

hemoglobin levels and no major maternal or infant complications reported. Conclusion: This case highlights that a well-controlled iron burden before conception, strict hemoglobin maintenance during pregnancy, and multidisciplinary follow-up can result in a successful pregnancy and delivery in beta-thalassemia major. It also emphasizes the need for early postpartum reassessment of iron status and timely resumption of chelation therapy to prevent iron-related organ damage.

#### Referências:

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<https://doi.org/10.1016/j.htct.2025.104057>

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#### SYSTEMATIC REVIEW AND META-ANALYSIS OF CROVALIMAB (C5 INHIBITOR) IN THE TREATMENT OF PAROXYSMAL NOCTURNAL HEMOGLOBINURIA: EFFICACY AND SAFETY

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**Introduction:** Paroxysmal nocturnal hemoglobinuria (PNH) is a rare, acquired disease of hematopoietic stem cells, characterized by hemolytic anemia caused by the susceptibility of blood cells to complement-mediated lysis. C5 inhibitors work by blocking the C5 protein, preventing complement activation and red blood cell destruction. This study systematically reviews and analyzes the impact of adding C5 inhibitors to standard treatment in patients with PNH. **Objectives:** To evaluate the safety and efficacy of the C5-inhibitor Crovalimab in patients with Paroxysmal Nocturnal Hemoglobinuria (PNH). **Material and methods:** PubMed, Scopus, Web of Science, and Cochrane Library were searched for studies on the use of C5-inhibitor crovalimab in patients with PNH (CRD420251026255). Outcomes included hemolysis control (HC) (defined as centrally assessed LDH  $\leq 1.5 \times$  ULN), Stabilized Hemoglobin (SH), proportion of patients with Transfusion Avoidance (TA), and safety outcomes, including: Patients with > 1 adverse event (AE) - of any- cause, Serious-Adverse-Events (SAE), or treatment-related AEs; AE leading-to-dose-modification of the study treatment; AE leading-to-treatment- discontinuation; grade 3–5 AEs; and infections. All safety events were evaluated according to the National Cancer Institute Common Terminology Criteria for Adverse Events, version 5.0 (CTCAE v5.0). A comparative analysis between Crovalimab and Eculizumab was also performed regarding efficacy outcomes. Pooled relative risk (RR) and

hazard ratios (HR) with 95% confidence intervals were calculated using a random-effects model, with heterogeneity evaluated via the  $I^2$  statistic. **Results:** Four studies involving 275 patients were included in this study. The pooled prevalence of patients with HC (defined as centrally assessed LDH  $\leq 1.5 \times$  ULN) was 83% (95% CI: 0.75–0.91;  $I^2 = 60\%$ ). SH was observed in 61% of patients (95% CI: 0.48–0.75;  $I^2 = 76\%$ ), and TA was achieved in 65% (95% CI: 0.56–0.74;  $I^2 = 55\%$ ). Regarding safety outcomes, the pooled prevalence of patients experiencing  $\geq 1$  any-grade adverse event (AE) of any cause was 90% (95% CI: 0.78–0.99;  $I^2 = 82\%$ ), and serious adverse events (SAEs) occurred in 14% (95% CI: 0.05–0.23;  $I^2 = 68\%$ ). Treatment-related AEs were observed in 47% of patients (95% CI: 0.18–0.75;  $I^2 = 95\%$ ). AEs leading-to-dose-modification of the study treatment occurred in 2% (95% CI: 0.05–3.75;  $I^2 = 0\%$ ), while treatment-discontinuation due to AEs occurred in only 0.4% (95% CI: 0.01–1.51;  $I^2 = 0\%$ ). Grade 3–5 AEs were reported in 19% of patients (95% CI: 0.14–0.22;  $I^2 = 0\%$ ), and infections were observed in 50% of cases (95% CI: 0.23–0.77;  $I^2 = 96\%$ ). A comparison between Crovalimab and Eculizumab for TA (RR = 0.93; 95% CI: 0.79–1.09;  $I^2 = 0.0\%$ ) and SH (RR = 0.89; 95% CI: 0.63–1.25;  $I^2 = 62.6\%$ ) showed no significant differences between groups. The analysis of HC (RR = 1.01; 95% CI: 0.92–1.12;  $I^2 = 0.0\%$ ) indicated therapeutic equivalence between the drugs. **Discussion and conclusion:** Crovalimab demonstrated promising efficacy in HC, SH levels, and reducing transfusion needs in patients with PNH. Despite a high rate of overall AEs, treatment-related and severe events were relatively infrequent, supporting a favorable safety profile. These findings reinforce its potential as a viable therapeutic option.

<https://doi.org/10.1016/j.htct.2025.104058>

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#### USO DO ÍNDICE DE MENTZER NO AUXÍLIO DO DIAGNÓSTICO DE TALASSEMIA BETA MENOR

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**Introdução:** As anemias microcíticas e hipocrômicas representam uma parte importante dos achados hematológicos na rotina laboratorial. As principais causas desse tipo de anemia são carência ou deficiência de ferro e as talassemias (1). O diagnóstico diferencial das talassemias se dá pela eletroforese de hemoglobina, em que o nível de Hemoglobina A2 (HbA2) é maior que 3.5% (2). A Talassemia é um tipo de anemia hereditária causada por um desequilíbrio na síntese das cadeias de globinas resultando em uma eritropoiese ineficaz e é considerada a desordem genética mais comum no mundo. Dentre os índices que são usados para auxiliar o diagnóstico, destaca-se o índice de Mentzer que é calculado pela razão entre o volume corpuscular médio e a contagem de hemácias (VCM/RBC). Pacientes que apresentam razão < 13 são sugestivos do diagnóstico de talassemia beta menor enquanto pacientes com razão > 13 são prováveis deficientes de ferro. A