

Overview

File: Cryoprecipitate_DataPartner2_Final Summary Report_3Aug20_IQVIA_v3
Date: 8/3/2020
Objective: To conduct a feasibility analysis to estimate the incidence of blood components
CBER is responsible for regulating how blood donations are processed; CBER also reviews and accepts the Circular of Information (labeling) regarding the use of blood for transfusion. Blood, in contrast to other drugs, is of human origin and there is no single manufacturer that can be held responsible for safety, effectiveness, and quality of the products. Instead, the production of blood components is carried out in a decentralized system of blood banks, some of which belong to the healthcare institutions where they are administered to patients with the medical need, and some of which are independent organizations focusing on collection, processing, or distribution. This system presents a challenge to systematic monitoring since data about blood component production and exposure are needed in the context of other patient data representing prior clinical constellation such as indication and comorbidities, and the outcome consequences.
To address these challenges, a network of databases in OMOP CDM was established for the BEST Initiative, allowing identification of patients with exposure to blood components. These databases are derived from these EHR databases:
- Columbia University Medical Center
- Regenstrief Institute
- Colorado UC Health System

Background:

This study is focused on using a labeling and identification system called Information Standard for Blood and Transplant (ISBT) 128. ISBT 128 codes are designed to make medical products of human origin collected at one facility easily managed and read by a different facility. Currently, in the U.S., the governing rules regarding labeling of blood and blood component products are in the Code of Federal Regulations. The FDA does not require ISBT 128 for blood and blood component product labeling in the U.S.; however, the FDA does require that certain information, typically included on ISBT 128 labels, such as the product code and the unique facility identifier, be included on blood and blood component labels. While the FDA does not require ISBT 128, the American Association of Blood Banks (AABB), a leader in the development of standards in blood and blood component collection, processing, and transfusion, does require that blood and blood components be labeled using ISBT 128 at AABB-accredited facilities in and outside of the U.S.¹ ISBT 128 codes summarize all information about the component's Class (e.g. red blood cells), Modifiers (e.g. thawed), and Attributes including Core Conditions (e.g. anticoagulant)². ISBT 128 records from blood banks have the potential to significantly improve the ability to define exposures and blood products for several reasons:
1. ISBT 128 allows studying blood components at greater detail than the rather generic procedure codes.
2. The procedure codes are subject to billing rules, which generally tend to suppress detailed activities that are part of larger procedures. For example, blood transfusions administered to patients receiving trauma care or large surgeries are generally not listed, even when such transfusions happened.³

Study Specifications: [Study Specifications](#)

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Appendix A-Cryo Codelist	Cryoprecipitate ISBT Codelist
Appendix B-Addtl Definitions	Additional definitions

References:

¹"United States Industry Consensus Standard for the Uniform Labeling of Blood and Blood Components Using ISBT 128." Version 3.0.0 (2013). <<https://www.iccbba.org/uploads/4a/e3/4ae3b3fd95bae57d4ee0f58ab6c5874f/IG-002-US-Consensus-Standard-Blood-v3.0.0.pdf>>.

²"Standard Terminology for Medical Products of Human Origin For Use with Product Description Code Database." Version 7.17 (2018). <<https://www.iccbba.org/uploads/b5/ad/b5ad322bf583e86dd877277c07cde231/Standard-Terminology-for-Medical-Products-of-Human-Origin-v7.17.pdf>>.

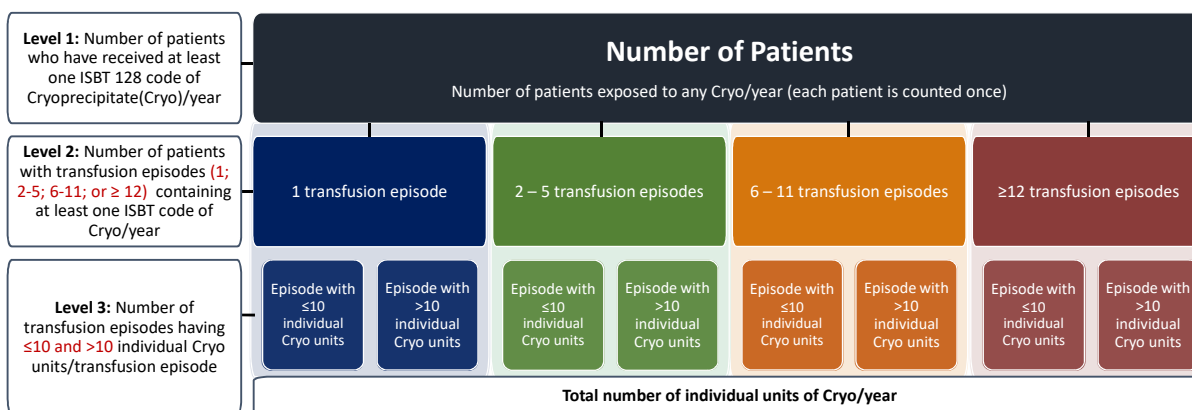
³U.S. Centers for Medicare & Medicaid Services. National Correct Coding Initiative Edits - PTP Coding Edits. (2018). <<https://www.cms.gov/Medicare/Coding/NationalCorrectCodInitEd/NCCI-Coding-Edits.html>>.

Study Specifications

File: Hemovigilance Study_Exposures_Query Specs
Date: 7/20/2020
Objective: To conduct a feasibility analysis to estimate the incidence of blood components
Data Source: DataPartner2 EHR
 Collection Method queries executed on 7/1/2019
Years: 1/1/2012 - 12/31/2018
Exposure Population: All patients with at least one day of enrollment or at least one health encounter in each calendar year within the study period.
Units Count: Number of ISBT 128 code counts of the blood component of interest within the transfusion episode bin in a given year.
 If transfusion of a specific blood component is given on day #1 (1 unit), day #45 (4 units) and day #46 (10 units), this counts as 15 transfused units of specific blood component within the 2-5 transfusion episode bin. This measurement is at the transfused unit level, it does NOT count patients.

Specifications:

Figure 1: Collection Method



Cryoprecipitate Procedure Documentation

Table 1: Procedure Documentation

Regenstrief	Regenstrief Individual Cryo Units*	Columbia	Columbia Individual Cryo Units*	Colorado	Colorado Individual Cryo Units*
E3591 , a pool of 5 cryo	5	E5165 , Infants get 1 bag of cryo	1	E3571, E5165 (Frozen Cryo) E3581, E5256 (Thawed Cryo)	1
E5256 , a single cryo	1	E3587 , Adults get 1-2 pre-pooled bags of 5	5	E3587 (Frozen Cryo) E3591, E3592, E5284 (Thawed Cryo)	5
E3592 , a pooled product that could contain 3-10 donors	6.5				

*Presence of each code will be multiplied by a factor of the corresponding number in this column.

