

Bs Trần Thị Thảo – Khoa Nhi thần – Nhi tiết

Định nghĩa

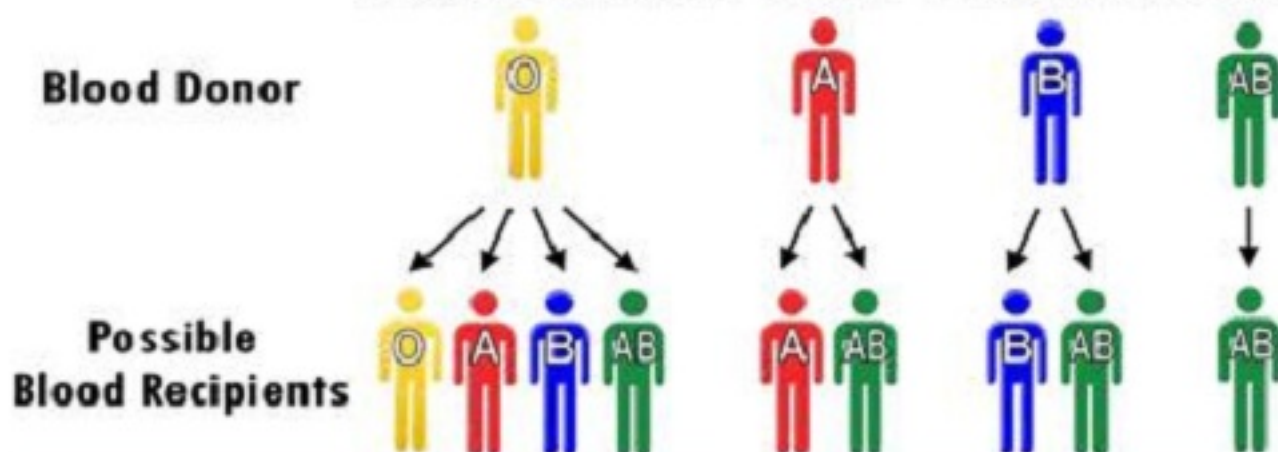
Truyền máu khế i lợ ng lợ n (TMKLL) đợc định nghĩa dựa trên thố tích máu mắ t hoặc thố tích máu đợc truyền.

Có nhiệ u định nghĩa về TMKLL. Trợc đây, ngợ i trợ ng thành đợc truyền 10 đợ n về hợ ng cợ u lợ ng trong vòng 24 giợ đợ đợi phó về i chợ y máu nợ ng và không kiợ m soát đợc gợ i là TMKLL [2], [14]. Tuy nhiên, đợ đợi u trợ nhanh chóng và hiệ u quợ hợ n, định nghĩa này đã thay đợ i nhợ truyền 3 đợ n về hợ ng cợ u lợ ng quá 1 giợ do mắ t máu không kiợ m soát đợc [9]. Mắ t sợ định nghĩa khác nhợ truyền mắ t nợ a thố tích máu trong vòng 4 giợ , hoặc truyền hợ n mắ t lợ n thố tích máu trong vòng 24 giợ (thố tích máu ngợ i trợ ng thành khoợ ng 70 ml/kg), hay mắ t máu nhiệ u hợ n 150 ml/phút [2], [14].

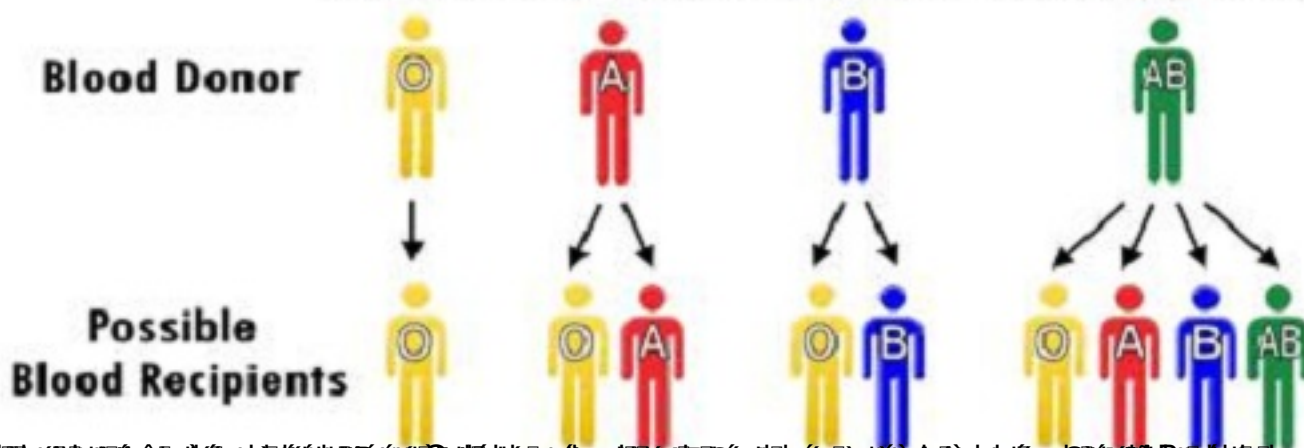
Trợ em có nhợ ng đợc đợi m khác biệ t quan trợ ng so về i ngợ i lợ n nhợ thố tích máu, khợ năng chợ u đợ ng khi mắ t máu, mắ c đợ hemoglobin và hematocrit thay đợ i theo tuợ i. Vì vậy, TMKLL đợc định nghĩa đợ i tợ ng này là sợ truyền nhiệ u hợ n 40 mL máu/kg (thố tích máu bình thợ ng đợ trợ em khoợ ng 80 mL/kg) [14].



