**The Papworth Haemostasis Checklist**

Significant bleeding requiring patients to return to theatre (RTT) is a recognised complication following cardiac surgery and has been highlighted in the cardiothoracic surgery ‘Getting it Right First Time’ report. In the UK, the average rate of RTT is 3.75% with some units reporting an incidence of >7%. This is one of the more preventable complications our patients face. Significant bleeding and RTT is associated with inferior patient outcomes – increased incidence of complications and peri-operative mortality1.

With the aim of reducing the incidence of RTT, we introduced the Papworth Haemostasis Checklist. Just prior to sternal wire insertion there is a ‘time-out’ when the first assistant reads out the points on the checklist. It is divided into two components:

1. Surgical sites – the commonest sites of bleeding found at RTT
2. Coagulation status – a series of parameters associated with coagulopathy

The checklist was implemented in July 2017. Implementation of the checklist has had a significant impact on patient outcomes2. Comparing the 1 year prior to the 21 months since implementation:

* Return to theatre rate has reduced: 3.5% ⇒ 2.0%
* Incidence of >1 litre blood loss in 12 hours has reduced: 6.1% ⇒ 2.9%
* 6.5% reduction in patients receiving blood product transfusion
* 1497 units of RBC saved
* £281,888 saving in the cost of blood products
* Associated reduction in ITU and hospital lengths of stay

In recognition of the clinical benefits, the checklist has been shortlisted for an HSJ Patient Safety Award 2019.

The Papworth Haemostasis Checklist is a quick and easy to use tool that has had a significant impact on patient outcomes. Its use should be considered in all cardiothoracic centres.

***Tips for successful implementation of a haemostasis checklist***

1. Present the idea of implementing such a checklist to all members of the surgical multidisciplinary team – highlighting the impact of RTT on patient outcomes.
2. Involve all team members in the development of the checklist to encourage buy in to the idea and ownership
3. Pilot the checklist, being willing to make many changes to the details of the checklist, but also the process of undertaking it
4. Ensure that there is a ‘time-out’ in theatre for the checklist to be performed and that all team members understand the importance of it
5. Ensure the checklist has a prominent position on the theatre wall to act as a constant reminder
6. Present each month compliance with completing the checklist, but also bleeding and RTT rates at surgeon and even registrar level to reinforce the importance of the checklist, and the hopefully positive impact it has had
7. Review the process and checklist regularly to ensure that it meets the requirements of all members of the multidisciplinary team

**References**

1. Ali JM, Wallwork K, Moorjani N. Do patients who require return to theatre for bleeding have inferior outcomes following cardiac surgery? *Interactive Cardiovascular and Thoracic Surgery* 2019 Apr 1;28(4):613-618. doi: 10.1093/icvts/ivy285.
2. Ali JM, Gerrard C, Clayton J, Moorjani N. educed re-exploration and blood product transfusion after introduction of the Papworth haemostasis checklist. *European Journal of Cardiothoracic Surgery* 2019 Apr 1;55(4):729-736. doi: 10.1093/ejcts/ezy362