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Hemovigilance Module
Adverse Reaction
Transfusion Associated Circulatory Overload

*Required for saving

*Facility ID#: _________ NHSN Adverse Reaction #: __________

Patient Information

*Patient ID: ___________________ *Gender: ☐ M ☐ F ☐ Other *Date of Birth: ___/___/____
Social Security #: ______________ Secondary ID: _________________ Medicare #: _________________
Last Name: ___________________ First Name: ____________________ Middle Name: _______________

Ethnicity ☐ Hispanic or Latino ☐ Not Hispanic or Not Latino

Race ☐ American Indian/Alaska Native ☐ Asian ☐ Black or African American
☐ Native Hawaiian/Other Pacific Islander ☐ White

*Blood Group: ☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ Blood type not done

Patient Medical History **(Use worksheet on page 4 for additional codes and descriptions.)**

(part 1) List the patient's admitting diagnosis. *(Use ICD-10 Diagnostic codes/descriptions)*

Code: ______________ Description: ____
Code: ______________ Description: ____
Code: ______________ Description: ____

(part 2) List the patient's underlying indication for transfusion. *(Use ICD-10 Diagnostic codes/descriptions)*

Code: ______________ Description: ____
Code: ______________ Description: ____
Code: ______________ Description: ____

(part 3) List the patient's comorbid conditions at the time of the transfusion related to the adverse reaction. *(Use ICD-10 Diagnostic codes/descriptions)* ☐ UNKNOWN ☐ NONE

Code: ______________ Description: ____
Code: ______________ Description: ____
Code: ______________ Description: ____

Continued >>

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Transfusion Associated Circulatory Overload

Patient Medical History (Use worksheet on page 4 for additional codes and descriptions.)

(part 4) List the patient's relevant medical procedure including past procedures and procedures to be performed during the current hospital or outpatient stay. *(Use ICD-10 Procedure codes/descriptions)*

☐ UNKNOWN
☐ NONE

Code: ______________ Description: ______________________________________
Code: ______________ Description: ______________________________________
Code: ______________ Description: ______________________________________

(part 5) Additional Information ______________________________________
____
____

Transfusion History (Use worksheet on page 4 for additional transfusion history.)

*Has the patient received a previous transfusion? ☐ YES ☐ NO ☐ UNKNOWN

***If yes, provide information about the transfusion event. If not, skip to Reaction Details section.*

Blood Product: ☐ WB ☐ RBC ☐ Platelet ☐ Plasma ☐ Cryoprecipitate ☐ Granulocyte

Date of Transfusion: ____/____/_____ ☐ UNKNOWN

Did the patient experience a transfusion adverse reaction? ☐ YES ☐ NO

If yes, provide information about the transfusion adverse reaction.

Type of transfusion adverse reaction: ☐ Allergic ☐ AHTR ☐ DHTR ☐ DSTR ☐ FNHTR
☐ HTR ☐ TTI ☐ PTP ☐ TACO ☐ TAD ☐ TA-GVHD ☐ TRALI ☐ UNKNOWN
☐ OTHER Specify ______________________________________

Reaction Details

*Date reaction occurred: ____/____/____ *Time reaction occurred: __ __:__ __ ☐ Time unknown

*Facility location where patient was transfused: ______________________________________

*Is this reaction associated with an incident? ☐ Yes ☐ No If Yes, Incident #: ______________

After recognition of the transfusion reaction, was the current transfusion:
☐ Continued ☐ Stopped and restarted ☐ Stopped indefinitely

Investigation Results

*☐ **Transfusion associated circulatory overload (TACO)**

Case Definition

Check all that occurred within 6 hours of cessation of transfusion (new onset or exacerbation):

☐ Acute respiratory distress (dyspnea, orthopnea, cough)
☐ Elevated brain natriuretic peptide (BNP)
☐ Elevated central venous pressure (CVP)
☐ Evidence of left heart failure
☐ Evidence of positive fluid balance
☐ Radiographic evidence of pulmonary edema
☐ None of the above

Continued >>

Transfusion Associated Circulatory Overload

Investigation Results (continued)

Other signs and symptoms: (check all that apply)

