

Adverse Events and Patient-Reported Tolerability Among Active-Treatment Participants Receiving Nasal Photodisinfection in a Multinational Phase 3 LANTERN Trial

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BACKGROUND

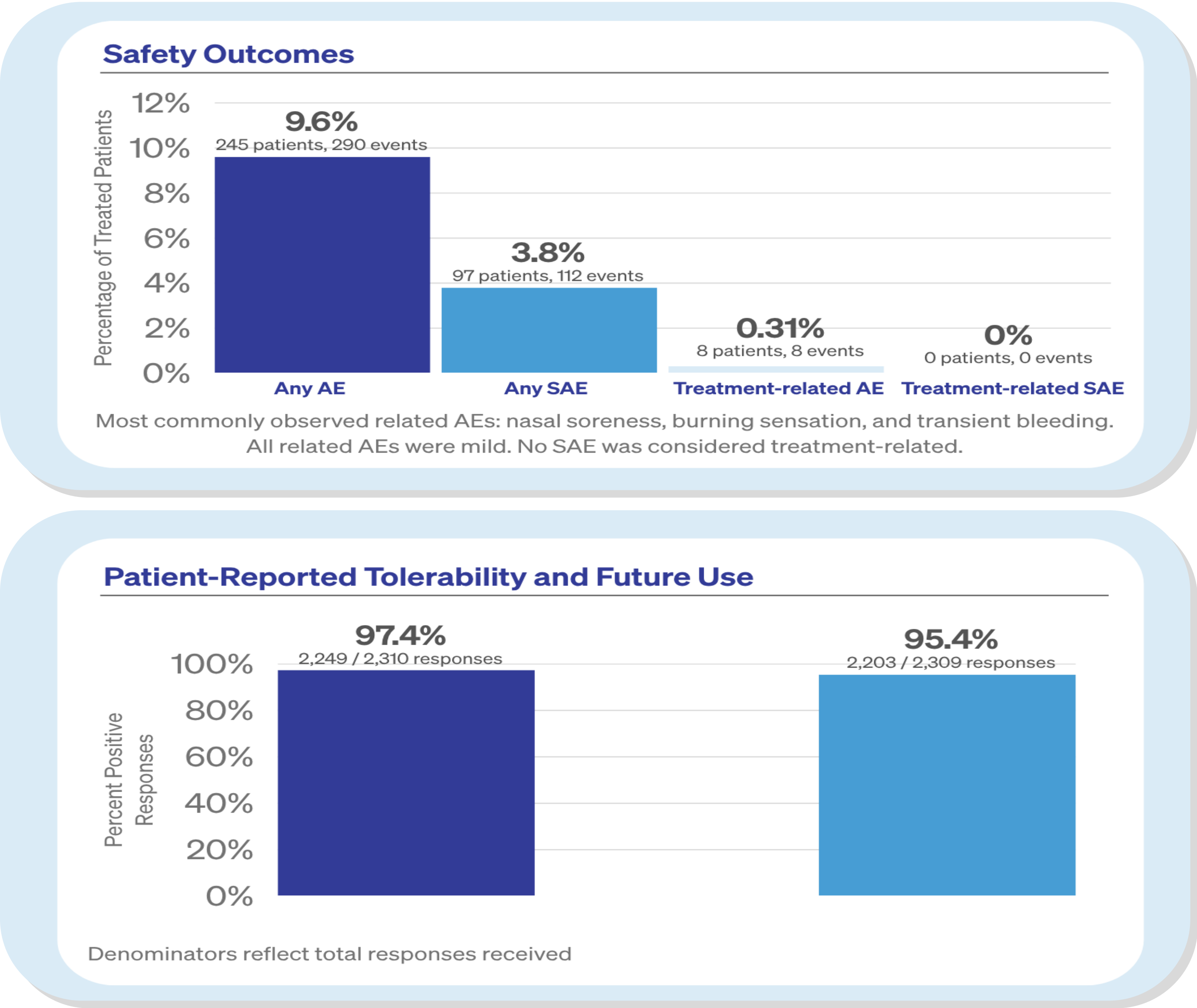
Nasal decolonization strategies are used to reduce postoperative surgical site infection risk. This ongoing Phase 3 group randomized crossover trial evaluates preoperative nasal photodisinfection among major surgical patients. This interim analysis describes adverse events among active-treatment participants and patient-reported tolerability.

METHODS

Nasal photodisinfection, a form of photodynamic therapy, involves the nasal application of a photosensitizer followed by 2 minutes of non-thermal red light. Active-treatment participants from 20 hospitals (16 in the United States, 4 in Canada) were included from December 27, 2024, through April 27, 2026. Adverse events (AEs), serious adverse events (SAEs), relatedness to nasal photodisinfection treatment, patient-reported treatment tolerability, and likelihood of accepting treatment again if prescribed were summarized descriptively.

RESULTS

Among 2,543 treated participants (2,291 United States; 252 Canada), 290 AEs occurred in 245 patients (9.6%) and 112 SAEs occurred in 97 patients (3.8%). Eight AEs in 8 patients (0.31%) were considered treatment-related; no SAE was considered treatment-related. The most commonly observed related AEs included nasal soreness, burning sensation, and transient bleeding. All related AEs were mild. Among 2,310 tolerability responses, 2,249 participants (97.4%) rated treatment very bearable or bearable. Among 2,309 responses on future use, 2,203 participants (95.4%) were very likely or likely to accept treatment again if prescribed.



CONCLUSION

In this interim descriptive analysis of active-treatment recipients, treatment-related AEs were reported in 0.31% of participants, and no treatment-related SAEs were reported. Most respondents rated the procedure as very bearable or bearable and very likely or likely to accept it again if prescribed. Final safety, efficacy, and outcomes require completion of the trial and prespecified analyses.



Read more about the impact of nasal photodisinfection:

