What do I do with this baby?

Common infant/toddler conditions seen in the clinic

Kirk H. Waibel, MD FAAAAI

Disclosures

- No relevant disclosures

Objectives

- Gain knowledge regarding various clinical presentations which primary care often refers to allergy
- Understand when to test (vs not testing) in specific scenarios
- Provide short- and long-term counseling for unique situations

Age groups

- Infants (birth to 1 year old)
- Toddlers (1-3yrs old)
- Children (4-10 yrs old)

Newborn

- Term newborn who was referred as his umbilical stump has not come off yet.
- Pediatrician is worried it is a possible immunodeficiency.

"Delayed" umbilical separation

- Parents rushed to get him in to see you.
- Day of life 7. Healthy appearing but umbilical stump still present.
- No family hx/o immunodeficiency
- PE: irritable during exam but otherwise unremarkable.

"Delayed" umbilical separation

- Average – 10 days (3-45)
- Likely normal process.
- DDx includes Leukocyte adhesion deficiency type 1 (LAD1)
- Normal WBC ct essentially rules this out. (CD18)

Infants

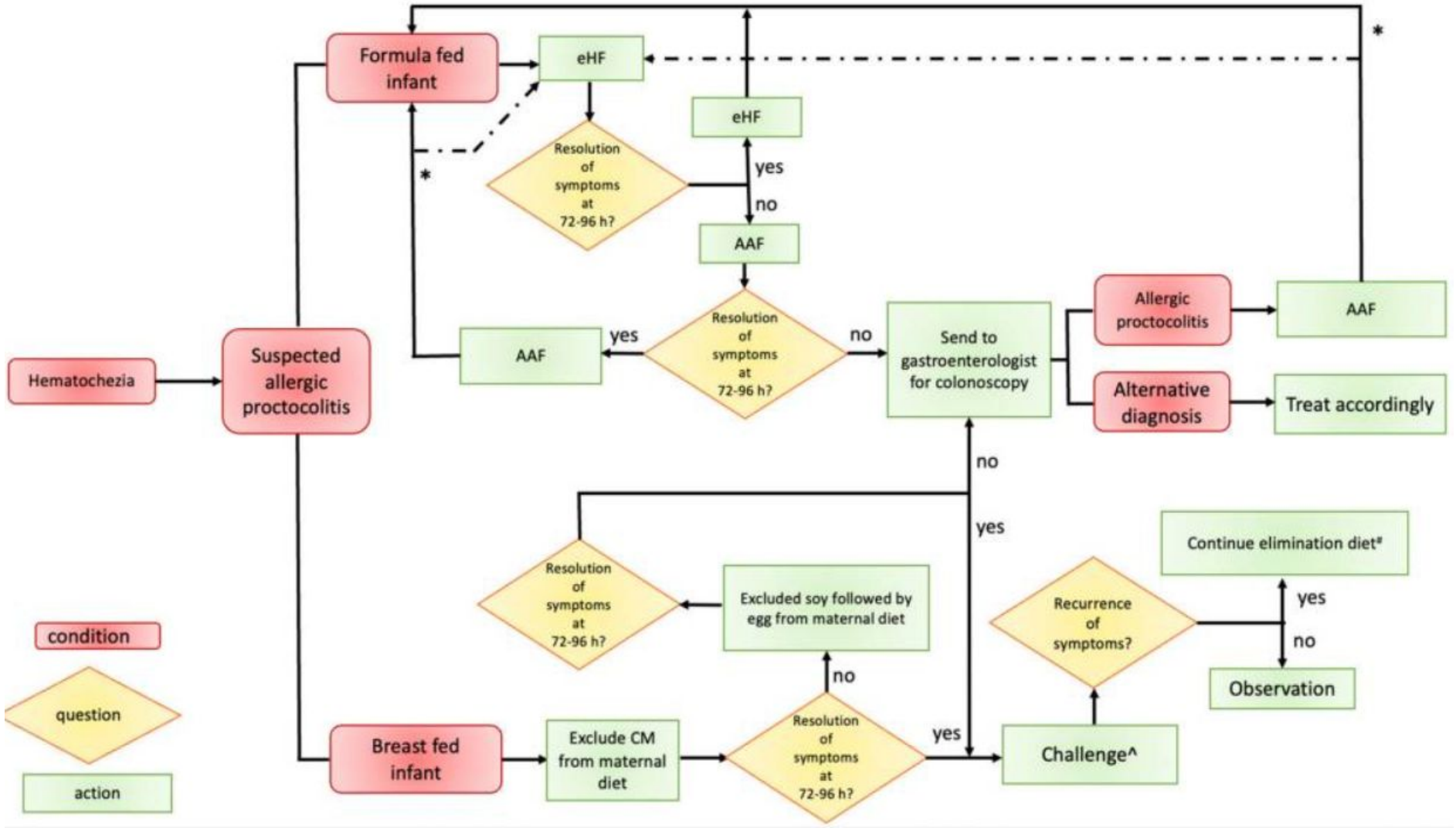
- Term SVD born without complications was referred for possible cow's milk allergy after parents noted blood in the stool. Since avoiding milk, the hematochezia resolved.
- Please evaluate and test.