Example: Patient A receives 2 bags of cryoprecipitate. The bags of cryoprecipitate are coded as **E3591**. In this case, the presence of 2 **E3591** codes should be counted as patient A receiving 10 individual cryoprecipitate units.

Collection Method

Table 2: Total number of cryoprecipitate patients and units transfused per year

Collection Method - Cryoprecipitate ¹	Transfusion Year ²							
	2012	2013	2014	2015	2016	2017	2018	Total
Total Number of Patients				34	276	334	366	1,010
Total Number of Units				343	4,575	4,737	4,737	14,392

¹In 2016 DataPartner2 used 4-pool cryo, but in 2017 and later, they went back to using 5-pool cryo. There were 1.5 years of giving 4 pools instead of 5.

²ISBT 128 codes became available in October 2015 at DataPartner2. Also, they have lower counts in year 2015 compared to future years.

Table 3: Number of cryoprecipitate patients and units transfused by number of transfusion episodes per year

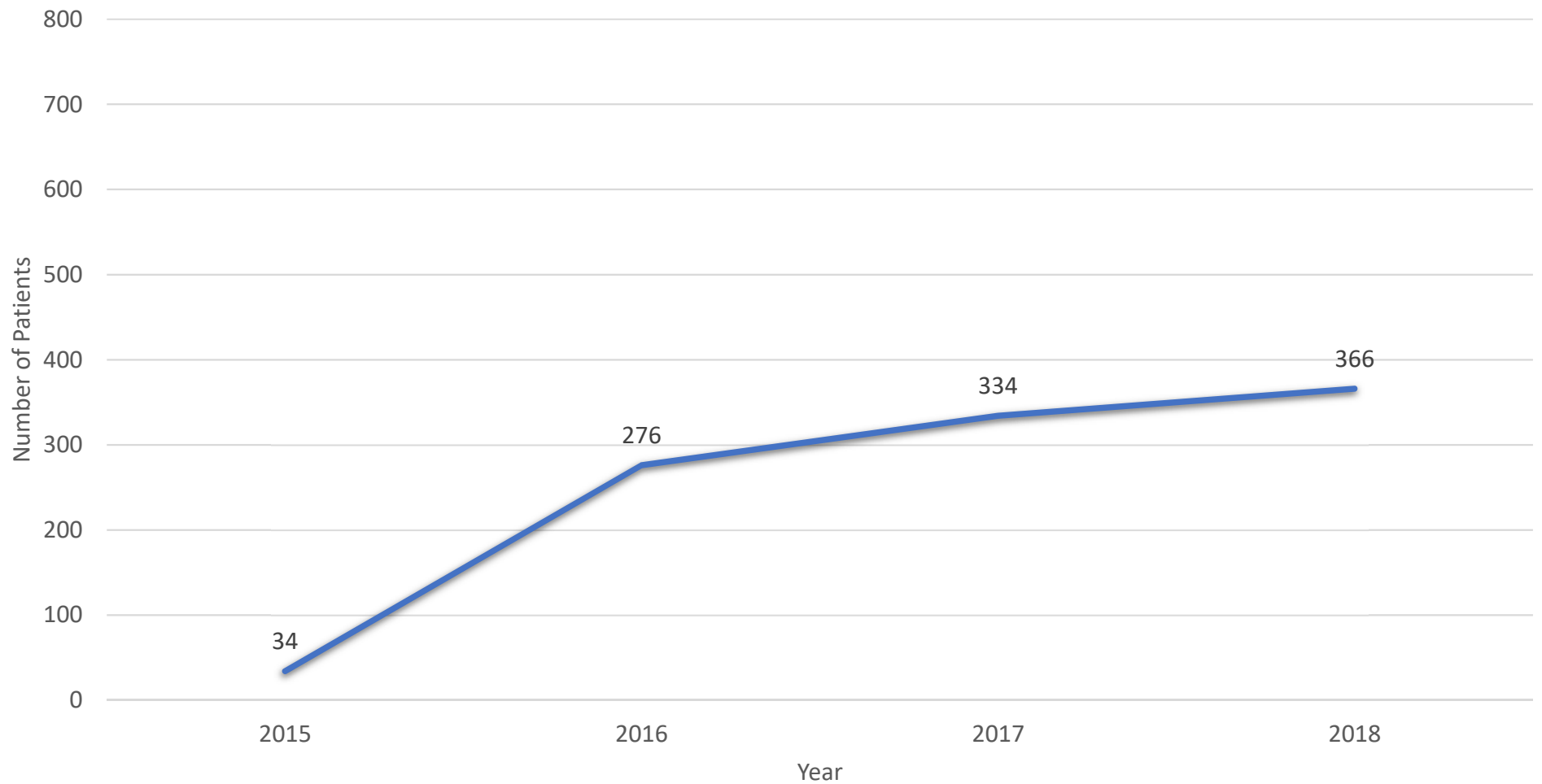
Collection Method - Cryoprecipitate	Number of Transfusion Episodes	Number of Patients per Year							
		2012	2013	2014	2015	2016	2017	2018	Total
Number of Patients	1				27	208	257	273	765
Number of Patients	2-5				<10	52	65	78	195
Number of Patients	6-11				0	12	<10	14	26
Number of Patients	>=12				0	<10	<10	<10	0
	Total ³				27	272	322	365	986

³Total number of patients in Table 3 are less than total number of patients in Table 2 due to the masked patients.

Table 4: Number of cryoprecipitate transfusion episodes by number of transfused units per transfusion episode bin per year

