

Calculating Drip Rates for Drugs

- Key p. 139 - 141
- Brady p. 353; 359

Objectives

- To review of drip rate calculations
- To examine several ways of calculating drug drip rates
 - using a 60 drop set [60gtt / 1 mL]
 - using a standard electronic drip-regulator
 - (such as IVAC) in units of : cc / hr
 - using the “clock method” shortcut

Objectives , cont.

To examine ways of calculating various drug drip rates for:

- lidocaine
- dobutamine
- dopamine
- epinephrine
- norepinephrine
- vasopressin
- nitroglycerine

Priority of ALS Treatments

- Stratification
- A / B : oxygenation and ventilation
- C : circulation
- D : drugs

Drip Rate Calculating

- **Lidocaine**
- Standard amount : 2 grams (2000 mg) placed in 500ml
- 2000mg / 500mL : 4 mg / 1 mL
- Starting dose : 2 mg / min
- $\frac{2 \text{ mg/min} \times 60\text{gtt/mL}}{4 \text{ mg / mL}}$: 30 gtt / min
- $\frac{30\text{gtt / min} \times 60\text{min/hr}}{60\text{gtt / mL}}$: 30 ml / hr

Drip Rate Calculating

- **Lidocaine**
- Standard amount : 2 grams (2000 mg) placed in 500ml
- Range of drip dose : 1 - 4 mg / min
- Max. Dose : 4 mg / min
- Starting dose : 2 mg / min
- above amt. / 500ml : 2 mg / min @ 30 ml/hr

Beta Agents

Dobutamine

- Standard amount : **250 mg**
placed in 500ml
- Range of drip dose : **2.5 -10 mic./ kg / min**
- Max. Dose **40 mic./ kg / min**
- Starting dose : **250 mic. / min**
for 100 kg
- above amt. / 500ml : **250 mic. / min**
@ 30ml/hr for 100 kg or 2.5 mic./ kg / min

Pressor Agents

Dopamine

- Standard amount : **1600 mg**
placed in 500ml
- Range of drip dose : **0.5-20 mic/ kg / min**
(e.g., **16**)
- Max. Dose **--**
- Starting dose : **1600 mic. / min**
for 100 kg
- above amt. / 500ml : **16 mic./ kg / min**
@ 30ml/hr for 100 kg

Pressor Agents , cont.

- **Epinephrine**
- Standard amount : **2 mg**
placed in 500ml (1mg / vial x 2 vials)
(2 mL of 1:1000 epi)
- Range of drip dose : **1 - 4 mic./ min**
- Starting dose : **2 mic. / min**
- above amt. / 500ml : **2 mic. / min**
- **@ 30ml/hr**

Pressor Agents , cont.

Norepinephrine (Levophed)

- Standard amount : **8 mg**
placed in 500ml (4mg/vial x 2 vials)
- Range of drip dose : **0.5 - 30 mic./ min**
- Starting (loading) : **8 mic. / min**
dose
- above amt. / 500ml : **8 mic./ min**
- **@ 30ml/hr**

Pressor Agents , cont.

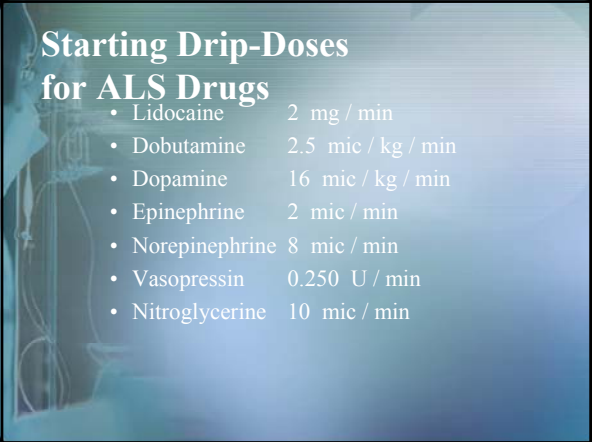
Vasopressin

- Equiv. amount : **250 Units**
- needed in 500ml (10 U. / 0.5ml vial x 25 vials)
- For persistent VF/VT : **IV bolus [40 U IV]**
- Range of drip dose : **0.01 - 0.5 U / min**
- (for septic shock : 0.01 – 0.04 U / min.)
- Max. Dose **0.5 U / min**
- Starting dose * : **0.250 U / min**
** investigational*
- above amt. / 500ml : **0.250 U / min**
@ 30ml/hr

Vasodilator Agents

Nitroglycerine

- Standard amount : **50 mg**
placed in 500ml
- Range of drip dose : **5 -100 mic. / min**
- Starting dose : **5 -10 mic. / min**
above amt. / 500ml : **50 mic. / min**
@ 30ml/hr
- $10 \text{ mic. / min} = 50 \text{ mic. / min} \div 5$
so, $30 \text{ ml/hr} \div 5 = 6 \text{ mL/hr}$

The background of the slide features a blurred image of medical equipment, including what appears to be an IV drip chamber and various tubes, set against a blue and green gradient.

Starting Drip-Doses for ALS Drugs

- Lidocaine 2 mg / min
- Dobutamine 2.5 mic / kg / min
- Dopamine 16 mic / kg / min
- Epinephrine 2 mic / min
- Norepinephrine 8 mic / min
- Vasopressin 0.250 U / min
- Nitroglycerine 10 mic / min