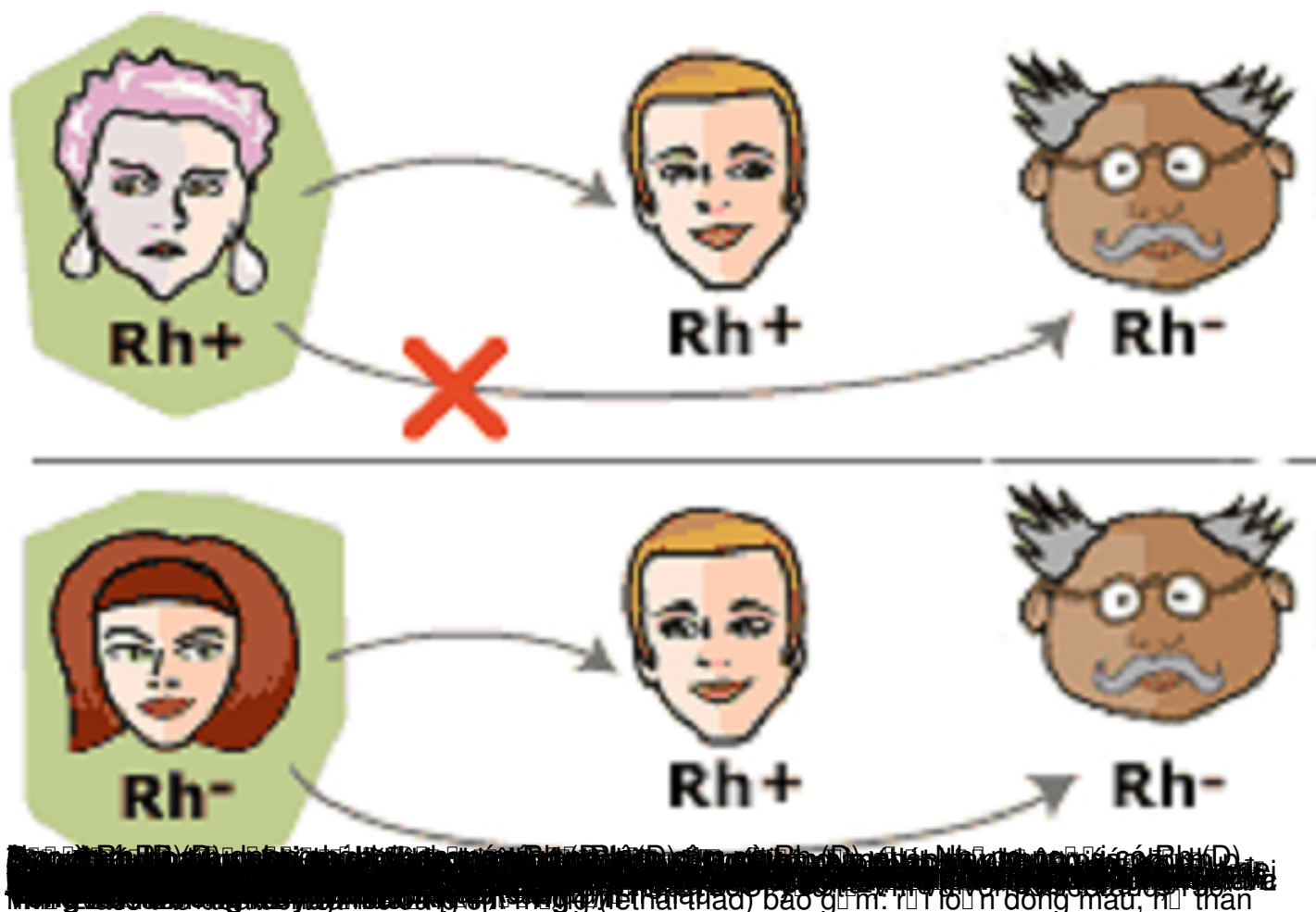
Red Blood Cell Transfusions

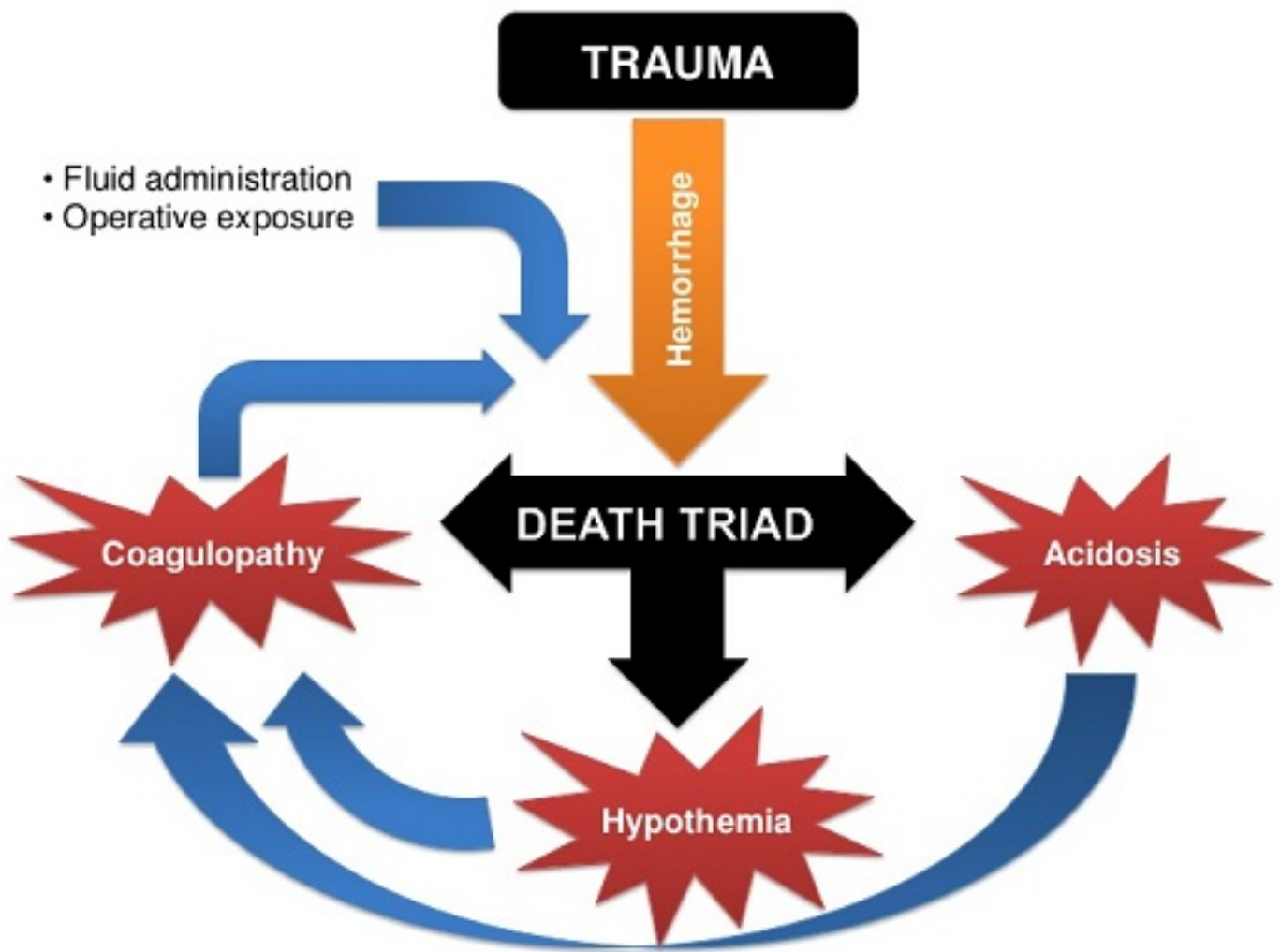


Platelet & Plasma Transfusions



Quy trình này được thực hiện theo quy định của Bộ Y tế và các cơ quan chức năng liên quan.





