

Pre-Hospital Blood Program

Program Overview

Our Flight Paramedics are carrying **O- Packed Red Blood Cells (pRBCs)** to support early resuscitation of patients with suspected life-threatening hemorrhage. This resource allows the transfusion of blood products to begin before hospital arrival, bridging the gap between the scene and definitive care. This resource is available for both adult and pediatric patients.

At this time, only our aviation units are carrying blood. Blood products will not be carried on any Stony Brook Medicine ground units.

Why It Matters

- Hemorrhage is a leading cause of preventable pre-hospital death
- Shock from blood loss can develop rapidly, even before classic hypotension
- Early blood resuscitation improves oxygen delivery and helps prevent progression to irreversible shock
- Time matters – waiting until hospital arrival can delay definitive resuscitation

What We Are Carrying

- Each aviation base will carry **two (2) units of O- Packed Red Blood Cells (pRBCs)**
- pRBCs are highly regulated and are stored and will be transported in a temperature-controlled cooler
- pRBCs will be infused through an approved blood warmer prior to administration to the patient to prevent hypothermia and support safe resuscitation
- If the Flight Paramedic administers blood – they will be the lead provider and transport with the patient to the hospital
 - *Upon arrival, the Flight Paramedic may elect ground transport to expedite access to an appropriate facility*

When to Consider Requesting Aviation

Request aviation early for patients meeting protocol criteria for significant hemorrhage (traumatic, OB, GI, or other), including:

- Signs of shock with concerning mechanism
- Uncontrolled external hemorrhage
- Suspected internal hemorrhage

Aviation should be requested **as early as possible** and it should be communicated that you are requesting for blood.

*****If ground transport to an appropriate receiving facility is faster, crews should proceed immediately instead of waiting for aviation resources*****

What Ground Crews Can Do While Waiting

- Control hemorrhage and keep patient warm
- Vital sign and continuous monitoring
- Consider a transfer device (Reeves, LBB) to facilitate ease of movement of the patient into the helicopter

ALS Providers

- At least one (1) large bore IV (18g or larger) or IO, preferably two (2) vascular access points
- If equipped, administer TXA per protocol
- Minimize fluid resuscitation

How to Help the Flight Paramedic When They Arrive

- Provide a quick report, which includes the mechanism of injury, pertinent clinical exam findings, clinical impression, and interventions performed so far
- Have a recent set of Vital Signs and continuous patient monitoring
- Work collaboratively as a team to optimize resuscitation of the patient and transport the patient to the most appropriate facility while minimizing on scene time