

especial de plaquetas. Os dados evidenciam a correlação entre o aumento da incidência de dengue e a utilização de hemocomponentes, reforçando a necessidade de estratégias de contingência para garantir a disponibilidade de sangue e hemocomponentes em situações de emergência. Os resultados deste estudo destacam a relevância da integração entre os serviços de vigilância epidemiológica e hemoterapia como ferramenta essencial para a preparação e enfrentamento de futuras epidemias.

<https://doi.org/10.1016/j.htct.2025.106006>

ID – 660

EFFICACY OF PLATELET CROSSMATCH IN PATIENTS WITH IMMUNE PLATELET REFRACTORINESS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction: Platelet refractoriness, as defined by the TRAP study, occurs when the Corrected Count Increment (CCI) is less than $5 \times 10^9/L$ one hour after two sequential ABO-compatible platelet transfusions. It affects 30%–70% of chronically transfused patients due to non-immunological factors like fever and medications, or immunological causes, such as alloimmunization to HLA or HPA antigens, accounting for up to 20%. Managing refractoriness is complex and can increase bleeding risks and hospital stays. Standard practice involves using random ABO-compatible platelet concentrates, while immune-related cases may use crossmatching or HLA typing to identify antibodies. However, HLA matching requires a large pool of genotyped donors and specialized expertise, which can be challenging. There is no consensus on the effectiveness of crossmatch in improving platelet increments. This review seeks to answer the question: “What is the efficacy of platelet crossmatching for patients with alloimmune platelet refractoriness?” to support evidence-based decision-making. **Objectives:** To evaluate the efficacy of platelet crossmatch in patients with immune platelet refractoriness. **Methods:** This systematic review and meta-analysis followed PRISMA guidelines and Cochrane recommendations. The protocol was registered in PROSPERO (CRD42024552791), and the research question was structured using the PICOS framework. Searches were conducted in PubMed, Scopus, Embase, Web of Science, and Cochrane databases between April and May 2024, without restriction on publication date. Observational studies were included if they assessed refractory patients receiving crossmatched platelet transfusions and measured outcomes such as Corrected Count Increment (CCI), Percent Platelet Response (PPR), Post-Transfusion Platelet Increment (PPI), or Absolute Count Increment (ACI). Independent

reviewers performed study selection, data extraction, risk of bias assessment, and quality appraisal. Meta-analyses were conducted using a random-effects model in RevMan[®] 5.4. **Discussion and conclusion:** A total of 6,619 records were retrieved, with 18 studies meeting the inclusion criteria (12 prospective and 6 retrospective). Most were published after 2000 and included adult patients with hematologic malignancies or non-neoplastic hematologic disorders. Qualitative synthesis indicated that 1-hour CCI values were significantly higher after crossmatched platelet transfusions compared to unselected or incompatible platelet transfusions. Similar trends were observed for PPR, PPI, and ACI. At 24-hours, platelet increments were smaller but still favored compatible transfusions. Meta-analysis of prospective studies showed that SPRCA crossmatching significantly increased the likelihood of achieving satisfactory increments (RR = 4.00; 95% CI 1.61–9.97; $p = 0.003$; $I^2 = 95\%$; $p < 0.001$), and compatible transfusions led to a mean increase of 13.62×10^3 in CCI (95% CI 7.35–19.90; $p < 0.0001$; $I^2 = 94\%$; $p < 0.00001$). Heterogeneity was high due to differences in populations, sample sizes, diagnostic criteria, and platelet types. In conclusion, platelet crossmatching is associated with higher transfusion success in patients with alloimmune platelet refractoriness and may serve as an effective strategy when HLA-matched platelets are not available. Further studies are needed to evaluate clinical outcomes such as bleeding and mortality.

<https://doi.org/10.1016/j.htct.2025.106007>

ID – 498

EPIDEMIOLOGIA DA TACO EM HOSPITAIS PÚBLICOS E PRIVADOS DO RIO DE JANEIRO

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Introdução: A Sobrecarga Volêmica ou TACO é a terceira causa mais frequente entre as reações transfusionais notificadas ao sistema nacional de hemovigilância. Ela é definida pela *International Society of Blood Transfusion* – ISBT como a reação adversa transfusional que se manifesta em até 6-horas após o término da transfusão e apresenta quatro dos seguintes sintomas: dificuldade respiratória aguda, taquicardia, elevação da pressão arterial, surgimento ou piora de edema pulmonar detectado na radiografia do tórax em PA, evidência de balanço hídrico positivo, além de uma elevação do BNP (Peptídeo Natriurético Cerebral). Sua incidência ocorre, na maioria dos casos, por uma indicação equivocada ou por um erro em qualquer etapa do ato transfusional que gera uma infusão rápida ou de volume acima do qual o receptor tolera receber. **Objetivos:** Avaliar o perfil dos pacientes que apresentaram Sobrecarga Circulatória Associada a Transfusão (TACO) entre os anos de 2023 e 2024 em 29 Hospitais Públicos e Privados do Estado do Rio de Janeiro. **Material e métodos:** Estudo retrospectivo e observacional realizado por meio de análise dos registros de reações no Sistema de Notificações da Vigilância Sanitária (NOTIVISA) e sistema de hemoterapia RealBlood