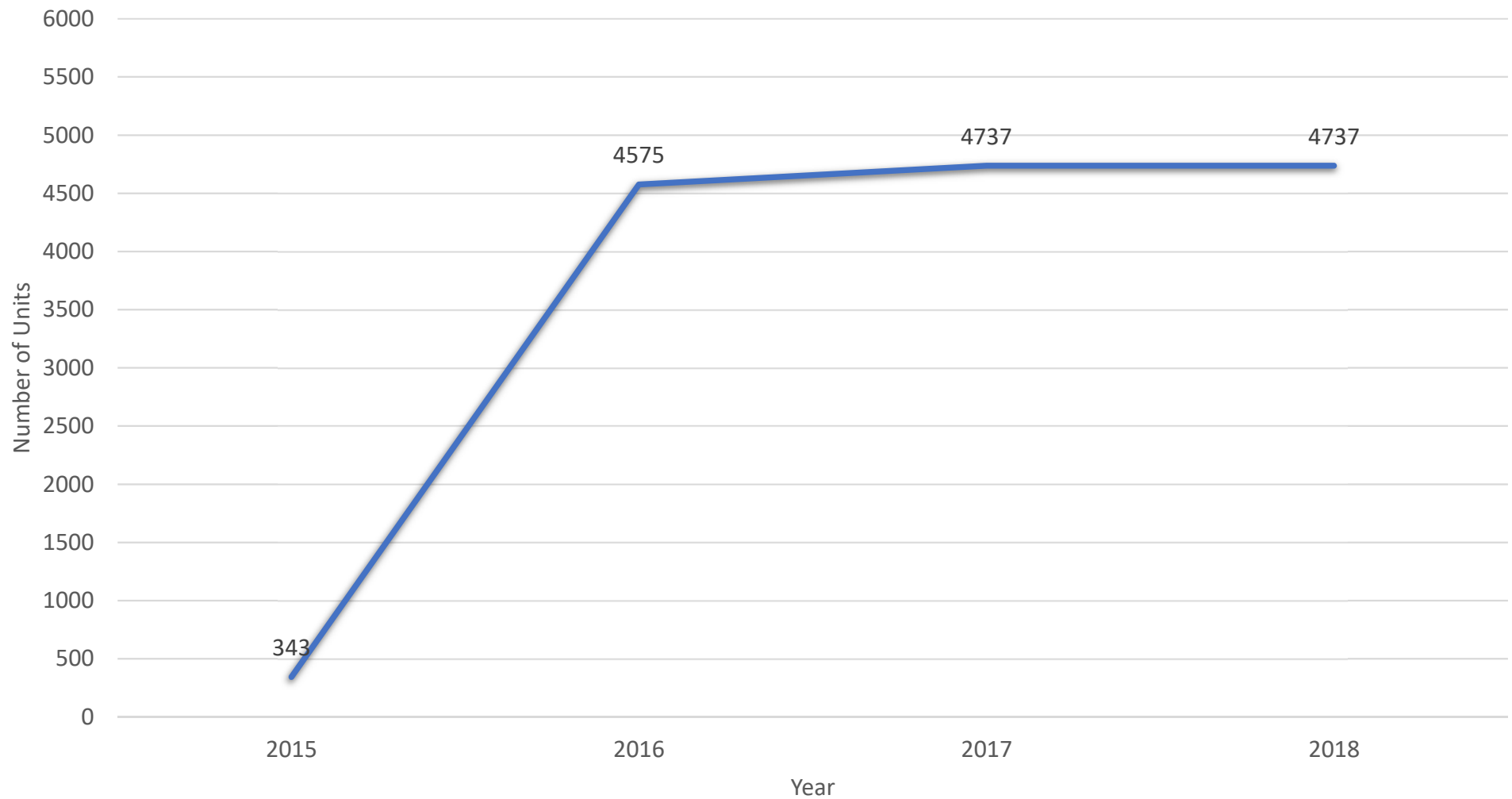
Collection Method - Cryoprecipitate	Transfusion Episodes per Year	Units per Episode	Number of Episodes per Year							
			2012	2013	2014	2015	2016	2017	2018	Total
Number of Transfusion Episodes	1	<=10				24	182	236	257	699
Number of Transfusion Episodes	1	>10				<10	26	21	16	63
		Total				24	208	257	273	762
Number of Transfusion Episodes	2-5	<=10				15	118	162	170	465
Number of Transfusion Episodes	2-5	>10				<10	26	24	31	81
		Total				15	144	186	201	546
Number of Transfusion Episodes	6-11	<=10				0	72	44	83	199
Number of Transfusion Episodes	6-11	>10				0	31	<10	24	55
		Total				0	103	44	107	254
Number of Transfusion Episodes	>=12	<=10				0	45	56	13	114
Number of Transfusion Episodes	>=12	>10				0	10	21	0	31
		Total				0	55	77	13	145

Figure 2: DataPartner2: Total Number of Patients Receiving Cryoprecipitate Transfusions per Year



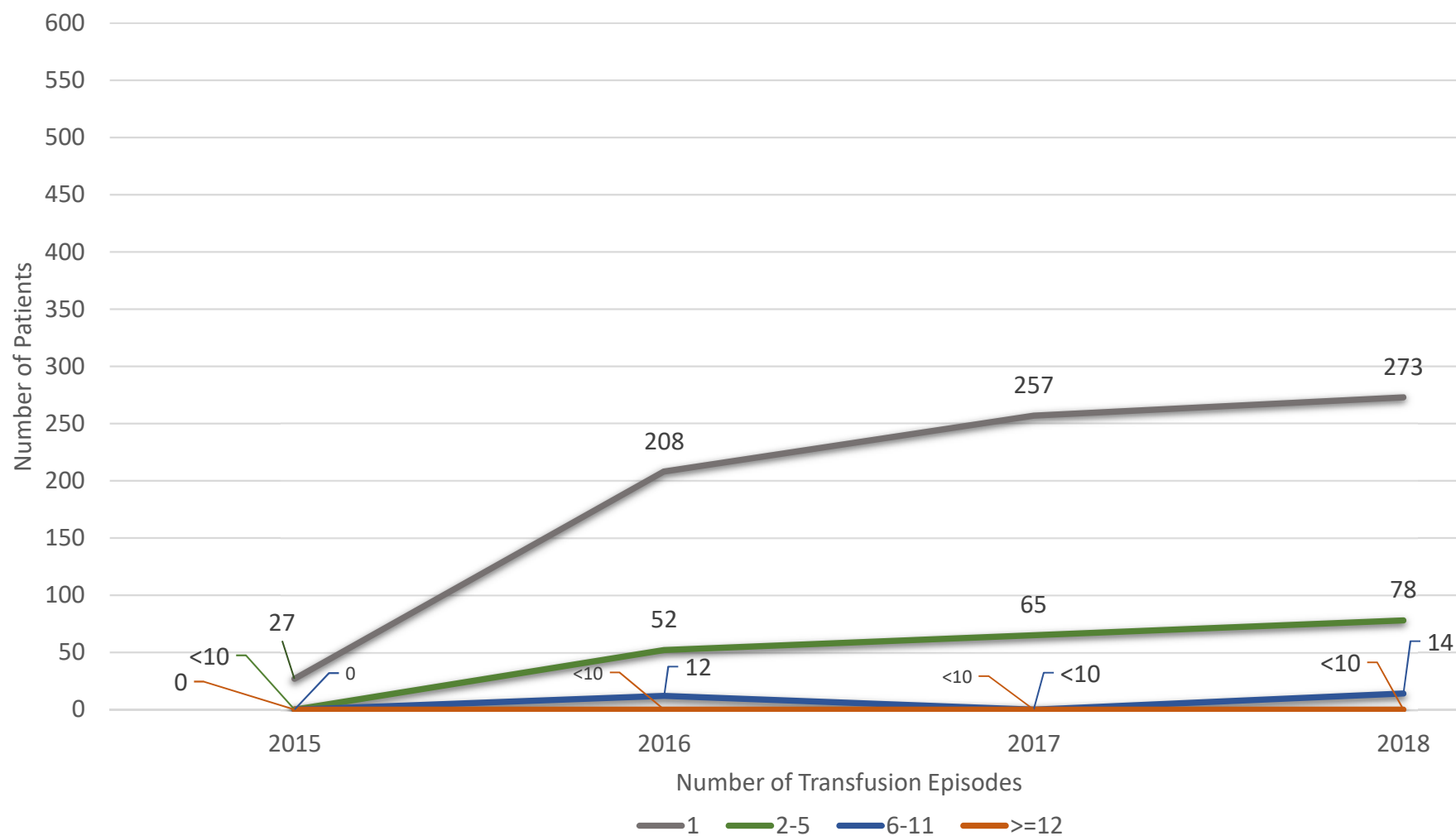
Dates of available ISBT 128 data: 10/1/2015 - 12/31/2018
Analyses conducted 7/1/2019

