



Resuming SCIT during COVID-19 Pandemic

Resuming SCIT during COVID-19 Pandemic

Introduction

This summary is intended to provide practicing Otolaryngologists a guide to resuming safe allergy care in the era of COVID-19 pandemic.

The impact of COVID-19 has been unprecedented for modern healthcare, resulting in disruption of most elective care, including the practice of allergy. Many otolaryngology and allergy practices have suspended skin testing and immunotherapy for a period of months. With recent downward trends of the COVID-19 curve, practices are beginning to plan for re-entry to clinical practice. There is limited scientific data and expert opinion on how to return to practice. The purpose of this document is to summarize practical clinical considerations related to restarting allergy patient care once COVID-19 restrictions allow for elective care. It is recommended that you continue to monitor incidence and exposure in your region.

Immunotherapy Dosing

For patients on subcutaneous immunotherapy (SCIT), re-starting after a prolonged absence can result in a serious systemic adverse event. Safety is paramount when re-starting injections. Dosing can be reduced to allow for a more gradual introduction of SCIT. The time since the last injection is a major factor in determining how far back to reduce the dose in the escalation plan. While there is limited data on the exact dosing scheme, an example is provided in the below figure that is in line with expert opinion. Patients who are in the Maintenance Phase of SCIT are generally able to tolerate higher dosing schedules than those patients in the Escalation Phase of SCIT. The example below describes how many doses or dilution vials a practitioner can go back based on the time since the last injection. The time since the last injection is only one factor in deciding the appropriate re-starting dose.

Clinical features of each individual patient should also be examined, including the severity of allergic disease, prior systemic reaction, time of year for pollen allergies, health status including medications, and asthma severity and control. For patients who are at increased risk of adverse reaction due to any of the above factors, decrease in dosing can be instituted at the first injection beyond what the example in the figure describes. The escalation schedule will similarly depend on individual factors and tolerance of prior injections. The use of vial testing for the first injection can also provide a measure of safety to determine an individual's reaction and tolerability to a vial before proceeding with the SCIT escalation plan.

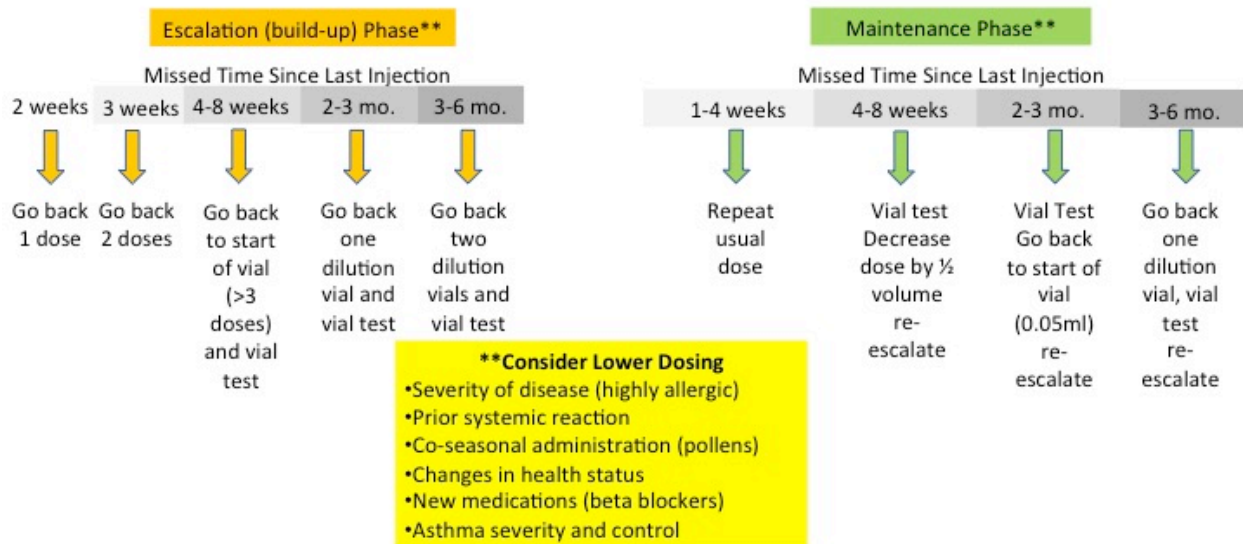


Resuming SCIT during COVID-19 Pandemic



Resuming SCIT during COVID-19 Pandemic*

Evaluate each patient individually for the appropriate re-starting dose



*This example is based on expert opinion as there is a lack of scientific data. Treatment of individual patients will require analysis of their medical condition and individual dosing for immunotherapy.

