TEXAS MEDICAL ASSOCIATION
Physicians Caring for Texans

TexMed 2016 Clinical Abstract

Please complete all of the following sections:

Procedure and Selection Criteria

- Submissions not directly related to quality improvement or research may be accepted and should follow the standardized format outlined below. Content should enhance knowledge in the field of clinical care and be relevant to a given patient population.

PROJECT NAME: AB Plasma Use in Texas Hospitals

Institution or Practice Name: Texas Medical Association

Setting of Care: Electronic Survey of Level I and II Trauma Facilities in Texas

Primary Author: Meredith A. Reyes, MD

Secondary Author: Geralyn M. Meny, MD

Other Members of Project Team: TMA Committee on Blood and Tissue Usage 2013-2015 (now the Subcommittee on Transfusion and Transplantation)

Is the Primary Author, Secondary Author or Member of Project Team a TMA member (required)?

☒ Yes ☐ No

Please provide name(s): Meredith A. Reyes, MD; Geralyn M. Meny, MD; TMA Committee on Blood and Tissue Usage 2013-2015

☐ **Enhanced Perioperative Recovery/Future of Surgical Care program**

Clinical

Background (15 points max): *Describe the purpose for sharing the content. What caused this subject matter to be approached? Why is this content important to share? What is the potential impact if this content is not shared?*

To assess current practices regarding protocols for transfusion of AB plasma products, the Texas Medical Association (TMA) and its Committee on Blood and Tissue Usage (committee) conducted a survey of Level I and II trauma facilities in Texas during 2014-15. The goal was to determine if the committee needed to develop educational programs to help facilities optimize patient care and become better stewards of blood units provided by volunteer donors. Given both new and longstanding issues concerning product availability, the committee, which promotes blood, tissue, and organ donation and transfusion safety, identified transfusion of AB plasma products as a critical area for study. Emerging research supports more aggressive use of plasma, including prompt administration, in the care of trauma patients. The short shelf life of the product and the need for thawing and refrigeration can make availability a challenge, especially in emergency circumstances when blood type is unknown. Transfusion-related acute lung injury (TRALI) risk mitigation strategies have further limited the availability of plasma products by allowing only certain segments of the population to donate plasma-containing products. For these reasons, hospitals and trauma facilities are beginning to develop different strategies to meet the needs of trauma and/or coagulopathic patients requiring plasma transfusions. The committee is disseminating the survey results at the 2016 TexMed Quality Poster Session to TMA members for the purpose of helping physicians evaluate their facilities' strategies in meeting the needs of trauma and coagulopathic patients requiring plasma transfusion and to provide feedback to all patients and blood donors so they can become better informed regarding the use of blood products within their community.

Intended Stakeholders (15 points max): *Identify those individuals, organizations, or interest groups that could be potentially impacted by this information or benefit by obtaining this information.*

Physicians, particularly transfusion medicine specialists, trauma surgeons, internists and hematologists. As well as, administrators, patients and blood donors.

Description of Accomplished Work (25 points max): *Provide an overview of the work that was accomplished, including any specific methods, tools or techniques. Also, include any milestones or key accomplishments. Note charts, graphs and tables here and send as addendum with abstract form.*

To assess current practices in the state, the committee created a brief, 18-question online survey regarding plasma utilization in Level I and II trauma facilities in Texas. Trauma facilities were approached via email correspondence and invited to participate in the voluntary survey. For survey results, see addendum for charts, graphs, and table.

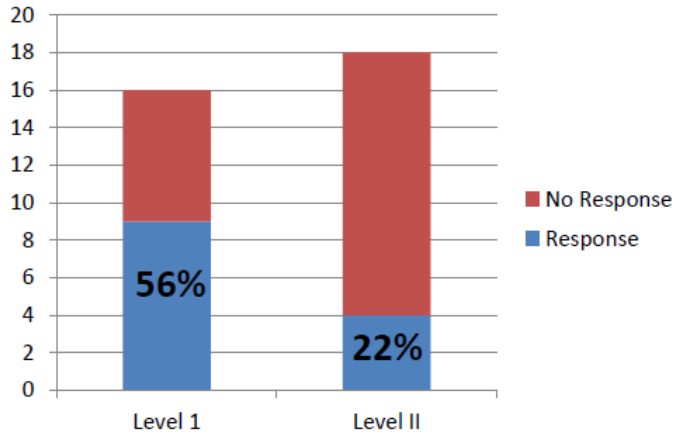
Timeframe and Budget (20 points max): *Provide the start and end dates for the work along with any financial implications that were incurred due to the work accomplished. Note charts, graphs and tables here and send as addendum with abstract form.*

The plasma survey project was initiatialy started in the summer of 2013 but received a poor response rate. New members of the committee revised the survey questions and redistributed the survey to Level I and II trauma facilities in Texas between 2014-15. Because the survey project was administered by TMA staff using TMA resources, no direct financial implications were incurred.

