**Appendix 1. Study inclusion criteria**

For patients to be included, they must have all of the following:

undergoing air medical or land critical care transport

and

cared for by Ornge flight paramedics

and

chief complaint of either

multisystem traumatic injuries

or

gastrointestinal bleeding with history of melena, hematochezia, or hematemesis

or

post-partum hemorrhage

and

not have any exclusion criteria (see below)

Exclusion criteria

interfacility transport was non-urgent repatriation

or

transfer is cancelled by the sending facility

or

patient is transported by another ambulance or service

or

patient was pronounced dead prior to Ornge personnel making patient contact

**Appendix 2. Criteria for administration of blood products**

Evidence of hemodynamic instability as exhibited by any one of the following:

hemorrhage requiring tourniquet

or

resuscitation requiring > 2 litres of crystalloid fluid

or

administration of uncrossmatched packed red blood cells

or

heart rate >120 at any time during transport

or

systolic blood pressure <90 mm Hg at any time during transport

or

use of vasoactive medications (either infusion or bolus) to maintain BP

or

hemoglobin <70 g / l

or

shock index

>1.7 (for post-partum hemorrhage)

or

>1.2 (for trauma)

or

>1.0 (gastrointestinal bleeding)