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Henke's Med Math #1

Chapter #4: Self Test 1

1.) $\frac{1 \text{ tablet}}{0.75 \text{mg}} \times \frac{1.5 \text{mg}}{\text{dose}} = \boxed{2 \text{ tabs per dose}}$

2.) $\frac{1 \text{ tab}}{0.5 \text{mg}} \times \frac{0.25 \text{mg}}{\text{dose}} = \boxed{0.5 \text{ tabs per dose}}$

3.) $\frac{1 \text{ capsule}}{250 \text{mg}} \times \frac{1{,}000 \text{mg}}{1 \text{g}} \times \frac{0.5 \text{g}}{\text{dose}} = \boxed{2 \text{ capsules per dose}}$

4.) $\frac{1 \text{ tab}}{2.5 \text{mg}} \times \frac{10 \text{mg}}{\text{dose}} = \boxed{4 \text{ tabs / dose}}$

5.) $\frac{1 \text{ tab}}{325 \text{mg}} \times \frac{650 \text{mg}}{\text{dose}} = \boxed{2 \text{ tabs / dose}}$

6.) $\frac{1 \text{ capsule}}{10 \text{mg}} \times \frac{20 \text{mg}}{\text{dose}} = \boxed{2 \text{ capsules / dose}}$

7.) $\frac{1 \text{ tab}}{2.5 \text{mg}} \times \frac{10 \text{mg}}{\text{dose}} = \boxed{4 \text{ tabs / dose}}$

8.) $\frac{1 \text{ tab}}{400{,}000 \text{ units}} \times \frac{200{,}000 \text{ units}}{\text{dose}} = \boxed{0.5 \text{ tabs / dose}}$

9.) $\frac{1\ tab}{0.25mg} \times \frac{0.5mg}{dose} = \boxed{2\ tabs/dose}$

10.) $\frac{1\ tab}{12.5mg} \times \frac{18.75mg}{dose} = \boxed{1.5\ tabs/dose}$

11.) $\frac{1\ tab}{200mg} \times \frac{300mg}{dose} = \boxed{1.5\ tabs/dose}$

12.) $\frac{1\ tab}{0.1mg} \times \frac{0.3mg}{dose} = \boxed{3\ tabs/dose}$

13) $\frac{1\ tab}{25mg} \times \frac{6.25mg}{dose} = \boxed{0.25\ tabs/dose}$

14.) $\frac{1\ tab}{0.2mg} \times \frac{1mg}{1,000mcg} \times \frac{400mcg}{dose} = \boxed{2\ tabs/dose}$

15.) $\frac{1\ tab}{5mg} \times \frac{7.5mg}{dose} = \boxed{1.5\ tabs/dose}$

16.) $\frac{1\ tab}{1.25mg} \times \frac{0.625mg}{dose} = \boxed{0.5\ tabs/dose}$

17.) $\frac{1\ tab}{250mg} \times \frac{1,000mg}{1g} \times \frac{0.5g}{dose} = \boxed{2\ tabs/dose}$

18.) $\frac{1\ \text{tab}}{25\text{mg}} \times \frac{37.5\text{mg}}{\text{dose}} = \boxed{1.5\ \text{tabs/ dose}}$

19.) $\frac{1\ \text{capsule}}{500\text{mg}} \times \frac{1{,}000\text{mg}}{1\text{g}} \times \frac{1\text{g}}{\text{dose}} = \boxed{2\ \text{capsules/dose}}$

20.) $\frac{1\ \text{tab}}{10\text{mg}} \times \frac{25\text{mg}}{\text{dose}} = \boxed{2.5\ \text{tabs/ dose}}$

Chapter 5: Proficiency Test #1

1.) $\frac{3\text{mL}}{200\text{mg}} \times \frac{1{,}000\text{mg}}{1\text{g}} \times \frac{0.1\text{g}}{\text{dose}} = \boxed{1.5\text{ mL}}$

2.) $\frac{1\text{mL}}{15\text{mg}} \times \frac{5\text{mg}}{\text{dose}} = \boxed{0.33\text{ mL}}$

3.) $\frac{2\text{mL}}{50\text{mg}} \times \frac{25\text{mg}}{\text{dose}} = \boxed{1\text{ mL}}$

4.) **20 units total** 5 units Humulin drawn up first, then 15 units NPH

5.) $\frac{20\text{mL}}{40\text{mEq}} \times \frac{20\text{mEq}}{\text{dose}} = \boxed{10\text{ mL}}$