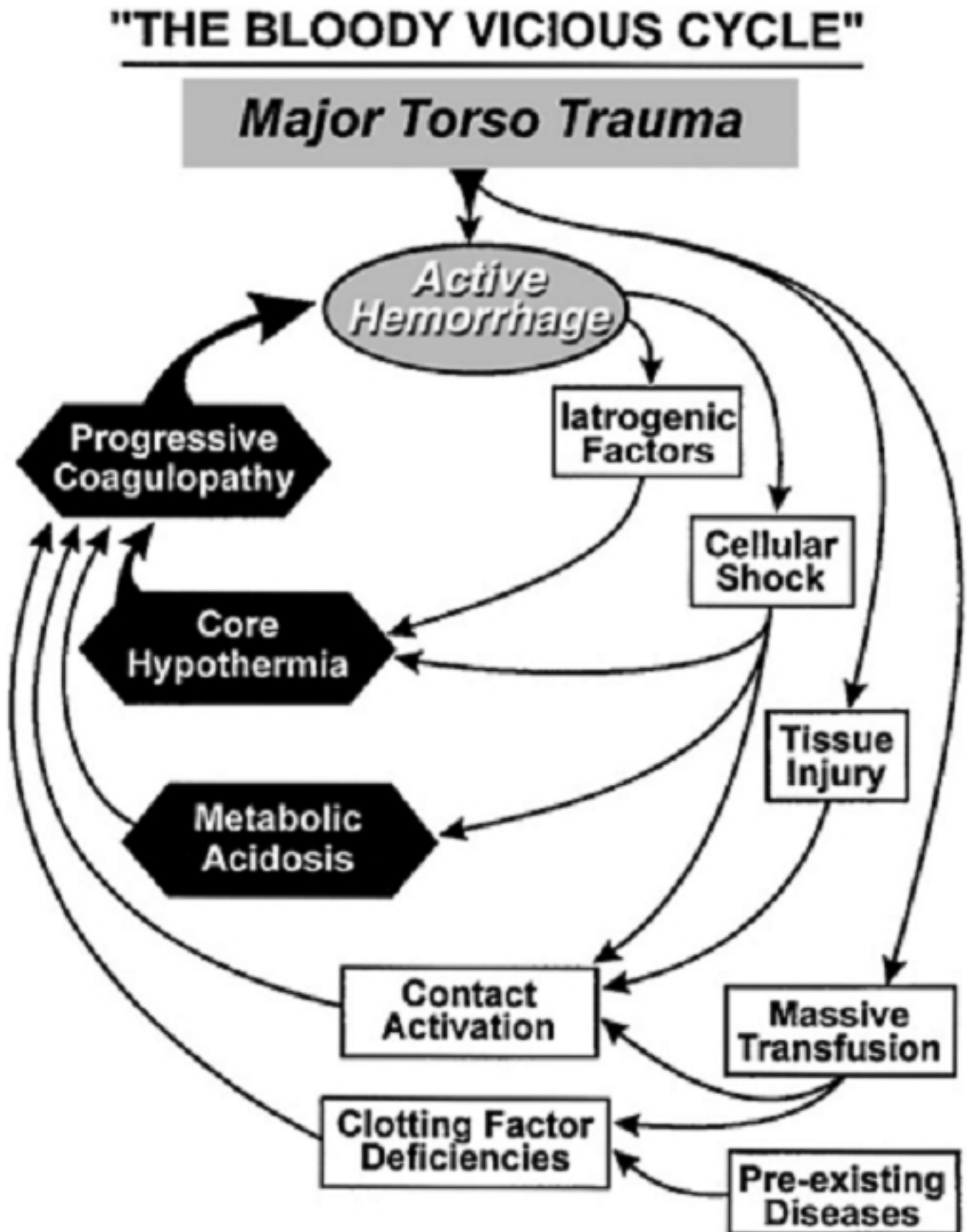


FIGURE 1. The pathogenesis of the bloody vicious cycle following major torso trauma is multifactorial, but usually manifests as a triad of refractory coagulopathy, progressive hypothermia, and persistent metabolic acidosis. Adapted from Moore and Thomas ²⁸

