**Haematology audit template**

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| **Date of completion**  | (To be inserted when completed) |
| **Name of lead author/participants** | (To be inserted) |
| **Specialty** | Haematology |
| **Title** | **An audit of compliance with the British Society for Haematology guideline on the use of irradiated blood components** |
| **Background** | The British Society for Haematology (BSH) has published guidance on the use of irradiated blood components. This audit will review compliance with some of the level 1 recommendations made. |
| **Aim & objectives** | To review whether: 1. irradiated blood products are being used only for appropriate indications
2. patients who require irradiated blood products are receiving them
3. the indication for irradiation is removed at the appropriate time following haematopoietic stem cell transplantation (HSCT).
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| **Standards & criteria** | If the target (specified as 100% or 0% for each criterion) is not achieved, there should be documentation in the case notes that explains the variance.1. Irradiated cellular blood components are **not required** for adults or children who are HIV-antibody positive or who have AIDS, or for infants or children with temporary defects of T-lymphocyte function as the result of a viral infection. Target: 0%.
2. Irradiated cellular components **are not routinely recommended** for patients with aplastic anaemia, although certain exceptions apply (see data collection proforma). Target: 0%.
3. Irradiated blood components are **not indicated** for patients who have been treated with rituximab, unless these are indicated for a different reason (underlying diagnosis, type of component or previous treatment). Target: 0%.
4. All recipients (adult and paediatric) of HSCT, both autologous and allogeneic, **must receive** irradiated blood components from the time of initiation of conditioning chemo/radiotherapy. Target: 100%.
5. The provision of irradiated blood components after autologous HSCT **should be** discontinued after three months (or six months if total body irradiation [TBI] was part of conditioning). Target: 100%.
6. The provision of irradiated blood components after allogeneic HSCT **should be** discontinued once the appropriate criteria have been met (see data collection proforma). Target: 100%.
7. All patients (adult and paediatric) undergoing bone marrow or peripheral blood stem cell collections for future autologous reinfusion **should receive** irradiated cellular blood components during the bone marrow/stem cell harvest and for seven days prior to the procedure. Target: 100%.
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| **Method** | 1. **Sample selection**
* **Criteria 1–3:** all transfused irradiated blood products in the preceding six months, up to a maximum of 20 consecutive transfusions.
* **Criteria 4 & 5:** all patients who have undergone autologous HSCT in the preceding nine months, up to a maximum of 20 consecutive patients.
* **Criteria 4 & 6:** at least ten patients who underwent allogeneic HSCT in the period 12–18 months previously.
* **Criteria 7:** all patients undergoing bone marrow or peripheral blood stem cell collections for future autologous re-infusion in the preceding six months, up to a maximum of 20 consecutive patients.
1. **Data to be collected on proforma (see below).**
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| **Results** | (To be completed by the author)The results of this audit show the following compliance with the standards.

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| **Investigation** | **% compliance** |
| No adult or child who is HIV-antibody positive or who has AIDS, or has a temporary defect of T-lymphocyte function as the result of a viral infection received irradiated cellular components  |  |
| No patients with aplastic anaemia received irradiated cellular components unless a specific exception applied |  |
| No patients who have been treated with rituximab received irradiated blood components, unless these were indicated for a different reason (underlying diagnosis, type of component or previous treatment) |  |
| All recipients (adult and paediatric) of HSCT, both autologous and allogenic, received irradiated blood components from the time of initiation of conditioning chemo/radiotherapy |  |
| Irradiated blood components were discontinued three months (or six months if TBI was part of conditioning) after autologous HSCT |  |
| Irradiated blood components were discontinued once the appropriate criteria were met after allogeneic HSCT |  |
| All patients (adult and paediatric) undergoing bone marrow or peripheral blood stem cell collections for future autologous re-infusion received irradiated cellular blood components during the bone marrow/stem cell harvest and during the seven days prior to the procedure |  |

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| **Conclusion** | (To be completed by the author) |
| **Recommendations for improvement** | Present the result with recommendations, actions, and responsibilities for action and a timescale for implementation. Assign a person(s) responsible to do the work within a time frame.**Some suggestions:*** highlight areas of practice that are different
* present findings.
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| **Action plan**  | (To be completed by the author – see attached action plan proforma)  |
| **Re-audit date**  | (To be completed by the author)  |
| **Reference** | Foukaneli T, Kerr P, Bolton-Maggs PHB, Cardigan R, Coles A, Gennery A *et al.* Guidelines on the use of irradiated blood components. *Br J Haematol* 2020;191:704–724. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/bjh.17015>  |

**Data collection proforma for the use of irradiated blood components**

**Audit of practice**

Unit number(s):

Date of transfusion:

(Note: a separate form should be completed for each transfusion episode.)

**Given to:**

Patient name:

Hospital number:

Date of birth:

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| Standard | **1****Yes**  | **2****No** | **3** If shaded box not ticked, was there documentation to explain the variance?**Yes/No** plus free-text comment | **4** Compliant with guideline if shaded box ticked or an appropriate explanation from column 3. **Yes/No**(Record if standard not applicable) |
| **For all irradiated cellular blood components**  |
| **1**  Was given to an adult or child who is HIV-antibody positive or has AIDS, or to a child who had a temporary defect of T-lymphocyte function as the result of a viral infection  |  |  |  |  |
| **2**  Was given to a patient with aplastic anaemia when one of the following exceptions did not apply: HLA-selected platelets, transfusion of granulocytes, donations from first- or second-degree relatives, or planned treatment (e.g. ATG, alemtuzumab, HSCT) |  |  |  |  |
| **3**  Was given to a patient who had been treated with rituximab, unless irradiated components were indicated for a different reason (underlying diagnosis, type of component or previous treatment) |  |  |  |  |
| **For recipients of HSCT** |
| **4**  Received irradiated blood components from the time of initiation of conditioning chemo/radiotherapy |  |  |  |  |
| **5**For autologous transplants, irradiated blood components were discontinued three months (or six months if TBI was part of conditioning) after HSCT |  |  |  |  |
| **6**For allogeneic transplants, irradiated blood components were discontinued when the appropriate criteria had been met: a) >six months elapsed since the transplant dateb) lymphocyte count >1.0 × 109/lc) free of active chronic GvHDd) off all immunosuppression |  |  |  |  |
| **For patients undergoing bone marrow or peripheral blood stem cell collections for future autologous re-infusion** |
| **7**  Received irradiated cellular blood components during the bone marrow/stem cell harvest and for seven days prior to the procedure |  |  |  |  |

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| **Audit action plan**An audit of compliance with the British Society for Haematology guideline on the use of irradiated blood components |
| **Audit recommendation** | **Objective** | **Action** | **Time scale** | **Barriers and constraints** | **Outcome** | **Monitoring** |
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