Allergic proctocolitis

- Non-IgE mediated food reaction
- Mostly caused by cow's milk but soy, egg, corn, and wheat have been reported
- Dx: clinical (resolution of symptoms within 48-96hrs)
- Prognosis: excellent. Most resolve within 12 months. Consider starting with baked milk, then unbaked milk at 12 months.

Barni S, Mori F, Giovannini M et al. Life (Basel) 2023; 13(9): 1824.

Allergic proctocolitis



Barni S, Mori F, Giovannini M et al. Life (Basel) 2023; 13(9): 1824.

Risk for siblings of food-allergic children

- Reported risk of 7-8%.
- 154 children underwent double-blinded skin testing followed by parent-led peanut introduction.
- 8/154 (5.2%) had reactions; 5 with anaphylaxis but significantly older (4.0 vs 1.9yrs old; P <0.04)
- NPV of peanut extract, peanut butter and PN-sIgE was 99%, 100%, and 100%.
- 6 had false positive tests (tolerated peanut)
- Home introduction more anxiety-provoking

Begin P, Graham F, Killer K et al. Allergy 2016; 71(12): 1762-1771

Risk for siblings of food-allergic children

- No documented fatalities on 1st exposure to peanut in the literature
- Risk of reaction is likely due to delayed exposure
- In LEAP, 22% of infants with egg allergy and/or severe eczema had positive SPT or sIgE but only 2% had reactions on OFC
- Risk of testing:
  - Overdiagnosis (false positive)
  - Delays in introduction

Abrams EM, Chan ES, and Sicherer SH. J Allergy Clin Pract 2018; 6(2): 414-418.

Will my child outgrown their egg allergy?

- 1 year-old female is referred for evaluation by their PCP.
- Around 7 mo old the parents noted immediate perioral rash after eating egg within 10 minutes. A month later they tried egg again but this time there were generalized urticaria and emesis x1 resulting in the parents going to urgent care. No accidental exposure since 7 mo old, including baked egg-containing foods.

Will my child outgrown their egg allergy?

- Egg allergy is the most common food allergy in children (milk is the most common in the 1st year of life).

- Initial testing:
- (+) histamine - 11x20mm
- (-) glycerin control - 0x0mm
- Egg white - 7x20mm
- sIgE: EW 4.11 (ovalbumin 2.6; ovomucoid 1.28)

Will my child outgrown their egg allergy?

- It depends
- ⬆ Risk with more severe reaction, female sex, and baseline sIgE, SPT, and IgG4
- Baked egg?

Sicherer SH et al. J Allergy Clin Immunol 2014;133(2): 492-499.