Intended Use (25 points max): *Describe how this information could be used moving forward to impact patient care.*

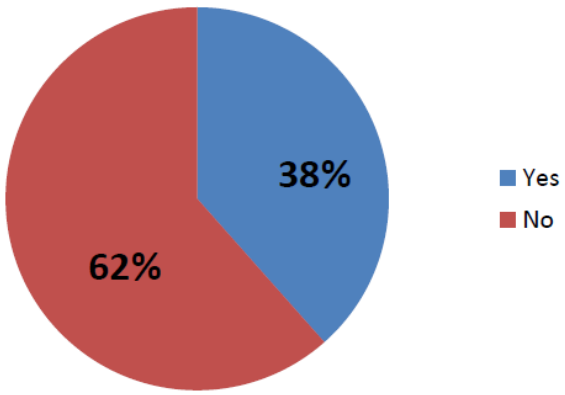
While group AB plasma can be thought of as the “universal plasma donation”, group AB blood donors only comprise approximately 4 percent of all blood donors. Because of the limited availability of group AB plasma, alternative product types have been investigated in trauma and massive bleeding situations. A recent national survey (Transfusion 2016 doi: 10.1111/trf.13266) mailed to 121 American trauma centers noted that 88 percent of respondents keep group A plasma immediately available and 69 percent use group A plasma for patients of unknown ABO group. This was a recent practice change with half of the respondents implementing the change within the past year. No adverse outcomes as a result of the change in product type have been noted. The majority of Texas hospitals responding to the survey are behind the changing paradigm of practice with regard to thawed group A plasma use for trauma resuscitation. The results of this survey, together with information in the literature, can be taken back to each facility for evaluation.

Texas Medical Association
Committee on Blood and Tissue Usage
2013-2015
AB Plasma Use in Texas Hospitals
Level I and II Trauma Facilities
Survey Report



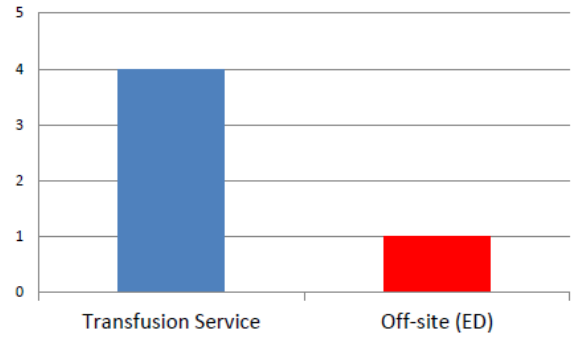
BTU Survey Trauma Facility Responses
(Total response: 13/34 = 38%)

2. We maintain thawed Group AB plasma for trauma/massive transfusion cases.

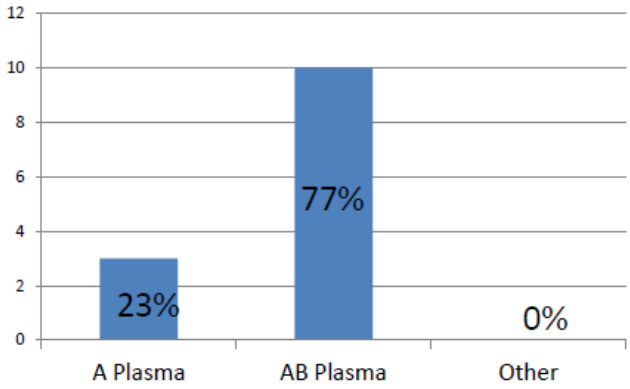


13 Respondents

3. If yes, what is the primary site for storage?



4. Trauma cases without a blood specimen in the lab receive:

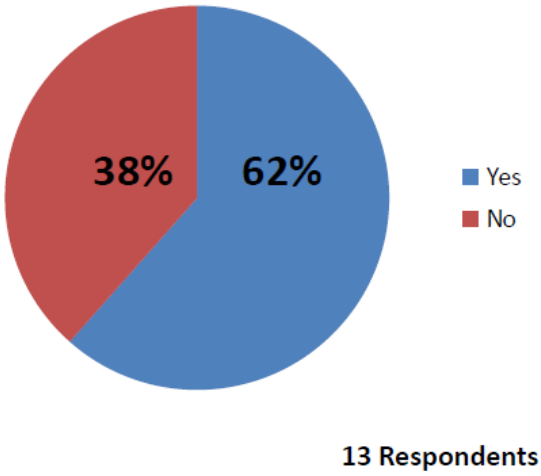


13 Respondents

5. If other, please specify.

- Note: 2 responses received to this question, although 0 responses received to "other" in question 4
  - We keep 4 A plasma thawed at all times as part of our trauma protocol
  - We may change to A plasma if limited AB supply and need "parge quanity."