Figure 3: DataPartner2: Total Number of Cryoprecipitate Units Transfused per Year



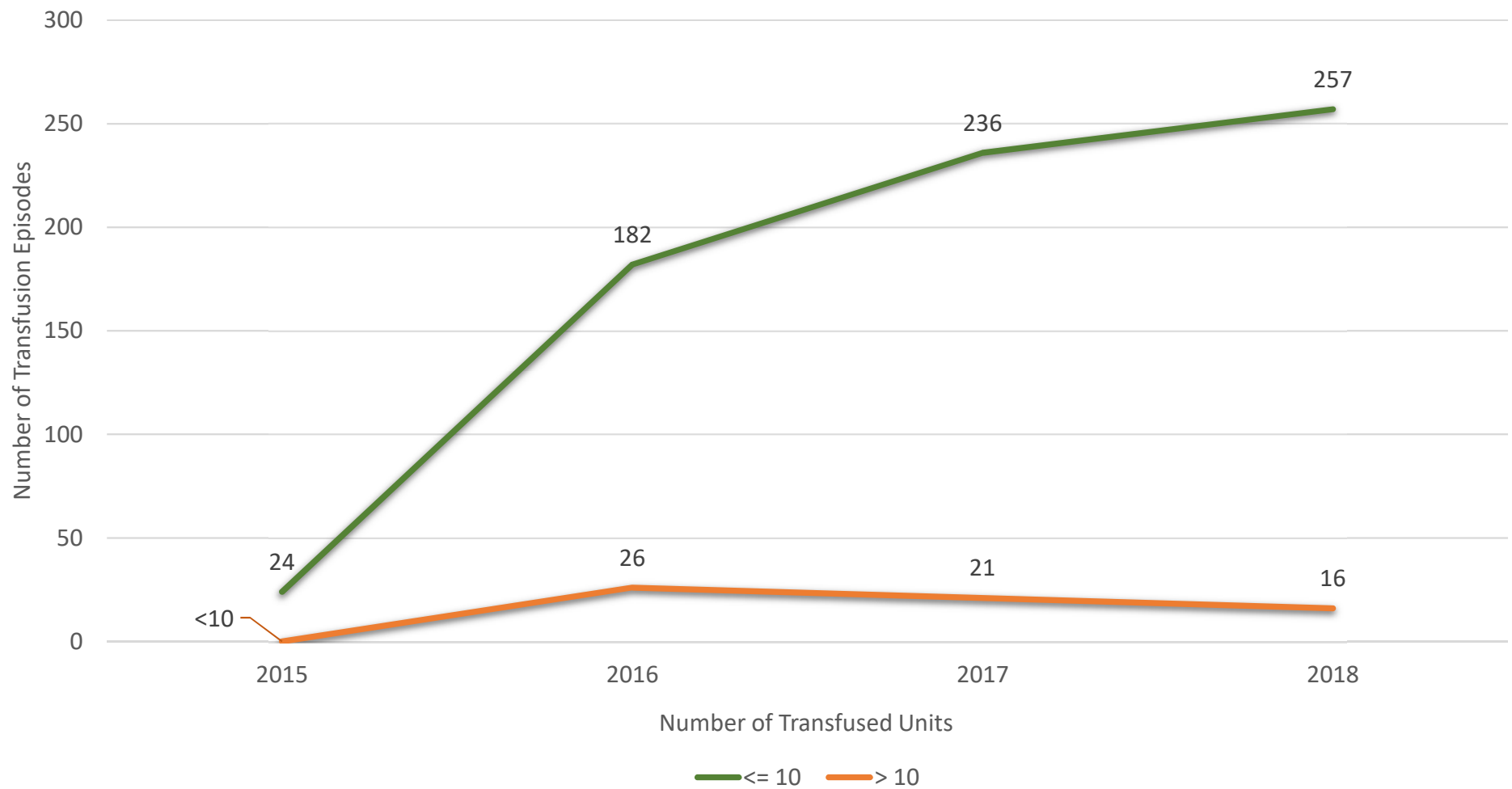
Dates of available ISBT 128 data: 10/1/2015 - 12/31/2018
Analyses conducted 7/1/2019

Figure 4: DataPartner2: Total Number of Patients Receiving Cryoprecipitate Transfusions by Number of Transfusion Episodes per Year



