Name of Policy: Massive Transfusion Protocol Policy Number: 3364-108-405 Approving Officer: Senior Hospital Administrator Director, Blood Transfusion Service Responsible Agent: Blood Transfusion Service Supervisor Administrative Director, Lab Scope: University of Toledo Medical Center Pathology/Laboratory – Blood Bank	UTOLEDO HEALTH Effective date: ~~03/01/2025~~ Original effective date: 06/1997
Key words: Massive Transfusion Protocol, MTP, Emergency, Trauma, Massive, Transfusion	

☐	New policy proposal	☒	Minor/technical revision of existing policy
☐	Major revision of existing policy	☐	Reaffirmation of existing policy

(A) ~~(A)~~ Policy Statement

The Blood Transfusion Service (BTS) will respond by specific procedures when massive transfusion protocol (MTP) is initiated. The attending physician initiates MTP when immediate transfusion of ten or more units packed red blood cells is anticipated.

(B) ~~(B)~~ Purpose of Policy

To expedite and anticipate blood product requirements in emergent, massive transfusion situations.

(C) ~~(C)~~ Procedure

(1) ~~Section 1:~~ Initiation of MTP

~~1.~~(a) The Blood Transfusion Service will be notified immediately by phone call to x383-5212 when MTP is initiated for a patient. The Department of Pathology will ensure that the Blood Transfusion Service will have adequate staffing to provide for MTP demands by calling in additional personnel when necessary to bring staffing level to a minimum of two (2).

(b) The "Massive Transfusion Protocol" may be initiated at any time by phone by the attending physician or designee. BTS Staff will n~~N~~ote the time, ordering physician and caller on the Telephone Request Log.

(c) The Blood Bank specimen must be collected and sent to the BTS as soon as possible.

~~2.~~ The specimen must be labeled with green Blood Bank ID labels/numbers with the following information completed: Patients first and last name or temporary name and hospital ID number, initials of phlebotomist, date and time of specimen collection. The corresponding Blood Bank ID number armband must be attached to the patient at the time of collection ~~in order for~~for subsequent Type-Specific/Compatible or crossmatched transfusions to be given. Patient

name may be added to the armband when permanent identification is determined.

(d)

(2) ~~Section 2:~~ Red Blood Cells

(a) The ABO & Rh Type/Antibody Screen (T&S) will be performed immediately upon receipt of the specimen. The Type should be available within 15 minutes of receipt; the antibody screen should be completed within 40 minutes of receipt.

(b) All packed red blood cells issued prior to specimen receipt or prior to completion of the ABO & Rh Type will be "Uncrossmatched - Type O Negative" unless blood inventory constraints require release of "Uncrossmatched - Type O positive". Packed red blood cells issued prior to completion of the antibody screen but after the completion of the type will be "Uncrossmatched - Type-Specific/Compatible". The crossmatch will be performed as soon as possible for all packed red blood cells issued as "Uncrossmatched".

~~1. The ABO & Rh Type/Antibody Screen (T&S) will be performed immediately upon receipt of the specimen. The Type should be available within 15 minutes of receipt; the antibody screen should be completed within 40 minutes of receipt. All packed red blood cells issued prior to specimen receipt or prior to completion of the ABO & Rh Type will be "Uncrossmatched - Type O Negative" unless blood inventory constraints require release of "Uncrossmatched - Type O positive". Packed red blood cells issued prior to completion of the antibody screen but after the completion of the type will be "Uncrossmatched - Type-Specific/Compatible". The crossmatch will be performed as soon as possible for all packed red blood cells issued as "Uncrossmatched".~~

~~2.~~(c) Two~~Four~~ (24) (Four (4) if inventory allows) units of uncrossmatched blood, (Type O Negative packed red blood cells) are reserved and immediately available in the Blood Bank refrigerator in the ED Trauma Room. Additional units of uncrossmatched blood, (Type O Negative packed red blood cells, unless blood inventory constraints require the use of Type O Positive uncrossmatched blood) are available in the Blood Bank refrigerator in the Blood Bank. ~~–~~Refer to Policy #3364-108-40~~-~~4 for additional information.

~~3.~~(d) Initiate crossmatch of six (6) units Type-Specific/Compatible packed red blood cells immediately upon determination of the patients ABO & Rh type according to procedure. If issued, the units must be considered uncrossmatched until completion of the antibody screen. NEVER RELEASE TYPE-SPECIFIC RBC UNITS UNLESS THE BLOOD RELEASE FORM INCLUDES THE BBID ARMBAND NUMBER. Refer to Policy #~~-~~3364-108-40~~-~~4 for additional information.