Tolerating baked egg

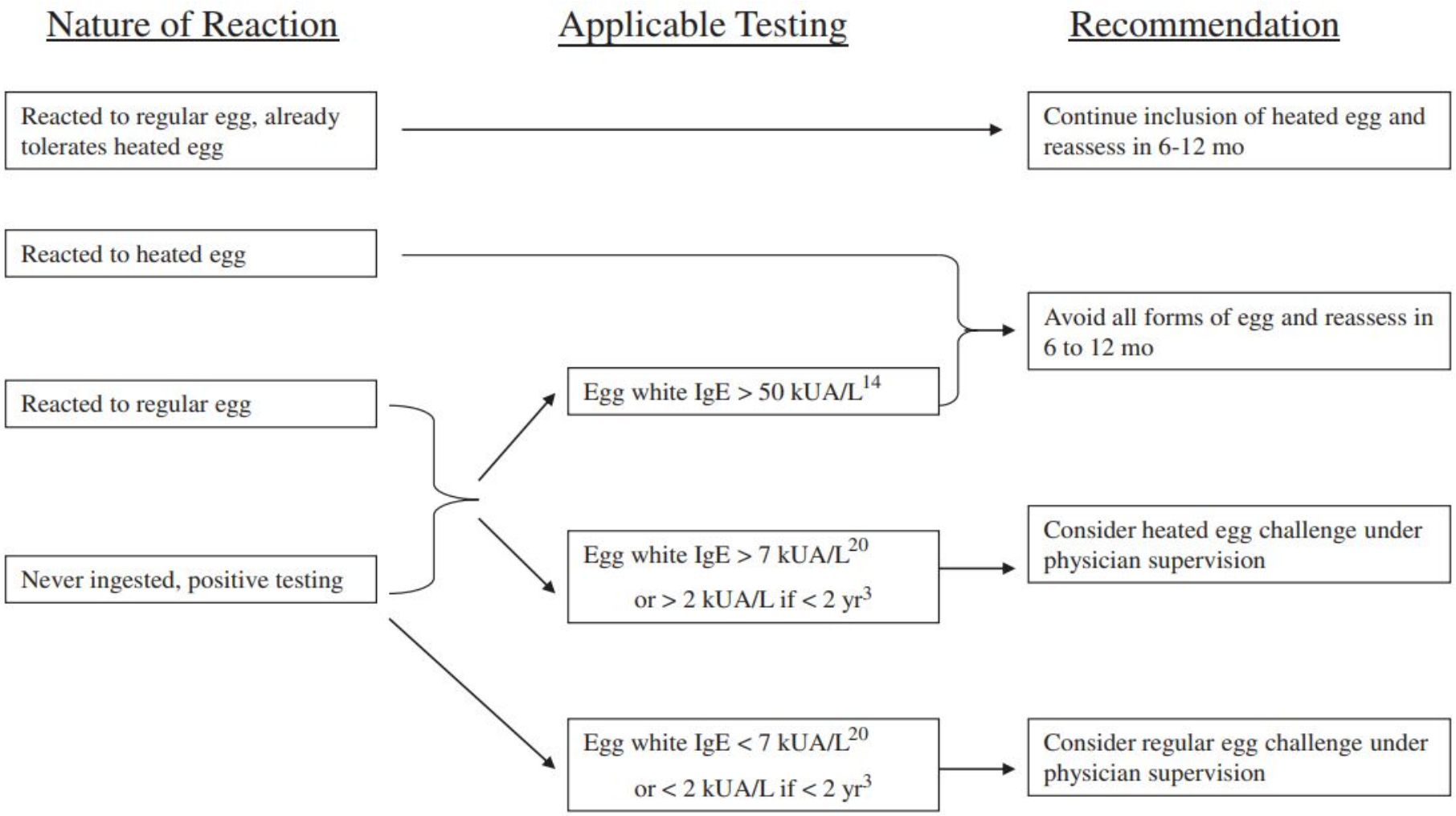


FIG 4. Criteria for selecting patients for baked and regular egg challenges.

Leonard SA, Sampson HA, Sicherer SH et al. J Allergy Clin Immunol 2012; 130(2): 473-480.

Tolerating baked egg

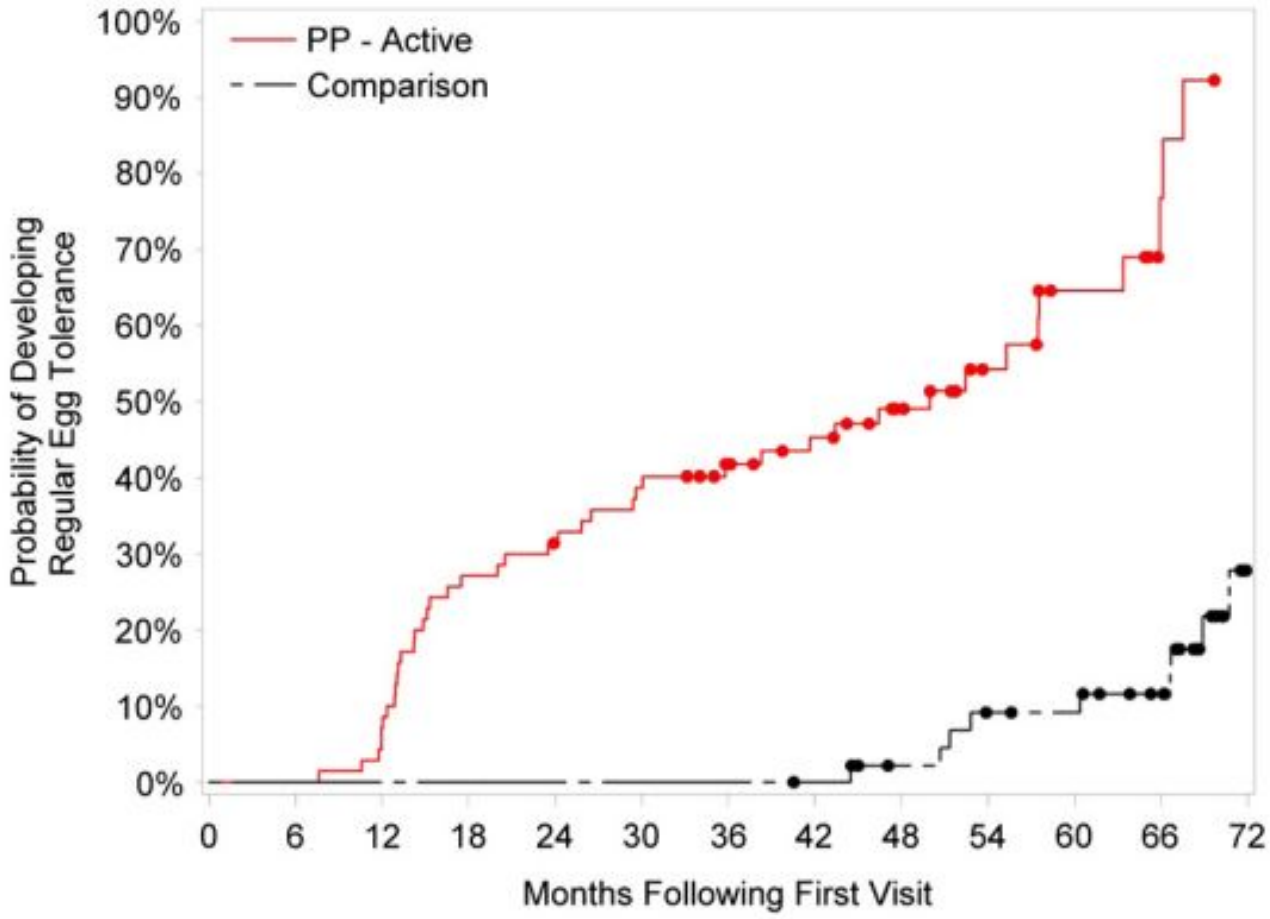


FIG 3. Development of regular egg tolerance: per-protocol *(PP)* versus comparison groups. The log-rank *P* value comparing survival between the PP versus comparison groups is less than .0001.