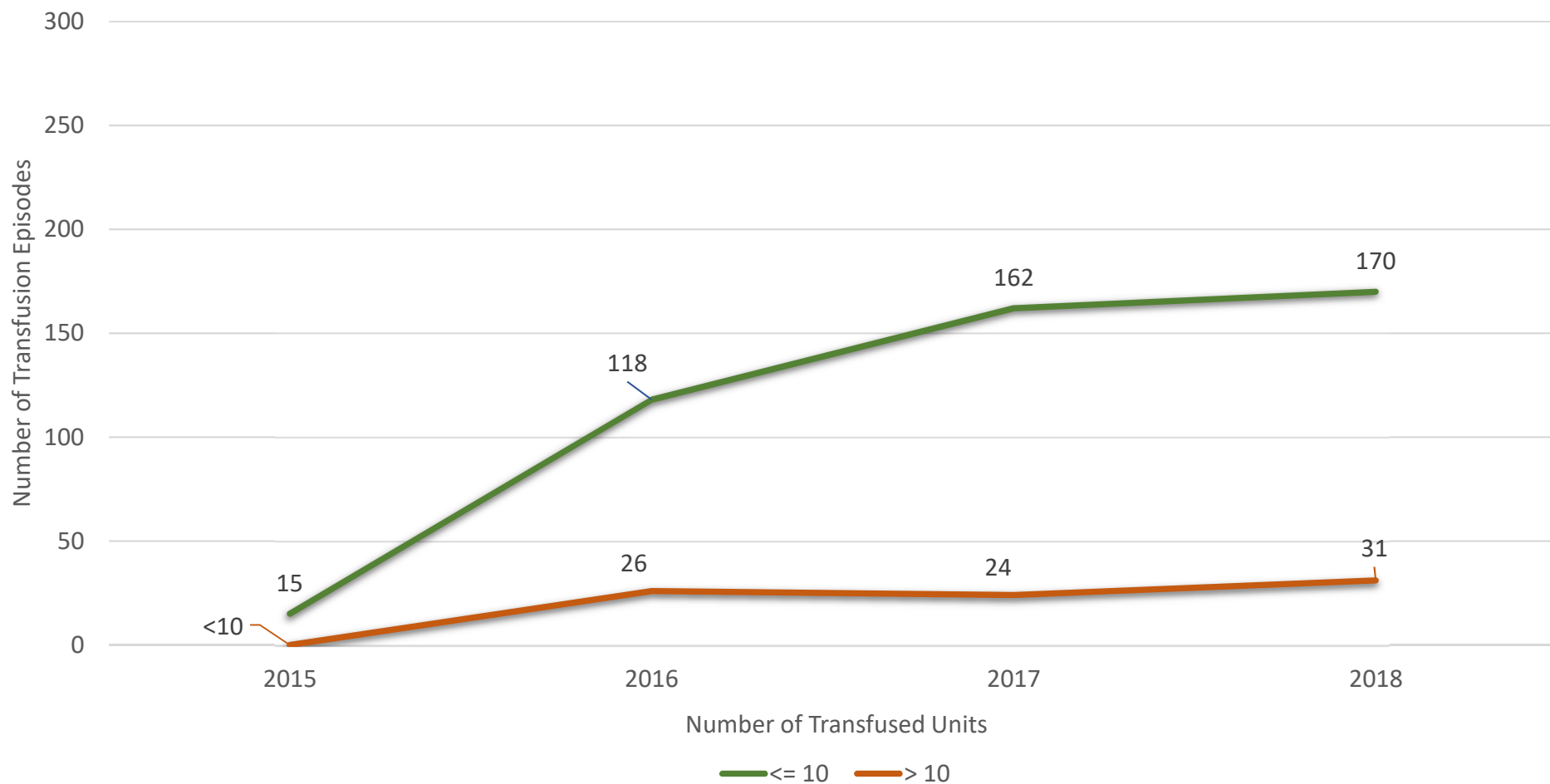
Dates of available ISBT 128 data: 10/1/2015 - 12/31/2018
Analyses conducted 7/1/2019

Figure 5: DataPartner2: Total Number of Cryoprecipitate Episodes by Number of Transfused Units for Patients with 1 Transfusion Episode per Year



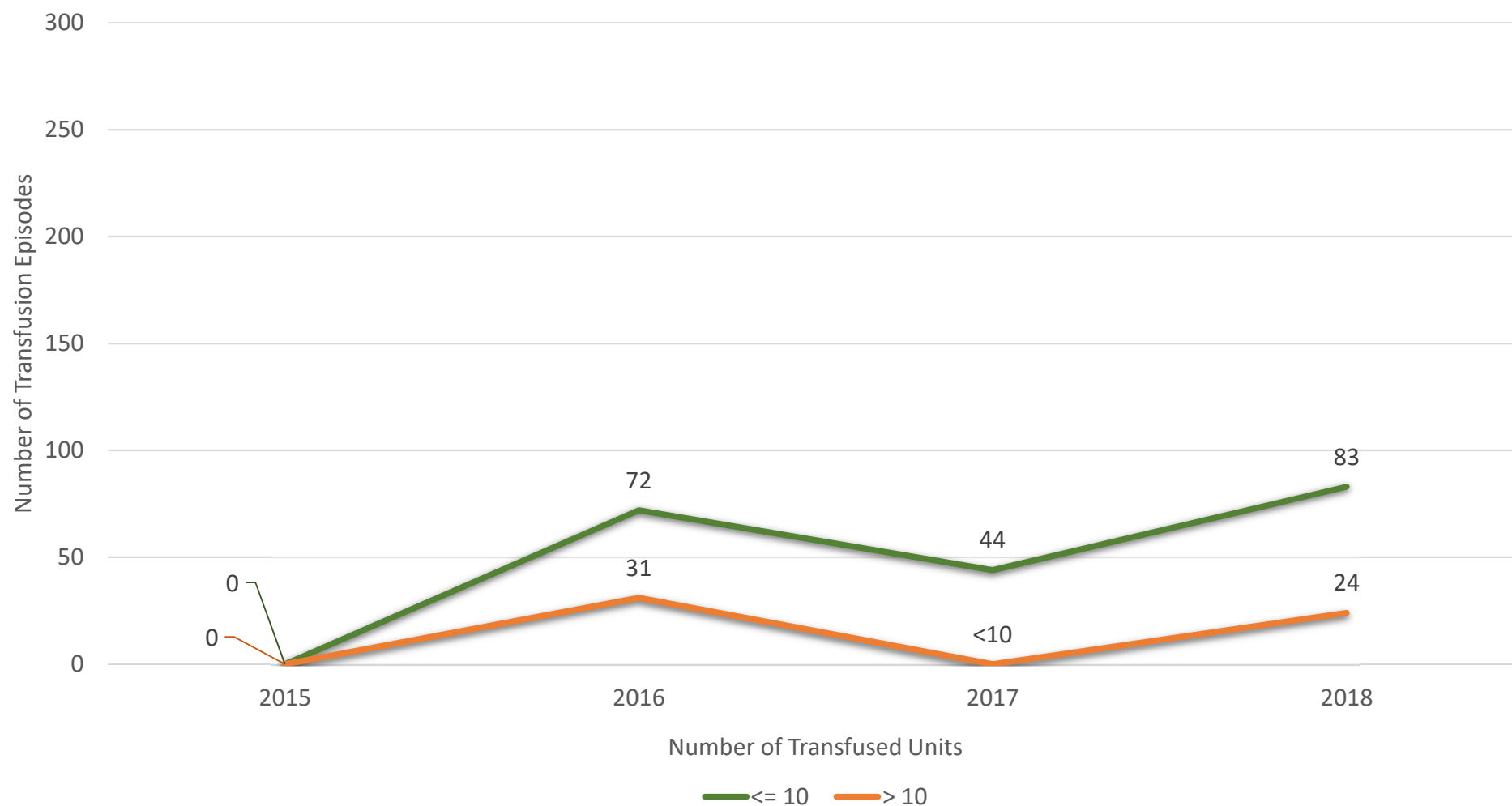
Dates of available ISBT 128 data: 10/1/2015 - 12/31/2018
Analyses conducted 7/1/2019

