

Title

Blood pressure during a blood donation

Background

Blood donation might not always be a pleasant experience, as it is associated with a number of stress reactions [1]. Although a small increase in pre-donation blood pressure at the subsequent visit is observed after experiencing an adverse event reaction or deferral [2], fluctuations in blood pressure during a blood donation have not been investigated so far. It is unclear whether blood pressure rises (because of experienced stress), drops (because of the loss of volume) or remains constant. This might have an effect on the donor's haemostasis and the quality of the derived blood products [3].

[1] Maurits D. Hoogerwerf, Ingrid J.T. Veldhuizen, Wim L.A.M. De Kort, Monique H.W. Frings-Dresen, Judith K. Sluiter . Factors associated with psychological and physiological stress reactions concerning blood donation: a systematic review of the literature. *Blood Transfus DOI* 2015.0139-14

[2] Hoogerwerf MD, Veldhuizen IJT, van den Hurk K, de Kort WLAM, Sluiter JK, Frings-Dresen MHW, Negative experiences and pre-donation blood pressure at the subsequent donation in blood donors. In press.

[3] Steptoe A, Kunz-Ebrecht S, Rumley A, Lowe GD. Prolonged elevations in haemostatic and rheological responses following psychological stress in low socioeconomic status men and women. *Thromb.Haemost.* 2003 Jan;89(1):83-90.

Describing the fluctuations in blood pressure during a blood donation in new and experienced donors

Type of internships

Multiple physiological and psychological measurements, e.g. blood pressure, heart rate and heart rate variability using the Portapres, saliva sampling, questionnaires assessing state stress and arousal and questionnaires assessing personality characteristics. The research internship can focus in more detail on a subset of these variables.

Type of students and duration of projects

Bachelor as well as master student, period of 3-6 months, starting in September/October 2015.

Contact

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