INTERPRETIVE GUIDE: FROZEN PLASMA DOSING CALCULATION TO CORRECT PATIENT INR

Plasma dosing calculation for adults: The on-call pathologist is available for any questions. Please use laboratory values (INR) and clinical assessment/judgement to guide frozen plasma therapy. Ideally the INR should be checked prior to and after the calculated FP dose is given.

Summary of calculation for adults with example:

Mass (kg) x 70 mL/kg x (1-Hct) x fractional increase in factors needed x 1 unit FP/200 mL = #FP units to transfuse

70 kg x 70 mL/kg x (1-0.45) x 0.3 x 1/200 mL = 4 units FP to transfuse (to correct INR from 3-1.3 or lower)

Details and instructions (Note: For children less than 10 kg use 100 mL/kg):

1. Determine the patient's blood volume, then their plasma volume:

Mass (kg) x 70 mL plasma/kg x (1-Hct) = mL plasma volume

Example: 70 kg x 70 mL/kg x (1-0.45) = 4900 mL x 0.55 = 2695 mL plasma volume

2. Determine the coagulation factor deficit (volume of plasma to transfuse):

INR is gross assessment of coagulation, not a direct measure of individual factors. In general, an INR of 3 could represent a need to replace 30% of plasma volume to correct to 1.3 or lower. An INR of over 8 could represent a need to replace 40% of plasma volume to correct the INR to 1.3 or lower.

Sample calculation: INR 3, to correct to 1.3 or lower: 2695 mL x 0.3 = 808 mL

3. Determine the number of units needed:

Example: 808 mL x 1 unit FP/200 mL = 4 units FP to transfuse