UPSTATE
UNIVERSITY HOSPITAL
AT COMMUNITY GENERAL

Blood Component Order Form

ADDRESSOGRAPH

TRANSFUSION ORDER

Transfuse _____ Units of _____ Each over _____hours

All red blood cell and platelet products provided are prestorage-leukoreduced and are considered "CMV Safe." Patient must be seronegative to receive CMV negative products.

Irradiated requested: ❑ **Yes** ❑ **No**

CMV Seronegative requested: ❑ **Yes** ❑ **No** **If yes,** please give reason (*e.g.*, Neonate, Transplant Recipient, *etc.*) _____

Blood component verification by receiver at issue time **1st unit**_____ **2nd** _____**3rd** _____ **4th** _____

Blood component verification by lab at issue time **1st unit**_____ **2nd** _____ **3rd** _____ **4th** _____

Any change in the transfusion order must be verbally communicated by the physician to the Transfusion Services Department at 492-5531.

Has pre-medication been ordered for this transfusion? ❑ Yes ❑ No

If so, please list premedication: _____

RATIONALE FOR TRANSFUSION

Listed indications are not intended to be standards of care. Note: Blood products should be transfused on a unit by unit basis with intervening clinical evaluation.

Check at least one indication below for components ordered. When laboratory values are part of the indication, those values should be *CURRENT.*

I. RED BLOOD CELLS HEMATOCRIT: _____ HEMOGLOBIN: _____

❑ 1. Symptomatic anemia or falling hematocrit in a patient with an unstable RBC volume.

❑ 2. Hgb<8 g/dL or Hct <24% in patient with stable RBC volume. (NYSDOH recommended guideline Hgb<7 g/dL or Hct<21% in asymptomatic, non-acute patients) (Autologous Hgb <9 g/dL or Hct <27%)

❑ 3. Significant blood loss (Hypovolemic) ❑ Surgical ❑ Other (Specify): _____

❑ 4. Special circumstances (specify):_____

II. PLATELETS PLATELET COUNT _____

❑ 1. Platelet count under 10,000/uL. ❑ 2. Preoperative or active bleeding with platelet count under 50,000/uL.

❑ 3. Special circumstances (specify): _____

NOTE: DDAVP CAN BE USED AS AN ALTERNATIVE TO PLATELETS IN PATIENTS WITH FUNCTIONAL PLATELET ABNORMALITIES DUE TO UREMIA OR DRUGS.

III. PLASMA INR: _____ PT: _____ PTT: _____

❑ 1. Prolonged PT/PTT (Greater than 1.5 x the normal mean or INR ≥ 1.7 with active bleeding or impending hemostatic challenge).

❑ 2. Emergent reversal of Warfarin effect. ❑ 3. Treatment of TTP, Hemolytic Uremic Syndrome.

❑ 4. Special circumstances (specify): _____

IV. CRYOPRECIPITATE

❑ 1. Bleeding with Fibrinogen less than 100 mg/dL. Fibrinogen level: _____

❑ 2. Uremia with bleeding ❑ 3. Special circumstances (specify): _____

V. Rh IMMUNE GLOBULIN ADMINISTRATION

❑ Rh Immune Globulin ❑ Antepartum (_____ weeks gestation) ❑ Post Partum

❑ Mini-dose Rh Immune Globulin (may only be used in cases up to and including 12 weeks gestation with a termination of pregnancy)

Ordering Physician/PA/NP (please print full name): _____

Practitioner's Signature:_____ Date/Time:_____

Verbal Order Taken By: _____ Date/Time:_____

Unit Secretary: _____ Date/Time:_____

RN: _____ Date/Time:_____

Faxed to Blood Bank (x5806): _____ **Date/Time:**_____

RATIONALE FOR USE OF IRRADIATED CELLULAR BLOOD COMPONENTS

Irradiated blood products are used to prevent transfusion-associated graft vs. host disease (TA-GVHD), usually a fatal disease. At risk patients include:

- Immunocompromised marrow or organ transplant recipients
- Patients with aplastic anemia
- Patients with congenital immunodeficiencies
- Premature neonates/intrauterine transfusions (IUT) or postnatal transfusions in recipients of IUT
- Recipients of directed donations from biologic relatives or from HLA-matched donors
- Granulocyte transfusions
- Patients receiving Fludarabine or patients with Hematologic malignancies or solid tumors undergoing ablative therapy.

- The process of irradiation will add several hours to the time normally required to make blood available.
- Irradiated blood products have the same incidence of other transfusion reactions as their non-irradiated counterparts.
- Frozen plasma (FFP) and cryoprecipitate have never been associated with TA-GVHD and therefore do **NOT** need to be irradiated.
- Platelet concentrates contain viable lymphocytes and therefore irradiation should be considered in the patient populations mentioned above.
- Leukoreduction is not an acceptable substitute for irradiation.
- Irradiation does not by itself produce a “CMV safe” product
- TA-GVHD is caused by engraftment of viable lymphocytes contained within donated blood in a recipient who is incapable of rejecting the donor. TA-GVHD typically begins 1-2 weeks after transfusion and is characterized by fever, skin rash, diarrhea, hepatitis and pancytopenia. Gamma irradiation prevents TA-GVHD by rendering any lymphocytes incapable of mitosis and thus incapable of engrafting within the host.

RATIONALE FOR USE OF CYTOMEGALOVIRUS SERONEGATIVE PRODUCTS

CMV seronegative products are indicated for use in CMV seronegative immunocompromised patients including:

- Infants born to seronegative mothers.
- Seronegative recipients of marrow transplants from CMV negative donors.
- Seronegative pregnant women due to fetal risk of transplacental infection.
- Fetuses receiving intrauterine transfusions.
- Seronegative recipients of any organ transplant from a seronegative donor.
- Seronegative individuals who are candidates for or are recipients of autologous or allogeneic bone marrow transplants.
- Seronegative HIV patients
- Patients with congenital immunodeficiencies
- Low birth-weight infants of seropositive mothers or children born to HIV-infected mothers

- It has been estimated that from 40-90% of the population in the United States has previously been infected with cytomegalovirus. Life-long IgG antibody accompanies the resolution of this infection.
- Blood from donors who test negative for CMV antibodies has a markedly reduced (**but not zero**) risk of transmitting CMV.
- The supply of sero-negative blood is in short supply. Due to this limited availability, it is necessary to test the recipients for CMV status prior to ordering CMV-seronegative blood.
- All red blood cells and platelets currently distributed by the American Red Cross are leukoreduced and are considered CMV safe, which is not necessarily equivalent to CMV negative.