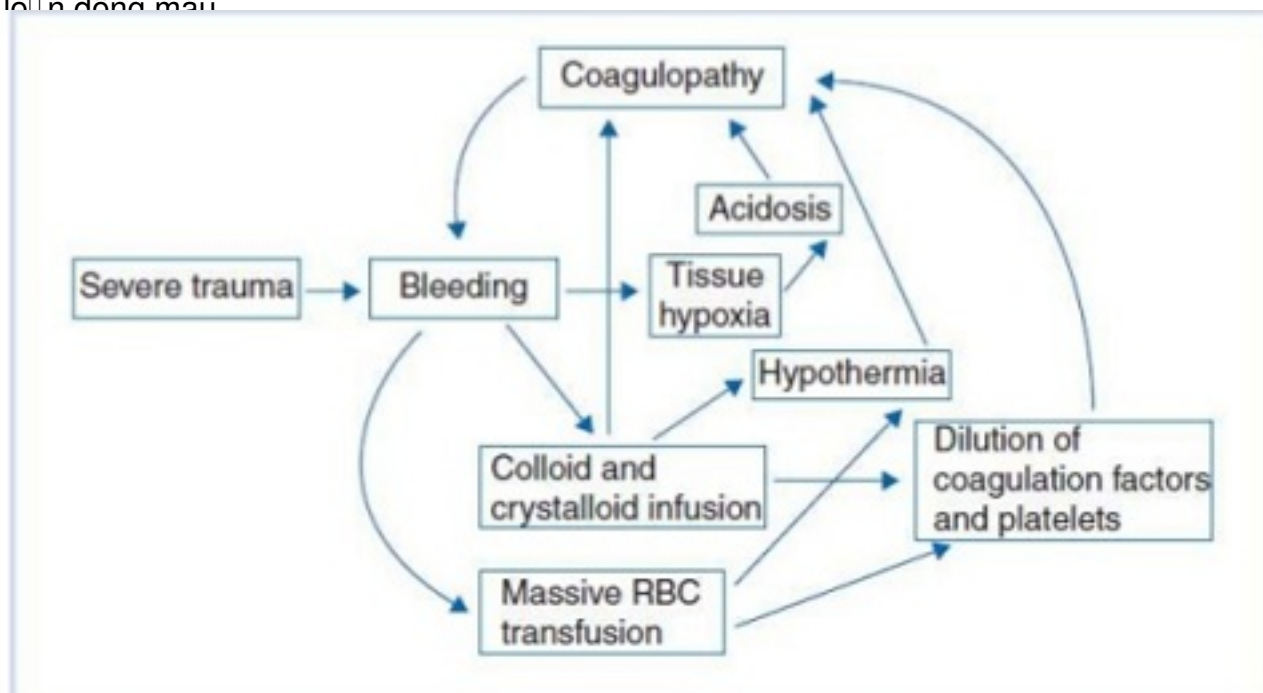
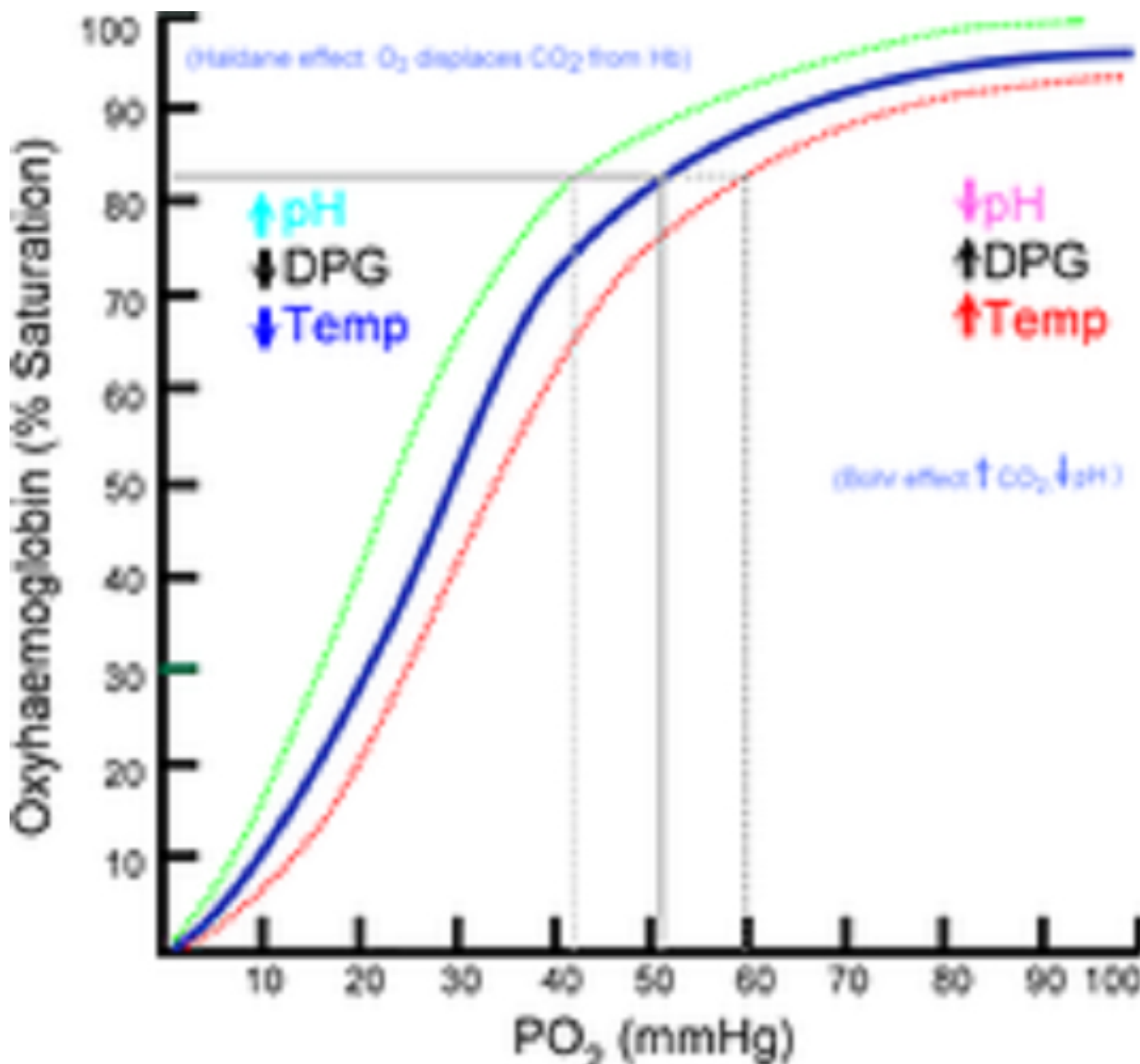
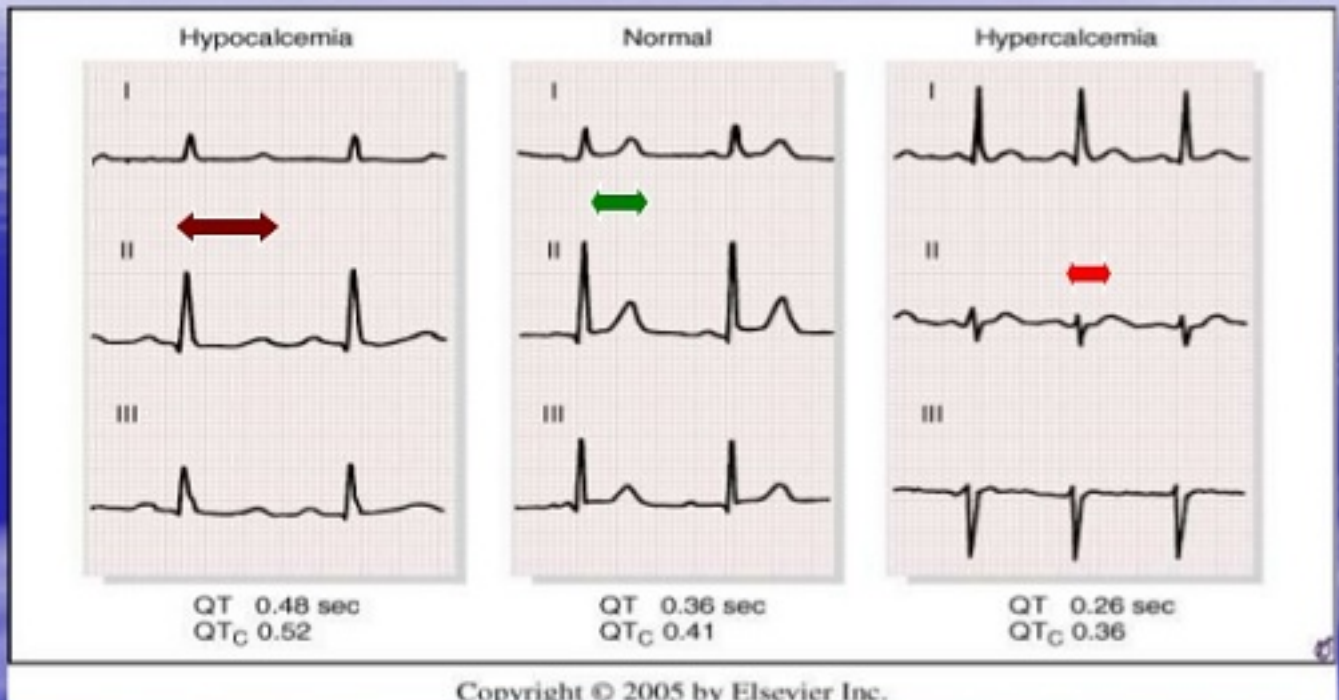


Fig 1 Pathogenesis of haemostasis abnormality in MT. Dilutional coagulopathy, activation of inflammatory mediators, hyperfibrinolysis, thrombocytopenia, and metabolic abnormalities (hypothermia, hypocalcaemia, and acidosis) all contribute to the pathogenesis of the haemostasis abnormality in massive haemorrhage.