~~4.~~(e) The BTS will immediately initiate the crossmatch of six additional units Type-Specific/Compatible packed red blood cells when the previous six are issued until MTP is terminated.

~~5.~~(f) Blood Release forms, Urgent Requests for Uncrossmatched Blood and O.R. Blood Delivery and Storage Records presented to the BTS for release of crossmatched and/or type-specific blood products must bear patients first and last name, and MRN. BB ID number must be included for patients receiving type specific or crossmatched products.~~ and hospital ID number (two of these identifiers).~~

~~6.~~(g) The attending physician or anesthesiologist will be notified immediately when incompatibility or positive antibody screen is detected. AHG crossmatch of all packed red blood cells issued uncrossmatched will be initiated immediately.

(3) ~~Section 3:~~ Thawed Plasma

~~1.~~(a) If ABO & Rh is not determined when MTP is initiated, four (4) units Type AB FFP will be thawed immediately and available within 30 minutes. Six (6) FFP will be thawed when the patient's type is determined or when the first four FFP are issued. The BTS n~~N~~otifies~~y~~ the attending ~~physician or anesthesiologist~~physician, anesthesiologist, or designee when Thawed plasma is available.

~~2.~~(b) The BTS will thaw six (6) additional FFP when previous set of six is issued until MTP is terminated.

(4) ~~Section 4:~~ Platelets

~~1.~~(a) Two unit of Platelets, Pheresis are available~~ on site~~ for emergency use at all times. ~~-~~Two additional units of Platelets, Pheresis will be requested STAT from ARC as soon as MTP is initiated. Platelets should be available 45 to 60 minutes after request. The BTS will notify attending physician, anesthesiologist, or ~~desinee~~designee when platelets are available. Platelets will be issued, individually, when requested by attending physician or anesthesiologist.

~~2.~~(b) Two additional Platelets, Pheresis will be requested STAT from ARC when first units are issued until MTP is terminated.

(5) ~~Section 5:~~ Cryoprecipitated AHF

(a) Orders for cryoprecipitate will not be anticipated by the BTS unless specifically requested. Pooled cryoprecipitate will be available within 30 minutes of request.

(6) ~~Section 6:~~ Availability and Issue of Blood Products

(a) The BTS will notify the attending physician or designee as blood and blood products are made available. Products will be issued upon request or held in the Blood Bank until needed. The goal is to maintain a 6:6:1 ratio (RBC:FFP:Pheresis PLT) when preparing, issuing and transfusing blood products.

(7) ~~Section 7:~~ Termination of MTP

(a) The BTS will inquire at each notification of product availability if MTP should continue. It is the responsibility of the attending physician to notify BTS by phone call to x383-5212 to discontinue MTP.

(8) ~~Section 8:~~ Monitoring

(a) Initiation of the Massive Transfusion Protocol, designation of MTP patients, use of Uncrossmatched blood and turnaround time will be monitored and reviewed by the ~~Lab/~~Blood Utilization Review Committee when necessary.

(D) References

(1) AABB Standards for Blood Banks and Transfusion Services, current edition.

Approved by:	Policies Superseded by This Policy: • None

Lauren Stanoszek, M.D. Assistant Professor Director, Blood Transfusion Service Date Russell Smith Pharm D, MBA, BCPS, CPEL, FACHE Senior Hospital Administrator Date Review/Revision Completed by: Danielle Weilnau MLS(ASCP)CM	Initial effective date: 06/1997 All Review/Revision Dates: 6/97 3/2/2015 2/99 3/1/2017 5/02 3/1/2019 1/05 9/26/2019 1/2008 3/1/2021 6/9/2008 3/20/2023~~3~~ 01/15/2010 ~~03/01/2025~~ 3/25/2011 3/01/2013 Next review date: ~~03/01/2027~~

~~Approved by:~~ ~~Lauren Stanoszek, M.D.~~ ~~Assistant Professor~~ ~~Director, Blood Transfusion Service~~ ~~Date~~ ~~Christine Stesney-Ridenour~~ ~~Chief Operating Officer - UTMC~~ ~~Date~~ ~~Review/Revision Completed By:~~ ~~Danielle Weilnau, MLS(ASCP)CM~~	~~Review/Revision Date:~~ ~~6/97~~ ~~3/20/2023~~ ~~2/99~~ ~~5/02~~ ~~1/05~~ ~~1/2008~~ ~~6/9/2008~~ ~~01/15/2010~~ ~~3/25/2011~~ ~~3/01/2013~~ ~~3/2/2015~~ ~~3/1/2017~~ ~~3/1/2019~~ ~~9/26/2019~~ ~~3/1/2021~~ ~~Next Review Date: 3/1/2025~~
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