Figure 6: DataPartner2: Total Number of Cryoprecipitate Transfusion Episodes by Number of Transfused Units for Patients with 2-5 Transfusion Episodes per Year



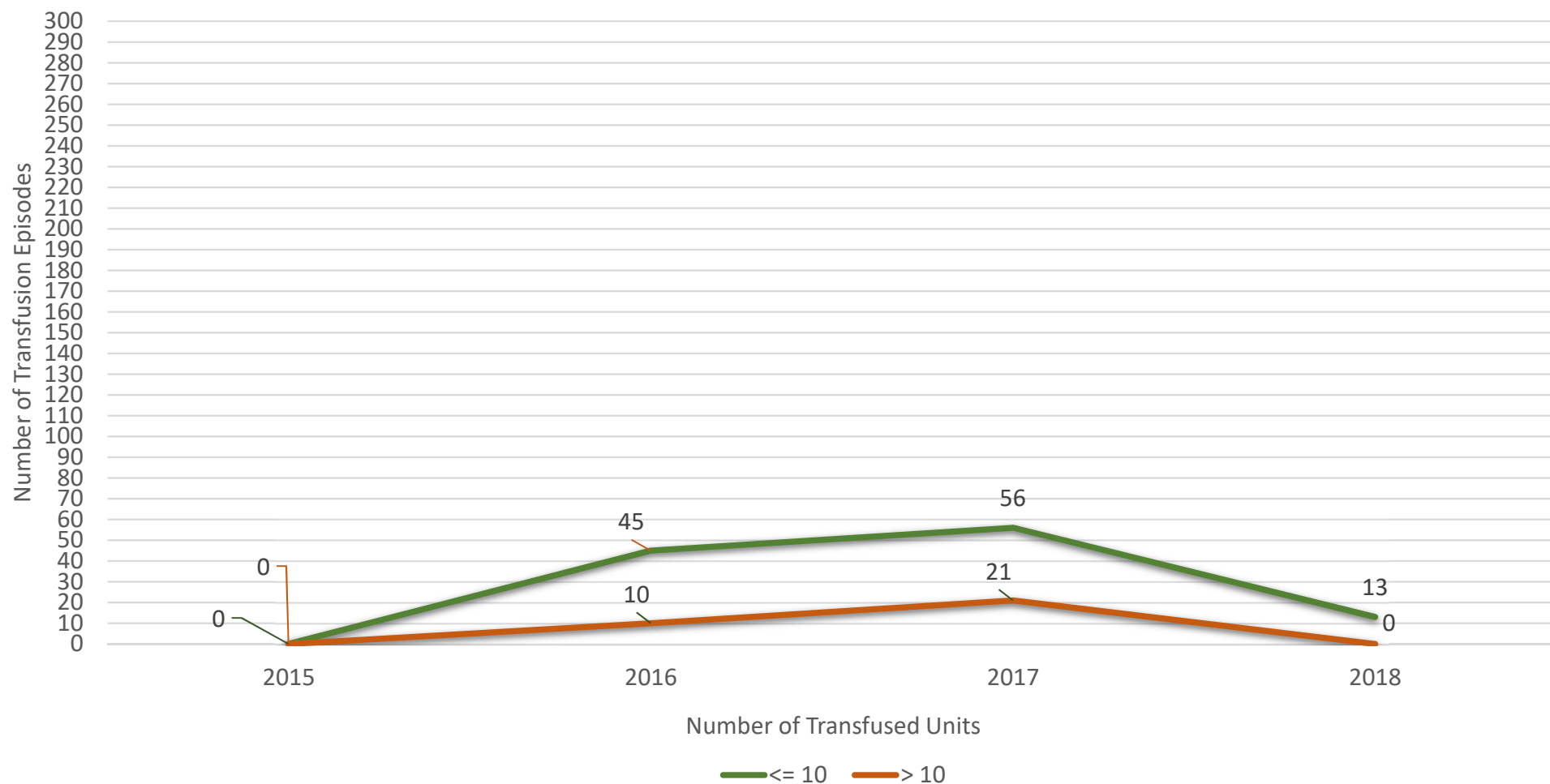
Dates of available ISBT 128 data: 10/1/2015 - 12/31/2018
Analyses conducted 7/1/2019

Figure 7: DataPartner2: Total Number of Cryoprecipitate Transfusion Episodes by Number of Transfused Units for Patients with 6-11 Transfusion Episodes per Year



Dates of available ISBT 128 data: 10/1/2015 - 12/31/2018
Analyses conducted 7/1/2019

Figure 8: DataPartner2: Total Number of Cryoprecipitate Transfusion Episodes by Number of Transfused Units for Patients with 12+ Transfusion Episodes per Year



Dates of available ISBT 128 data: 10/1/2015 - 12/31/2018
Analyses conducted 7/1/2019

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CRYOPRECIPITATE	718642	CRYOPRECIPITATE None/XX/<=-18C For mnf:noninjectable	E9576	4/4/2019	12/31/2099	1
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CRYOPRECIPITATE	42678712	CRYOPRECIPITATE None/450mL/<=-18C ResLeu:<5E6	E7418	8/8/2011	12/31/2099	1
CRYOPRECIPITATE	42678713	Thawed CRYOPRECIPITATE None/450mL/rt ResLeu:<5E6	E7419	8/8/2011	12/31/2099	1
CRYOPRECIPITATE	42679104	CRYOPRECIPITATE CP2D/XX/<=-18C ResLeu:NS	E7953	6/12/2013	12/31/2099	1
CRYOPRECIPITATE	42679520	Apheresis CRYOPRECIPITATE ACD-A/300mL/<=-25C 1mL Quar:>=4m/retested	E8720	3/25/2016	12/31/2099	1
CRYOPRECIPITATE	42679521	Apheresis CRYOPRECIPITATE ACD-A/300mL/<=-25C 2mL Quar:>=4m/retested	E8721	3/25/2016	12/31/2099	1
CRYOPRECIPITATE	42679522	Apheresis CRYOPRECIPITATE ACD-A/300mL/<=-25C 5mL Quar:>=4m/retested	E8722	3/25/2016	12/31/2099	1
CRYOPRECIPITATE	42679723	Apheresis CRYOPRECIPITATE CPD-50/XX/<=-30C ResLeu:<1E6 1st container	E9176	9/29/2017	12/31/2099	1
CRYOPRECIPITATE	42679724	Apheresis CRYOPRECIPITATE CPD-50/XX/<=-18C ResLeu:<1E6 2nd container	E9177	9/29/2017	12/31/2099	1
POOLED CRYOPRECIPITATE	718641	POOLED CRYOPRECIPITATE None/XX/<=-18C For mnf:noninjectable	E9577	4/4/2019	12/31/2099	1
POOLED CRYOPRECIPITATE	40219059	Thawed POOLED CRYOPRECIPITATE CPD/XX/rt 3 units Psoralen-treated From 3 donors	E9288	4/27/2018	12/31/2099	1
POOLED CRYOPRECIPITATE	40219079	POOLED CRYOPRECIPITATE CPD/XX/<=-25C 3 units Psoralen-treated From 3 donors	E9268	2/23/2018	12/31/2099	1
POOLED CRYOPRECIPITATE	42669745	POOLED CRYOPRECIPITATE None/XX/<=-30C	E3583	7/19/1996	12/31/2099	1
POOLED CRYOPRECIPITATE	42669746	POOLED CRYOPRECIPITATE None/XX/<=-30C Open	E3584	7/19/1996	12/31/2099	1
POOLED CRYOPRECIPITATE	42669747	POOLED CRYOPRECIPITATE None/XX/<=-30C Open Irradiated	E3585	7/19/1996	12/31/2099	1

