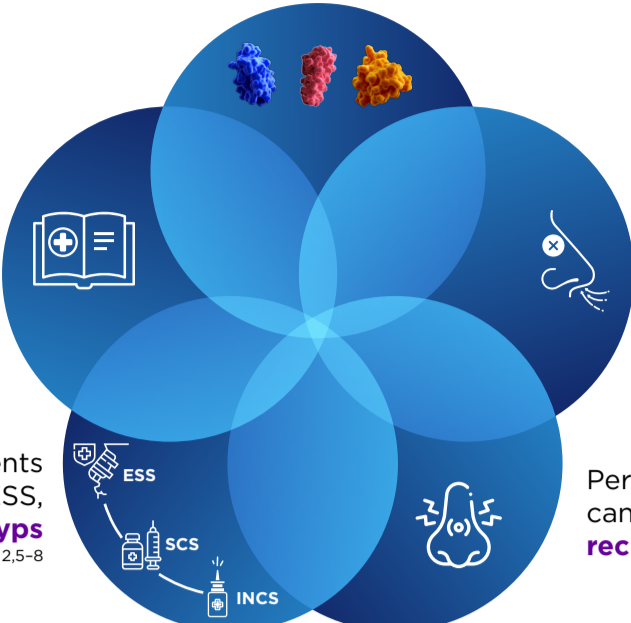


Cycle of Recurrence: A Challenge in CRSwNP Patients



CRSwNP is predominantly driven by **type 2 inflammation**^{1,2}

EPOS 2020 and ICAR 2021 guidelines recommend **biologics for CRSwNP patients**^{3,9}



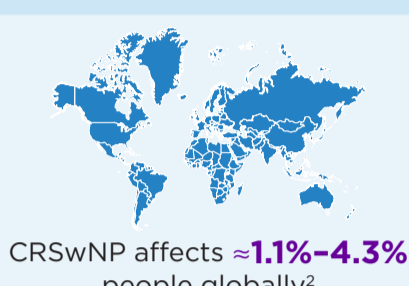
Common symptoms include **loss of smell and nasal congestion**^{1,3}

Despite of SoC treatments such as INCS, SCS, and ESS, **recurrence of nasal polyps is common**^{2,5-8}

Persistent inflammation can contribute to the **recurrence of nasal polyps**⁴

Type 2 inflammation plays a central role in CRSwNP, affecting up to 87% patients^{1,10}

Prevalence



Peaks between **40–60 years** of age^{3,5,11,12}



Decreases after **70 years** of age¹²

≈40% of patients experience recurrence within 6 months post-surgery⁷

Type 2 cytokines



can cause eosinophil recruitment, barrier dysfunction and mucus production, potentially leading to **nasal polyp formation**^{1,2}

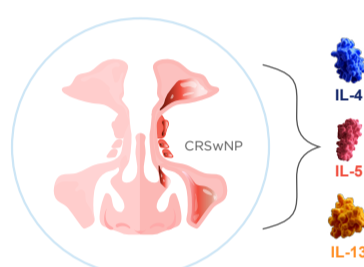
Common symptoms include^{1,3,5}



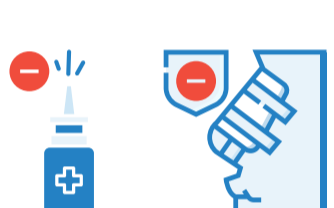
Loss of smell is a major troublesome symptom of CRSwNP, and can be the **first sign of recurrence**^{1,3,5,13,14}

