

Recurrent patient-reported outcome (PRO)-based deterioration predicts overall survival (OS) in patients with advanced gastric adenocarcinoma with PD-L1 score $\geq 5\%$: results from the RATIONALE-305 trial

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ABSTRACT

Objectives: To assess the prognostic value of patient-reported outcome (PRO) data for overall survival (OS) in patients with advanced gastric cancer (GC) with PD-L1 expression $\geq 5\%$, using longitudinal and time-to-event modeling of data from the RATIONALE-305 trial.

Methods: The RATIONALE-305 trial evaluated tislelizumab plus chemotherapy (T+C) versus placebo plus chemotherapy (P+C) in patients with GC. PROs were assessed in 238 patients receiving T+C and 237 receiving P+C in the PD-L1 $\geq 5\%$ subgroup. Adjusted longitudinal changes in PROs were assessed using a linear mixed model (LMM). Associations between PRO trajectories and the risk of recurrent symptomatic deterioration (RS-D) events were analyzed using a recurrent event Cox model. The effect of treatment on OS was estimated using a terminal event Cox model across individual PRO domains.

Results: T+C was associated with statistically significant improvements in QLQ-C30 global health status/quality of life (GHS/QoL) ($P=0.0055$), upper gastrointestinal symptoms ($P=0.0119$), and dietary restrictions ($P=0.0195$) compared with P+C. In the recurrent event Cox model, all symptomatic PRO domains (except GHS/QoL) were significantly associated with increased risk of future RS-D events (HRs: 1.01–1.06). In the terminal event model, T+C significantly reduced the risk of death across all PRO domains (HRs: 0.647–0.731), corresponding to a 27%–35% decreased risk.

Conclusions: T+C improved key patient-reported outcomes and reduced mortality risk compared with P+C in patients with PD-L1 $\geq 5\%$. These results support the use of PROs as prognostic tools and reinforce their value in guiding clinical decisions and optimizing patient-centered care in advanced GC.