POOLED CRYOPRECIPITATE	42669748	POOLED CRYOPRECIPITATE None/XX/<=-30C Irradiated	E3586	7/19/1996	12/31/2099	1
POOLED CRYOPRECIPITATE	42669749	POOLED CRYOPRECIPITATE None/XX/<=-18C	E3587	7/19/1996	12/31/2099	5
POOLED CRYOPRECIPITATE	42669750	POOLED CRYOPRECIPITATE None/XX/<=-18C Open	E3588	7/19/1996	12/31/2099	1
POOLED CRYOPRECIPITATE	42669751	POOLED CRYOPRECIPITATE None/XX/<=-18C Open Irradiated	E3589	7/19/1996	12/31/2099	1
POOLED CRYOPRECIPITATE	42669752	POOLED CRYOPRECIPITATE None/XX/<=-18C Irradiated	E3590	7/19/1996	12/31/2099	1
POOLED CRYOPRECIPITATE	42669755	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open Irradiated	E3593	7/19/1996	12/31/2099	1
POOLED CRYOPRECIPITATE	42669756	Thawed POOLED CRYOPRECIPITATE None/XX/rt Irradiated	E3594	7/19/1996	12/31/2099	1
POOLED CRYOPRECIPITATE	42671447	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open	E5284	12/5/2005	12/31/2099	5
POOLED CRYOPRECIPITATE	42671769	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 2 units	E5599	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671770	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 3 units	E5600	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671771	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 4 units	E5601	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671772	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 5 units	E5602	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671773	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 6 units	E5603	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671774	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 7 units	E5604	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671775	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 8 units	E5605	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671776	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 9 units	E5606	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671777	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 10 units	E5607	5/30/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671791	POOLED CRYOPRECIPITATE None/XX/<=-18C 5 units	E5621	7/10/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42671857	POOLED CRYOPRECIPITATE None/XX/<=-30C ResLeu:<1E6 Quar:>=90d/retested	E5687	11/1/2007	12/31/2099	1
POOLED CRYOPRECIPITATE	42672684	Thawed POOLED CRYOPRECIPITATE NS/XX/rt For mnf:noninjectable	E8826	8/25/2016	12/31/2099	1
POOLED CRYOPRECIPITATE	42674840	Thawed POOLED CRYOPRECIPITATE None/XX/rt 10 units	E7825	2/5/2013	12/31/2099	1
POOLED CRYOPRECIPITATE	42674841	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open 10 units	E7826	2/5/2013	12/31/2099	1
POOLED CRYOPRECIPITATE	42674842	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open 5 units	E7827	2/5/2013	12/31/2099	1
POOLED CRYOPRECIPITATE	42674843	POOLED CRYOPRECIPITATE None/XX/<=-18C Open 10 units	E7828	2/5/2013	12/31/2099	1
POOLED CRYOPRECIPITATE	42674844	POOLED CRYOPRECIPITATE None/XX/<=-18C Open 5 units	E7829	2/5/2013	12/31/2099	1
POOLED CRYOPRECIPITATE	42675090	POOLED CRYOPRECIPITATE None/XX/<=-18C Open 3 units	E8599	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675091	POOLED CRYOPRECIPITATE None/XX/<=-18C Open Irradiated 3 units	E8600	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675092	POOLED CRYOPRECIPITATE None/XX/<=-18C Open Irradiated 5 units	E8601	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675093	POOLED CRYOPRECIPITATE None/XX/<=-18C 2 units	E8602	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675094	POOLED CRYOPRECIPITATE None/XX/<=-18C 3 units	E8603	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675095	Thawed POOLED CRYOPRECIPITATE None/XX/rt 2 units	E8604	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675096	Thawed POOLED CRYOPRECIPITATE None/XX/rt 3 units	E8605	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675097	Thawed POOLED CRYOPRECIPITATE None/XX/rt Irradiated 2 units	E8606	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675098	Thawed POOLED CRYOPRECIPITATE None/XX/rt Irradiated 3 units	E8607	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675099	POOLED CRYOPRECIPITATE None/XX/<=-18C Open 2 units	E8608	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675100	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open 2 units	E8609	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675101	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open 3 units	E8610	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675102	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open 4 units	E8611	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675103	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open Irradiated 2 units	E8612	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675104	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open Irradiated 3 units	E8613	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675105	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open Irradiated 4 units	E8614	10/30/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675529	POOLED CRYOPRECIPITATE None/XX/<=-18C 4 units	E7884	4/4/2013	12/31/2099	1
POOLED CRYOPRECIPITATE	42675702	Apheresis POOLED CRYOPRECIPITATE None/XX/<=-18C	E8430	1/2/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675703	Thawed Apheresis POOLED CRYOPRECIPITATE None/XX/rt	E8431	1/2/2015	12/31/2099	1
POOLED CRYOPRECIPITATE	42675719	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open ResLeu:NS	E6464	6/1/2009	12/31/2099	1
POOLED CRYOPRECIPITATE	42676489	Thawed POOLED CRYOPRECIPITATE CP2D/XX/rt Open ResLeu:NS	E6815	4/5/2010	12/31/2099	1
POOLED CRYOPRECIPITATE	42676490	Thawed POOLED CRYOPRECIPITATE CPD/XX/rt Open ResLeu:NS	E6816	4/5/2010	12/31/2099	1

