

Guide to order Plasmapheresis at Elmhurst Hospital (As of April 2026)

Step 0: Make sure a central line is in place (will need a signed off resident/attending as there is no Line team)

1. Contact NY Blood Center at 914-784-4602, press option 1

2. Provide patient's name, MRN, location

3. Once they locate the patient in their system, they will ask you for the patient's **HEIGHT, WEIGHT AND HEMATOCRIT**, to calculate the amount of plasma to replace

- If curious, they use Nadler's formula to calculate total blood volume (TBV):
Men: $TBV = 0.3669 \cdot (\text{height}^3) + 0.03219 \cdot \text{weight} + 0.6041$
Women: $TBV = 0.3561 \cdot (\text{height}^3) + 0.03308 \cdot \text{weight} + 0.1833$
- Then they use the hematocrit value to split the total blood volume into components:
 $RBC \text{ volume} = TBV \times Hct$
 $Plasma \text{ volume} = TBV \times (1 - Hct)$
- Typically, they try to give back 1 to 1.5 plasma volumes back per session. Per the NY Blood Center's guidelines for Elmhurst Hospital, they give back 1 plasma volume per session. However, at NYU Langone for example, they sometimes do 1.2. In the setting of kidney transplant, coagulopathy, or other high bleeding risk this number might change, so make sure to notify the rep of any relevant comorbidities.
- Typically they use albumin, but based on comorbidities this may be different. The rep will ask you all the relevant questions.

4. In general, assuming the hematocrit doesn't fluctuate dramatically the amount of albumin you give back per session will be the same every day.

To order Albumin:

- Place the albumin order in Epic. It's in grams, so for example if the rep tells you to order 3 L of 5% albumin, you'll order 150g of 5% albumin solution (PLASBUMIN)
- Ask the nursing station for the **Albumin Form**. Fill out the form and go to the Pharmacy on C4.
- The pharmacist will have you time the order for NOW, to send the albumin down. As soon as its been sent down, **CHANGE THE ORDER BACK** to be whenever the PLEX session is scheduled for. **Tell the nurse not to give the albumin.**
- **Make sure albumin is at bedside before the plasmapheresis rep arrives**

5. Obtain a fibrinogen level before the first and every following session. In general, they're looking for **fibrinogen levels above 50-70**.

6. This is not an option they'll give you, so you will have to **pointedly ASK the rep if, based on the fibrinogen level, the patient can get PLEX consecutively for 3 sessions**. They prefer doing at most 3 consecutive sessions, and then every alternate day for duration of treatment course. **In the situation that you absolutely need 5 consecutive, you might need to transfuse cryoprecipitate**. Rep will guide you.

7. Space consecutive sessions **at least 12 hours apart** from each other.

Of note, the only labs you need prior to PLEX are **CBC and fibrinogen the morning of**, so **bedside PLEX in most situations can be done on non-step-down units**.

Reps: Michael from NY Blood Center (914) 784-4602, Patricia (914) 327 9157