Famciclovir (Famvir®)

Class:
Famciclovir is a prodrug of penciclovir.

Antiviral Activity:
Famciclovir has activity against herpesviruses and hepatitis B virus.

Mechanism of Action:
Famciclovir is converted to penciclovir, which is converted to the triphosphate form (penciclovir triphosphate). Penciclovir triphosphate selectively inhibits viral DNA polymerase by competing with deoxyguanosine triphosphate.

Mechanism of Resistance:
The primary mechanism of resistance to famciclovir is related to viral thymidine kinase (TK) and DNA polymerase mutations.

Pharmacodynamics:
No relationship has been established between the effective *in vitro* and *in vivo* concentrations.

Pharmacokinetics:
Famciclovir is absorbed in the duodenum and is converted to penciclovir by first-pass hepatic (pre-systemic) metabolism. The absolute bioavailability of penciclovir after oral famciclovir is 77%. Renal excretion is the major route of elimination of penciclovir.

Adverse Effects:
Common adverse effects are fatigue, headache, nausea, vomiting and GI upset.

Dosage:
Tablet 125mg, 250mg, 500mg

See table for specific dosing

Disease state based dosing:
Renal Impairment: See text
Hepatic Impairment: No dose adjustment is necessary

Drug Interactions:
Probenecid – may impair the clearance of the active metabolite of famciclovir, penciclovir. Therefore concomitant administration should be avoided.

Pregnancy: Category B: No evidence of risk in humans but studies inadequate.

Monitoring Requirements: Baseline serum creatinine/BUN

Brand names/Manufacturer:
Famvir®/Novartis Pharmaceuticals Corp Dba Sandoz Pharmaceuticals Corp