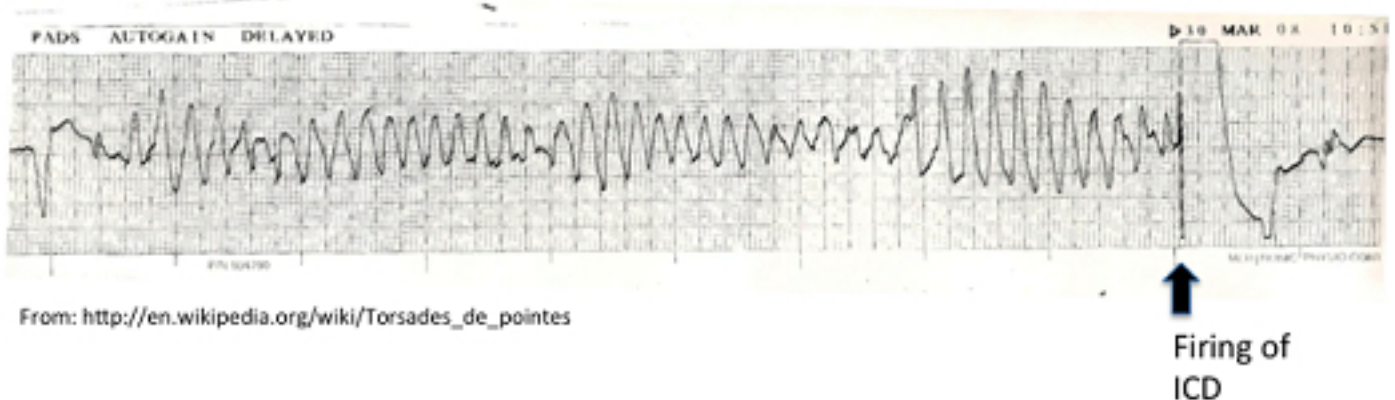
The graph shows the relationship between the partial pressure of oxygen (PO_2) and the percentage saturation of hemoglobin. The y-axis represents Oxyhaemoglobin (% Saturation) and the x-axis represents PO_2 (mmHg). The curve is sigmoidal, showing that as PO_2 increases, the percentage saturation of hemoglobin increases rapidly at first and then levels off. The graph also illustrates the Haldane effect (where O_2 displaces CO_2 from Hb) and the Bohr effect (where $\uparrow CO_2$ and $\downarrow pH$ shift the curve to the right). Factors like $\uparrow pH$, $\downarrow DPG$, and $\downarrow Temp$ shift the curve to the left, while $\downarrow pH$, $\uparrow DPG$, and $\uparrow Temp$ shift it to the right.

ECG CHANGES



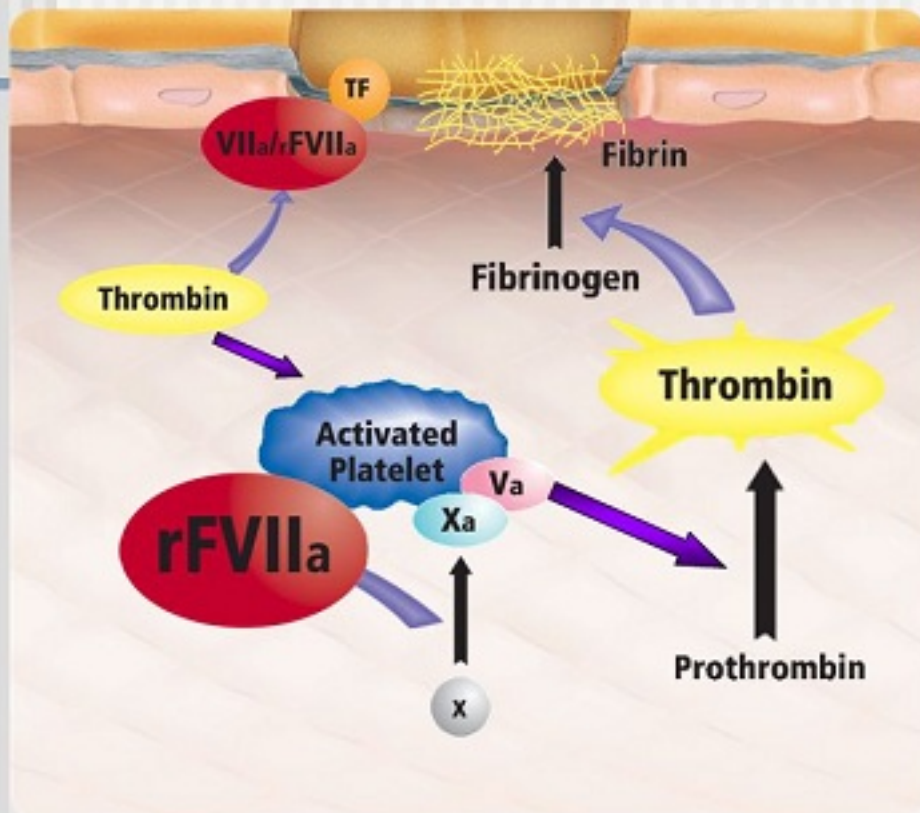
- Prolongation of the QT interval (ST segment portion) is typical of hypocalcemia.

