Background: The great advance of anaesthesiology, surgery and critical care allow a perioperative management on the basis of enhanced outcome. ERAS protocols are multimodal perioperative care pathways designed to accelerate postoperative convalescence and reduce general morbidity. So that, nearly every patient—even high risk patients such as Jehovah Witnesses (JWs)—presenting for cardiac surgery may be considered for ERAS. However, whichever posterior readmission to the Intensive Care Unit (ICU) is associated with higher mortality. Therefore, identifying patients along with a well-motivated multidisciplinary clinical team and optimal perioperative management will be essential for a successful outcome. Cardiac surgery in JWs is occurring more often. Since they reject heterogenic blood products, the management of anaemia remains challenging. ERAS protocols, which include transfusion avoidance strategies are desirable.

Method: A 55-year-old female Jehovah’s Witness (JWs) patient was scheduled for surgical closure of an atrial septal defect (ASD), ostium secundum, through an enhanced recovery after surgery (ERAS) program respecting the patient’s religious beliefs of rejection of blood transfusions. The ERAS focuses on advances in minimally invasive heart surgery, multimodal anaesthetic techniques and careful perioperative management, facilitated early tracheal extubation and hospital discharge without sacrificing perioperative safety.
Complete counseling was given prior to admission and the patient accepted erythropoietin and synthesized the coagulation factors. Finally, informed consent was registered. Surgery allowed intravenous iron supplementation and subcutaneous erythropoietin for two weeks before the operation. The dietician and physiotherapist's assessment was also scheduled.

**Results:** The patient went on to successfully recovery postoperatively. Highlight points: The importance of developing ERAS program through a fully structured and well organized sequence of perioperative care, in order to improve not only efficiency by shortening the hospital stay but also decreasing the surgical stress response; The importance of transfusion avoidance strategies, the availability of bloodless cardiovascular surgical procedures and perioperative multimodal treatments as a chance for reviewing the conventional protocols such as transfusional policy.

**Conclusion:** The implementation of ERAS program in cardiac surgery, even in high-risk patients such as JWs, represents a significant change in traditional clinical practice and a potential increase in the use of resources.