CONVERTING POUNDS TO KILOGRAMS STEP OUTLINE VIEW

For example, the client's weight is 128 lb. Determine this client's weight in kg. (Round to the tenth.)

STEP 1: What is the unit of measurement you need to calculate?
   kg

STEP 2: Set up an equation and solve for X, with X representing the amount of kilograms.

$$\frac{2.2\,lb}{1kg} = \frac{Client's\ weight\ in\ lb}{X\ kg}$$

$$\frac{2.2\,lb}{1kg} = \frac{128\,lb}{X\ kg}$$

   Cross multiply and solve for X.
   X = 58.1818

STEP 3: Round if necessary, using general rounding rules.
   You should also follow policies and procedures of your facility. For the purpose of this module, we will round to the tenth. Therefore, 58.1818 rounds to 58.2.

STEP 4: Reassess to determine if the equivalent makes sense.
   If 1 kg = 2.2 lb, it makes sense that 128 lb = 58.2 kg.

CONVERTING POUNDS TO KILOGRAMS STEP OUTLINE VIEW

For example, the client's weight is 96 lb. Determine this client's weight in kg. (Round to the tenth.)

STEP 1: What is the unit of measurement you need to calculate?
   kg

STEP 2: Set up an equation and solve for X, with X representing the amount of kilograms.

$$\frac{2.2\,lb}{1kg} = \frac{Client's\ weight\ in\ lb}{X\ kg}$$

$$\frac{2.2\,lb}{1kg} = \frac{96\,lb}{X\ kg}$$

   Cross multiply to solve for X.
   X = 43.6363

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   For the purpose of this module, we will round to the tenth. Therefore, 43.6363 rounds to 43.6.

STEP 4: Reassess to determine if the equivalent makes sense.
   If 1 kg = 2.2 lb, it makes sense that 128 lb = 43.6 kg.

CONVERTING OUNCES TO POUNDS STEP OUTLINE VIEW
For example, the client's weight is 5 lb 4 oz. Determine this client's weight in lb. (Round to the tenth.)

STEP 1: What is the unit of measurement you need to calculate?
   lb

STEP 2: Set up an equation and solve for X, with X representing the amount of pounds.

$$\frac{16\ oz}{1\ lb} = \frac{Client's\ weight\ in\ oz}{X\ lb}$$

$$\frac{16\ oz}{1\ lb} = \frac{4\ oz}{X\ lb}$$

   Cross multiply to solve for X.
   X = 0.25

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   For the purpose of this module, we will round to the tenth. Therefore, 0.25 rounds to 0.3.

STEP 4: Reassess to determine if the equivalent makes sense.
   If 1 lb = 16 oz, it makes sense that 4 oz = 0.3 lb.

STEP 5: Remember to add the remainder weight. It is important not to forget the rest of the client's weight, which in this example is 5 lb.
   Therefore, 5 lb + 0.3 lb = 5.3 lb.

CONVERTING OUNCES TO POUNDS STEP OUTLINE VIEW
For example, the client's weight is 21 lb 14 oz. Determine this client's weight in pounds. (Round to the tenth.)

STEP 1: What is the unit of measurement you need to calculate?
   lb

STEP 2: Set up an equation and solve for X, with X representing the amount of lb.

$$\frac{16\ oz}{1\ lb} = \frac{Client's\ weight\ in\ oz}{X\ lb}$$

$$\frac{16\ oz}{1\ lb} = \frac{14\ oz}{X\ lb}$$

   Cross multiply to solve for X.

X = 0.875

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility. For the purpose of this module, we will round to the tenth. Therefore, 0.875 rounds to 0.9.

STEP 4: Reassess to determine if the equivalent makes sense.
   If 1 lb = 16 oz, it makes sense that 14 oz = 0.9 lb.

STEP 5: Remember to add the remainder weight. It is important not to forget the rest of the client's weight, which in this example is 21 lb. So 21 lb + 0.9 lb = 21.9 lb.

CONVERTING OUNCES TO POUNDS TO KILOGRAMS STEP OUTLINE VIEW

For example, convert a client's weight from oz to lb, then from lb to kg. The client's weight is 65 lb 12 oz. (Round to the tenth.)