Leonard SA, Sampson HA, Sicherer SH et al. J Allergy Clin Immunol 2012; 130(2): 473-480.

Referral for persistent rash

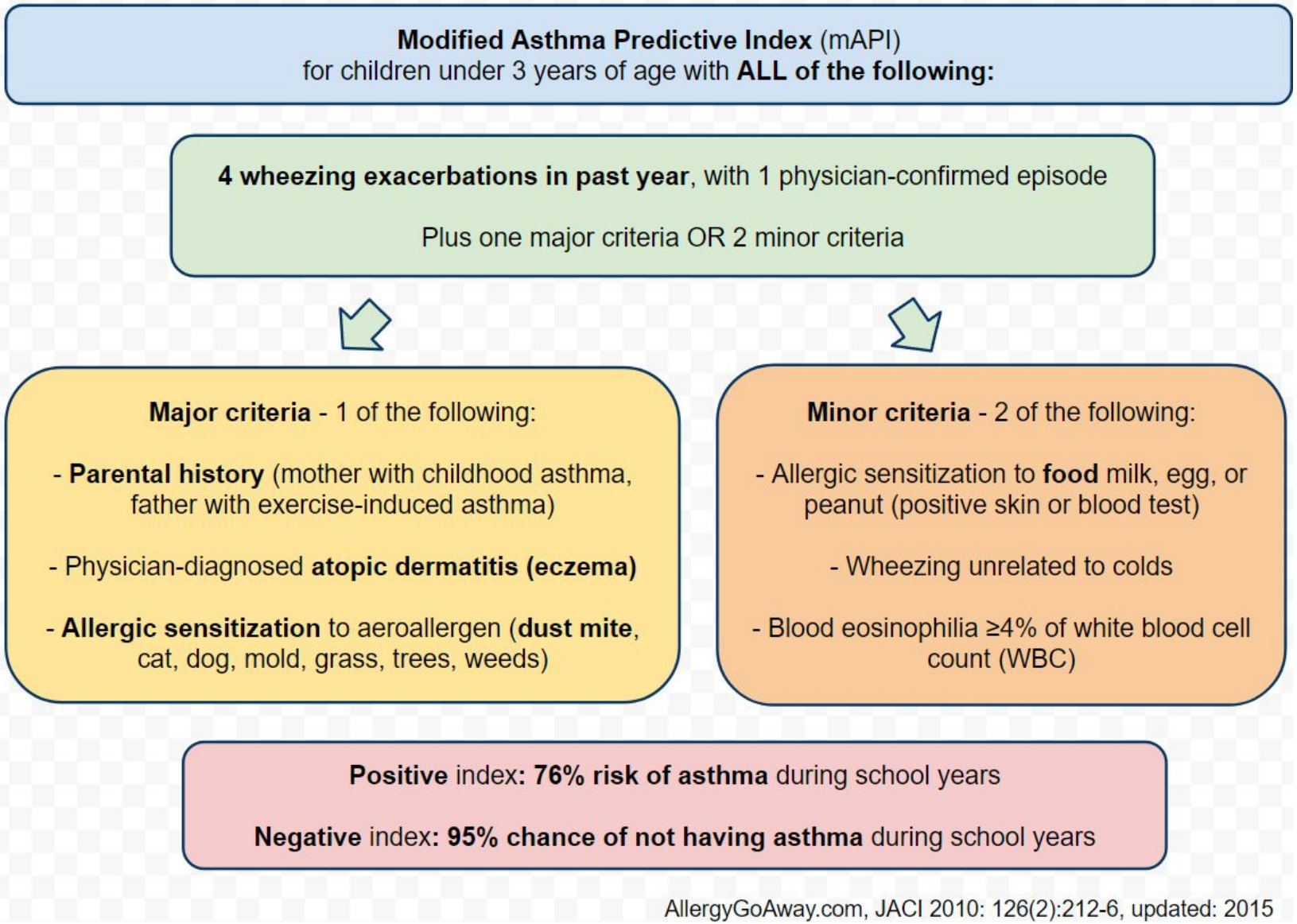
- 2 yr old male who presented
  with constant pruritis
  and skin lesions
  that PCP has treated
  with keflex
  and bactoban but the
  rash is persistant and
  upsetting to both
  patient and mother.

Papular urticaria

- Immunologic reaction to insect bites
- Fleas and mites are most common cause
- Symptoms can last for weeks-months
- New bites can reactivate old ones

https://dermnetnz.org/topics/papular-urticaria Accessed 27 Jul 2024.

