Adeflovir (a-def-oh-veer)  

**Hepsera**  

**Classification**  
Therapeutic: antivirals  
Pharmacologic: nucleotides  

**Pregnancy Category:** C  

**Indications**  
Treatment of chronic hepatitis B in patients with evidence of active viral replication and either evidence of persistently elevated liver function tests or active disease (should be used with lamivudine to risk of resistance).  

**Action**  
Converted to adeflovir diphosphate which inhibits viral DNA polymerase (reverse transcriptase). Incorporation into viral DNA causes termination of the DNA chain.  

**Therapeutic Effects:** Decreased progression/sequelae of chronic hepatitis B infection.  

**Pharmacokinetics**  
Absorption: Rapidly converted from prodrug form (adefovir dipivoxil) to adeflovir following oral administration; 59% bioavailable.  
Distribution: 0.35–0.39 L/kg.  
Metabolism and Excretion: Elimination is primarily renal as unchanged drug.  
Half-life: 7.5 hr.  

**TIME/ACTION PROFILE (blood levels)**  
**ROUTE** | **ONSET** | **PEAK** | **DURATION**  
---|---|---|---  
**PO** | unknown | 1–4 hr | unknown  

**Contraindications/Precautions**  
**Contraindicated in:** Hypersensitivity; Lactation: Provide formula or discontinue drug.  
Use Cautiously in: Unrecognized HIV infection (may foster resistance); Patients with renal impairment or at risk of renal impairment (risk of nephrotoxicity); Patients with liver disease or risk factors for liver disease (risk of hepatotoxicity); Women, obese patients, patients with previous nucleoside exposure (risk of lactic acidosis and hepatotoxicity); Geri: Greater risk of side effects due to greater risk of renal or cardiac disorders; OB: Pregnant patients should be enrolled in the pregnancy registry for fetal outcome (1-800-236-4263); **Pedi:** Children ≤12 yr (safety not established).  

**Adverse Reactions/Side Effects**  
CNS: Headache.  
Resp: Cough, pharyngitis, sinusitis.  
GI: Dyspepsia, HEPATOMEGALY WITH STEATOSIS, abdominal pain, diarrhea, flatulence, nausea, vomiting.  
GU: Hematuria, nephrotoxicity.  
Derm: Pruritus, rash.  
F and E: LACTIC ACIDOSIS.  
MS: Weakness.  
Misc: Fever, HIV resistance.  

**Interactions**  
**Drug-Drug:** Drugs that are renally excreted or alter renal function should be used cautiously as they may affect blood levels. Ibuprofen may increase blood levels. Should not be used with tenofovir-containing products.  

**Route/Dosage**  
**PO** (Adults and Children ≥12 yr): 10 mg once daily.  

**Renal Impairment**  
**PO** (Adults):  
CCr 30–49 mL/min—10 mg every 48 hr;  
CCr 10–29 mL/min—10 mg every 72 hr;  
Hemodialysis patients—10 mg every 7 days following dialysis.  

**NURSING IMPLICATIONS**  
**Assessment**  
Monitors lactic acidosis and severe hepatomegaly with steatosis. Monitor patient for signs (increased serum lactate levels, elevated liver enzymes, liver enlargement on palpation) during therapy in patients with HIV infection.  

**NURSING CONSIDERATIONS**  
Monitor renal and renal function tests levels throughout and following therapy. If therapy is discontinued, may cause severe exacerbation of hepatitis B.
Calculated creatinine clearance to determine dose prior to starting therapy.

Monitor renal function closely. May cause nephrotoxicity.

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

Implementation
- PO: Administer once daily with or without food.

Patient/Family Teaching
- Instruct patient to take adefovir as directed and not to discontinue medication without consulting health care professional. Take missed dose as soon as it is remembered that day. Do not take more than 1 dose in a day. Consult health care professional if unsure of what to do. Discontinuation may result in exacerbation of hepatitis, usually within 12 wks of stopping. Regular liver function tests and hepatitis B virus levels are required if adefovir is discontinued. Advise the patient that adefovir does not cure hepatitis B, but may lower amount of hepatitis B in the body and decrease the ability of the virus to multiply and infect new liver cells. Instruct patient to read the Patient Information sheet prior to starting therapy.
- Inform patient that an HIV test should be taken before starting adefovir and anytime when there is a chance patient was exposed to HIV.
- Inform patient that adefovir does not reduce the risk of transmission of hepatitis B to others through sexual contact or blood contamination. Caution patient to use a condom and to avoid sharing needles, toothbrushes or razor blades, or donating blood to prevent spreading the hepatitis B virus to others.
- Instruct patient to notify health care professional immediately if signs of lactic acidosis (weakness or tiredness, unusual muscle pain, dyspnea, stomach pain with nausea and vomiting, feelings of coldness especially in arms or legs, dizziness, lightheadedness, fast or irregular heartbeat) occur.
- Caution patient to notify health care professional if signs of hepatotoxicity (jaundice, dark urine, light colored bowel movement, anorexia, nausea, browning, lower stomach pain) occur.
- 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.

Evaluation/Desired Outcomes
- Decrease in progression of chronic hepatitis B. Patients with serum HBV levels >1000 copies/mL at weeks 48 of treatment are at greater risk for developing resistance and modification of therapy should be considered.

Why was this drug prescribed for your patient?
- Advise female patient to avoid breast feeding and to notify health care professional if pregnancy is planned or suspected.
- Emphasize the importance of regular blood tests to check hepatitis B virus levels, as well as renal and hepatic function.

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