

Extracorporeal Photopheresis Therapy

Authors: Ball L; Callaghan T; Calderwood A

Extracorporeal photopheresis (ECP) is a cell-based immunomodulatory therapy involving the separation of leucocyte-rich plasma (buffy coat) from the patient's blood followed by *ex-vivo* administration of a photosensitiser (8-methoxypsoralen) and exposure of the leucocytes to ultraviolet A radiation before re-infusion.



ECP treatment has been used for over 35 years in the treatment of erythrodermic cutaneous T-cell lymphoma (CTCL) and over 20 years for chronic and acute graft-versus-host disease (GvHD).

One ECP treatment takes about 75-90 minutes. ECP is usually carried out over two consecutive days at intervals of two to four weeks. Duration of a course of treatment varies depending on underlying condition and patient response.

Benefits of ECP Treatment

ECP treatment does not lead to suppression of the patient's immune system nor does it adversely affect the patient's organs such as kidneys, liver, heart, and lungs.

As with any treatment there are some minimal side effects including: sensitivity to light, temporary low-grade fever, slight nausea, increased redness of skin six to eight hours after the treatment and dizziness.

Clinical Evidence/Commissioning

There is a lack of prospective randomised trials for patient selection, treatment schedules, monitoring protocols and patient assessment criteria for ECP and therefore a UK consensus statement for ECP was developed. The latest version of the consensus statement is available on the British Journal of Haematology website: <http://onlinelibrary.wiley.com/doi/10.1111/bjh.14537/full>

ECP treatment is approved by NHS England for use as second line treatment therapy for acute and chronic Graft v Host Disease following Haematopoietic Stem Cell Transplantation and for cutaneous T-cell lymphoma.

Clinical Commissioning Policy: Treatments for Graft versus Host Disease (GvHD) following Haematopoietic Stem Cell Transplantation 16069/P:

<https://www.england.nhs.uk/wp-content/uploads/2017/03/gvhd-heamatopoietic-stem-cell.pdf>

NHS Blood and Transplant (NHSBT) are commissioned as a national provider of ECP services to patients across England and have a centralised funding contract for the treatment of patients suffering with acute or chronic Graft v Host Disease and CTCL.

NHSBT utilises the Therakos Cellex technology, manufactured by Mallinckrodt Pharmaceuticals, to provide ECP therapy.

How to Access ECP Treatment

NHSBT is a major provider of therapeutic apheresis services in the NHS. These services are delivered by eight multidisciplinary teams who provide regional, 24/7 services to both adults and children. ECP services are provided in Oxford, Bristol, Liverpool, Manchester and London.

If you would like to refer a patient or discuss the use of this therapy, please contact your local Therapeutic Apheresis Services consultant: <http://hospital.blood.co.uk/patient-services/therapeutic-apheresis-services/tas-units/>