

The Septoplasty Healthcare Monitor: an outcome assessment infrastructure to enhance the quality and transparency of care

Victor S. van Dam¹, Diako Berzenji¹, Floris van Zijl¹, Martijn A.H. Oude Voshaar², Bernd Kremer¹, and Frank Datema¹

¹Erasmus MC Department of Otorhinolaryngology Head and Neck Surgery

²Erasmus MC

February 13, 2025

Abstract

Objective and design: The growing demand for transparency about the efficacy of healthcare has accelerated the use of Patient-Reported Outcome Measures (PROMs), but their integration into daily practice is challenging. This observational study describes how the Septoplasty Healthcare Monitor (SHM) addresses these challenges and highlights the benefits of standardized outcome assessments and visualization for various stakeholders, including physicians and patients. **Main outcome measures:** Since 2014, all eligible septoplasty patients have been included in the SHM. Patients are automatically offered the Nasal Obstruction Symptom Evaluation (NOSE) scale and bilateral Visual Analogue Scales (VAS) to assess nasal obstruction before initial consultation, and during postoperative visits. Data are entered into a preformatted database and automatically analyzed. Real-time results are visually presented on a user-friendly dashboard. **Results:** A total of 173 patients participated. First, the dashboard provides insights into outcomes on a cohort level. The mean NOSE scores significantly decreased from 68.8 ± 19.0 at baseline to 19.8 ± 22.3 at 12 months. VAS scores improved from 4.6 ± 3.0 (left) and 4.7 ± 2.9 (right) preoperatively to 7.5 ± 2.1 (left) and 7.6 ± 1.7 (right) at 12 months ($p < 0.001$). Second, quality of care is monitored through annual performance metrics, and can be improved by critically appraising auto-identified underperforming patients. Third, visualization of individual PROM symptom-severity scores in relation to peers assists in patient-counseling and shared decision-making. **Conclusion:** The integration of standardized outcome assessments into daily practice is highly valuable but challenging. The SHM addresses these challenges and offers opportunities to enhance septoplasty care standards.

Hosted file

Septoplasty Healthcare monitor final.docx available at <https://authorea.com/users/891514/articles/1268419-the-septoplasty-healthcare-monitor-an-outcome-assessment-infrastructure-to-enhance-the-quality-and-transparency-of-care>