Impairment that affects the greatest number of people in the world is anaemia, which was accounted for 30% of the world population in 2015. This condition is associated with weakness, fatigue, difficulty concentrating, low productivity, infection, heart failure, preterm labour, low birth weight, child and maternal mortality. 56% of the global anaemia burden is found in the Asia Pacific region. In surgical patients, anaemia is an independent risk factor for major morbidity and mortality. The adjusted odds ratio (OR) for mortality in severely anaemic compared to matched non-anemic patients is almost threefold and even with mild anaemia, it is 40% higher. The OR for infections is almost twofold and the OR for red blood cell transfusion (RBC) fivefold. Surgical blood loss and bleeding is another independent risk factor for major morbidity and mortality. Over the past seven decades, the default therapy for anaemia and blood loss was the administration of allogeneic blood transfusions. However, accumulated evidence shows that transfusion is another independent risk factor for mortality, major morbidity and hospital length of stay. Together, they constitute the detrimental triad of independent risk factors: poorly managed bleeding acutely induces or exacerbates anaemia, which at a certain threshold may require transfusion.

Enormous clinical, public health and health-economic magnitude of this problem are now increasingly recognised. Patient Blood Management (PBM), an evidence based bundle of care to optimise medical and surgical patient outcomes by clinically managing and preserving a patient’s blood, is a new clinical standard to solve the pervasive problem. The concept is built on three pillars: Correcting anaemia by stimulating the erythropoiesis; minimising bleeding and blood loss through surgical, anaesthesiological and haemostaseological techniques and interventions; and finally, harnessing and optimising physiological reserve of anaemia to avoid or reduce the amount of transfused RBCs.