# Criteria for Re-Transplantation

<table>
<thead>
<tr>
<th>DOCUMENT NUMBER:</th>
<th>PBMT-GEN-058</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOCUMENT TITLE:</td>
<td>Criteria for Re-Transplantation</td>
</tr>
</tbody>
</table>

### Document Information

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- **Author:** MOORE171
- **Owner:** MOORE171
- **Previous Number:** PBMT-GEN-058 Rev 04
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PBMT-GEN-058
CRITERIA FOR RE-TRANSPLANTATION

1 PURPOSE
1.1 To describe the criteria for patient selection for second or subsequent Hematopoietic Stem Cell Transplant (HSCT).

2 INTRODUCTION
2.1 Some patients will fail to respond to HSCT because of primary or secondary graft failure, severe graft dysfunction, autologous reconstitution or relapse of their primary disease. In some of these cases, when the patient's situation is life-threatening, a subsequent transplant is indicated.

3 SCOPE AND RESPONSIBILITIES
3.1 Physicians advanced practice nurses, and nursing staff are responsible for adhering to the contents of this procedure.

4 DEFINITION/ACRONYMS
4.1 ALL Acute Lymphoblastic Leukemia
4.2 HSCT Hematopoietic Stem Cell Transplant
4.3 TBI Total Body Irradiation

5 MATERIALS
5.1 See specific drug administration sheets – See PBMT-GEN-013 Materials for Admission Checklist.

6 EQUIPMENT
6.1 N/A

7 SAFETY
7.1 N/A

8 PROCEDURE STEPS
8.1 The selection criteria for second or subsequent HSCT include:
8.1.1 Documentation of graft failure or autologous recovery from prior transplant.

8.1.1.1 Defining Primary Graft Failure: While the timing of engraftment, a sustained neutrophil count > 0.5 x 10^9/L, varies according to donor source, neutrophil engraftment for all donor sources is expected within the first 42 days post-transplant. Erythroid and megakaryocytic engraftment usually follows. Graft failure will be defined as the absence
of engraftment of ANC with donor cell chimerism prior to
day +42 post transplant for all transplant donor source types.

8.1.1.2 Defining Secondary Graft Failure: Secondary graft failure is
characterized by a significant drop in donor chimerism at
any point after donor engraftment has occurred. Secondary
graft failure can be characterized by: a) normal or near
normal counts without detection of significant numbers of
donor cells or; b) by pancytopenia with marrow aplasia and
absent or near absent donor or host hematopoiesis.

8.1.1.3 Autologous recovery is defined as recovery of blood counts
but absence of donor chimerism.

8.1.2 Relapse of malignancy after prior transplant with a reasonable
expectation that a subsequent transplant provides a chance of long term
relapse free survival.

*An example of this would be a patient relapsing after a chemotherapy-
based or reduced intensity transplant who could be re-transplanted using
a Total Body Irradiation (TBI)-based prep regimen.

*A second example would be a patient experiencing a late relapse (>1
year) after a matched sibling transplant who could be re-transplanted
using an unrelated donor.

8.1.3 Adequate organ function to withstand planned cytoreduction. The
patient would go through a complete transplant work-up including re-
evaluation of disease status, infectious disease status, organ function,
"donor" screening, infectious disease screening and would need be
deemed able to withstand the anticipated toxicity of planned therapy.

8.1.4 Control of active infections.

8.1.5 Availability of a suitable donor.

8.1.6 Availability of a full time care taker.

8.1.7 Parental/patient consent

9 RELATED FORMS/DOCUMENTS

9.1 Patient specific consents are composed for second transplants.

10 REFERENCES

10.1 See materials attached to specific drug information utilized in the preparative
regimen selected for the patient.
### 11 REVISION HISTORY

<table>
<thead>
<tr>
<th>Revision No.</th>
<th>Author</th>
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| 05           | S. McCollum   | • Section 8.1.1.1 through Section 8.1.1.3 added to define graft failure types and autologous recovery.  
|              |               | • Section 8.1: Removed mention of HIV from list as to not call out only one specific virus. |
**PBMT-GEN-058 Criteria for Re-Transplantation**

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