

By e-mail

To Dr Cristine Costello - in confidence
GRO-C

NATIONAL BLOOD SERVICE

LONDON AND THE SOUTH EAST ZONE



To: Peter Garwood
Stuart Penny
Julia Earley
Martin Haines
Alison Kruse

Date: 18 March 1999

From: Marcela Contreras

Ref: MC/eo/garw2.doc

Copy: Dr Jean Harrison
Dr Ruth Warwick
Dr Mahes deSilva

Subject: Professor Magdi Yacoub - usage of fresh warm blood

On Monday evening I attended a meeting at Harefield Hospital with Professor Magdi Yacoub and other senior medics from Harefield Hospital. Drs Ruth Warwick and Jean Harrison accompanied me, as the Consultants for Harefield and the Royal Brompton Hospitals respectively. The purpose of the meeting was to try and understand the reasons for the occasional usage of "fresh, warm blood" by Professor Yacoub; if he could not show scientific evidence for his persistent, though current significantly lower usage of fresh warm blood, we would try to stop his practice. Professor Newman Taylor was in total agreement with me, i.e. that the usage of untested, fresh warm blood from volunteers bled at Harefield Hospital, was dangerous and should stop forthwith. Professor Yacoub could not give any scientific reasons for his preference for fresh, warm blood in those cases of acute, uncontrollable haemorrhage, when "all else fails". According to him fresh blood does make a difference and he will do anything within his means to save the life of his patients. I said that I had read most of the relevant literature on blood transfusion support for complicated cardiac bypass surgery and for ECMO (Extra Corporeal Membrane Oxygenation) in children and adults and that I could find no good scientific evidence for the usage of fresh warm blood. Moreover, from publications and from my contacts with experts world-wide, no reputable expert in the field is using fresh warm blood either at home or abroad. The Royal Brompton Hospital has declined to bleed donors for Professor Yacoub and they do not seem to have more complications than Harefield Hospital.

On the other hand I told Professor Yacoub that there was good scientific evidence to support the use of leucodepleted red cells and platelets for bypass surgery and ECMO, particularly for complicated cases and for small children and newborn infants. The scientific reasons that support the use of pre-storage leucodepleted

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blood components in these cases are the absence of cytokines and other mediators released by white cells during storage and by the activation of these cells, when in contact with plastic surfaces in the extracorporeal circuits. I emphasised that there was solid scientific evidence, some published by our group, demonstrating that leucodepleted blood components are devoid of cytokines (e.g. IL-1, IL-6, IL-8, TNF, etc.) and other nasty mediators. I told him that experts such as Naomi Luban in Washington had recommended leucodepleted blood components less than 5 days old for infants undergoing ECMO or cardiac bypass surgery. Moreover, there are several cardiac surgeons in the world who advocate pre-storage leucodepletion for all cases of extracorporeal circulation. I therefore offered Professor Yacoub leucodepleted blood and a high proportion of apheresis platelet concentrates (of course, we know that all our platelets are now leucodepleted) for all his patients. In addition, I offered leucodepleted whole blood, ideally less than 5 days old, for infants under 1 year of age. I tried to convince him that most of his problems would disappear (even the presence of some "peptides", which he believes are in the "serum" of stored blood) when he starts using leucodepleted blood components.

From the above, I would be grateful if you could supply Harefield Hospital mostly with leucodepleted red cells and a high proportion of apheresis platelets. I have spoken to the consultant haematologists at Harefield, in order to understand the volume of whole blood they will require. They suggested that it would be better if we maintained a stock of leucodepleted "whole blood" at Colindale, to be issued on demand for Professor Yacoub's difficult cases. So, I suggest that we routinely prepare 5 units of O positive, 5 units of O negative and 5 units of A positive LD whole blood ideally twice a week, so we can have stocks always available for Professor Yacoub's desperate cases. I hope that these proposed measures will refrain him from bleeding donors for "fresh warm blood" at Harefield. Professor Newman Taylor and I agreed to review the situation in 6 months time.

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File: HAREFIELD
hospital

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infants. The scientific reasons that support the use of pre-storage leucodepleted blood components in these cases are the absence of cytokines and other mediators released by white cells during storage and by the activation of these cells, when in contact with plastic surfaces in the extracorporeal circuits. I emphasised that there was solid scientific evidence, some published by our group, demonstrating that leucodepleted blood components are devoid of cytokines (e.g. IL-1, IL-6, IL-8, TNF, etc.) and other nasty mediators. I told him that experts such as Naomi Luban in Washington had recommended leucodepleted blood components less than 5 days old for infants undergoing ECMO or cardiac bypass surgery. Moreover, there are several cardiac surgeons in the world who advocate pre-storage leucodepletion for all cases of extracorporeal circulation. I therefore offered Professor Yacoub leucodepleted blood and a high proportion of apheresis platelet concentrates (of course, we know that all our platelets are now leucodepleted) for all his patients. In addition, I offered leucodepleted whole blood, ideally less than 5 days old, for infants under 1 year of age. I tried to convince him that most of his problems would disappear (even the presence of some "peptides", which he believes are in the "serum" of stored blood) when he starts using leucodepleted blood components.

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