

Introduction

It is Sunday evening, the BMS is well into a 12.5 hour day shift working with an Assistant Health Care Scientist. They are responsible for Biochemistry, Haematology and Blood Transfusion at the QEQM Hospital, Margate, a busy DGH with 24 hour A/E.

The time is 16:35 29th September and suddenly the MHP bleep is activated. What is the BMS thinking? What is this going to be?

The Trauma Lead announces a stabbing victim with a deep penetrating neck injury.....

Patient Timeline

- Arrives in A/E with deep penetrating neck injury.
- Cardiac arrest x 3 and successfully resuscitated.
- Lacerated left carotid artery and sub clavian arteries close to aortic arch.
- Rushed to theatre – has 4 hour surgery.
- During surgery, approach made through neck and thoracotomy to control bleeding.
- Bled more than 14 litres or 3 times blood volume requiring massive transfusion of blood products.
- 27 days in ITU.

Timeline of Laboratory Results

TIME	REQUEST FOR BLOOD PRODUCTS	HB g/L	PLTS 10 ⁹ /L	PT secs	PTT secs	FIB g/L	G+S sample
16:36 29/9	MHP PACK 1 4XONeg RBCS	135	160	13.5	29.4		✓ APOS No Antibodies Detected (NAD)
16:40	Further 4xONeg RBCS						✓ APOS NAD
17:03	MHP PACK 2 4XAPos RBCS 2XAFFP	114	122	224	93.2	0.95	✓ APOS NAD
17:24	6XAPos RBCS 6XAFFP						
18:18	2XPLTS (BNeg and APos)						
19:10	6xA Pos RBCS 2xA CRYO	86	76	40.1	99.0	0.6	
01:00 30/9		129	94	17.6	32.1	2.4	
05:00 30/9		126	92	16.2	31.6	2.7	
05:57 1/10		117	91	14.3	29.1		
05:00 2/10	1xA Pos PLTS	97	77	14.2	29.4		
05:00 3/10		99	88	15.2	32.6		



“The patient survived such a disastrous event because:

- *Timely resuscitation*
- *Immediate decision making*
- *Rapid transport to theatre*
- *Skills and energy of individuals in the team*
- *Efforts of the transfusion team and prompt supply of blood products.”*

– Consultant Anaesthetist



Laboratory Review

- Benefit of stock sharing with other hospitals in East Kent
 - i) Stock PLTS from William Harvey Hospital (WHH)
 - ii) Allocated PLTS from Kent and Canterbury Hospital (K+C)
 - iii) O Neg RBCS from WHH
- Prompt Service from SERV invaluable:
 - i) Collect PLTS and RBCS from WHH and K+C
 - ii) Collect A Pos RBCS and FFP from NHSBT
- Introduced 4xO Pos RBCS for Male MHP patients
- Stock PLTS held on QEQM and WHH sites
- Timely assistance (18:00hrs) sought from Chief BMS with issue of blood products

Patient Outcome

“Thanks to sustained skilled effort the patient had the best possible outcome” – Consultant Anaesthetist.

“There is no doubt that but for the prompt action and effectiveness of the team the outcome would have been less favourable” – Anaesthetist Lead

BMS was integral part of improving patient outcome.

Patient discharged home without readmission.

We

care