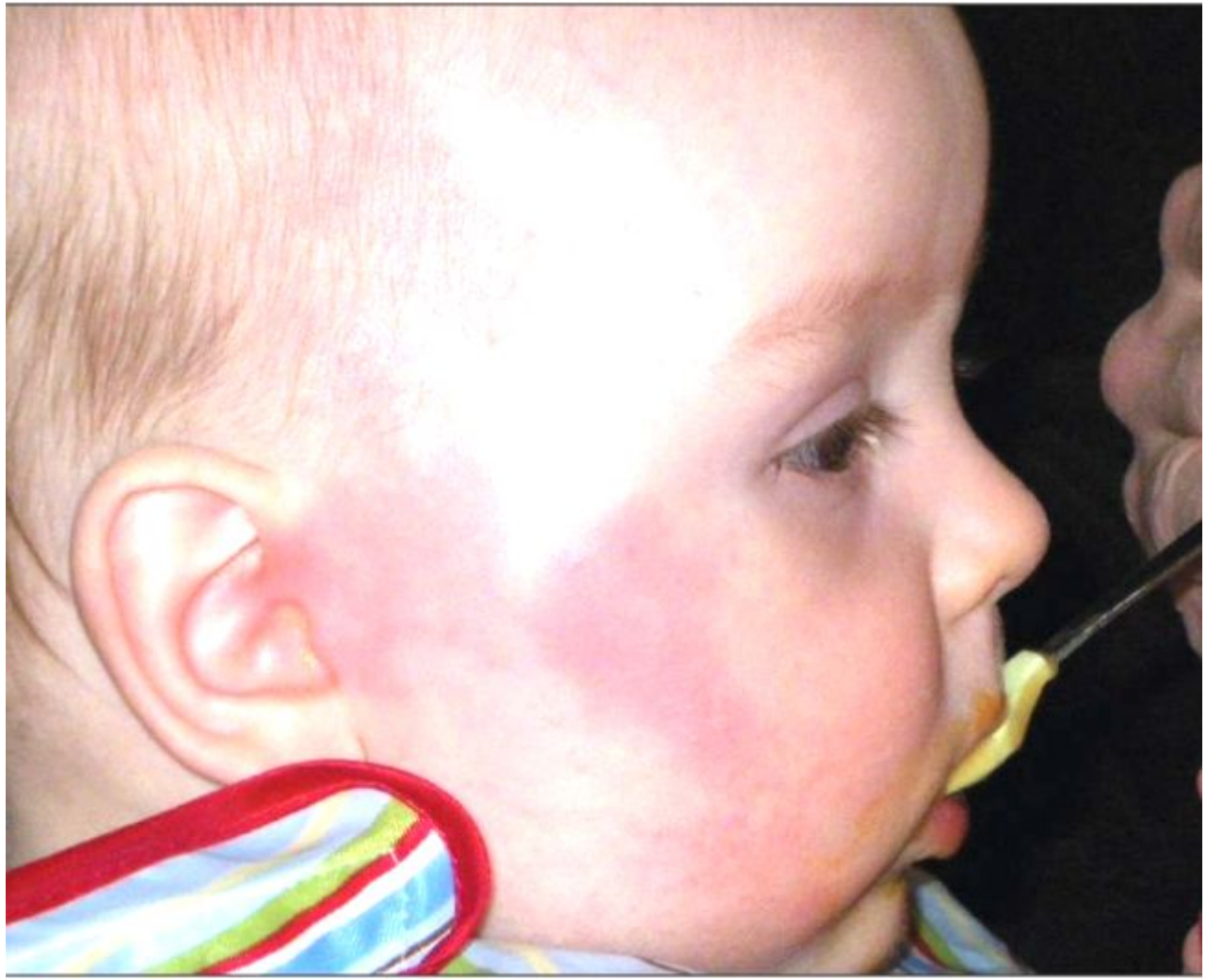
Does my 18 mo old have asthma?



Does my 1 year old have a food allergy?

- 1 year old male who has facial erythema occurring since 7 months of life
- Almost always occurs with eating but parents cannot pinpoint the cause.
- The rash does not bother him and usually resolves within a few minutes after eating.

https://www.cmaj.ca/content/185/6/504



Auriculartemporal syndrome (Frey's syndrome)

- Due to local trauma to the parotid area
- Forceps delivery (although 50% of pediatric cases do not have this history)
- Gustatory flushing when eating sometimes associated with sweating
- Unilateral usually
- No testing recommended
- Spontaneous resolution in most cases (months-years)

Atopic dermatitis?

