

Reactions During OIT Build-Up & Maintenance

FAST Conference, June 2021

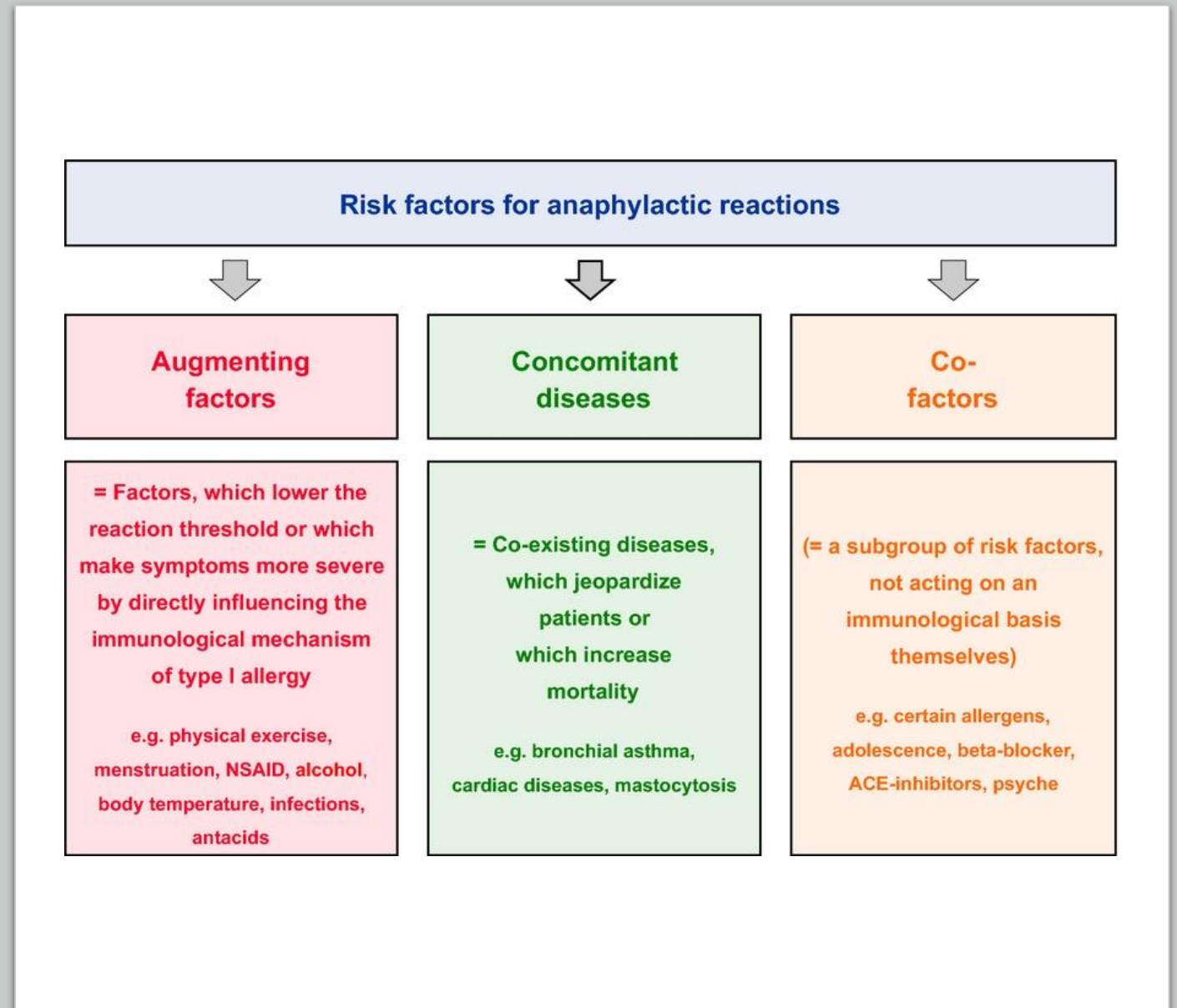


Sakina Shikari Bajowala, MD FAAAAI

Risk factors for anaphylactic reactions

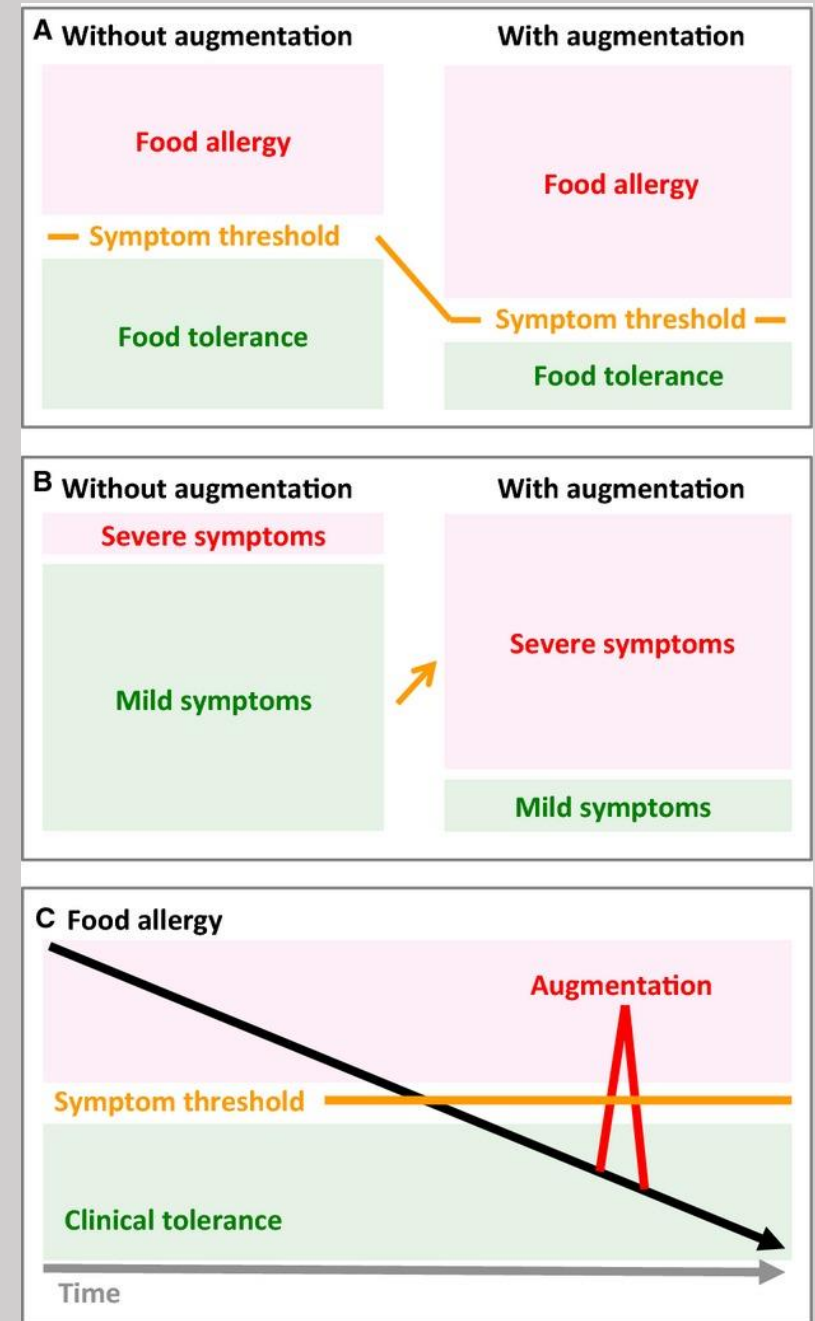
- A. Augmenting factors
- B. Concomitant diseases
- C. Co-factors

Niggemann B, Beyer K. Factors augmenting allergic reactions. Allergy. 2014 Dec;69(12):1582-7. doi: 10.1111/all.12532. PMID: 25306896.



