significativa na média das 300 amostras utilizadas nos valores de Hb quando comparadas aos outros métodos. **Discussão:** O TensorTip não-invasivo da Cnoga Medical é um dispositivo portátil, destinado para a medição e exibição de alguns sinais vitais, como a Pressão arterial, frequência cardíaca, saturação de oxigênio (SpO2), Hematócrito, e a Hemoglobina (Hgb). O método mais conhecido e disponível no Brasil utilizado nos Hemocentros para coleta de Hb envolve a coleta do sangue do candidato por meio de uma punção na polpa digital da qual se colhe um pequeno volume de sangue, que posteriormente é analisado em equipamentos chamados de hemoglobinômetros. A análise de um método não invasivo que além de aferir a Hb, afere outros sinais vitais, além de não oferecer dor ou incômodo ao candidato à doação de sangue, otimiza o tempo e diminui os custos. **Conclusão:** Por meio do estudo da análise para aferição da Hb foi possível concluir que o TensorTip não-invasivo da Cnoga Medical mostrou-se eficaz nos resultados quando comparados a outros métodos, tornando-se uma ferramenta eficiente na aferição da dosagem de Hb para triagem clínica dos doadores de sangue.

https://doi.org/10.1016/j.htct.2023.09.1242

APPLIED MUSCLE TENSION FOR REDUCING BLOOD DONOR VASOVAGAL REACTIONS: A META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

JM Ganem [a], PGLB Borges [a], JPR Oliveira [b], MEDDSPE Silva [a], JPMRJ Silva [c], ALM Brito [d], ICR Diogo [d], JVFA Cordeiro [d]

[a] *Escola de Medicina Souza Marques (FTESM), Rio de Janeiro, RJ, Brazil*
[b] *Faculdade Israelita de Ciências da Saúde Albert Einstein (FICSAE), São Paulo, SP, Brazil*
[c] *Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ, Brazil*
[d] *Universidade Federal do Estado do Rio de Janeiro (UNIRIO), Rio de Janeiro, RJ, Brazil*

Introduction/objectives: Vasovagal reactions (VVR) are an important adverse effect following phlebotomy that has been increasingly associated with donor lapse from subsequent donation. Applied Muscle Tension (AMT) is seen as a means to mitigate this risk of said reactions by temporarily increasing blood pressure during donation through repetitive tension of major muscles. This meta-analysis aims to evaluate AMT's effectiveness in preventing vasovagal reactions among blood donors through number of events and Blood Donation Reactions Inventory (BDRI) scale, which evaluates 11 prevalent symptoms associated with blood donation on a scale ranging from 0 to 5. **Methods:** The databases PubMed, Scopus, Embase, Web of Science and Cochrane were searched for relevant abstracts published until August 2023. The search yielded 111 original papers following duplicate removal. Results were screened for randomized clinical trials relevant to the theme of this review. Two independent and blind reviewers participated in each step of the article selection with a third reviewer to solve any conflicts, in accordance with PRISMA guidelines. **Results:** Three randomized trials, involving 500 participants in the AMT group and 496 participants in the control group, were included. A random effects analysis yielded a pooled risk ratio of 0.51 (95% CI: 0.37 - 0.69) ($Z = 4.25$, $p < 0.0001$) for vasovagal reactions in the AMT group compared to the control group. Additionally, the studies demonstrated low heterogeneity ($I^2 = 0\%$), indicating consistency in effect sizes. A subsequent mean difference analysis was conducted based on four papers which evaluated BDRI scores establishing a 0.14 difference favoring intervention (95% CI: 0.08 - 0.21). **Discussion:** The meta-analysis findings support AMT as an effective intervention for reducing vasovagal reactions among blood donors with a Number Needed to Treat of 12. Given the well-established role of Vasovagal Reactions as deterrents to subsequent donation among blood donors, implementation of said strategies may prove to be a valuable tool in preventing donor lapse. The consistency of effect sizes, evidenced by low heterogeneity ($I^2 = 0\%$), further strengthens the validity of the pooled results. However, limitations such as the small number of studies and differences in intervention protocols and outcome measures warrant cautious interpretation. **Conclusion:** This meta-analysis establishes AMT as an effective approach for reducing vasovagal reactions during blood donation. The intervention may enhance the donor's overall experience and potentially increase donor retention rates. Further research is needed to explore long-term effects and optimize AMT's integration into blood donation practices.

https://doi.org/10.1016/j.htct.2023.09.1243

ENHANCING DONOR RETENTION: A COMPREHENSIVE META-ANALYSIS OF INTERVENTIONS FOR FIRST-TIME BLOOD DONORS

PGLB Borges [a], JM Ganem [a], ALM Brito [b], JPR Oliveira [c], MEDDSPE Silva [a], JVFA Cordeiro [b], ICR Diogo [b], JPMRJ Silva [d]

[a] *Escola de Medicina Souza Marques (FTESM), Rio de Janeiro, RJ, Brazil*
[b] *Universidade Federal do Estado do Rio de Janeiro (UNIRIO), Rio de Janeiro, RJ, Brazil*
[c] *Faculdade Israelita de Ciências da Saúde Albert Einstein (FICSAE), São Paulo, SP, Brazil*
[d] *Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ, Brazil*

Introduction/objectives: A stable blood supply count is vital for modern healthcare, which means retaining first-time donors (FTD) is a challenge requiring continuous engagement. Thus, implementing effective strategies is essential. Previous studies explored interventions such as email reminders, personalized letters, and follow-up calls, but a comprehensive synthesis is lacking. By consolidating the existing evidence, our study aims to fill the gap in knowledge and guide policymakers, healthcare professionals, and blood donation organizations in implementing evidence-based strategies for this ending. **Methods:** The databases PubMed, Scopus, Embase,