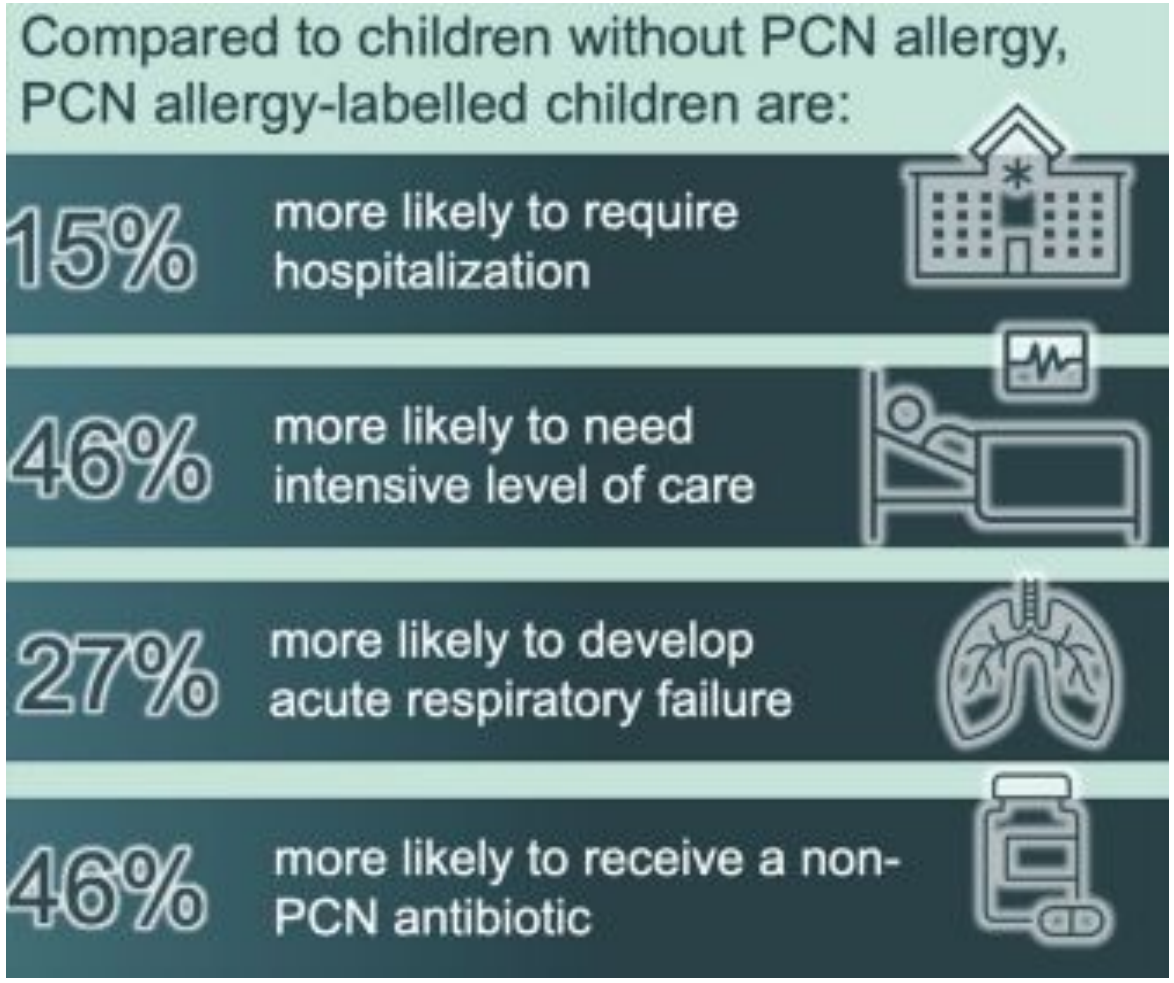
- 2 year old with a hx/ of mild AD with recurring episodes of facial erythema.
- Bothers parent but not patient. Moisturizer helps but mother would like to know the reason and other testing/therapy options.
- Usually resolves within 30 minutes and is often triggered by strong emotion.

Blushing

- Common in toddlers
- Heat, exertion, strong emotion triggers
- Can appear blotchy or coalesce
- DDx includes 5th disease, scarlet fever, atopic dermatitis

Referral for penicillin "allergy"

- 5% of children labeled as allergic
- Most reactions are viral exanthems
- Matched 3,793 children with and without PCN allergy for pneumonia



Kaminsky LW et al. J Allergy Clin Immunol Pract 2023; 11(6): 1899-1906.

PCN testing

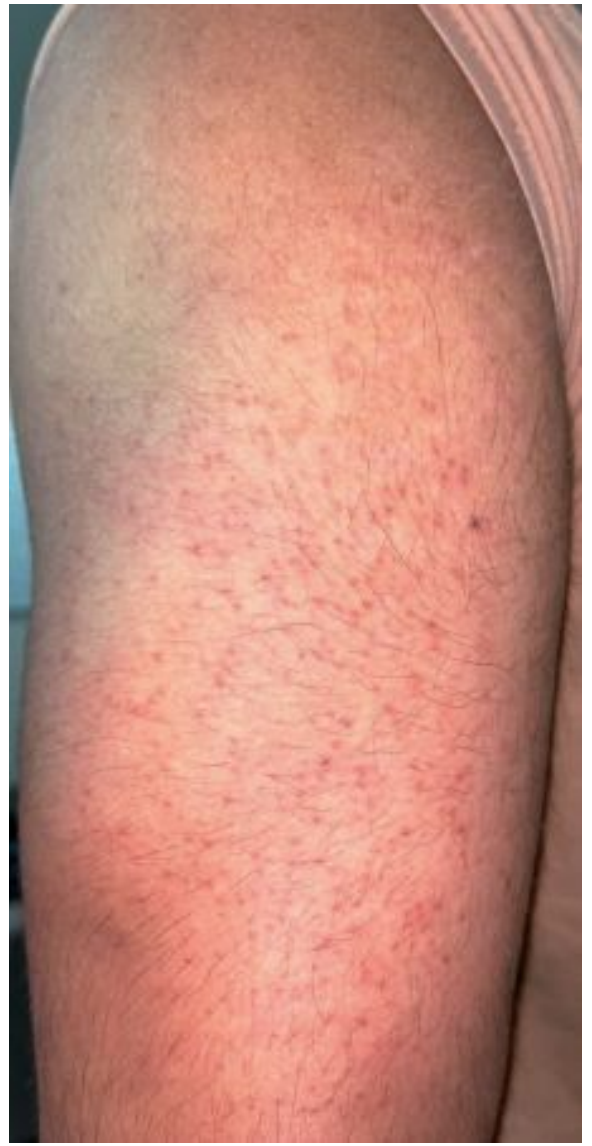
- Skin testing vs direct oral challenge
- "low" vs "high risk
- Risk stratified 1,566 children to either:
  - "no risk" - rash/hives > 1 year, mild somatic symptoms, unknown or family history
  - "low risk" -
  - "high risk" - SSLR, hx/o anaphylaxis, +prior testing

