From the Chief Medical Officer
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To:

Medical Directors of Trusts – for transmission to all hospital doctors and doctors in Community Trusts who may prescribe blood transfusion.
Directors of Nursing of Trusts – for attention of Nursing and Midwifery staff.

Your Ref:
Our Ref:
Date: 17 November 2006

Dear Colleagues

APPROPRIATE USE OF BLOOD IN NORTHERN IRELAND

You may remember that CREST guidelines on the use of blood in Northern Ireland were distributed in 2001. Following this, the Northern Ireland Regional Transfusion Committee undertook a major audit of red cell use in Northern Ireland[1]. This was supported by RMAG.

The results of this audit were presented at a Workshop earlier this year. It is fair to say that the results were disappointing, with a considerable proportion of blood use in Northern Ireland being judged inappropriate.

Because of the increased risk that blood transfusion now carries, not least the danger of communicable disease that has not yet been identified, and the fact that every recipient of blood is now automatically barred from ever donating blood, CREST has drawn up new guidelines on blood transfusion in adult patients, and these are currently out for consultation.

However, I wanted to draw your attention to the major points in the new guidelines, as quickly as possible.

Transfusion thresholds:

- **For otherwise healthy patients less that 65 years of age a transfusion trigger of 7g/dl is appropriate.**
- **For otherwise healthy patients over 65 years of age a transfusion trigger of 8g/dl is appropriate.**
- **For otherwise healthy patients with additional risk factors of cardiac and cerebrovascular insufficiency, a higher trigger of 9g/dl is permitted.**

[1] This document is available as a PDF format and can be accessed on www.transfusionguidelines.org. It is also available locally on the RMAG website and CREST website.

Red cells should <u>not</u> be routinely administered above these thresholds. Consideration can be given to administering red cell transfusions below these thresholds but this does not mean transfusion should always be administered.

- **A higher threshold of 10g/dl is reserved for patients who are symptomatic of anaemia which is documented and specified, for patients who are actively bleeding significantly and finally for patients who have a marrow injury, often due to effects of chemotherapy, radiation therapy or primary marrow disorder. All of these patients are less able to compensate and adapt to their anaemia and additive red cell transfusions are of clinical benefit.**

An important finding of the audit was the issue of over-transfusion. Consideration should be given to the amount of units prescribed. This will often include a single unit transfusion if the no transfusion option has been exhausted. The size of the patient and his/her estimated blood loss along with the ongoing trend in bleeding or in haemoglobin are important factors. The audit demonstrates that a single unit transfusion can have an additive effect of between 0.5 and 2.0g/dl on the patient's pre-transfusion haemoglobin. This reflects wide variation in patient recipient's blood volume in non-bleeding patients.

In any decision to transfuse red cells the clinical benefits must outweigh the real and perceived risks for patients. We must be sure that every unit of blood is transfused appropriately and I would strongly recommend that you adhere to the NIRTC guidance contained in this letter.

Yours sincerely

DR MICHAEL McBRIDE
Chief Medical Officer

cc CNO
Mr Andrew Hamilton
Dr Miriam McCarthy
Dr E Mitchell
DsPH
Chief Executives of Boards and Trusts
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