



Service Priorities and Programmes
Electronic Presentations

Convention ID: 555

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Massive Transfusion Protocol benefits obstetric patients with massive postpartum haemorrhage

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Keywords:

Massive Transfusion Protocol
massive postpartum haemorrhage
postpartum haemorrhage
obstetric
pregnancy

Introduction

Obstetric haemorrhage is a leading cause of maternal mortality around the world. In case of massive haemorrhage, early replacement of sufficient blood products is critical. Transfusion of RBCs, Plasma and Platelets timely and at appropriate ratios plays an extremely important role in improving patient survival. A uniform guideline is one of the key components for successful management of these patients. Thus, a multidisciplinary, tailor-made institutional massive transfusion protocol is necessary to optimize clinicians' performance in response to the emergency and to maximize the outcomes.

Objectives

The Massive Transfusion Protocol (MTP) is aimed at raising the clinician's alertness for need of blood products transfusion and improving multidisciplinary (Obstetricians, Midwives, Blood bank) communication. It can ensure delivery of sufficient amount and types of blood products from the transfusion service to the obstetric unit.

Methodology

The criteria for activation of MTP are clearly listed. Upon initiation of the MTP, patient's blood should be sent urgently to the laboratory for investigation. Blood bank staff is informed by midwives via phone immediately with "activate MTP" alert and certain information including patient's identities, responsible staff and phone number for contact is provided. Request on blood products can be made through "CMS Investigation Request" and request form is faxed to blood bank immediately. Blood bank will call back once the blood products are ready and a runner is assigned for collection of the blood products. The blood products are available to be picked up within 30 minutes upon the request form is received by blood bank. Cycle is repeated if subsequent MTP is required. MTP can be terminated via phone or it will be deactivated automatically if there is no further request after 2 hours from the last collection.

Result

MTP was launched in our department since June 2017. It has been activated for 5 cases with massive postpartum haemorrhage blood loss between 2000 ml to 8250ml. Batch of blood products was available for collection within 30 minutes and the ratio (blood: plasma:platelets ratio of 1:1:1) can be ensured to avoid dilution of the patient's blood during massive blood transfusion. The requirement on blood taking and investigation for activation of subsequent MTP can ensure closely and continuously monitoring of the laboratory parameters. Indication for giving thrombolytic therapy products, such as Cryoprecipitate, can be noted and which can be benefit the management of bleeding. Effective communication between multidiscipline, Obstetricians, Midwives, Staff of laboratory and blood bank can be enhanced to achieve an optimal outcome of the patients on management of massive bleeding.