STEP 1: What is the unit of measurement you need to calculate?
   lb

STEP 2: Set up an equation and solve for X, with X representing the amount of pounds.

$$\frac{16\ oz}{1\ lb} = \frac{Client's\ weight\ in\ oz}{X\ lb}$$

$$\frac{16\ oz}{1\ lb} = \frac{12\ oz}{X\ lb}$$

Cross multiply and solve for X.
X = 0.75.

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   For the purpose of this module, we will round to the tenth. Therefore, 0.75 rounds to 0.8.

STEP 4: Reassess to determine if the equivalent makes sense.
   If 1 lb = 16 oz, it makes sense that 12 oz = 0.8 lb.

STEP 5: Remember to add the remainder weight. It is important not to forget the rest of the client's weight, which in this example is 65 lb.
   So 65 lb + 0.8 lb = 65.8 lb.

The client's weight is 65.8 lb. Determine this client's weight in kilograms. (Round to the tenth.)

STEP 6: What is the unit of measurement you need to calculate?
   kg

STEP 7: Set up an equation and solve for X, with X representing the amount of kilograms.

$$\frac{2.2\,lb}{1kg} = \frac{Client's\ weight\ in\ lb}{X\ kg}$$

$$\frac{2.2\,lb}{1kg} = \frac{65.8\,lb}{X\ kg}$$

  Cross multiply and solve for X.
  X = 29.9

STEP 8: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   For the purpose of this module, we will round to the tenth. In this example, there is no reason to round your answer because it is already rounded to the tenth.

STEP 9: Reassess to determine if the equivalent makes sense.
   If 1 kg = 2.2 lb, it makes sense that 65.8 lb = 29.9 kg.

CONVERTING OUNCES TO POUNDS TO KILOGRAMS STEP OUTLINE VIEW

For example, convert a client's weight from oz to lb, then from lb to kg. The client's weight is 33 lb 8 oz. (Round to the tenth.)

STEP 1: What is the unit of measurement you need to calculate?
   lb

STEP 2: Set up an equation and solve for X, with X representing the amount of pounds.

$$\frac{16\,oz}{1lb} = \frac{Client's\ weight\ in\ oz}{X\ lb}$$

$$\frac{16\,oz}{1lb} = \frac{8\,oz}{X\ lb}$$

  Cross multiply and solve for X.
  X = 0.5

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   For the purpose of this module, we will round to the tenth. In this example, there is no reason to round your answer because it is already rounded to the tenth.

STEP 4: Reassess to determine if the equivalent makes sense.
   If 1 lb = 16 oz, it makes sense that 8 oz = 0.5 lb.

STEP 5: Remember to add the remainder weight. It is important not to forget the rest of the client's weight, which in this example is 33 lb.
  So 33 lb + 0.5 lb = 33.5 lb.

The client's weight is 33.5 pounds. Determine this client's weight in kilograms. (Round to the tenth.)

STEP 6: What is the unit of measurement you need to calculate?
  kg

STEP 7: Set up an equation and solve for X, with X representing the amount of kilograms.

$$\frac{2.2\,lb}{1\,kg} = \frac{Client's\ weight\ in\ lb}{X\,kg}$$

$$\frac{2.2\,lb}{1\,kg} = \frac{33.5\,lb}{X\,kg}$$

  Cross multiply and solve for X.
  X = 15.22

STEP 8: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
  For the purpose of this module, we will round to the tenth. Therefore, 15.22 rounds to 15.2.

STEP 9: Reassess to determine if the equivalent makes sense.
  If 1 kg = 2.2 lb, it makes sense that 33.5 lb = 15.2 kg.

CALCULATING MILLIGRAMS PER KILOGRAM PER DAY STEP OUTLINE VIEW

The provider has prescribed 100 mg/kg/day. The client's weight is 69.5 kg. What is the daily dose of medication you would administer? (Round to a whole number.)