6. Do you have a time goal for specimen acquisition when the blood specimen is not available



13 Respondents

7. If yes, our time goal for specimen acquisition is_____ (9 responses)

- No time provided: 3 responses
  - "Before second MT cooler released"
  - "No more than 2 units transfused emergency released"
  - Blood Bank responds and returns specimen
- "ASAP" – 2 responses
- "Seconds" – 1 response
- 5 minutes or less – 1 response (combined response with "seconds" if outside ED)
- 5-30 minutes – 3 responses

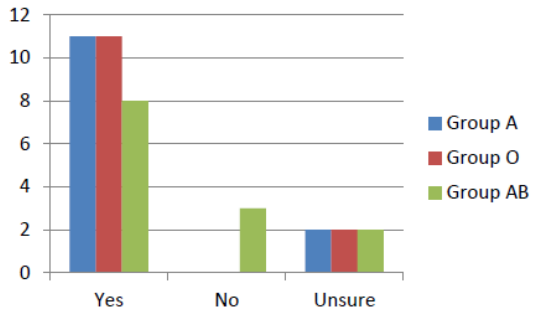
8-10. 2013 Plasma Data Requested

	Total Plasma Units Transfused	Total Group AB Plasma Transfused	Total Plasma Units Wasted
Mean	3943	246	131
Median	3370	183	97
Maximum	14048	700	273
Minimum	290	57	17
# Respondents	12	12	11

Question 8. The total number of plasma units transfused in 2013 was_____
Question 9. The number of AB plasma units transfused in 2013 was _____
Question 10. The 2013 plasma waste units were _____

Data unavailable for 2 responses for question 9 and 1 response for question 10

11. The following units by blood group are TRALI risk-reduced (male, nulliparous or low birth count female, HLA antibody screened):

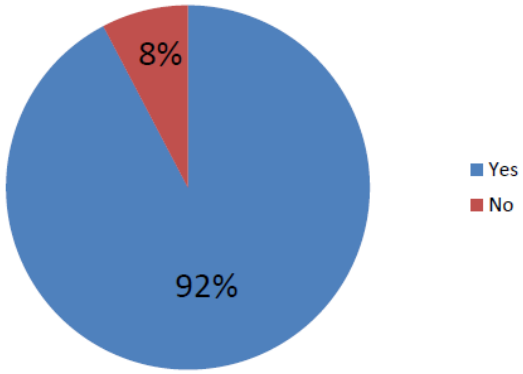


13 Respondents

12. When the physician orders plasma, we primarily provide (13 responses):

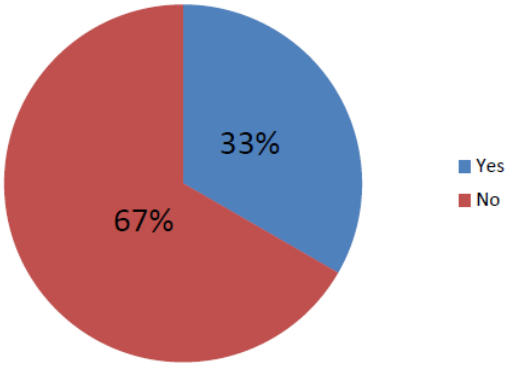
- Fresh frozen plasma (thawed and maintained for 24 hrs at 1-6C): 5 responses
- Five day plasma (thawed and maintained for 5 days at 1-6C): 4 responses
- FP-24 (thawed and maintained for 24 hrs at 1-6C): 4 responses
- Liquid plasma (stored liquid for 42+ days at 1-6C): 0 responses

13. We support therapeutic apheresis



13 Respondents

14. If yes, is there exclusive support of AB plasma for TTP?

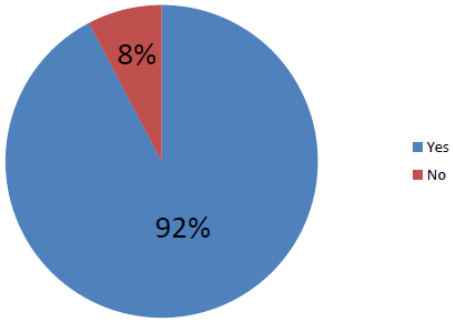


12 Respondents

15. If there is not exclusive support of AB plasma usage, please describe the process for utilization

- Received 6 responses
  - Type specific, pull FFP and available in 1 liter bags.
  - Issue type specific.
  - We provide apheresis patients with type specific plasma.
  - We support ABO specific plasma use for therapeutic plasmapheresis.
  - We give ABO type specific for our plasma exchanges.
  - Plasma compatible FFP or AFP.

16. We have established hospital/facility guidelines for the recommended indications for plasma use.

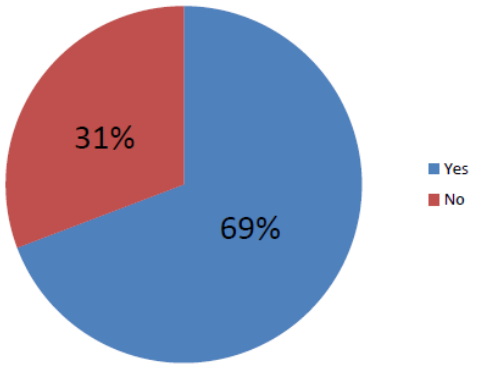


13 Respondents

17. If yes, what is the INR trigger for plasma transfusion (11 responses)?

- No INR trigger (4 responses)
  - PT>18, PTT>48 or active bleeding
- INR > 1.7
- INR > 1.6
- INR >1.5

18. We perform peer review of non-emergent use of plasma that falls out of recommendations/indications



13 Respondents