Generalized:	☐ Chills/rigors ☐ Fever ☐ Nausea/vomiting
Cardiovascular:	☐ Blood pressure decrease ☐ Shock
Cutaneous:	☐ Edema ☐ Flushing ☐ Jaundice ☐ Other rash ☐ Pruritus (itching) ☐ Urticaria (hives)
Hemolysis/Hemorrhage:	☐ Disseminated intravascular coagulation ☐ Hemoglobinemia ☐ Positive antibody screen
Pain:	☐ Abdominal pain ☐ Back pain ☐ Flank pain ☐ Infusion site pain
Renal:	☐ Hematuria ☐ Hemoglobinuria ☐ Oliguria
Respiratory:	☐ Bilateral infiltrates on chest x-ray ☐ Bronchospasm ☐ Cough ☐ Hypoxemia ☐ Shortness of breath

☐ Other: (specify) ______________________________

*Severity

Did the patient receive or experience any of the following? *(Response definitions listed in protocol)*

☐ Symptomatic treatment only ☐ Hospitalization, inlcuding prolonged hospitalization
☐ Life-threatening reaction ☐ Disability and/or incapacitation
☐ Congenital anomaly or birth defect(s) of the fetus ☐ Death
☐ Other medically important conditions ☐ Unknown or not stated

*Imputability

Which best describes the relationship between the transfusion and the reaction?

☐ No other explanations for circulatory overload are possible.
☐ Transfusion is a likely contributor to circulatory overload
☐ The patient has a history of a pre-existing condition(s) that most likely explains circulatory overload.
☐ Evidence is clearly in favor of a cause other than the transfusion, but transfusion cannot be excluded.
☐ There is conclusive evidence beyond reasonable doubt of a cause other than the transfusion.
☐ The relationship between the adverse reaction and the transfusion is unknown or not stated.

Did the transfusion occur at your facility? ☐ YES ☐ NO

Does the patient have a history of cardiac insufficiency?

☐ Yes, the patient has a history of cardiac insufficiency that could explain the circulatory overload, but transfusion is just as likely to have caused the circulatory overload.
☐ Yes, the patient has a history of pre-existing cardiac insufficiency that most likely explains circulatory overload.
☐ No, the patient does not have a history of cardiac insufficiency.

Continued >>

Transfusion Associated Circulatory Overload

Investigation Results (continued)

Did the patient received other fluids in addition to the transfusion? ☐ YES ☐ NO

Designations for case definition, severity, and imputability will be automatically assigned in the NHSN application based on responses in the corresponding investigation results section above.

Do you agree with the case definition designation?	☐ YES	☐ NO
Please indicate your designation ______		
Do you agree with the severity designation?	☐ YES	☐ NO
Please indicate your designation ______		
Do you agree with the imputability designation?	☐ YES	☐ NO
Please indicate your designation ______		

Additional Information ______________________________

____

Patient Treatment

*Did the patient receive treatment for the transfusion reaction? ☐ YES ☐ NO ☐ UNKNOWN

If yes, select treatment(s):

☐ **Medication** *(Select the type of medication)*

☐ Antipyretics ☐ Antihistamines ☐ Inotropes/Vasopressors ☐ Bronchodilator ☐ Diuretics

☐ Intravenous Immunoglobulin ☐ Intravenous steroids ☐ Corticosteroids ☐ Antibiotics

☐ Antithymocyte globulin ☐ Cyclosporin ☐ H1 receptor blockers ☐ Other

☐ **Volume resuscitation** (Intravenous colloids or crystalloids)

☐ **Respiratory support** *(Select the type of support)*

☐ Mechanical ventilation ☐ Noninvasive ventilation ☐ Oxygen

☐ **Renal replacement therapy** *(Select the type of therapy)*

☐ Hemodialysis ☐ Peritoneal ☐ Continuous Veno-Venous Hemofiltration

☐ **Phlebotomy**

☐ **Other** Specify: ______________________________

Outcome

*Outcome: ☐ Death ☐ Major or long-term sequelae ☐ Minor or no sequelae ☐ Not determined

Date of Death: ____/____/______

^*If recipient died, relationship of transfusion to death:

☐ Definite ☐ Probable ☐ Possible ☐ Doubtful ☐ Ruled Out ☐ Not determined

Cause of death: ____

Was an autopsy performed? ☐ Yes ☐ No

Continued >>

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OMB No. 0920-0666
Exp. Date: xx/xx/20xx
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Transfusion Associated Circulatory Overload

Component Details (Use worksheet on page 4 for additional units.)

