Complications of blood transfusion

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Complications from blood transfusion can be categorised as those arising from a single transfusion and those related to massive transfusion. - Complications from a single transfusion Complications from a single transfusion include: /uni25CF incompatibility haemolytic transfusion reaction; /uni25CF febrile transfusion reaction; /uni25CF allergic reaction; /uni25CF infection: - /uni25CF bacterial infection (usually due to faulty storage); - /uni25CF hepatitis; /uni25CF HIV; /uni25CF malaria; /uni25CF air embolism; /uni25CF thrombophlebitis; /uni25CF transfusion-related acute lung injury (usually from FFP). Complications from massive transfusion Complications from massive transfusion include: /uni25CF coagulopathy; /uni25CF hypocalcaemia; /uni25CF hyperkalaemia; /uni25CF hypokalaemia; /uni25CF hypothermia. In addition, patients who receive repeated transfusions over long periods of time (e.g. patients with thalassaemia) may develop iron overload. (Each transfused unit of red blood cells contains appr oximately 250 /uni00A0 mg of elemental iron.) Correction of coagulopathy is not necessary if there is no active bleeding and haemorrhage is not anticipated (not due for surgery). However, coagulopathy will occur during major haemorrhage and should be anticipated and managed actively . Prevention of dilutional coagulopathy is central to the dam age control resuscitation of patients who are actively bleeding. This is the prime reason for delivering balanced transfusion regimes that deliv er a resuscitation which approximates that of whole blood. In most practice this means delivering matched units of red blood cells, plasma and platelets in a 1:1:1 ratio. Crystalloids and colloids should be avoided if at all possible. The balanced transfusion approach will not correct an established coagulopathy . Most bleeding patients are hyper fibrinolytic, and should be empirically given tranexamic acid, an antifibrinolytic agent, as quickly as possible. Low fibrinogen levels are v ery common, and fibrinogen is vital to clot formation and stabilisation. Cryoprecipitate can be given empirically or guided by laboratory or point-of-care tests of clotting (e.g. thr omboelastometry). Similarly platelet con centrates are given for low platelet counts or observed platelet dysfunction. Clotting function should be assayed frequently during haemorrhage and acted upon until bleeding has been controlled. Complications of blood transfusion

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