Evidence-Based Otolaryngology; Research and Practice in Managing Patients with Chronic Rhinosinusitis
N.M. Kaper
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English summary

In part one, behavior around evidence in otolaryngology practice is further assessed. In Chapter 2 the development and validation of an inventory to measure barriers and facilitators for evidence-based practice behavior (EBP) are described. This EBP Inventory is a framework for future studies and is ultimately intended for health care teams and organizations to assess local conditions for EBP, to aim efforts at improving or maximizing EBP. The inventory was developed with the support of international EBP experts and consists of items in five dimensions; attitude, subjective norm, perceived behavioral control, decision making, intention and behavior. It shows adequate face and content validity, discriminative power, internal consistency and test-retest reliability. In Chapters 3 and 4 guideline compliance for chronic rhinosinusitis (CRS) among Dutch otolaryngologists is assessed using different methods. In Chapter 3, clinical practice guideline (CPG) adherence for CRS is measured with a nationwide survey, conducted in 2017. In the Netherlands, both the Dutch guideline (CBO 2010) and EPOS 2012 are in use. Dutch otolaryngologists show high self-reported adherence and sufficient to good guideline adherence measured with questions about clinical scenarios based on guideline recommendations. In Chapter 4, healthcare reimbursement claims data for the diagnostic code “sinusitis” of 2016 are presented. Data on >99% of healthcare providers in the Netherlands were included. 61% of patients underwent nasal endoscopy, 51% CT scanning and 16% were operated (mostly functional endoscopic sinus surgery) Except for nasal endoscopy, health care utilization patterns were in line with guideline recommendations., which is corroborated by limited regional practice variation.

In part two, the quality of the evidence base for otolaryngology in general is assessed. In Chapter 5, the different publication types from major otolaryngology journals and high impact factor medical journals in the year 2010 are presented. 2% of publications in high impact factor medical journals, were studies conducted in the field of otolaryngology. In the context of EBP, systematic reviews and original publications concerning patient care are found to be most relevant, especially with research questions related to therapy, diagnosis, prognosis and etiology. Overall, we found a low proportion of systematic reviews (2%) and just under 50% of otolaryngology publications that were publications related to patient care. In Chapter 6 the risk of bias (RoB) of the therapeutic publications identified in Chapter 5 was critically assessed. 9% of publications had a low or moderate RoB, 91% had a high RoB. Results were better (24% vs 76%) for high impact factor medical journals, compared to otolaryngology journals (5% vs 95%).
In part three the quality of the evidence base for CRS is further assessed. Chapter 7 displays three Evidence-Based Case Reports (EBCRs), that are based on clinical questions for CRS, with a corresponding systematic search for evidence, critical appraisal and formulating of a recommendation. (7.1) Diagnosis: nasal endoscopy is recommended to confirm the diagnosis of CRS. In case of negative findings at endoscopy, a CT is recommended. (7.2) Prognosis: there were no studies or inconclusive evidence for age as a predictor for a prolonged or chronic course of ARS. Therefore, older patients should not be managed in a separate way. (7.3) Therapy: nasal saline irrigation (compared to nasal saline spray) as an adjunct to co-medication, showed limited symptom improvement against little risk of side effects. The EBCRs have been used in two CPG updates (USA and Germany), which shows their potential use for (modular) updating of CPGs.

Chapter 8 shows a quality assessment and comparison of the 10 international CPGs for CRS that currently exist. Five guidelines were of good or sufficient quality according to AGREE II. Overall, there was much variation between guidelines in recommended diagnostic test or intervention, direction of evidence and grade of recommendation. We found consensus for nasal endoscopy, CT scan, allergy testing and intranasal steroids. CPGs should be systematically updated and developed using standardized methodology, in order to improve quality and comparability.