STEP 1: What is the unit of measurement you need to calculate?
  mg

STEP 2: Set up an equation and solve for X, with X representing the amount of milligrams.
  mg x kg / day
  100 mg x 69.5 kg = 6,950 mg/day
  X = 6,950

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.

In this example, there is no reason to round your answer because it is already rounded to a whole number.

STEP 4: Reassess to determine if it makes sense.
If the provider prescribes 100 mg/kg/day and the client weighs 69.5 kg, it makes sense that the client will receive 6,950 mg/day.

CALCULATING MILLIGRAMS PER KILOGRAM PER DAY STEP OUTLINE VIEW

The provider has prescribed 3 mg/kg/day. The client's weight is 86 kg. What is the daily dose of medication you would administer? (Round to a whole number.)

STEP 1: What is the unit of measurement you need to calculate?
mg

STEP 2: Set up an equation and solve for X, with X representing the amount of milligrams.
mg x kg / day
3 mg x 86 kg = 258 mg/day
X = 258

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
In this example, there is no reason to round your answer because it is already rounded to a whole number.

STEP 4: Reassess to determine if it makes sense.
If the provider prescribed 3 mg/kg/day and the client weighs 86 kg, it makes sense that the client will receive 258 mg/day.

CALCULATING MILLIGRAMS PER KILOGRAM PER DAY STEP OUTLINE VIEW

The provider has prescribed 15 mg/kg/day. The client's weight is 33 kg. What is the daily dose of medication you would administer? (Round to a whole number.)

STEP 1: What is the unit of measurement you need to calculate?
mg

STEP 2: Set up an equation and solve for X, with X representing the amount of milligrams.
mg x kg / day
15 mg x 33 kg = 495 mg/day
X = 495

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
In this example, there is no reason to round your answer because it is already rounded to a whole number.

STEP 4: Reassess to determine if it makes sense.
If the provider prescribed 15 mg/kg/day and the client weighs 33 kg, it makes sense that the client will receive 495 mg/day.

CALCULATING SINGLE DOSES STEP OUTLINE VIEW

The provider has prescribed amoxicillin (Amoxil) 50 mg/kg/day PO every 8 hr. The client's weight is 10.5 kg. What is the single dose of medication you would administer? (Round to a whole number.)

STEP 1: What is the unit of measurement you need to calculate?
   mg

STEP 2: Set up an equation and solve for X, with X representing the amount of milligrams.
   mg x kg / day
   50 mg x 10.5 kg = 525 mg/day
   X = 525 mg/day

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   In this example, there is no reason to round your answer because it is already rounded to a whole number.

STEP 4: Reassess to determine if it makes sense.
   If the provider prescribed 50 mg/kg/day and the client weighs 10.5 kg, it makes sense that the client will receive 525 mg/day.

STEP 5: Divide into individual dosages.
   Divided doses every 8 hr
   525 / 3 = 175

STEP 6: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   In this example, there is no reason to round your answer because it is already rounded to a whole number.

STEP 7: Reassess to determine if it makes sense.
   If the client is to receive 525 mg/day and it is divided into 3 doses, it makes sense that the client will receive 175 mg/dose.

CALCULATING SINGLE DOSES STEP OUTLINE VIEW

The provider has prescribed cefotetan (Cefotan) 80 mg/kg/day IV divided in doses every 12 hr. The client's weight is 57.2 kg. What is the single dose of medication you would administer? (Round to a whole number.)

STEP 1: What is the unit of measurement you need to calculate?
   mg

STEP 2: Set up an equation and solve for X, with X representing the amount of milligrams.
   mg x kg / day
   80 mg x 57.2 kg = 4,576 mg/day

X = 4,576

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   In this example, there is no reason to round your answer because it is already rounded to a whole number.
STEP 4: Reassess to determine if it makes sense.
   If the provider prescribed 80 mg/kg/day and the client weighs 57.2 kg, it makes sense that the client will receive 4,576 mg/day.

STEP 5: Divide into individual dosages.
   Divided doses every 12 hr
   4,576 / 2 = 2,288

STEP 6: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   In this example, there is no reason to round your answer because it is already rounded to a whole number.

