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eComment. The problem of anaemia correction in cardiac surgery patients

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We read the article by Garrido-Martin *et al.* with interest [1]. Development of a multidisciplinary strategy for the anaemia correction in cardiac surgery patients after cardiopulmonary bypass (CPB) is a problem. Absolute or functional iron deficiency leads to the development of preoperative and postoperative anaemia. At the same time, anaemia in patients after cardiac surgery treatment is a predictor of

postoperative complications and is a risk factor for mortality. The risk of the development of anaemia increases in cardiac surgery patients as a result of systemic inflammatory response [2]. For the treatment of anaemia it is possible to use iron therapy (three methods of iron administration are available: oral, intramuscular, and intravenous) and blood transfusion. Most of intensive care unit patients and patients in the postoperative period after CPB often need blood transfusions. Allogenic transfusions increase the risk of transfusion infection, immunologic reactions but provides economic benefits.

To study the possibility of the anaemia treatment in patients after CPB, a prospective, double-blinded, randomized, placebo-controlled clinical trial was performed. The study showed the ineffectiveness of intravenous and oral iron supplementation, which did not reduce the need for blood transfusion [1, 3]. We do not use iron therapy at Bakoulev Scientific Center for Cardiovascular Surgery because of its ineffectiveness in the treatment and prophylaxis of anaemia in patients after CPB. We use blood transfusions for critical anaemia correction in patients after cardiac surgery [4]. However, it is necessary to continue research directed to the creation of effective methods of anaemia correction to reduce the need for blood transfusions.

Conflict of interest: none declared

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eReply. Re: The problem of anaemia correction in cardiac surgery patients

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We agree with Dr. Bockeria comments [1]. The use of blood transfusion should be limited to critical situations due to the increase in morbidity and mortality [2]. It is necessary to continue research into how to avoid or how to improve anaemia in patients undergoing open cardiac surgery.

Conflict of interest: none declared

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