

Rapid Desensitization

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What is Desensitization?

- * Immunotherapy
- * Environmental Allergens
- * Insect Venoms
 - * Honeybee
 - * Paper Wasp
 - * White Faced Hornet
 - * Yellow Faced Hornet
 - * Yellow Jacket
 - * Fire Ants
- * Medications

Indications

- * Environmental Allergy
 - * Allergic rhinitis/conjunctivitis
 - * Allergic asthma
 - * Atopic Dermatitis
 - * Medication failure
 - * Unacceptable risk of medication side effects
- * Venom
 - * Systemic reaction to hymenoptera

Process

- * Build Up – weekly
 - * Serial dilutions of maintenance dose
- * Maintenance (effective therapeutic dose)– monthly
- * Entire process 3-5 yrs

Risks and Benefits

- * Benefits

- * Closest we can get to cure

- * Environmental

- * Systematic Review, 88 trials, 3459 asthmatic pts, SCIT resulted in significant reduction in asthma symptoms, med use, and bronchial hyperreactivity

- * Venom

- * Reduces risk of systemic reaction from subsequent sting to <5%

Risks and Benefits

- * Risks
 - * Severe systemic reaction
 - * Percentage of systemic reactions per injection 0.2%
 - * Estimated fatality rate 1 per 2.4 million injections
- * Risk increased with rapid desensitization to environmental allergens
 - * Premedicate
- * Risk the same with rapid desensitization to venoms

Cox L, Larenas-Linnemann D, Lockey RF, Passalacqua G. Speaking the same language: the World Allergy Organization Subcutaneous Immunotherapy Systemic Reaction Grading System. *J Allergy Clin Immunol* 2010;125:569-74, e7. IV.

Reid MJ, Lockey RF, Turkeltaub PC, Platts-Mills TA. Survey of fatalities from skin testing and immunotherapy 1985-1989. *J Allergy Clin Immunol* 1993;92:6-15, III.

Rapid Desensitization: Venom

- * Traditional immunotherapy will take 20 weeks to build up
- * Maintenance dose 100mcg
- * Ultra Rush Protocol: Top dose 80mcg on day 1
- * Cellular changes within 12 hrs

Rapid Desensitization: Environmental Allergens

- * Typical build up about 9 mos of weekly injections
- * Rapid desensitization: 6 mos in one day
- * Series of 5 injections, given every 30 minutes. Then observe and take vitals for 2 hrs after last injection
- * Once at maintenance patients see significant improvement
- * We choose which patients qualify
 - * Uncontrolled asthmatics
 - * Patients on Beta Blockers

Benefits of Rapid Desensitization

- * Reach maintenance dose very quickly
- * Patients feel better and gain protection more quickly
 - * Compliance
- * Logistically and financially easier

