

PSW482  
Dr. Sheng  
02-23-2010

Pre-class reading: Chapter 26, Foye's

Assignments today: minute paper #2; problem set #2

Lecture outline:

Monday's slides

Cardiac glycosides

- D. Glycosidic positive inotropic drugs
  - (g). Drug-drug interactions of cardiac glycosides
- E. Nonglycosidic positive inotropic drugs

Tuesday's slides

Part One. Antianginal drugs

- I. Angina (review)
  - A. Case
  - B. What are the common causes of angina?
  - C. Review of pathophysiology
  - D. Regulation of dilation/constriction of cardiac smooth muscles-Myosin
- II. Major anti-anginal drugs
  - A. Nitrates and nitrites
    - 1) Chemistry
    - 2) Mechanism of action
    - 3) Commonly used drugs
    - 4) Structure/activity relationships
  - B. Nitric oxide donor

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

- I. Class I Na<sup>+</sup> channel blockage
  - A. Class Ia
  - B. Class Ib
  - C. Class Ic
- II. Class II  $\beta$ -adrenergic blockage
- III. Class III K<sup>+</sup> channel blockage
- IV. 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)