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Cord blood transfusion

Peter Hollands

Lipocube Ltd, UK

Abstract

Cord blood transfusion can reduce costs in terms of reduced inpatient times, faster recovery and a reduction in hospital based deaths for patients suffering trauma, acute, chronic and terminal illness and those requiring blood transfusion during and following major surgery.

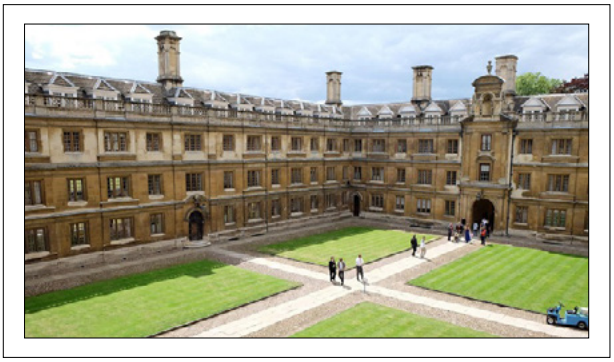
Cord blood contains three critical substances which make it much more effective as a transfusion product than donated adult blood, these are:
• Fetal haemoglobin in the red cells meaning that cord blood can carry more oxygen than donated adult blood and that a recipient of a cord blood transfusion has higher oxygenation rates. This could be critical in severe illness, trauma or during and after surgery
• Cytokines (proteins) which are not present in donated adult blood. These can down regulate pathological processes in trauma and disease and promote faster recovery rates
• Stem cells which may help to repair damaged tissue in trauma and disease

Cord blood for transfusion can be grouped and screened in the same way as donated adult blood.
Major hospitals have a labour ward, many acute and chronic patients who need transfusion and an A&E and surgical or oncology departments with constant demands for blood for transfusion. Cord blood could be collected in the labour ward and then easily used as a reliable and effective transfusion product for their patients. A large labour ward could potentially provide the transfusion needs for the whole hospital and even more.

Adult donated blood banks often warn of donated blood shortages. This approach to the collection of cord blood for transfusion could not only remove these shortages but also save the health care providers a considerable amount of money and reduce a considerable amount of suffering in our patient population.

Biography

Peter Hollands has done PhD from Cambridge University. He is a clinical scientist specialized in Stem Cell Technology and Clinical Embryology. He has expertise in Quality Management and ISO, JACIE and AABB Accreditation and HTA and HFEA licensing in the fields of Stem cell technology and assisted reproduction. His research is in adult stem cell technology and quantum medicine.



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