

Patient Blood Management (PBM)

Module Description

This module provides an introduction to Patient Blood Management (PBM) and explores the key principles involved in improving patient outcomes through the safe and appropriate management of blood and transfusion practice. The module covers the background and development of PBM within the UK and internationally, highlighting its importance in reducing unnecessary transfusions, improving patient safety, and supporting sustainable blood use. It introduces the three pillars of PBM: optimising haemoglobin, minimising blood loss, and managing anaemia and physiological tolerance.

The module also examines the causes, classification, and clinical impact of anaemia, including iron deficiency anaemia, anaemia of inflammation, and haematinic deficiencies such as B12 and folate deficiency. It outlines the investigations and laboratory tests used to identify and classify anaemia, alongside approaches to preoperative optimisation and clinical pathways designed to improve patient blood health before surgery.

In addition, the module covers strategies used to minimise blood loss during surgical and clinical care, including bleeding risk assessment, restrictive blood sampling, pharmacological interventions such as tranexamic acid, anticoagulant reversal, intraoperative cell salvage, and point-of-care testing. Postoperative anaemia management and discharge planning are also explored.

The final themes focus on the appropriate and restrictive use of blood transfusion, single-unit transfusion strategies, informed consent, patient-centred decision making, and the management of patients who refuse blood transfusion. Overall, the module emphasises a multidisciplinary, evidence-based approach to preserving patient blood, reducing transfusion-related risks, and promoting high-quality, individualised patient care.