

Name: KEY

# How to Save a Life

1. Dr. Bailey orders a 250 mg of Amoxicillin to be taken by a 24.5 lb. child every 2 hours. The medication label shows that 55-110 mg/kg per day is the appropriate dosage range. Is Dr. Bailey's order within the desired range? (The conversion from kg to lbs. is 1kg/2.2lbs.)

a. What is the minimum dosage? 612.5

$$55 \times \frac{1}{2.2} \times 24.5 = 612.5$$

b. What is the maximum dosage? 1225

$$110 \times \frac{1}{2.2} \times 24.5 = 1225$$

c. How much Amoxicillin is the child taking each day? 3,000

$$250 \times 12 = 3,000$$

d. Is Dr. Bailey's order within the desired range? NO

2. Dr. Avery orders a 620 mg of Amoxicillin to be taken by a 44.2 lb. child every 4 hours. The medication label shows that 75-150 mg/kg per day is the appropriate dosage range. Is Dr. Avery's order within the desired range? (The conversion from kg to lbs. is 1kg/2.2lbs.)

a. What is the minimum dosage? 1,506.82

$$75 \times \frac{1}{2.2} \times 44.2 = 1506.82$$

b. What is the maximum dosage? 3,013.64

$$150 \times \frac{1}{2.2} \times 44.2 = 3013.64$$

c. How much Amoxicillin is the child taking each day? 3,720

$$620 \times 6 = 3,720$$

d. Is Dr. Avery's order within the desired range? NO

3. Dr. Karev orders a 440 mg of Amoxicillin to be taken by a 64.2 lb. child every 8 hours. The medication label shows that 125-275 mg/kg per day is the appropriate dosage range. Is Dr. Karev's order within the desired range? (The conversion from kg to lbs. is 1kg/2.2lbs.)

a. What is the minimum dosage? 3647.73

$$125 \times \frac{1}{2.2} \times 64.2 = 3647.73$$

b. What is the maximum dosage? 8,025

$$275 \times \frac{1}{2.2} \times 64.2 = 8025$$

c. How much Amoxicillin is the child taking each day? 1,320

$$440 \times 3 = 1,320$$

d. Is Dr. Karev's order within the desired range? NO

4. Dr. Kepner orders a 760 mg of Amoxicillin to be taken by a 96.4 lb. child every 6 hours. The medication label shows that 25-140 mg/kg per day is the appropriate dosage range. Is Dr. Kepner's order within the desired range? (The conversion from kg to lbs. is 1kg/2.2lbs.)

a. What is the minimum dosage? 1095.45

$$25 \times \frac{1}{2.2} \times 96.4 = 1095.45$$

b. What is the maximum dosage? 6,134.55

$$140 \times \frac{1}{2.2} \times 96.4 = 6,134.55$$

c. How much Amoxicillin is the child taking each day? 3,040

$$760 \times 4 = 3,040$$

d. Is Dr. Kepner's order within the desired range? YES