PPE

The use of personal protective is paramount in keeping providers and staff safe from transmission of COVID-19. When resuming SCIT injections, providers should have available gloves, gown, mask, hair covering, and eye protection. Adequate supply should be available for both mixing allergy extracts and administration of injections in the office. The adequacy and specific type of PPE to be used during SCIT administration depends on hospital and governmental recommendations during the pandemic and afterwards, as well as availability and practicality of PPE in the office setting.

Environmental Care

Transmission of COVID-19 through aerosolization of viral particles is a concern in allergy practice. The use of pulmonary function testing, peak flow testing, and nebulized medications can promote aerosolization of viral particles. When possible, these procedures should be deferred or replaced with alternate options: inhaled corticosteroids can be delivered by metered-dose inhaler rather than nebulizer, chest auscultation can be performed rather than peak flow testing, PFTs may be deferred until COVID restrictions are eased. Additionally, environmental care should include frequent disinfection of surfaces in the allergy clinic using 70% ethanol.



Resuming SCIT during COVID-19 Pandemic

Social Distancing

Allergy clinics have the potential for transmission due to high volume of patients receiving injections. Social distancing can be promoted through the limitation of additional family members in clinic, reduction of shared materials such as magazines, pens, or check-in kiosks, and spacing of seating in waiting areas. The 30-minute required observation period following injections should be an area where patients are spaced at least 6 feet away from other patients.

Monitoring for COVID-19

Patients coming into the clinic for SCIT should be monitored for symptoms of COVID-19 infection. Pre-screening can occur at the time of booking the appointment as well as at the start of the visit. Important screening questions include exposure to contacts with COVID-19 infection, cough, shortness of breath, fever, and anosmia. Temperature monitoring is another option for screening of potential COVID-19 infection at the entry to clinics. Any patient who displays signs and symptoms of COVID-19 infection should be referred to primary care for appropriate testing rather than receiving SCIT injection.

Medications (corticosteroids)

Corticosteroid medications are a mainstay of treatment for various allergic disorders. Current recommendations advocate for continued use of inhaled steroids and nasal steroid sprays to maintain a healthy airway and avoid need for emergency care. Systemic corticosteroids have special consideration in the era of COVID-19 infection. The use of systemic corticosteroids in patients with active COVID-19 infections has been shown to worsen infection in the early phases and should be avoided except in cases of ARDS. Corticosteroids are helpful for severe exacerbations of allergic diseases and asthma, often precluding the need for emergency care, and can still be used in the COVID-19 era. The decision for use of short bursts of systemic corticosteroids should be made with shared-decision model, informing patients of the risks of potential worsening COVID-19 infection while helping them avoid emergent care where there could be exposure to COVID-19 positive providers and patients.



Resuming SCIT during COVID-19 Pandemic



Pearls for Resuming Allergy Practice in the era of COVID-19 Pandemic

Dosing: Safety First

- step back vial dosing
- vial testing

PPE: Protect Yourself and Your Staff

- Ensure adequate supplies of PPE for providers
- Mask, gown, gloves, hair covering, eye protection
- Hand-washing hygiene

Social Distancing

- Limit family members in clinic
- Limit use of shared material: electronic kiosks, pens, readings
- Limit social contacts before and after treatment in waiting areas (30-minute observation required)

Monitor for COVID-19 symptoms

- Pre-screen at booking
- At time of visit:
 - COVID-19 contacts
 - Cough
 - Shortness of breath
 - Anosmia
 - Fever

Protect Your Environment

- Regularly disinfect surfaces with 70% ethanol
- Limit use of aerosolizing procedures (if able):
 - PFTs
 - peak flows
 - nebulizers

Use of Corticosteroids

- Continue current inhaled steroids and nasal steroid sprays
- Favor MDI over nebulizers to prevent aerosolization
- Systemic corticosteroids can be used when indicated. A shared-decision making model should discuss increased risks if COVID-19 infection develops

References:

- Cox L, Nelson H, Lockey R, et al. J Allergy Clin Immunol. 2011;127(1 Suppl):S1–S55.
- A Work Group Report of the AAAAI Immunotherapy, Allergen Standardization and Allergy Diagnostics (IASAD) Committee. https://education.aaaai.org/immunotherapy_covid-19
- Syamal, M. Literature-guided recommendations for otolaryngologists during the COVID-19 pandemic: A contemporary review. *Laryngoscope Investigative Otolaryngology*. 2020; 1– 6.
- Shaker MS, Oppenheimer J, Grayson M, et al. Clin J Allergy Clin Immunol Pract. 2020;S2213-2198(20)30253-1.

Our intention is to assist otolaryngologists by sharing evidence-based summaries on recommended therapies and practices from the current medical literature. They do not attempt to define a quality of care for legal malpractice proceedings. They should not be taken as recommending for or against a particular company's products. The statements are not meant for patients to use in treating themselves or making decisions about their care. Advances constantly occur in medicine, and some advances will doubtless occur faster than these statements can be updated.