*Was a particular unit implicated in (i.e., responsible for) the adverse reaction? ☐ Yes ☐ No ☐ N/A

Transfusion **Start and End** Date/Time	*Component code (check system used)	Amount transfused at reaction onset	Unit number	*Unit expiration Date/Time	*Blood group of unit	Implicated Unit?
^IMPLICATED UNIT						
____/____/___ ___ ___:_____ ____/____/___ ___ ___:_____	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ ______ : ______	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	Y
____/____/___ ___ ___:___ _ ____/____/___ ___ ___:_____	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ ______ : ______	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	N
____/____/___ ___ ___:_____ ____/____/___ ___ ___:___ __	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ _____ : _____	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	N

Custom Fields

Label		Label	
____________	______/______/________	____________	______/______/________
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Comments

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Hemovigilance Module
Additional Worksheet

Patient Medical History

(part 1) List the patient's admitting diagnosis. *(Use ICD-10 Diagnostic codes/descriptions)*

Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____

(part 2) List the patient's underlying indication for transfusion. *(Use ICD-10 Diagnostic codes/descriptions)*

Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____

(part 3) List the patient's comorbid conditions at the time of the transfusion related to the adverse reaction. *(Use ICD-10 Diagnostic codes/descriptions)*

☐ UNKNOWN
☐ NONE

Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____

(part 4) List the patient's relevant medical procedure including past procedures and procedures to be performed during the current hospital or outpatient stay. *(Use ICD-10 Procedure codes/descriptions)*

☐ UNKNOWN
☐ NONE

Code: ________________ Description: ____
Code: ________________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: _______________ Description: ____
Code: ________________ Description: ____

(part 5) Additional Information ____
____
____
____

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Hemovigilance Module
Additional Worksheet

Transfusion History

Has the patient received a previous transfusion? ☐ YES ☐ NO

***If yes, provide information about the transfusion event. If not, skip to Reaction Details section.*

Blood Product: ☐ WB ☐ RBC ☐ Platelet ☐ Plasma ☐ Cryoprecipitate ☐ Granulocyte

Date of Transfusion: ____/____/_____ ☐ UNKNOWN

Did the patient experience a transfusion adverse reaction? ☐ YES ☐ NO

If yes, provide information about the transfusion adverse reaction.

Type of transfusion adverse reaction: ☐ Allergic ☐ AHTR ☐ DHTR ☐ DSTR ☐ FNHTR
☐ HTR ☐ TTI ☐ PTP ☐ TACO ☐ TAD ☐ TA-GVHD ☐ TRALI ☐ UNKNOWN
☐ OTHER Specify ____

Has the patient received a previous transfusion? ☐ YES ☐ NO

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☐ OTHER Specify ____

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Additional Worksheet

Component Details

*Was a particular unit implicated in (i.e., responsible for) the adverse reaction? ☐ Yes ☐ No ☐ N/A

Transfusion **Start** and **End** Date/Time	*Component code (check system used)	Amount transfused at reaction onset	Unit number	*Unit expiration Date/Time	*Blood group of unit	Implicated Unit?
____/____/_____ ___ ___:___ ___ ____/____/_____ ___ ___:___ ___	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ _____:_____	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	N
____/____/_____ ___ ___:___ ___ ____/____/_____ ___ ___:___ ___	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ _____:_____	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	N
____/____/_____ ___ ___:___ ___ ____/____/_____ ___ ___:___ ___	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ _____:_____	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	N
____/____/_____ ___ ___:___ ___ ____/____/_____ ___ ___:___ ___	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ _____:_____	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	N
____/____/_____ ___ ___:___ ___ ____/____/_____ ___ ___:___ ___	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ _____:_____	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	N
____/____/_____ ___ ___:___ ___ ____/____/_____ ___ ___:___ ___	☐ ISBT-128 ☐ Codabar ___ ___ ___ ___ ___	☐ Entire unit ☐ Partial unit ______mL	__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __	___/___/_____ _____:_____	☐ A- ☐ A+ ☐ B- ☐ B+ ☐ AB- ☐ AB+ ☐ O- ☐ O+ ☐ N/A	N
____/____/_____	☐ ISBT-128	☐ Entire	__ __ __ __ __	___/___/_____	☐ ☐ A+ ☐ B-	N

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___ ___:___ ___ ____/____/_____ ___ ___:___ ___	☐ Codabar ___ ___ ___ ___ ___ _______________	unit ☐ Partial unit ______mL	— — — — — — — — __ __ __	 _____ : _____	A- ☐ B+ ☐ O-	☐ AB- ☐ O+	☐ AB+ ☐ N/A	