

A Multidisciplinary approach to requesting irradiated blood products

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Introduction

The 2007 SHOT annual report describes 46 patients who required irradiated blood products (IBP) but who did not receive them due to clinical omission to request the special product

- 40/46 were haematology/oncology patients
- 90% due to medical staff failure to alert blood bank (BB) to the need for IBP

In 2006, after a similar failure in our hospital, we performed an audit (table 1) of our adult patients who required IBP

- many patients who required IBP had a delay of several months before BB was alerted
- 20/88 (22%) who had received purine analogues were unknown to BB
- 27/130 (21%) patients with Hodgkin's disease were unknown to BB
- 59/218 (27%) patients who required IBP had no record of this in their notes

This was despite a system developed in 2004 of special request forms for IBP, check numbers issued by blood bank to ensure alerts recorded and use of separate oncology/haematology transfusion charts where special transfusion requirements were clearly documented.

Actions taken (figure 1)

- haematology medical, nursing and administrative staff all encouraged to consider IBP needs
- informing blood bank became a priority
- request form re-designed (figure 2) to fax BB; triggered by biopsy showing Hodgkin's disease or prescription for purine analogue
- 5 digit check number issued by BB required before prescriptions issued for purine analogues or patients with Hodgkin's

Re-audit

A re-audit of IBP requests in 2009 showed that

- 46/46 patients who had received purine analogues since late 2006 had an alert in BB and their notes and the 5 digit number on their prescriptions.
- 66/66 patients with Hodgkin's were known to blood bank and all who treated by the Haematology dept had the check number on their prescriptions.
- there was only one failure to record an alert for IBP in a patient's notes.

Table 1

Other* - patients treated by other units eg oncology or other hospitals and transferred in

| Reason for irradiated blood products Audit indicator | Hodgkin's disease | | | purine analogues | |
|---|-------------------|-----------------|-------------------|------------------|--------------|
| | 2006 audit | 2009 audit NNUH | 2009 audit other* | 2006 audit | 2009 audit |
| an alert within blood bank requesting irradiated blood products (IBP) indefinitely | 103/130 (79%) | 34/34 (100%) | 22/22 (100%) | 68/88 (77%) | 46/46 (100%) |
| a special request number/5 digit check number recorded in notes confirming blood bank alert | 63/130 (48%) | 34/34 (100%) | 21/22 (95%) | 59/88 (67%) | 46/46 (100%) |
| an alert for IBP recorded in header of patient's annotation | 91/130 (70%) | 34/34 (100%) | 21/22 (95%) | 68/88 (77%) | 46/46 (100%) |
| a prescription chart identifying the need for IBP and recording the 5 digit check number before issue | N/A | 34/34 (100%) | N/A | N/A | 46/46 (100%) |