Torsades de pointes



Serum potassium	Typical ECG appearance	Possible ECG abnormalities
Mild (5.5-6.5 mEq/L)		Peaked T waves Prolonged PR segment
Moderate (6.5-8.0 mEq/L)		Loss of P wave Prolonged QRS complex ST-segment elevation Ectopic beats and escape rhythms
Severe (>8.0 mEq/L)		Progressive widening of QRS complex Sine wave Ventricular fibrillation Asystole Axis deviations Bundle branch blocks Fascicular blocks

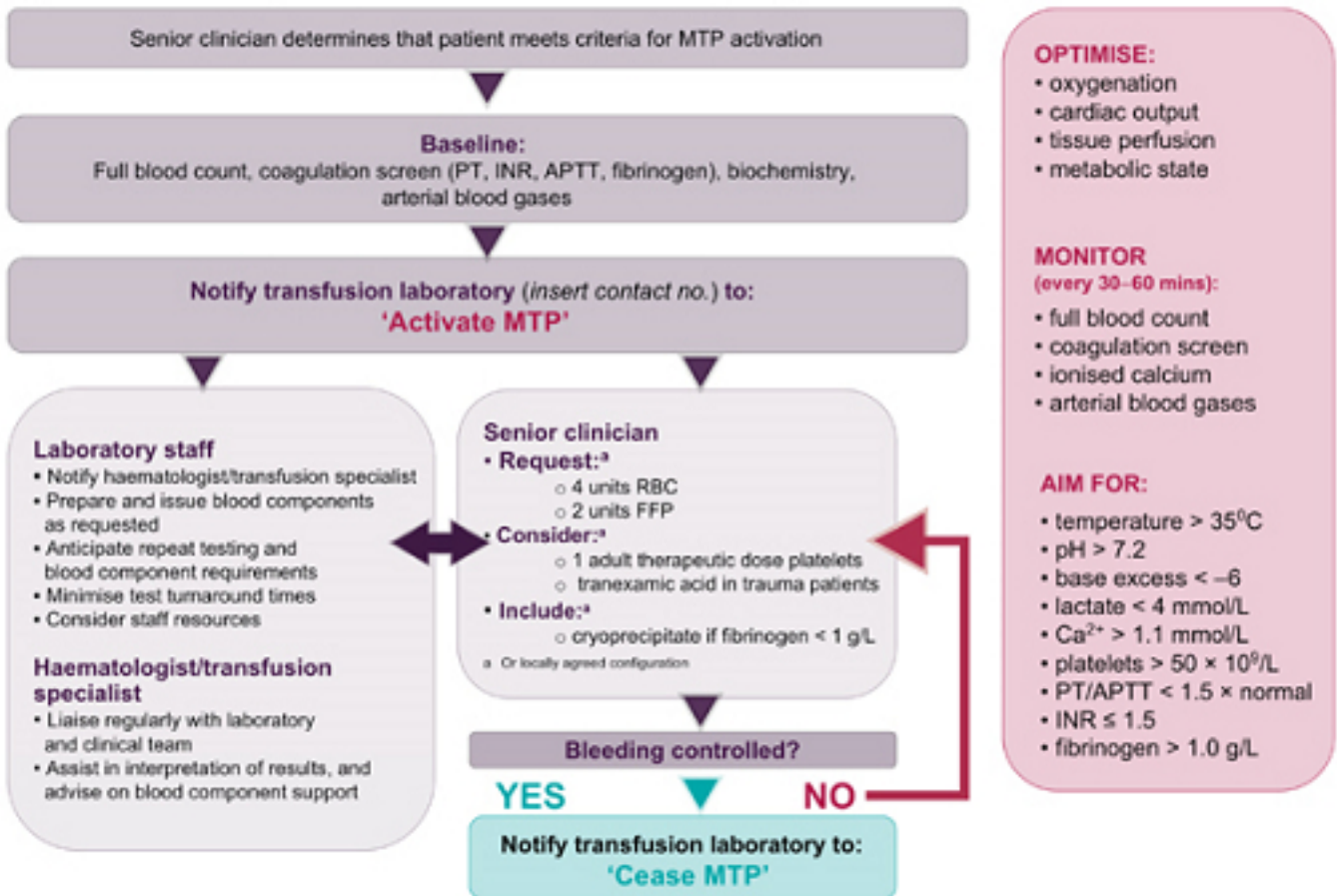
The thrombin burst leads to the formation of a stable clot



