



## Recommendation Report SCT-5

A Quality Initiative of the  
Program in Evidence-Based Care (PEBC), Cancer Care Ontario (CCO)

# Extra-corporeal Photopheresis in the Management of Graft-Versus-Host Disease in Patients who Have Received Allogeneic Blood or Bone Marrow Transplants: Recommendations

*C. Bredeson, R.B. Rumble, N.P. Varela, J. Kuruvilla, C.T. Kouroukis, and the Stem Cell Transplant Steering Committee*

Report Date: August 29, 2013

An assessment conducted in February 2024 deferred review of Recommendation Report SCT-5. This means that the document remains current until it is assessed again next year. The PEBC has a formal and standardized process to ensure the currency of each document ([PEBC Assessment & Review Protocol](#))

Recommendation Report SCT-5 is comprised of 2 sections. You can access the summary and full report here:

<https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/966>

Section 1:	Recommendations
Section 2:	Evidentiary Base

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## Recommendation Report SCT-5

### Recommendation Report SCT-5: Section 1

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#### RESEARCH QUESTION

Is there a benefit associated with the use of extra-corporeal photopheresis (ECP) compared with other treatment options for patients who have received an allogeneic transplant and are experiencing graft-versus-host disease (GVHD) if response rate, survival, or improvement in symptoms are the outcomes of interest?

#### TARGET POPULATION

Adult and paediatric patients who have received an allogeneic transplant and are experiencing graft-versus-host disease.

#### RECOMMENDATIONS AND JUSTIFICATION

##### Extra-corporeal Photopheresis (ECP) in the Management of Graft-Versus-Host Disease (GVHD)

- ECP is an acceptable therapy for the treatment of steroid-dependent / refractory acute GVHD in adult and paediatric patients

##### Justification:

Three non-comparative studies in adult patients [one prospective single cohort (8) and two case series (1,2)], and six studies in paediatric patients [one clinical trial (3), one prospective cohort (4), and four case series (5-8)] reported response rates in favour of the ECP ranging from 32% to 100%. Only one of the paediatric studies reported comparable response rates between patients who received ECP and patients who remained on conventional treatment (6).

In the opinion of the Expert Panel, although the quality of the data for steroid refractory aGVHD is limited, patients with primarily refractory skin GVHD should be considered for ECP treatment.

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- ECP is an effective therapy for the treatment of steroid-dependent / refractory chronic GVHD in adult and paediatric patients

### *Justification:*

This recommendation is supported by the evidence obtained from two studies [an RCT (9), and a crossover RCT (10)], because in both studies, significant increase in response rates favour the ECP over conventional corticosteroid treatment. Five additional comparative studies (3,4,11-13) and six non-comparative studies (2,5,7,8,14,15) reported response rates ranging from 50% to 80%.

### QUALIFYING STATEMENTS

- ECP is currently a covered therapy in Ontario for patients with steroid refractory GVHD who meet certain eligibility criteria

### FUTURE RESEARCH

- Patients should be encouraged to participate in National and International trials evaluating ECP as available
- Ontario transplant centres should develop a study evaluating the effectiveness of ECP

### RELATED PROGRAM IN EVIDENCE-BASED CARE GUIDELINES

Stem Cell Transplantation in Adults, K. Imrie, R.B. Rumble, M. Crump, the Advisory Panel on Bone Marrow and Stem Cell Transplantation, and the Hematology Disease Site Group of Cancer Care Ontario's Program in Evidence-Based Care [Report Date: January 30, 2009].

Available at: <https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/951>

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#### *Updating*

All PEBC documents are maintained and updated as described in the PEBC Document Assessment and Review Protocol.

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#### *Contact Information*

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