

PSW482  
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02-24-2010

Pre-class reading: Chapters 26 and 29, Foye's  
Assignments: Minute paper #3; Problem set #3

Lecture outline:

Part One. Antiarrhythmic drugs (Classes I-IV, Classification based on MOA)

- A. Class I Na<sup>+</sup> channel blockage
  - A. Class Ia
  - B. Class Ib
  - C. Class Ic
- B. Class II  $\beta$ -adrenergic blockage
- C. Class III K<sup>+</sup> channel blockage
- D. Class IV Ca<sup>++</sup> channel blockage
  - A. Therapeutic uses
  - B. Calcium channels
  - C. Mechanism of action
  - D. SAR of calcium channel blockers (Dihydropyridine derivatives)

Part Two. Anti hypertensive drugs

- I. Review of anti hypertensive drug therapies
  - (a) "Ohm's law"
  - (b) Adrenergic receptors and the blood pressure
- II. Classification of the antihypertensive drugs included in CH29 (based on MOA)
  - A. Peripherally acting sympatholytics
  - B. Centrally acting sympatholytics
  - C. Vasodilators
- III. Peripherally acting sympatholytics
  - A. Review of the adrenergic system
  - B. Mechanism of action
  - C. Drug development
- IV. Centrally acting sympatholytics
  - A. Mechanism of action
  - B. Methyldopa and methyldopate ester hydrochloride
  - C.  $\alpha_2$ - selective adrenergic agonists
- V. Vasodilators
  - A. Direct-acting vasodilators
  - B. Potassium channel openers
  - C. Phosphodiesterase inhibitors
  - D. Nitrodilators
  - E. Ganglionic blockers