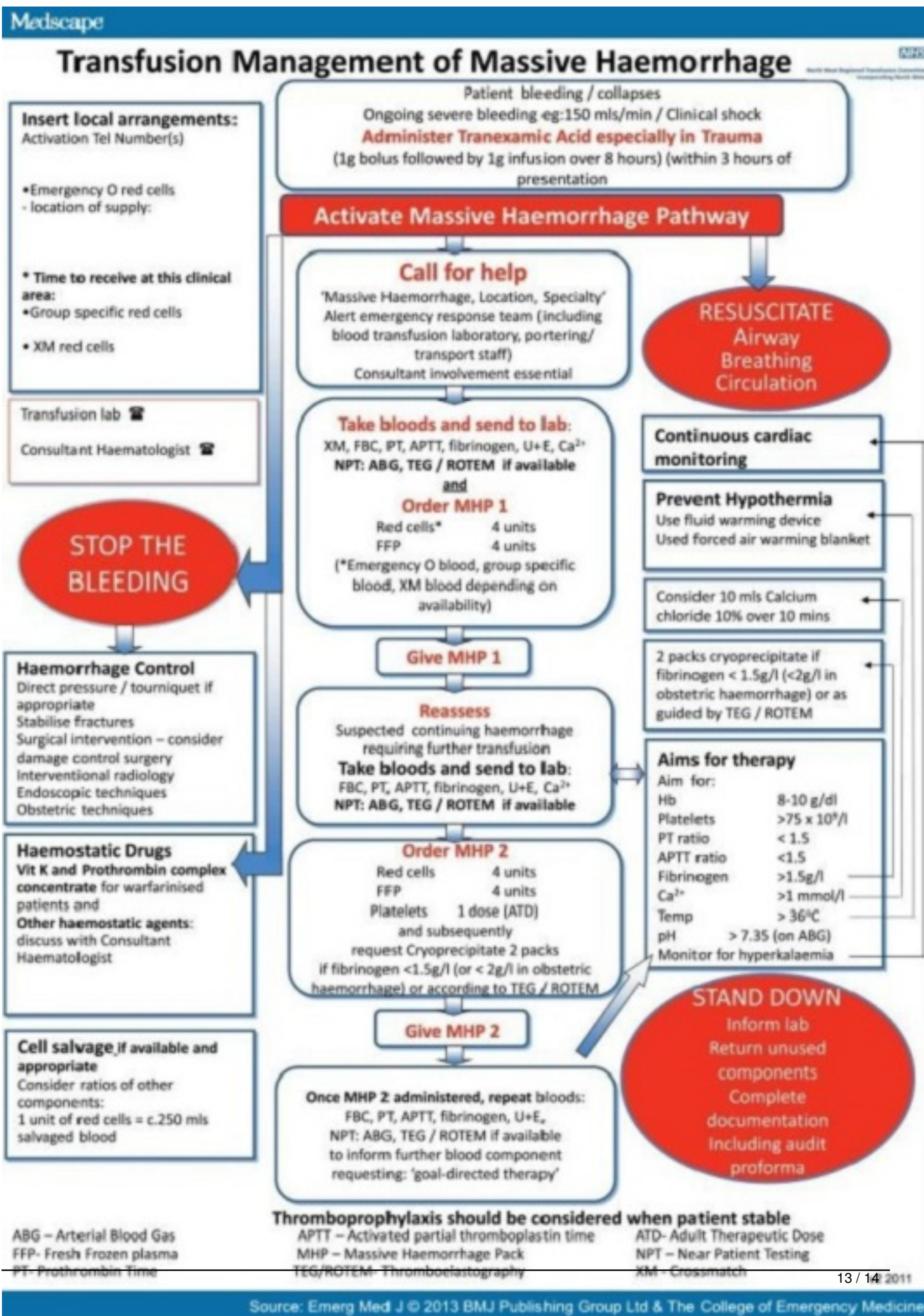
Plasma Factor VIII:1 activity 100% (normal range 75-100%)

Massive transfusion protocol (MTP) template

The information below, developed by consensus, broadly covers areas that should be included in a local MTP. This template can be used to develop an MTP to meet the needs of the local institution's patient population and resources



Management Guidelines (2011), "Critical Bleeding/Massive Transfusion", In: Patient Blood



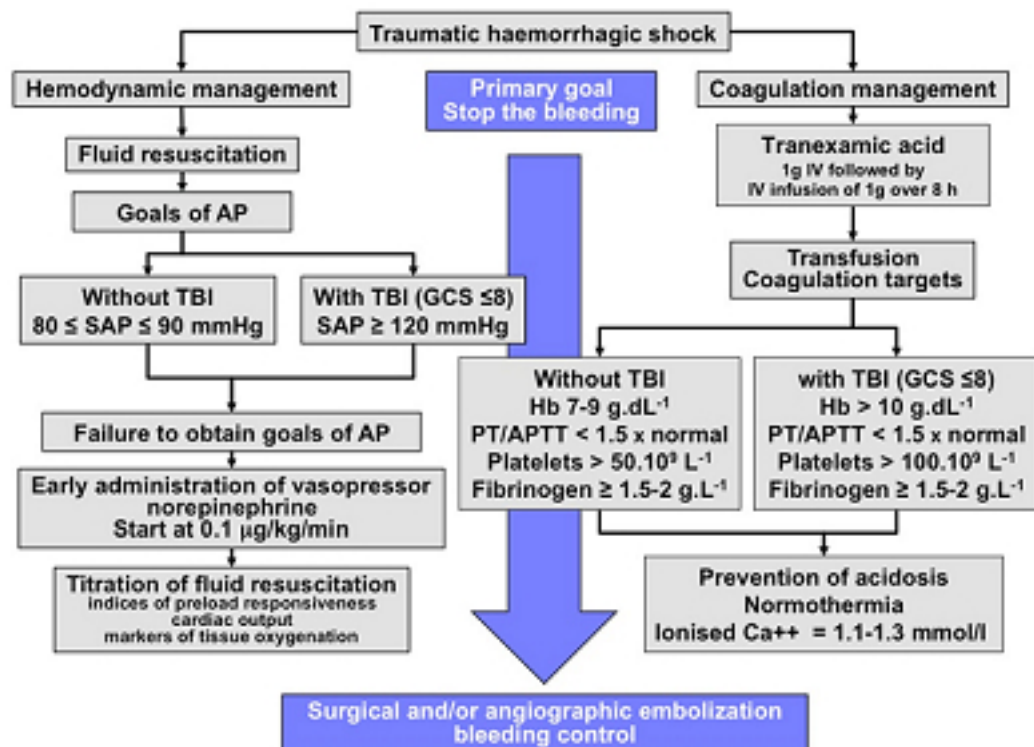


Figure 1 Flowchart of initial management of traumatic hemorrhagic shock. In the acute phase of traumatic hemorrhagic shock, the therapeutic priority is to stop the bleeding. As long as this bleeding is not controlled, the physician must manage fluid resuscitation, vasopressors, and blood transfusion to prevent or treat acute coagulopathy of trauma. AP, arterial pressure; SAP, systolic arterial pressure; TBI, trauma brain injury; Hb, hemoglobin; PT, prothrombin time; APTT, activated partial thromboplastin time.

PT, prothrombin time; APTT, activated partial thromboplastin time. Annals of the New York Academy of Sciences. 2017;1418:1-10. doi:10.1111/anab.13111. Epub 2017 Jun 20. PMID: 28620000.