STEP 7: Reassess to determine if it makes sense.
   If the client is to receive 4,576 mg/day and it is divided into 2 doses, it makes sense that the client will receive 2,288 mg/dose.

CALCULATING DOSAGE BY WEIGHT STEP OUTLINE VIEW

A provider has prescribed ferrous sulfate (Fer-In-Sol) 3 mg/kg/day PO divided in equal doses every 12 hr. The client's weight is 23 lb 10 oz. How many mg will you administer each dose? (Round to the tenth.)

STEP 1: What is the unit of measurement you need to calculate?
   lb

STEP 2: Set up an equation and solve for X, with X representing the amount of pounds.

$$\frac{16\ oz}{1\ lb} = \frac{\text{Client's weight in oz}}{X\ lb}$$

$$\frac{16\ oz}{1\ lb} = \frac{10\ oz}{X\ lb}$$

   Cross multiply and solve for X.
   X = 0.625

STEP 3: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   For the purpose of this module, we will round to the tenth. Therefore, 0.625 rounds to 0.6.

STEP 4: Reassess to determine if the equivalent makes sense.
   If 1 lb = 16 oz, it makes sense that 10 oz = 0.6 lb.

STEP 5: Add the remainder weight.
   23 lb + 0.6 lb = 23.6 lb

For example, the client's weight is 23.6 lb. Determine this client's weight in kg. (Round to the tenth.)

STEP 6: What is the unit of measurement you need to calculate?
   kg

STEP 7: Set up an equation and solve for X, with X representing the amount of kilograms.

$$\frac{2.2\,lb}{1\,kg} = \frac{Client's\ weight\ in\ lb}{X\ kg}$$

$$\frac{2.2\,lb}{1\,kg} = \frac{23.6\,lb}{X\ kg}$$

   Cross multiply and solve for X.
   X = 10.72

STEP 8: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
   For the purpose of this module, we will round to the tenth. Therefore, 10.72
   rounds to 10.7.

STEP 9: Reassess to determine if the equivalent makes sense.
   If 1 kg = 2.2 lb, it makes sense that 23.6 lb = 10.7 kg.

The provider has prescribed ferrous sulfate (Feosol) 3 mg/kg/day PO divided in equal doses every 12 hr. The client's weight is 10.7 kg. What is the single dose of medication you should administer? (Round to the tenth.)

STEP 10: What is the unit of measurement you need to calculate?
   mg

STEP 11: Set up an equation and solve for X, with X representing the amount of milligrams.
   mg x kg / day
   3 mg x 10.7 kg = 32.1 mg/day
   X = 32.1 mg/day

STEP 12: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
  In this example, there is no reason to round your answer because it is already rounded to the tenth.

STEP 13: Reassess to determine if it makes sense.
  If the provider prescribed 3 mg/kg/day and the client weighs 10.7 kg, it makes sense that the client will receive 32.1 mg/day.

STEP 14: Divide into individual doses.
   Divided doses every 12 hr
   32.1 / 2 = 16.05

STEP 15: Round if necessary, using general rounding rules. You should also follow policies and procedures of your facility.
  For the purpose of this module, we will round to the tenth. In this example, 16.05 rounds to 16.1.

STEP 16: Reassess to determine if it makes sense.
  If the client is to receive 32.1 mg/day and it is divided into 2 doses, it makes sense that the client will receive 16.1 mg per dose.

CALCULATING AMOUNT OF MEDICATION STEP OUTLINE VIEW

For example, you are preparing to administer ferrous sulfate (Fer-In-Sol) 18 mg PO daily. You have ferrous sulfate 75 mg/mL and must decide how many mL to give. Complete the following steps to calculate the appropriate dosage using the dimensional analysis method. (Round to the tenth.)

STEP 1: What is the unit of measurement you need to calculate?
  mL

STEP 2: What is the *Quantity* of the dose available?
  1 mL

STEP 3: What is the dose available? Dose available = *Have*.
  75 mg

STEP 4: What dose do you need? Dose needed = *Desired*.
  18 mg

STEP 5: Do you need to use the conversion factor?
  No

STEP 6: Set up an equation and solve for X, with X representing the amount to give.