

Types of measurement:

1- Household system

2-Metric system

1- Household system:

◆ teaspoon "tsp" = 5 ml ملعقة صغيرة

◆ Tablespoon "T" = 15 ml ملعقة كبيرة

◆ Drops - gtt قطرات

* Macro drops 1ml = 15 gtt

* Micro drops 1ml = 60 micro gtt



2-Metric system:

◆ Unit of weight وحدات الحجم :

Milligram "mg"

Gram " g "

How to convert between them?

كيف يتم التحويل بينهم ؟

$$1g = 1000 \text{ mg}$$

$$1kg = 1000 \text{ g}$$

$$G \rightarrow \text{mg} \quad \times 1000$$

$$G \leftarrow \text{mg} \quad \div 1000$$

◆ Unit of volume:

Milliliter " ml " or " cc "

Liter "L"

Pint نصف لتر

How to convert between them?

$$1 \text{ L} = 1000 \text{ ml}$$

$$1 \text{ pint} = 500 \text{ ml}$$

$$L \rightarrow \text{mL} \quad \times 1000$$

$$L \leftarrow \text{mL} \quad \div 1000$$

● طلب الدكتور يكون حسب وزن المريض ب kg فإذا كان وزن المريض ب lba " الباوند" يجب تحويله إلى kg
How?

Kg → lbs ×2.2

Kg ← lbs ÷2.2

مثال: وزن المريض = 50 باوند
حول / ي إلى kg

● كيف يتم حساب الجرعات باليوم الواحد حسب وزن المريض ؟

Ex:

Patient is 45 kg

Give 30 mg/ kg/ day administer orally divided in 3 doses

How many mg per dose?

$30 \times 45 = 1350 \text{ mg}$

Dose =

$1350 \div 3 = 450 \text{ mg / dose}$



● Calculate oral medications:

Dos ordered (D)

× amount on hand (Q)

Dose on hand (H)

ml الوحدة

D= Doctor order

H= Available medication

Q= quantity

Ex:

Doctor order Syr. Adol 60 mg

Available = 120 mg in 5 ml

2.5 ml

● Calculate injection

Dos ordered (D)

× Diluent (Q)

—————
Dose on hand (H)

ml الوحدة 💡

Diluent:

How to convert mg to ml ?

Mg → mL ÷ 100

Ex : 1000 mg = 10 ml

Dose order = 250 mg

Dose on hand = 1 g

Mixed with 500 mg

250 mg

× 5 ml = 1.25 ml

● Calculate IV fluid:

A To calculate per minutes =

Total amount of fluid × drop factor

Number of hour × 60 (minutes)

micro drops/minute الوحدة 

B To calculate per hour =

Total amount of fluid

Number of hours

ml / hour الوحدة 