Risk category	# children	# challenged	% tolerated
No	1,032	610	96.2
Low	425	249	92
High	99	29	93.1

Xie S. J Allergy Clin Immunol 2022; AB62.

Keratosis pilaris

- Common hyperkeratotic skin condition
- Usually on extensor surfaces, face, or buttocks
- 40% population affected
- Starts in childhood, peaking in adolescence
- Usually asymptomatic, pruritis possible
- No longer thought to be associated with atopic dermatitis



Kodali N, Patel VM, and Schwartz RA. Italian J Derm Vernerology 2023; 158(3): 217-223.

Keratosis pilaris - treatment

- Watchful waiting
- Avoiding hot baths
- Moisturizers, mild soaps, and exfoliants
- 1st line: Topical keratolytics (salicytic acid 20% in urea 20%)
- 2nd line: Topical retinoids
- 3rd line: laser therapy

Kodali N, Patel VM, and Schwartz RA. Italian J Derm Vernerology 2023; 158(3): 217-223.

Food protein enterocolitis syndrome (FPIES)

- Non-IgE mediated food reaction
- Acute or chronic
- Repeated episodes of vomiting 1-4hrs after ingestion
- Can have pallor, lethargy, diarrhea, hypotension, hypotension, and shock
- Most resolve by 3 years old
- May have atopic dermatitis (48%), IgE-mediated food allergy (17%), or asthma (12%)

Haddad et al. J Allergy Clin Immunol Pract 2024: 12(8): 2118-2126.

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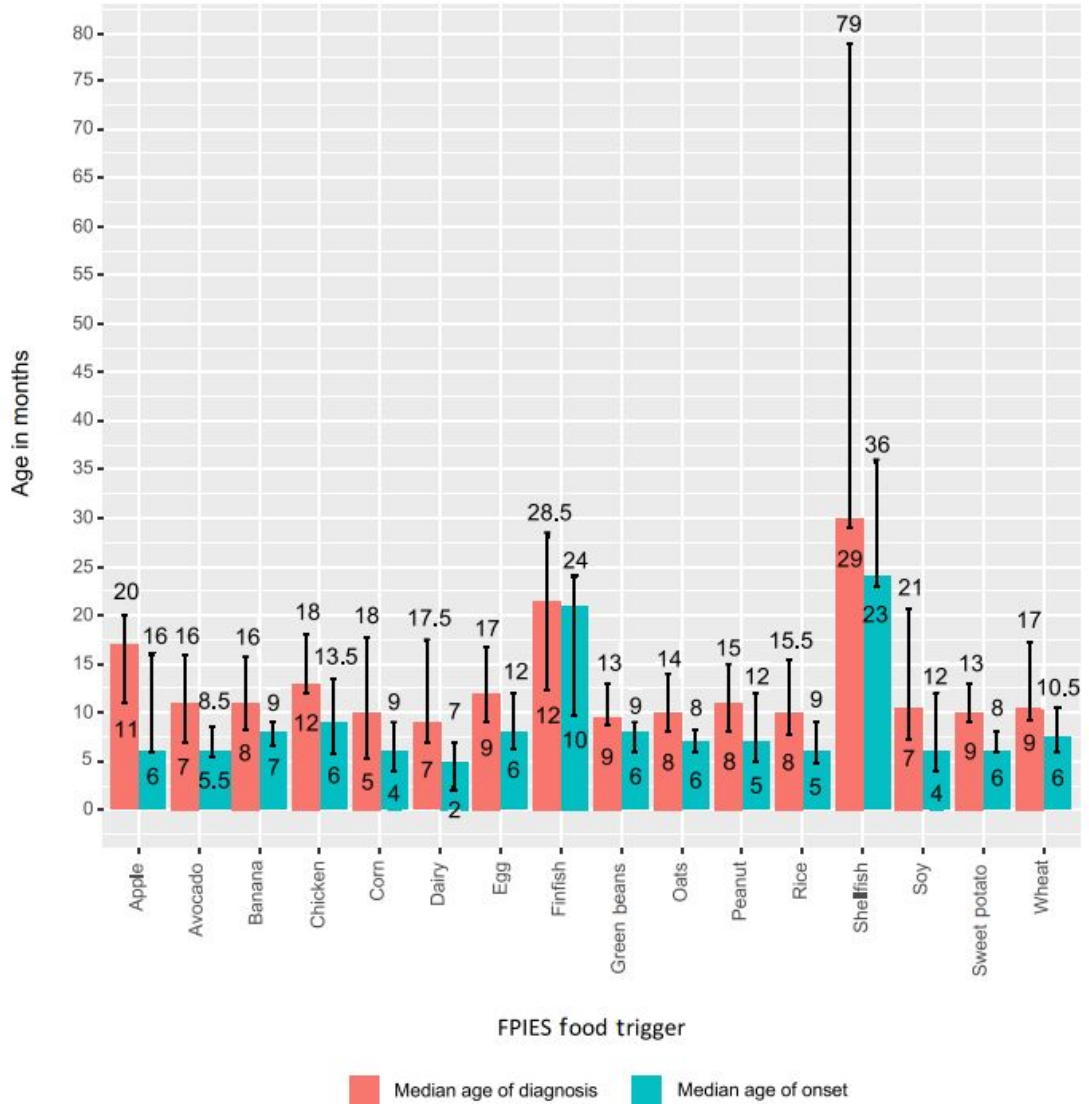