Factors associated with the recurrence of nasal polyps^{1,2,4-6}

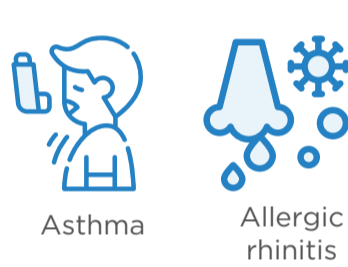
Persistent inflammation



Inadequate medical therapy or surgery



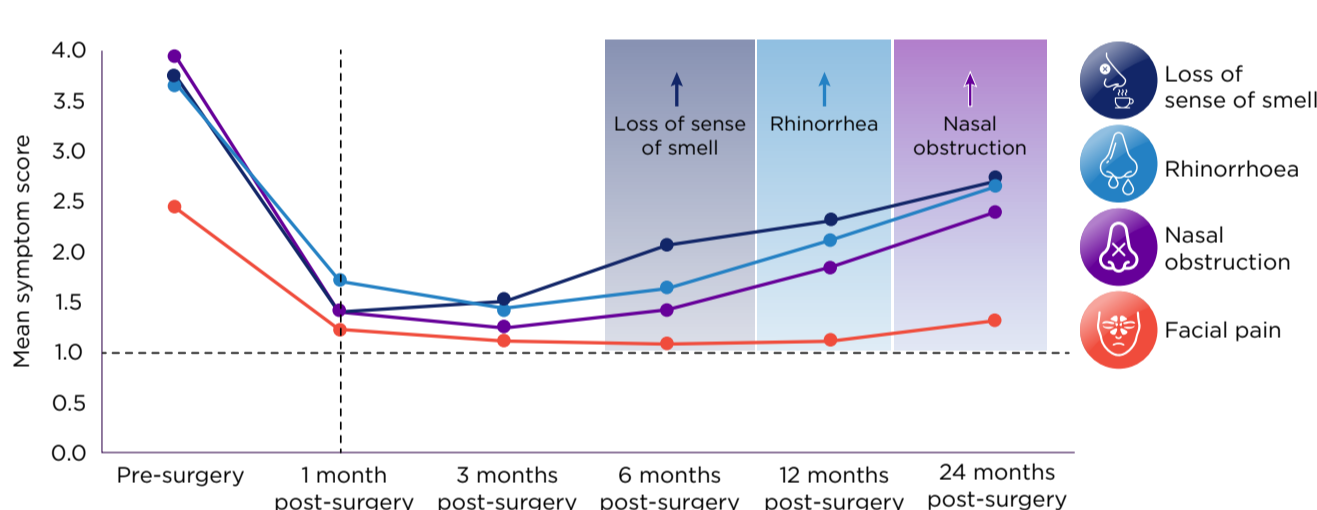
Comorbidities



Recurrence of nasal polyps after surgical interventions remains a significant challenge in CRSwNP patients⁵

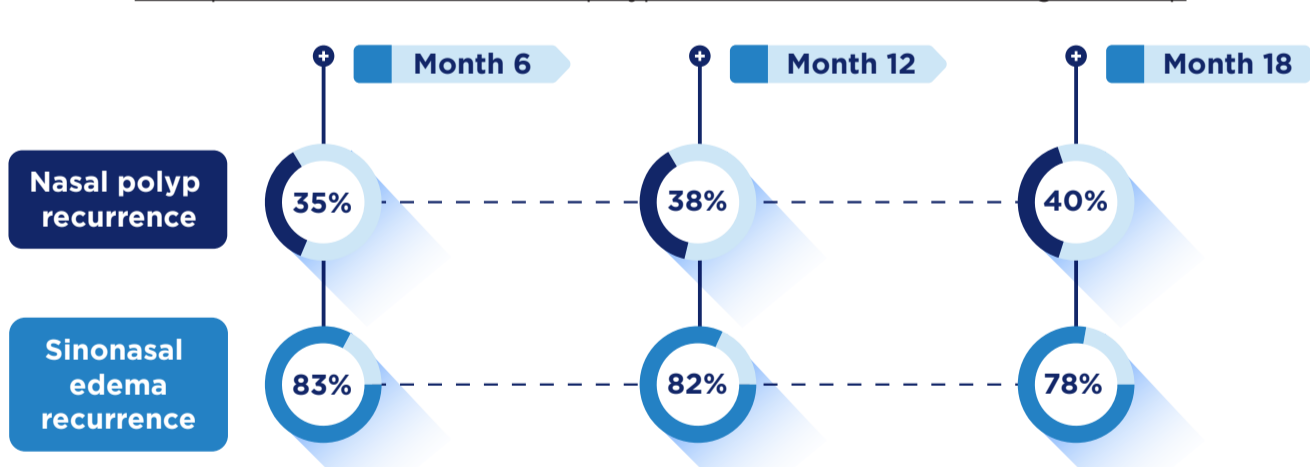
Loss of smell often recurs within first few months after sinus surgery¹⁴

Severity of symptoms post-surgery over time¹⁴



Rates of nasal polyp recurrence increases over time along with sinonasal edema⁶

Postoperative recurrence of nasal polyps and sinonasal edema during follow-up⁶



Recurrence of nasal polyps could be a function of untreated chronic inflammation⁵

Multimodal treatment approach is recommended for managing CRSwNP^{4,15}

1st line

INCS^{3,8,15,16}

Long-term use reduce nasal polyp size and recurrence after ESS

2nd line

SCS^{3,8,15-17}

- No more than 1-2 courses annually
- Recommended for severe exacerbations and partial/uncontrolled condition

Nasal surgery^{8,16,18}

- Remove polyp tissue and diseased mucosa
- Consider if medical treatments fail

These treatments offer temporary relief but do not fully address type 2 inflammation, potentially leading to nasal polyp recurrence^{2,5-8}

Guideline recommendation^{3,9}

The EPOS 2020 and ICAR 2021 guidelines recommend biologics for those who do not respond to conventional therapies

Biologic Therapy^{8,13,15,18}

Targets type 2 inflammation, particularly those with severe or refractory disease

Response to biologics is assessed by³

- Reduced nasal polyp
- Decreased corticosteroid use
- Improved smell and QoL

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ABBREVIATIONS

CRSwNP, chronic rhinosinusitis with nasal polyps; EPOS, European Position Paper on Rhinosinusitis and Nasal Polyps; ESS, endoscopic sinus surgery; ICAR, International consensus statement on allergy and rhinology; IL, interleukin; INCS, intranasal corticosteroids; QoL, quality of life; SCS, systemic corticosteroids; SoC, standard of care.