



HEALTH HOLDING

HAFER ALBATIN HEALTH
CLUSTER
MATERNITY AND
CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank		
Document:	Multidisciplinary Policy and Procedure		
Title:	Use of Irradiated RBCs		
Applies To:	All Laboratory, Blood Bank Staff and staff nurses		
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1. PURPOSE:

- 1.1 To ensure that the irradiated cellular blood products are handled in an appropriate manner
- 1.2 To outline recipients who are to receive irradiated blood components.

2. DEFINITONS:

- 2.1 **Irradiated:** refers to blood and blood components that have been exposed to gamma radiation.

3. POLICY:

- 3.1 Whenever indicated, blood components that contain viable lymphocytes may be need to be irradiated to prevent the proliferation of T-lymphocytes, which is the immediate cause of Transfusion-associated graft-versus-host disease (TA-GVHD).

4. PROCEDURE:

4.1 Indications of use of irradiated cellular blood products

- 4.1.1 Irradiated blood components are recommended for but are not limited to the following recipients to reduce the risk of GVHD (graft-vs-host disease):
 - 4.1.1.1 All individuals with chronic graft-vs-host disease.
 - 4.1.1.2 Patients with congenital immune deficiencies or Hodgkin lymphoma.
 - 4.1.1.3 Patients receiving nucleoside analogues or alemtuzumab.
 - 4.1.1.4 Recipients of stem cell or bone marrow transplants.
 - 4.1.1.5 Recipients of directed donations from family members.
 - 4.1.1.6 Recipients of HLA-compatible single donor platelets and granulocyte
- 4.1.2 Ensure the specific blood component or modification is legibly documented by the physician when prescribing the required irradiated blood components.
- 4.1.3 Irradiated blood components are required to be exposed to a minimum dose of 25 Gy of gamma irradiation (indicated by the supplier).
- 4.1.4 All irradiated blood components will be labelled to indicate that the product has been irradiated, the facility performing irradiation and the expiration date.
- 4.1.5 The maximum expiration time for irradiated whole blood and red blood cells is 28 days after irradiation or original expiration date, whichever is shorter.
- 4.1.6 Irradiated platelet components retain their original expiration date.
- 4.1.7 If irradiated blood components are not available and a delay in the transfusion is life threatening, the transfusion of regular blood components can proceed with the documented approval of the recipient's primary physician.

4.2 Request of irradiated RBCs

- 4.2.1 Irradiated RBCs not available at MCH we will request from central blood bank of Hafr Albatin it will take about 3 hours to be ready and bring it. No irradiated blood products on the weekends.

4.2.2 Once request received by the blood bank, the staff on duty should inform the blood bank supervisor as early as possible without delay to request it from central blood bank. If blood bank supervisor does not reply, he has to arrange with hospital PRO on duty to contact with head of central blood bank.

4.3 **Records Management**

4.3.1 The recipient transfusion data file in Transfusion Medicine Laboratory shall be retained indefinitely.

4.3.2 All transfusion records in the recipient's medical chart shall be retained in accordance with Hospital retention policy for medical records.

4.4 **Quality Control**

4.4.1 Irradiated blood components shall not be used after the expiry date.

4.4.2 All Irradiated blood components shall be appropriately labelled as irradiated for positive visual verification.

5. MATERIALS AND EQUIPMENT:

N/A

6. RESPONSIBILITIES:

- 6.1 All Blood Bank staffs
- 6.2 Blood Bank Director
- 6.3 Blood Bank Physician
- 6.4 All Nursing Staff
- 6.5 All medical doctors

7. APPENDICES:

N/A

8. REFERENCES:

- 8.1 Clarke. G, & Blajchman. M. Clinical guide to transfusion. 4th ed. Toronto (ON): Canadian Blood Services; 2006.
- 8.2 The Unified Practical Procedures Manual for Blood Banks in the Arab Countries, 2013
- 8.3 CBAHI Standards 3rd edition
- 8.4 AABB Technical Manual, 18th Edition, 2014.

9. APPROVALS:

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