Figure 1

Process for requesting irradiated blood products

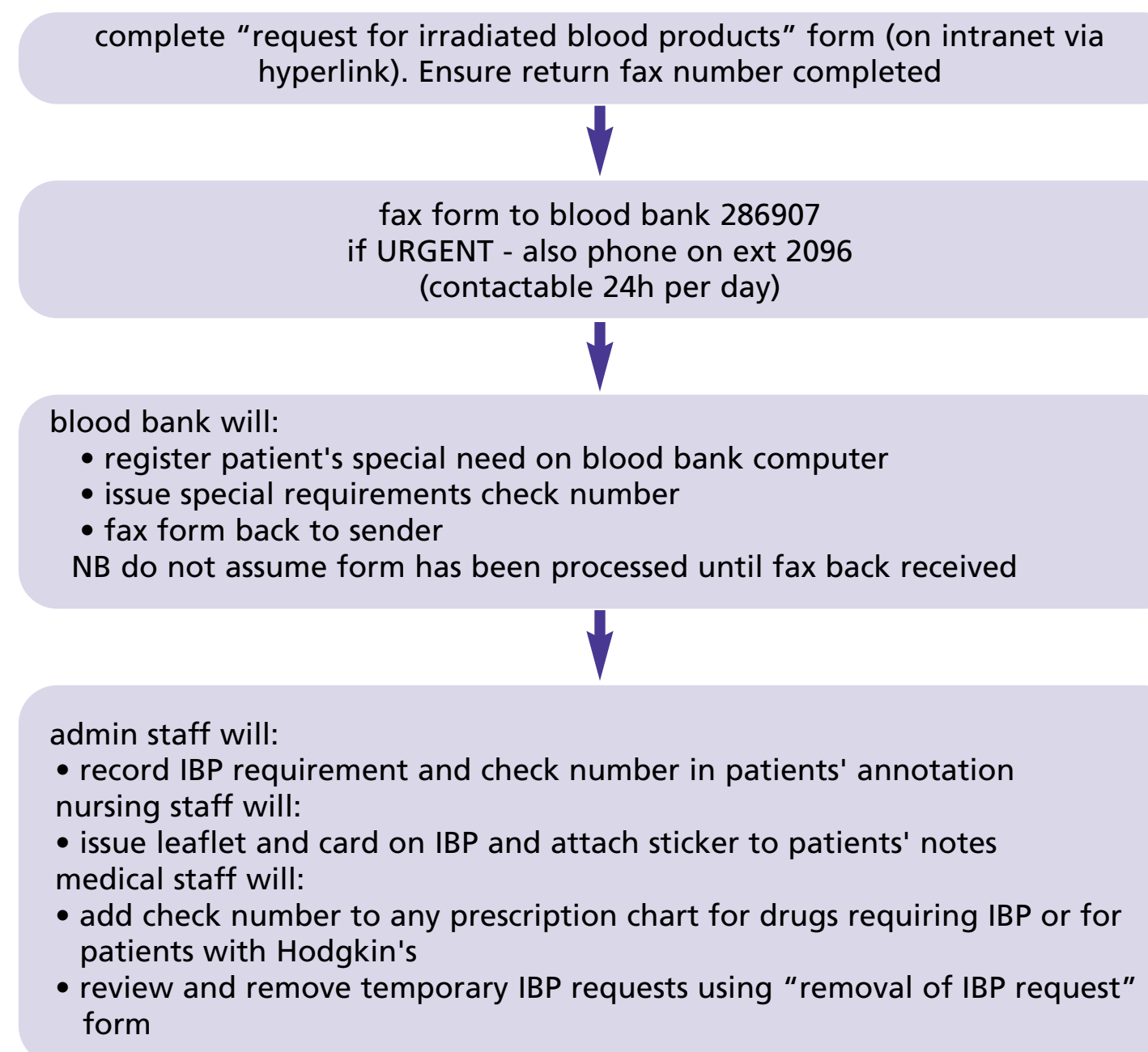


Figure 2

Oncology and Haematology Directorate Norfolk and Norwich University Hospitals **NHS**
NNUH Foundation Trust

NNUH Request for Irradiated Blood Products

Patient's surname/family name: _____ Consultant
Patient's first name(s): _____ Department
Date of birth: _____ Fax number
Hospital number (or other identifier): _____
Male Female

Indefinite irradiation (over-rides temporary reasons)

Hodgkins disease
Fludarabine or cladribine or deoxycytosine or CAMPATH 1H
please circle
Confirmed congenital immunodeficiency state

Temporary irradiation (fill in removal of IBP form to lift)

pre-PBSC harvest or pre-BMT harvest
• 7 days before harvest and during harvest

auto BMT /auto PBSC
• from initiation of conditioning regime (chemo or radiotherapy)

allo BMT/ allo PBSC
• from initiation of conditioning regime (chemo or radiotherapy)

previous IUT - top up transfusions
• for 6 months from expected date delivery

date to commence IBP

requested by.....(signature and date) print name

Fax this form to the Transfusion laboratory: 01603 286907
* irradiated blood product requirements can be over-ruled for emergencies- discuss with consultant haematologist*

For Lab use only:
Entered on computer by (signature and date)
Print name.....
(Please file forms alphabetically)
Special requirements No.....
Fax form back to sender to record special requirements no. in front cover of patients notes and in haematology annotation (if applicable)

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Conclusion

The system works because many staff take responsibility for ensuring a request for IBP is made and checks have been built into the system. Focussing on blood bank removes the concern that medical staff in the hospital may fail to request IBP for haematology patients.