Different Effects of Augmenting Factors

- A. Lowers threshold for reactivity
 - A. Takes less allergen to elicit reaction
- B. Increases severity of reaction
 - A. Same dose elicits more severe symptoms over time
- C. Reverses acquired clinical tolerance
 - A. Allergic reactions suddenly re-occur due to acute influence of augmenting factors



Creating OIT Dosing Rules to Correct for Augmenting Factors, Concomitant Disease, and Co-Factors

Risk Factor	Dosing Rule
Physical Exercise	Rest period pre- (~20-30 min) and post- (~2 hrs) dose
Acute infection / fever	Dose reduction or deferral during acute illness
Stress / Anxiety	Must be calm during dosing – meditation / breathing
Hormonal factors (menses, etc)	Dose reduction or prophylactic Rx during ovulation/1 st few days of menses
Asthma	No dose during asthma exacerbation
Medications (NSAIDs, PPI)	Avoid NSAIDs 4 hrs before or after dose; Avoid long-term PPI during OIT
Alcohol	“Don’t drink and dose”
Mastocytosis	Antihistamine treatment
Seasonal allergen exposure	Prophylactic antihistamine for active symptoms
Vaccination	Dose reduction or deferral
Dental Work / Mucosal injury	Dose deferral until healed
Sleep deprivation	No dose late at night
Empty stomach	Always dose with healthy food (complex carbs, antioxidants)



Patients with history of severe anaphylaxis such as those who have been intubated and ventilated, or had reactions treated with more than two doses of epinephrine should follow their routine anaphylaxis plan and activate emergency services immediately when anaphylaxis is recognized.

IMPORTANT: Anaphylaxis is a potentially life-threatening, severe allergic reaction. If in doubt, give epinephrine.

SEVERE SYMPTOMS: ANY OF THE FOLLOWING



LUNG

Shortness of breath
Wheezing, repetitive cough



HEART

Pale or bluish skin, faintness,
weak pulse, dizziness



GUT

Repetitive vomiting,
severe diarrhea



THROAT

Tight or hoarse throat, trouble
breathing or swallowing



SKIN

Many hives over body,
widespread redness



MOUTH

Significant swelling of
the tongue or lips



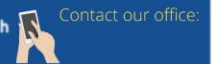
OTHER

Feeling something bad is
about to happen, anxiety,
confusion

Mild symptoms from more than one system area:

Itchy runny nose, sneezing
and/or Itchy mouth and/or few
hives, mild itch and /or mild
nausea or discomfort

1. **INJECT EPINEPHRINE IMMEDIATELY** while seated; have telephone within reach
2. Notify a housemate or neighbor to help you
3. Lay down with legs elevated near the doorway, which should be unlocked or open to allow others to enter and help. Keep children in a position of comfort, to minimize respiratory distress and agitation and risk of aspiration in case of vomiting.
4. Administer oral antihistamine, preferably non-sedating (e.g. cetirizine) Levocetirizine & Diphenhydramine OK
5. Administer albuterol for respiratory symptoms if prescribed and available Only for known asthma/RAD
6. Monitor symptoms and blood pressure/pulse if possible iPhone: Pulse Oximeter app
Android: Samsung Health app



SYMPTOMS DON'T IMPROVE OR WORSEN

Repeat epinephrine injection in 5 minutes or sooner
if symptoms escalate rapidly

SEVERE SYMPTOMS RESOLVE

- Continue to monitor for 4-6 hours for the recurrence of symptoms
- Be ready to administer treatment if symptoms reappear (biphasic anaphylaxis)
- Notify your physician on a non-urgent basis
- Replenish emergency medications

SEVERE SYMPTOMS DON'T IMPROVE OR WORSEN:

Activate Emergency Services (Call 911)

SEVERE SYMPTOMS RESOLVE



Management of Anaphylaxis During the PHE

Real-Time Reaction Follow-Up via Telemedicine

KEEP PATIENTS
OUT OF THE ER



- Safe
- More cost-effective in terms of health utilization
- Avoids psychological trauma to child
- Opportunity to debrief in real-time

Track & Use
Your Data
to Modify OIT
Practice and
Home Dosing
Rules

Patient-specific

Protocol-specific

Practice-wide

OIT community-wide