Henke's Med-Math

Destiny Bell

Ch 4 Proficiency Test #1;

1) 20 meq/30 meq x 15 ml = 10ml
2) 150 mg/75 mg x 7.5ml = 15ml
3) 0.125mg/0.25mg x 10ml = 5ml
4) 375mg/125mg x 5ml = 15ml
5) 40mg/20mg x 2.5ml = 5ml
6) 0.5mg/0.25mg = 2 tablets
7) 100mcg/100mcg x1 = 1 capsule
8) 250mg/100mg = 2.5 tablets
9) 500mg/250mg = 2 capsules
10) 300mcg/300mcg = 1 tablet

Chapter 5 Proficiency test 2

1) 10mg/15mg x1 = 0.666 or 0.7ml
2) 100mg/200mg x3 = 1.5ml
3) 1000mcg/5000mcg x1 = 0.2ml
4) 25mg/1000mg x100 = 2.5ml
5) 0.5mg/0.4mg = 1.3ml
6) 13 units
7) 1.2 meq/0.5meq x1 = 2.4ml
8) 0.5mg/1000mg = 0.5ml
9) a. 2ml sterile water, sodium chloride, or 1% lidocaine hydrochloride
   b. 1g/2.6ml
   c. 1g/1g x 2.6ml = 2.6ml
   d. 2.6ml
   e. nothing left in the vial
   F. Discard vial in sharps or proper place per facility protocol
10) a. 1.8ml sterile water or bacteriostatic water for injection

10 b. 250mg/ml
c. 300mg/250mg x1 = 1.2ml
d. 1.2ml
e. Discard the vial; Direct solutions must be used in 1hr
F. no; discard the vial

Chapter 16 Proficiency Test 1

1) 1000/150 = 16 hours 36 minutes or 16.7 hours

1b) 150 x 10/60 = 25 gtt/min macrodrip
150 x 60/60 = 150 gtt/min microdrip

1c) choose macrodrip

2a) 16 hours = 360 minutes

2b) 100 x 60/360 = 16.6 or 17 gtt/min
100 x 10/360 = 2.7 or 3 gtt/min

2c) microdrip tubing

3a) set volume to be infused at 150ml

3b) 3hr = 180min
macro = 150 x 15/180 = 13 gtt/min
micro = 150 x 60/180 = 50 gtt/min

3c) microdrip because it has a better flow

4) 500ml/24hr = 21ml per hour
set the pump at 21ml/hr; volume to be infused 500ml

5a) reconstitute with 100mg powder to 250ml DSW and give IVPB over 1 hour

5b) 250 x 10/60 = 42 gtt/min
label the IVPB

6a) 1000mg in 10ml, add 5ml aminophylline to make 500mg in 250ml DSW

Destiny

6a) 500/1000 x 10 = 5ml
6b) 250ml/8hr = 31 gtt/min
=> 2500ml
125 x 20 = 2500 ml
75 x 4 = 300
8a) 90ml / hour
8b) 1000/90 = approximately 11 hours / 11hr 6min
9 50mg
0.5g = 500mg
10a) 75ml D5W remove 25ml from a 100ml D5W bag label the IVPB
10b) 60 mins; secondary volume = 75ml
secondary rate: 75ml/hour
90 mins; secondary volume: 75ml
75x60/90=50 secondary rate: 50ml/hour
11) 3/4 x 150ml = 112.5ml ISOcal
150 - 112.5 = 37.5 ml water
12) 0.5 x 500ml = 250 ml Vivonex
500 - 250 = 250 ml water
13) 25% = 0.25
0.25 x 400 ml = 100ml osmolite
400 - 100 = 300ml water
14) 500 ml ISOcal
0 ml water

Chapter 7 Self test 4
1) a) Dose is correct
20mg/m² x 1.96 = 39mg
b) Set the pump to infuse a total of 250ml with 500ml per hour

2) a. correct
130 mg/m2 x 1.77 = 230mg
b. Two 100mg tabs and 3 10mg tab