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Aricept

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**Labeled Uses:**
The labeled uses of Donepezil Hydrochloride are to treat the symptoms of mild, moderate, or severe dementia of Alzheimer’s type.

**Unlabeled Uses:**
The unlabeled uses of Donepezil Hydrochloride are to treat the symptoms of vascular dementia, poststroke aphasia, and memory improvement in multiple sclerosis patients.

**How does the body take in Aricept?**
Donepezil Hydrochloride is absorbed rapidly through the GI tract. The GI tract is the passageway that food passes through when you eat something.

**How does the body break down the drug?**
Donepezil hydrochloride is metabolized in the liver by CYP2D6 and CYP3A4. CYP2D6 and CYP3A4 are enzymes in the liver that help break down medication.

**How does the body eliminate the drug?**
Donepezil hydrochloride is primarily eliminated through urination.

**How does the body absorb the drug?**
Donepezil hydrochloride is absorbed rapidly through the GI tract.

**Chemical Formula:**
\( \text{C}_{24}\text{H}_{29}\text{NO}_3 \cdot \text{HCl} \)

**Functional Groups:**
- Acetylcholine: A chemical in the brain that helps make memories.

**Classification:**
Central acting cholinergic; cholinesterase inhibitor

**Model of Aricept:**
[Image of molecular model]

**Literature Value of Water Solubility:**
- 2.931 mg/L
- Water Solubility g/100 mL:
  - 2.931 mg/mL (1g/100mg/mL) = 2.931 x 10^-3 g/100mL
- Water Solubility: Insoluble

**Literature Value of Molar Mass:**
- 415.96 g of \( \text{C}_{24}\text{H}_{29}\text{NO}_3 \cdot \text{HCl} \)

**Condensed Structural Formula:**
[Image of structural formula]

**Expanded Structural Formula:**
[Image of expanded structural formula]

**Dosing:**
- 5 mg

**Supplied:**
- Aricept/Donepezil/Donepezil Hydrochloride Oral Tab
  - Orally Dis: 5 mg, 10 mg

- Tablets:
  - 5 mg of Donepezil HCl = 1 tablet of Donepezil HCl

**Literature Value of Molar Mass:**
- 12.01 g of Carbon, 2.4 g of Carbon from the Donepezil formula, 238.24 g of Carbon from the Donepezil formula
- 1.49 g of Hydrogen
- 1.99 g of Hydrogen from the Donepezil formula
- 30.3 g of Hydrogen
- 14.61 g of Nitrogen
- 1 g of Nitrogen from the Donepezil formula
- 14.31 g of Nitrogen
- 36.06 g of Oxygen, 3 g of Oxygen from the Donepezil formula
- 48.09 g of Oxygen
- 34.27 g of Chlorine
- 3 g of Chlorine from the Donepezil formula
- 19.35 g of Chlorine

**Chemical Names:**
- 2,3-dihydro-2,3-dimethyl-1H-indole-3-butene methyl 
- 2-[(4-piperidinyl)-4-aminomethyl]-1H-indole-3-butene methyl
- 2,3-dimethyl-1H-indole-3-butene methyl 
- 2,3-dimethyl-1H-indole-3-butene methyl

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