Perphenazine
Class: Antipsychotic Agent, Phenothiazine, Piperazine; Phenothiazine Derivative

Pharmacokinetics

Absorption

i.) Non-genetic
   a. Formulation used
   b. Route of administration
   c. Concomitant medication/substances: aluminum salts may decrease perphenazine absorption

ii.) Genetic
   a. No clear genetic factors affecting absorption

Distribution

i.) Non-genetic
   a. Possible: altered serum protein (>90% protein bound, primarily to alpha 1-acid glycoprotein)

ii.) Genetic
   a. No clear genetic factors affecting distribution

Metabolism

i.) Non-genetic
   a. Concomitant medication/substances: CYP2D6 inducers or inhibitors
   b. Age: concentrations appear to increase with age
   c. Hepatic impairment: decreased metabolism

ii.) Genetic
   a. Genetic variation in drug metabolizing enzyme gene: CYP2D6

Excretion

i.) Non-genetic
   a. No clear non-genetic factors affecting excretion

ii.) Genetic
   a. No clear genetic factors affecting excretion

Pharmacodynamics

Receptors

i.) Non-genetic
   a. Concomitant medications/substances
      i. Adrenergic receptor agonists or antagonists (may block or enhance effects of perphenazine)
      ii. Dopamine receptor agonists or antagonists (may block or enhance effects of perphenazine)
      iii. Dopamine transporter blockers (increased dopamine binding to receptors; may block therapeutic effects of perphenazine)

ii.) Genetic
   a. Genetic variation in dopamine receptor gene(s)
   b. Genetic variation in alpha-1 adrenergic receptor gene

Transporters

i.) Non-genetic
   a. No clear non-genetic factors affecting transporters

ii.) Genetic
   a. No clear genetic factors affecting transporters