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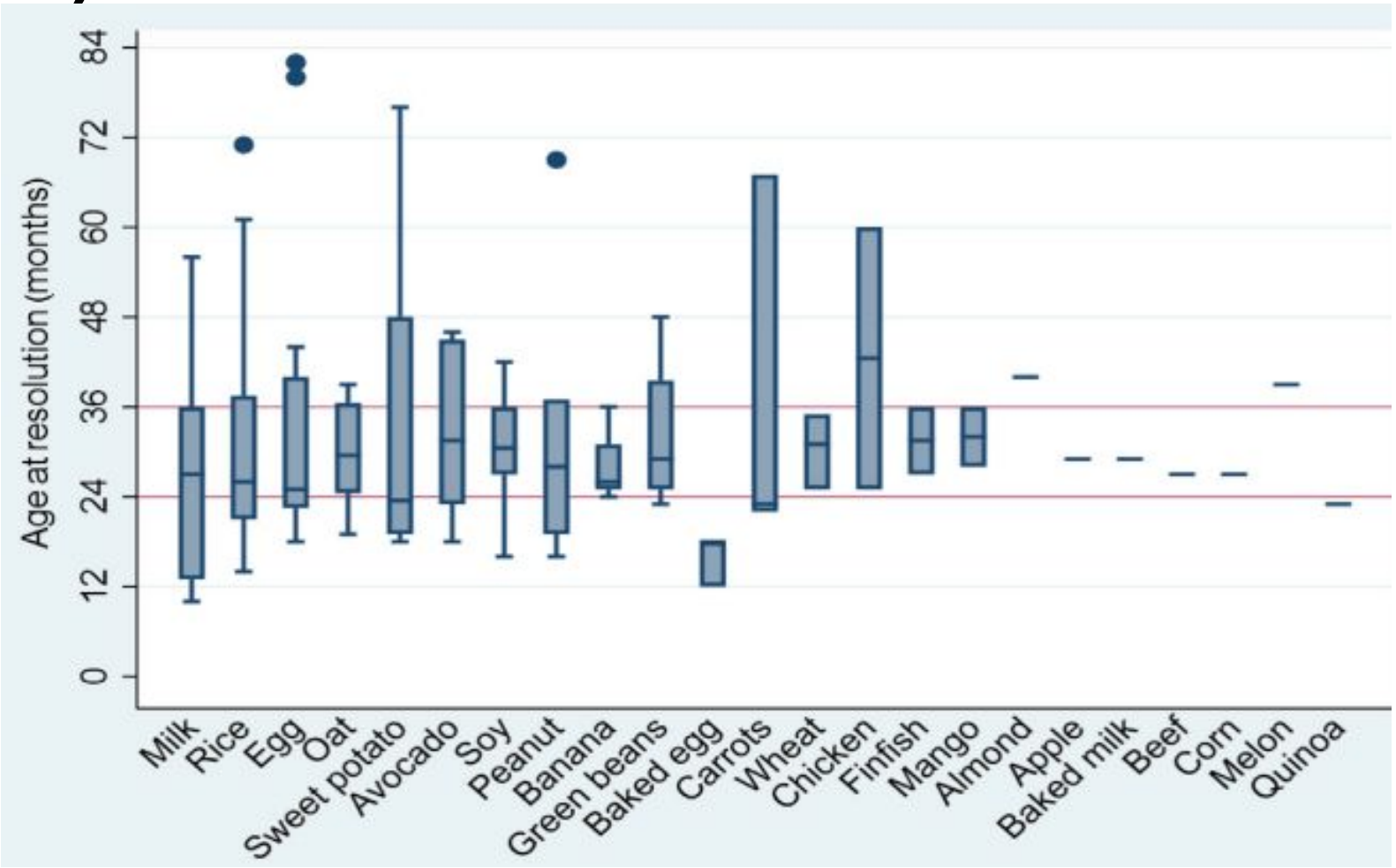

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Who wants to be an ~~millionaire~~ allergist?

- Ask the ~~host~~ Expert (AAAAI) - https://www.aaaai.org/allergist-resources/ask-the-expert
- Phone a friend. You have 30 seconds to summarize the case (hope they practice allergy)
- 50/50 - given 4 possible diagnoses, 2 are eliminated leaving 2 behind.
- Ask the audience.