




Pharmacology

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Pharmacology

- The study of drugs
 - Sources, characteristics and effects
- Always refer to drugs as ***medications***



EMTs can ***deliver*** some medications and can ***assist*** the patient in delivering some other medications



Meds EMTs can deliver

- Oxygen
- Oral Glucose
- Albuterol via inhalation
- Epinephrine Auto Injector (“EpiPen”)



Meds that EMTs can assist

- Prescribed inhalers
- Nitroglycerin



Drug Names

- Chemical
 - Generic
 - E.g. Ibuprofen, Nitroglycerin
- Trade
 - E.g. Advil, Nitrostat



Important terms

- Action
 - The therapeutic effect that a drug is **expected** to have on the body
- Indications
 - Signs/Symptoms/Conditions for which a particular medication **should** be used
- Contraindications
 - Signs/Symptoms/Conditions **or patient** for which a particular medication **should NOT** be used
- Side effects
 - Any actions of a medication ***other than*** the desired ones



Drug Administration

- Before administering any drug, know the "four rights"
 - Right patient
 - Right medication
 - Right dose
 - Right "route"



Medication Routes

- Intravenous ("IV")
- Oral ("PO")
- Sublingual ("SL")
- Intramuscular ("IM")
- Intraosseous ("IO")
- Subcutaneous ("SC")
- Transcutaneous
- Inhalation
- Rectal ("PR")



References

- PDR
- USP
- Merck Manual
- The Pill Book
 - Not an "official" guide, but a very good source
- ePocrates (for SmartPhones)



Survey of commonly used drugs



Anti-hypertensives

Accupril	Cozaar	Isoptin (Verapamil)
Lotensin	Monopril	Norvasc
Lopressor (Metoprolol)	Toprol XL	Tenormin (Atenolol)
Vasotec	Zestril	Calan (verapamil)
Prinivil		



Diuretics

- **Lasix (Furosemide)**
- Bumex
- Diazide
- **HCTZ**
- Hydrodiuril



Combination HTN, diuretics

- Zestoretic
- Prinzide
- Vasaretic
- Glucovance



Potassium supplements

- K-Dur
- K-Tab
- Slo-K



Cholesterol Lowering

- Lipitor
- Mevacor
- Lopid
- Pravachol
- Zocor



Antianginals

Procardia XL (Nifedipine)	Nitrostat (nitroglycerin)
Cardizem (Diltiazam)	Isordil (Isosorbide Dinitrate)
Inderal (propranalol)	Imdur (Isosorbide Mononitrate)
Capoten	Corgard



Oral Anti-hyperglycemics

Diabeta (Glyburide)	Diabenase
Glucotrol (Glipizide)	Glucophage
Glynase (Glyburide)	Micronase (Glyburide)
Avandia	



Injected Anti-hyperglycemics

- Humulin
- Humalog
- Lente
- **Lantus**
- And many others



Anti-epilepsy

- Dilantin
- Phenobarbitol
- Depakote
- Tegretol
- Neurontin
 - Many others



Some cardiac meds

- Lanoxin
 - Digoxin
- Coumadin
 - Warfarin
- Many of the anti-hypertensives and anti-anginals are used for cardiac conditions



Assorted respiratory inhalers

- Atrovent
- Combivent
- Alupent
- **Proventil, Ventolin (Albuterol)**
- Intal
- Serevant
- Beclovent
- Azmacort
- Aerobid