Massive Transfusion and Blood Utilization

Michelle Maxson, RN, MSN, ACCNS-AG

Senior Manager of Trauma Operations

Hurley Medical Center

Mean Ratio PRBC/FFP 4 Hrs

Blood Release

- Blood chest automatically released for all Class I traumas
 - Brought to ED by runner
 - Time of arrival documented in EMR
- MTP activated via trauma radio
 - Activated by Trauma Attending



MTP

- Blood chest contains 3 O-/O+ PRBC and 3 A FFP (AB for pediatrics)
- Every odd chest beginning with chest 3 contains jumbo PLT
- Every even number beginning with chest 4 contains 2 units of cryo
- Blood Bank staff keep track of MTP
 - Essential for success of MTP
 - Utilize Massive Transfusion Tracking Sheet



Massive Transfusion Tracking Sheet

Buggested use of this sheet. Cross off units as you given. Volume transfused must be charted under the L&O flow sheet as intake in the "Blood- MTP only" row

| Chest Shipment | | Thawed Plasma | PRBCs | Platelets (1 jumbo apheresis unit) | Cryo 10 units |
|---------------------|-------------------------|---------------------|--------------------|--|------------------|
| | Chest #1 | 1 | 2 4 | | |
| | <mark>* * *</mark> | 5 | 6 | | |
| | | 2 | 8 | | |
| | Chest #2 Chest #3 | 9 | 10 | | |
| | | ii | 12 | | |
| | | 14 | 15 | 13 | |
| ansfusion | | 16 | 17 | | |
| | | 18 | 19 | | |
| | | 22 | 23 | | 20,21 |
| | Chest #4 | 24 | 25 | | 20,21 |
| | | 26 | 27 | | |
| | | 20 | 30 | 28 | |
| | Chest #5 | 31 | 30 | 28 | |
| | | | | | |
| | | 33 | 34 | | |
| | Chest #6 | 37 | 38 | | 35,36 |
| | | 39 | 40 | | |
| <u> </u> | | 41 | 42 | | |
| Massive Transfusion | Chest #7 | 44 | 45 | 43 | |
| | | 46 | 47 | | |
| | | 48 | 49 | | |
| | Chest #8 | 52 | 53 | | 50,51 |
| | | 54 | 55 | | |
| | | 56 | 57 | | |
| | Chest #9 | 59 | 60 | 58 | |
| | | 61 | 62 | | |
| | | 63 | 64 | | |
| | Chest #10 | 67 | 68 | | 65,66 |
| | | 69 | 70 | | |
| | | 71 | 72 | | |
| | | | P as necessary | | |
| Remembe | r to deactivate the mas | sive transfusion ov | er the trauma radi | io/phone when MTP i | s terminated |

MTP

- Tranexamic acid is given as soon as need for MTP is identified
- Rapid TEG is included in standard labs for all Class I traumas
- Rapid TEG drawn every 20 minutes during active MTP to guide further transfusion



Blood Usage and Wastage

November 2023

| | Discarded | Transfused |
|------------------------|-----------|------------|
| Packed Red Blood Cells | 2 | 374 |
| Fresh Frozen Plasma | 9 | 57 |
| Platelet Pheresis | 0 | 36 |
| Cryoprecepitate | 0 | 9 |

December 2023

| | Discarded | Transfused |
|------------------------|-----------|------------|
| Packed Red Blood Cells | 1 | 426 |
| Fresh Frozen Plasma | 6 | 76 |
| Platelet Pheresis | 0 | 56 |
| Cryoprecepitate | 0 | 7 |

How Did We Get Here?

- Review of all MTPs
 - Identify where the process broke down
- Education to key stakeholders
 - Dedicated ED nurses
 - Anesthesia
- Blood Bank Staff



Thank You!

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