any abnormal lab values should also be monitored periodically following therapy. Discontinue therapy if ANC < 5 g/l or if platelet count < 25 x 10^9/L. Filgrastim (G-CSF) may be given concurrently to prevent transient myelosuppression.

Potential Nursing Diagnoses
- Risk for infection (Indications)
- Deficient knowledge (Patient/Family Teaching)

Implementation
- Subcut: Allow solution to come to room temperature prior to administration. Administer undiluted. Avoid vigorous shaking. Store solution in refrigerator. Solution is clear and colorless; do not administer solutions that are discolored or contain particulate matter.
- Allow at least 48 hr between doses.

Patient/Family Teaching
- Advise patient to notify health care professional if flu-like symptoms (headache, fever, fatigue, myalgia, sweating, arthralgia) or depression occurs. Dose reduction or discontinuation may be required if severe reaction occurs.

- Advise patient and family to notify health care professional if thoughts about suicide or dying, attempts to commit suicide; new or worse depression; new or worse anxiety; feeling very agitated or restless; panic attacks; trouble sleeping; new or worse irritability; acting on dangerous impulses; an extreme increase in activity and talking; other unusual changes in behavior or mood occur.

Why was this drug prescribed for your patient?

Evaluation/Desired Outcomes
- Improvement in liver function studies, liver histology, and decreased hepatitis C viral RNA concentration. Therapy is usually continued for 24 wk.

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