POOLED CRYOPRECIPITATE	42677126	POOLED CRYOPRECIPITATE CPD/450mL/<=-25C Riboflavin-treated	E8281	9/2/2014	12/31/2099	1
POOLED CRYOPRECIPITATE	42677328	Thawed POOLED CRYOPRECIPITATE NS/XX/rt 10 units	E7319	3/9/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677361	POOLED CRYOPRECIPITATE NS/XX/<=-25C	E8318	9/2/2014	12/31/2099	1
POOLED CRYOPRECIPITATE	42677362	POOLED CRYOPRECIPITATE CPD/XX/<=-25C	E8319	9/2/2014	12/31/2099	1
POOLED CRYOPRECIPITATE	42677558	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 11 units	E8078	10/24/2013	12/31/2099	1
POOLED CRYOPRECIPITATE	42677559	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open 12 units	E8079	10/24/2013	12/31/2099	1
POOLED CRYOPRECIPITATE	42677991	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 2 units	E7347	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677992	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 3 units	E7348	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677993	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 4 units	E7349	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677994	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 5 units	E7350	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677995	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 6 units	E7351	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677996	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 7 units	E7352	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677997	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 8 units	E7353	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677998	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 9 units	E7354	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42677999	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Quar:>=112d/retested 10 units	E7355	6/1/2011	12/31/2099	1
POOLED CRYOPRECIPITATE	42678286	Thawed POOLED CRYOPRECIPITATE CPD/XX/rt Quar:>=112d/retested	E6182	11/3/2008	12/31/2099	1
POOLED CRYOPRECIPITATE	42678331	POOLED CRYOPRECIPITATE CPD/XX/<=-25C Methylene blue-treated	E9082	6/28/2017	12/31/2099	1
POOLED CRYOPRECIPITATE	42678332	POOLED CRYOPRECIPITATE CPD/XX/<=-25C Riboflavin-treated	E9083	6/28/2017	12/31/2099	1
POOLED CRYOPRECIPITATE	42678334	POOLED CRYOPRECIPITATE None/XX/<=-30C ResLeu:<1E6 6 units Methylene blue-treated	E9085	6/28/2017	12/31/2099	1
POOLED CRYOPRECIPITATE	42678442	Thawed POOLED CRYOPRECIPITATE None/XX/rt 4 units	E8144	3/18/2014	12/31/2099	1
POOLED CRYOPRECIPITATE	42678652	POOLED CRYOPRECIPITATE None/XX/<=-18C Open 4 units	E8665	1/1/2016	12/31/2099	1
POOLED CRYOPRECIPITATE	42678653	POOLED CRYOPRECIPITATE None/XX/<=-18C Open Irradiated 4 units	E8666	1/1/2016	12/31/2099	1
POOLED CRYOPRECIPITATE	42678654	Thawed POOLED CRYOPRECIPITATE None/XX/rt Irradiated 4 units	E8667	1/1/2016	12/31/2099	1
POOLED CRYOPRECIPITATE	42678655	Thawed POOLED CRYOPRECIPITATE None/XX/rt Irradiated 5 units	E8668	1/1/2016	12/31/2099	1
POOLED CRYOPRECIPITATE	42678656	Thawed POOLED CRYOPRECIPITATE None/XX/rt Open Irradiated 5 units	E8669	1/1/2016	12/31/2099	1
POOLED CRYOPRECIPITATE	42678924	Thawed POOLED CRYOPRECIPITATE NS/XX/rt Open Irradiated	E6000	5/1/2008	12/31/2099	1
POOLED CRYOPRECIPITATE	42679765	Thawed POOLED CRYOPRECIPITATE NS/XX/rt	E5821	2/1/2008	12/31/2099	1
POOLED CRYOPRECIPITATE	42679987	Thawed POOLED CRYOPRECIPITATE None/XX/rt 5 units	E6552	10/13/2009	12/31/2099	1
POOLED CRYOPRECIPITATE	42679988	POOLED CRYOPRECIPITATE None/XX/<=-18C 10 units	E6553	10/13/2009	12/31/2099	1
POOLED CRYOPRECIPITATE	42679991	Thawed POOLED CRYOPRECIPITATE CPD/XX/rt Open ResLeu:<1E6,WB filtr	E6556	10/13/2009	12/31/2099	1

Definitions

Number of Transfused Patients: Number of unique patients with at least one ISBT 128 code specific to the blood component of interest in a given year. The patient will be counted only once for a specific blood component. If transfusion of a specific blood component is given on day #1 (1 unit), day #45 (4 units) and day #46 (10 units), this counts as 1 patient with transfusion of specific blood component.

Number of Patients with 1, 2-5, 6-11, or ≥ 12 Transfusion episodes: Number of unique patients binned by number of transfusion episodes in a given year. Transfusion episode is defined as an occurrence of at least one ISBT 128 code specific to the blood component of interest per day, in a given year. If transfusion of a specific blood component is given on day #1 (1 unit), day #45 (4 units) and day #46 (10 units), this counts as 3 RBC transfusion episodes. For the patient level diagram, this patient will be categorized in the 2-5 transfusion episode bin. The patient will be counted only once for a specific blood component.

Number of Transfusion Episodes* having 1, 2-4, or ≥ 5 Transfused units/ Transfusion Episode: Number of ISBT 128 code counts of the blood component of interest per transfusion episode bin in a given year. The patient will be counted once for **EACH** episode for a specific blood component. If transfusion of a specific blood component is given on day #1 (1 unit), day #45 (4 units) and day #46 (10 units), this counts as 3 episodes: one in the 1 unit episode bin, one in the 2-4 units episode bin, and one in the ≥ 5 units episode bin (under the same 2-5 transfusion patient-episode bin).

Total Transfused units in each transfusion episode bin: Number of ISBT 128 code counts of the blood component of interest within the transfusion episode bin in a given year. If transfusion of a specific blood component is given on day #1 (1 unit), day #45 (4 units) and day #46 (10 units), this counts as 15 transfused units of specific blood component within the 2-5 transfusion episode bin. This measurement is at the transfused unit level, it does NOT count patients.

Figure 2 - Definition of Transfusion Episode

Definition of Transfusion Episode:

A transfusion episode is defined as a transfusion of one or more specific blood component(s) on a single day, from 12AM to 11:59PM. All sites are asked to use the end date of the transfusion of the last unit of the specific blood component transfused in the day as the date of the transfusion episode. If the transfusion occurs across more than one day (e.g. 22:00h on Feb 12 to 00:30 on Feb 13), this should be counted as one transfusion episode ending on Feb 13 (and only being counted on Feb 13). If the transfusion includes two units, the first of them ending on Feb 12 at 21:50 and the second unit (from the previous example) ending at 00:30 on Feb 13, these would be counted as two transfusion episodes, one on Feb 12 and one on Feb 13. If the transfusion end date is not available, sites will use the start date of the transfusion to mark a transfusion episode.