6.) $\frac{1\text{mL}}{0.4\text{mg}} \times \frac{0.6\text{mg}}{\text{dose}} = \boxed{1.5\text{mL}}$

7.) $\frac{1\text{mL}}{0.4\text{mg}} \times \frac{0.8\text{mg}}{\text{dose}} = \boxed{2\text{ mL}}$

8.) $\frac{1\text{mL}}{250\text{mg}} \times \frac{1{,}000\text{mg}}{1\text{g}} \times \frac{0.5\text{g}}{\text{dose}} = \boxed{2\text{mL}}$

9.) $\frac{2\text{mL}}{500\text{mg}} \times \frac{200\text{mg}}{\text{dose}} = \boxed{0.8\text{mL}}$

10.) $\frac{100\text{mL}}{1\text{g}} \times \frac{1\text{g}}{1{,}000\text{mg}} \times \frac{7.5\text{mg}}{\text{dose}} = \boxed{0.75\text{mL}}$

11.) $\frac{1\text{mL}}{5\text{mg}} \times \frac{10\text{mg}}{\text{dose}} = \boxed{2\text{mL}}$

12.) $\frac{2\text{mL}}{100\text{mg}} \times \frac{25\text{mg}}{\text{dose}} = \boxed{0.5\text{mL}}$

13.) $\frac{1\text{mL}}{25\text{mg}} \times \frac{50\text{mg}}{\text{dose}} = \boxed{2\text{mL}}$

14.) $\frac{1\text{mL}}{2\text{mg}} \times \frac{0.5\text{mg}}{\text{dose}} = \boxed{0.25\text{mL}}$

15.) $\frac{2\text{mL}}{200\text{mg}} \times \frac{1{,}000\text{mg}}{1\text{g}} \times \frac{0.2\text{g}}{\text{dose}} = \boxed{2\text{mL}}$

Chapter 8: Self Test #2

1.) $20 lbs \times \frac{1 kg}{2.2 lb} = 9.09 kg$

$\frac{20 mg}{kg} \times \frac{9.09 kg}{child} = 181.8 mg$ (low)

to

$\frac{40 mg}{kg} \times \frac{9.09 kg}{child} = 363.6 mg$ (high)

$60 mg \times 3 doses = 180 mg =$ **SAFE**

$\frac{5 mL}{125 mg} \times \frac{60 mg}{dose} =$ **2.4 mL / dose**

2.) $29 \div 2.2 = 13.18 kg$

$\frac{40 mg}{1 kg} \times \frac{13.18 kg}{child} = 527.27 mg$ max daily

$175 mg \times 3 doses = 525 mg$ total daily = **SAFE**

$\frac{5 mL}{125 mg} \times \frac{175 mg}{dose} =$ **7 mL / dose**

3.) Order is **SAFE** $200 mg \times 3 doses = 600 mg$

$\frac{5 mL}{125 mg} \times \frac{200 mg}{dose} =$ **8 mL / dose**

4.) $80 mg \times 6 doses = 480 mg$ total in a day

1 tab = 80 mg, but literature says give 4 tabs/dose which would be 320 mg, Check w/ doctor.

5.) 1mg q3-q4hrs = 6-8 doses a day.
Literature states 1mg is okay 2 or 3 doses a day. SO check with provider about frequency

6.) 14kg x 0.05mg = 0.7mg LOW
to
14kg x 0.2mg = 2.8mg HIGH
SO 2mg dose is SAFE
$\frac{1mL}{2mg} \times \frac{2mg}{dose} =$ 1mL

7.) 30kg x 0.1mg = 3mg LOW
to
30kg x 0.2mg = 6mg HIGH
SO 5mg dose is SAFE
5mg/5mL give 5mL

8.) 48/2.2 = 21.28kg
21.28kg x 100mg = 2128mg LOW
to
21.28kg x 200mg = 4364mg HIGH
2128/4 = 545.5mg/dose
4344/4 = 1091mg/dose
prescribed dose only 500mg contact doctor

9.) $10mg \times 30kg = \boxed{300mg = SAFE}$

$\frac{5mL}{100mg} \times \frac{300mg}{dose} = \boxed{15mL}$

10.) 8oz = 0.5 lbs

12.5 lbs ÷ 2.2 = 5.68kg

5.68 × 4mg = 22.72mg LOW

to

5.68 × 8mg = 45.44mg HIGH

So 60mg is too High [Check w/ doctor]