A Near Fatal Stabbing - Success Against All the Odds

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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 of 3 times blood volume requiring massive transfusion of blood products.
- 27 days in ITU.

Timeline of Laboratory Results

<table>
<thead>
<tr>
<th>TIME</th>
<th>REQUEST FOR BLOOD PRODUCTS</th>
<th>Hb g/L</th>
<th>PLTs 10^9/L</th>
<th>PT secs</th>
<th>PTT secs</th>
<th>FIB g/L</th>
<th>G+S sample</th>
<th>APUS</th>
<th>NAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:30</td>
<td>MHP PACK 1</td>
<td>123</td>
<td>188</td>
<td>13.5</td>
<td>29.6</td>
<td></td>
<td></td>
<td>APUS</td>
<td>NAD</td>
</tr>
<tr>
<td>16:40</td>
<td>MHP PACK 2</td>
<td>114</td>
<td>122</td>
<td>224</td>
<td>93.2</td>
<td>0.65</td>
<td></td>
<td>APUS</td>
<td>NAD</td>
</tr>
<tr>
<td>17:03</td>
<td>MHP PACK 2</td>
<td>90</td>
<td>76</td>
<td>40.1</td>
<td>99.9</td>
<td>0.8</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>18:18</td>
<td>2xPLTS (0Neg and API(a))</td>
<td>129</td>
<td>94</td>
<td>17.6</td>
<td>32.1</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01:00 2/10</td>
<td>6xA Pos RBCS</td>
<td>120</td>
<td>92</td>
<td>16.2</td>
<td>31.6</td>
<td>2.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05:00 3/10</td>
<td>1xK Pos PLTS</td>
<td>97</td>
<td>88</td>
<td>14.2</td>
<td>29.4</td>
<td></td>
<td></td>
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</table>

“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.