



Math Study Strategies

Math for Nursing

International Units (U) for Medication

Some Medications are measured in International Units (example: Insulin, Penicillin, Heparin, etc.)

The unit measures the medication's action not its weight.

To write the unit that you want , use **Arabic Numerals** followed by the letter **U**.

Example: 2000U, 4000U

(Commas are used only if there are at least 5 digits example: 45,000U)

NDC 0009-0317-02
4ml
Heparin Sodium
Injection, USP
 Sterile Solution

10,000 Units per ml
 from beef lung

If the label shows 4ml Heparin Sodium Injection, USP 10,000 units per ml. Reading the label the nurse can answer the following questions:

1. What is the total volume of the vial? **Answer: 4ml**
2. What is the dosage strength? **Answer: 10,000 U/ml**
3. If a volume of 1.5ml is prepared, how many units will this be?
Answer: 15,000U
4. How many ml will you need to prepare a dosage of 55,000U?
Answer:

$$\frac{1\text{ml}}{10,000\cancel{\text{U}}} \times \frac{55,000\cancel{\text{U}}}{\text{dose}} = 5.5\text{ml}$$

5. If 0.25ml of this medication is prepared what will the dosage (U) be?

Answer: $\frac{10,000\text{U}}{1\cancel{\text{ml}}} = \frac{0.25\cancel{\text{ml}}}{\text{dose}} = 2500\text{U}$