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160. Remdesivir Discontinuation Based on Thresholds of Transaminase Elevation in an Observational Registry

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Background: Remdesivir is an antiviral approved by the United States Food and Drug Administration (FDA) for treatment of COVID-19, and transaminase elevation is commonly reported. Thresholds to be considered for discontinuation due to alanine aminotransferase (ALT) elevation differ between the FDA and European Medicines Agency (EMA).

Research Question: The primary objective is to describe transaminase thresholds being used in real-world practice for discontinuation of remdesivir in patients with COVID-19.

Methods: This study used a descriptive design based on an ongoing national registry of adverse events, the FDA ACMT COVID-19 ToxIC (FACT) pharmacovigilance project, with 17 participating health systems. Cases were identified retrospectively for an 18-month period (11/23/2020-5/18/2022). Classification of discontinuation as premature and due to abnormal liver biomarkers was based on chart documentation by the treating team, not based on study criteria.

Results: Of 1,026 cases in the FACT registry, 121 cases had liver injury supplemental forms completed for transaminase elevation with remdesivir, defined as ALT doubling or increasing by ≥ 50 U/L. ALT was elevated prior to remdesivir in 45% and increased above baseline during dosing by a median of 94 U/L (IQR 51-169, max 8,350). Remdesivir was discontinued early in 31% of patients due to abnormal liver tests. The ALT threshold for premature discontinuation was median 202 U/L (IQR 145-396, range 92-5,743). Among 38 patients with premature discontinuation of remdesivir for transaminase elevation, only 21% met FDA criteria to consider discontinuation, and 42% met EMA criteria to consider discontinuation.

Conclusion: In this descriptive study of real-world practice, clinicians are overall making more conservative treatment decisions than are recommended for consideration of discontinuation in approved drug labeling, with wide variation in the transaminase thresholds being used.