NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

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### Title

Risk of Acute Rhinosinusitis Progression Based on Duration of Symptoms, Method of Care, and Setting of Care

# **Priority 1 (Research Category)**

Acute respiratory infections

## Presenters

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# Abstract

Context: One of the most common primary care illnesses is acute rhinosinusitis (ARS). Guidelines currently suggest treating ARS with antibiotics when persistent symptoms or double sickening occur. Objective: To identify the factors associated with progression from upper respiratory infection to ARS. Study Design: As part of a large multi-center pragmatic randomized comparative effectiveness trial funded by PCORI, we recruited 141 adults with upper respiratory tract infections as part of a pilot feasibility demonstration. Participants were initially treated symptomatically (e.g. nasal saline, acetaminophen), but if symptoms persisted or worsened on day 9, they were considered to have ARS and randomized to one of four interventions (antibiotics, nasal steroid, both, or only nasal saline). Setting & Population: Six practice-based research networks recruited patients aged 18-65 years with upper respiratory symptoms. Patients were recruited from primary care practices, emergency rooms and urgent care centers, and the community (e.g., recruitment flyers). Patients with 1 to 9 days of symptoms were included, and patients could have an in person or telemedicine appointment with a clinician. Outcome: The primary outcome was progression to ARS and study randomization, and secondary outcome was mSNOT score at enrollment and day 9. Results: The median age was 35 (26-48)

years. The demographics between those who progressed to ARS and those who got better were generally similar, including age, gender, race, education, employment, and type of health insurance. Patients with a telemedicine versus in person visit had a lower, but not statistically significant, rate of progression to ARS (50% vs 64%, p=0.375). Patients recruited in primary versus urgent care clinics had similar rates of progression to ARS, but the community rate was lower (69% vs 65% vs 45%, p=0.085). A greater proportion of patients recruited later in their illness (day 7-9) were more likely to progress to ARS than those recruited day 4-6 or day 1-3 of their upper respiratory illness, but differences were not statistically significant (65% vs 50% vs 41%, p=0.187). Interestingly, primary care practices saw fewer patients with acute upper respiratory infections than anticipated. Conclusion: Patients with upper respiratory infections recruited in different settings with different approaches were more similar than different, supporting a broad multimodal recruitment approach.

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