

CONTINUING MEDICAL EDUCATION EXAMINATION

# Improvement in Smell Using Monoclonal Antibodies Among Patients With Chronic Rhinosinusitis With Nasal Polyps: A Systematic Review

Instructions for obtaining 1.2 Continuing Medical Education Credits

Credits can be earned by reading the text and completing the CME examinations online throughout the year on the SEAIC web site at [www.seaic.org](http://www.seaic.org)



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## CME Items

- Which is the most frequent inflammatory pattern in chronic rhinosinusitis with nasal polyps (CRSwNP) in Europe?
  - Type 1
  - Type 2
  - Type 3
  - Type 4
  - No phenotype is predominant
- Which of the following is impairment of smell (hyposmia and/or anosmia) not commonly related to?
  - CRSwNP
  - Chronic rhinosinusitis without nasal polyps
  - Asthma
  - Nonsteroidal anti-inflammatory drug-exacerbated respiratory disease (N-ERD)
  - Type 2 inflammation
- Which of the following biologics has been approved by the European Medicines Agency and the United States Food and Drug Administration in CRSwNP when therapy with systemic corticosteroids and/or surgery does not provide adequate disease control?
  - Ustekinumab
  - Tezepelumab
  - Mepolizumab
  - Reslizumab
  - Benralizumab
- According to OLFACAT, the largest population-based European self-administered epidemiological survey of smell, what is the overall prevalence of olfactory dysfunction?
  - 7%
  - 15%
  - 19%
  - 22%
  - 31%
- Which of the following is a subjective method of assessing olfaction?
  - Olfactory event-related potentials
  - Visual analog scale
  - Olfactory electrogram
  - Positron emission tomography
  - Functional magnetic resonance imaging
- Which one of the following was not demonstrated in phase 3 clinical trials with dupilumab (SINUS-24 and SINUS-52)?
  - Dupilumab produces a slow improvement in sense of smell.
  - The proportion of patients with anosmia in the dupilumab group fell from 78% at baseline to 28% at 24 weeks.
  - In the placebo group, the percentage of patients who were anosmic remained unchanged at 24 weeks relative to baseline.
  - Improvements with dupilumab continued and were sustained, remaining significantly different to placebo through 52 weeks.
  - Smell outcomes worsened after discontinuation of dupilumab.
- Regarding phase 3 clinical trials with omalizumab in CRSwNP (POLYP-1 and POLYP-2), which of the following is not true?
  - Sense of smell improved significantly at 24 weeks vs placebo.
  - Although there was a significant improvement in smell, patients did not achieve normosmia.
  - Improvement in smell was dependent on blood eosinophil count ( $\leq 300$  or  $>300/\mu\text{L}$ ).
  - Improvement in smell was independent of previous surgery.
  - Improvement in smell was independent of asthma or N-ERD status.
- Which of the following did the phase 3 trial with mepolizumab (SYNAPSE) conclude for CRSwNP?
  - Sense of smell improved significantly at 52 weeks vs placebo when evaluating olfaction with UPSIT.
  - Sense of smell improved significantly at 52 weeks vs placebo when evaluating olfaction with a loss-of-smell VAS.
  - Sense of smell improved significantly at 52 weeks vs placebo when evaluating olfaction with BOT-8.
  - Sense of smell improved significantly at 52 weeks vs placebo when evaluating olfaction with BAST-24.
  - Sense of smell improved significantly at 52 weeks vs placebo when evaluating olfaction with Sniffin' Sticks.
- Which of the following is wrong?
  - Although all randomized clinical trials (RCTs) have included patients with severe CRSwNP, they used different enrollment criteria and varied methods to assess baseline disease characteristics.
  - As expected, the differences in eligibility criteria led to differing baseline populations across the trials.
  - None of the RCTs had assessment or extensive study of the sense of smell as the primary goal.
  - The methodology of all these studies made it possible to compare outcomes for smell.
  - Ideally, future studies should be based on head-to-head comparisons and standardized outcome measures.
- In 2022, Cai et al performed a Bucher indirect treatment comparison involving 7 RCTs with dupilumab, omalizumab, mepolizumab, and benralizumab. Which drug demonstrated better effects in improving loss of smell and UPSIT score than the other 3 biologics at 24 weeks of treatment and at the end of follow-up (more than 48 weeks)?
  - Dupilumab
  - Omalizumab
  - Mepolizumab
  - Benralizumab
  - None