Answer on Question #54436 – Chemistry – General chemistry

Question:

Rx: Cefuroxime 2 g powder for injection
Add 19.2 diluent (2 g/ 20 ml)
75 mg/kg /day divided q 12 h
Patient weights 45 lb

How many milliliters of active ingredient should you inject into the IV bag?

Answer.

$45\ lb = 45 \times 0.454 = 20.43\ kg.$

Per day: $20.43 \times 75 = 1532\ mg.$

Per 12 hours: $\frac{1532}{2} = 766\ mg.$

$\frac{2000\ mg}{20\ ml} = \frac{766\ mg}{x\ ml} \quad so \quad x = \frac{766 \times 20}{2000} = 7.66\ ml. \approx 8\ ml.$

You should inject 8 ml.