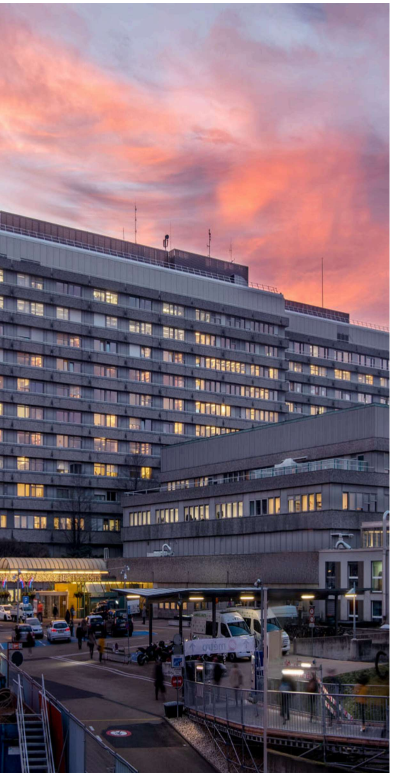
SSAI Update 2026 Interlaken

UNEXPECTED REACTION TO AMOXICILLIN

Tiphaine Arlabosse, MD-PhD
Paediatric allergy and immunology
CHUV - Lausanne

Case resolved by Dr Caroline Schnider



1ST EXPOSURE TO AMOXICILLIN

AGE 1 YO

25mg/kg for otitis media
At home

3-4 episodes of vomiting 4h after exposure (1st dose)
Spontaneous resolution

2ND EXPOSURE TO AMOXICILLIN
AGE 2 YO

25mg/kg single dose oral challeng
at general paediatric practice

4 episodes of vomiting 4h after exposure
Spontaneous resolution

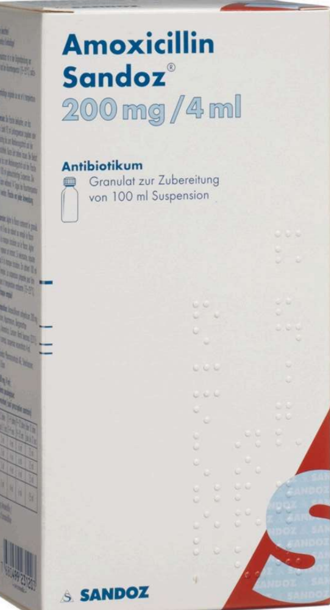
→ eviction of betalactamines
→ referral to paediatric allergist ? allergy to amoxicillin?

3RD EXPOSURE TO AMOXICILLIN
AGE 4 YO

25mg/kg single dose oral challeng
at paediatric allergist practice

6 episodes of vomiting 2-3h after exposure
Pallor, lethargic
No skin lesion, no angioedema, no respiratory symptoms

→ sublingual ondansetron - no clinical response
→ referral to A&E



A&E

3h after exposure

Persistant vomiting
Decreased awareness (responsive to pain)
Pale

Normal vital signs

Differential diagnosis in A&E:
- IgE mediated allergy
- Drug induced enterocolitis
- Sepsis
- Acute gastroenteritis with hypovolemia

A&E

Treatment

- Adrenaline
- AntiH
- Steroids
- Fluid

→ no improvement

- More fluid
- iv ondansetron

→ improvement in a few hours

LAB RESULTS

2H AFTER ONSET VOMITING

Test	Reference range	Result
Sodium sg	(135 - 145) mmol/l	140
Potassium sg	(3.6 - 5.4) mmol/l	3.3 L
Urée sg	(2.1 - 8.0) mmol/l	4.0
Créatinine (enzymatique) sg	(27 - 42) μmol/l	20 L
CRP (Prot. C Réact.) sg	(< 10) mg/l	1.0
Neutrophiles abs.	(1.5 - 8.0) G/l	6.20
Lymphocytes abs.	(1.7 - 7.0) G/l	6.49
Monocytes abs.	(0.2 - 1.2) G/l	0.99
Eosinophiles abs.	(0.1 - 0.6) G/l	0.14
Basophiles abs.	(0.01 - 0.05) G/l	0.00 L
Tryptase (alpha + beta)	(<13.5) μg/l	5.43

Case Reports > Pediatr Allergy Immunol. 2014 Jun;25(4):415-6. doi: 10.1111/pai.12225.
Epub 2014 Apr 11.

Drug-induced enterocolitis syndrome (DIES)

Elio Novembre [1], Francesca Mori, Simona Barni, Neri Pucci

REVIEW

Drug-Induced Enterocolitis Syndrome: An Updated Review of Diagnosis and Management

Arriba-Méndez S[1,2,3], Garrido Martín M[4], Otero-Fernández MN[1], Macías-Iglesias EM[1,2,3], Moreno Rodilla E[1,2,3], Dávila González I[1,2,3,5]

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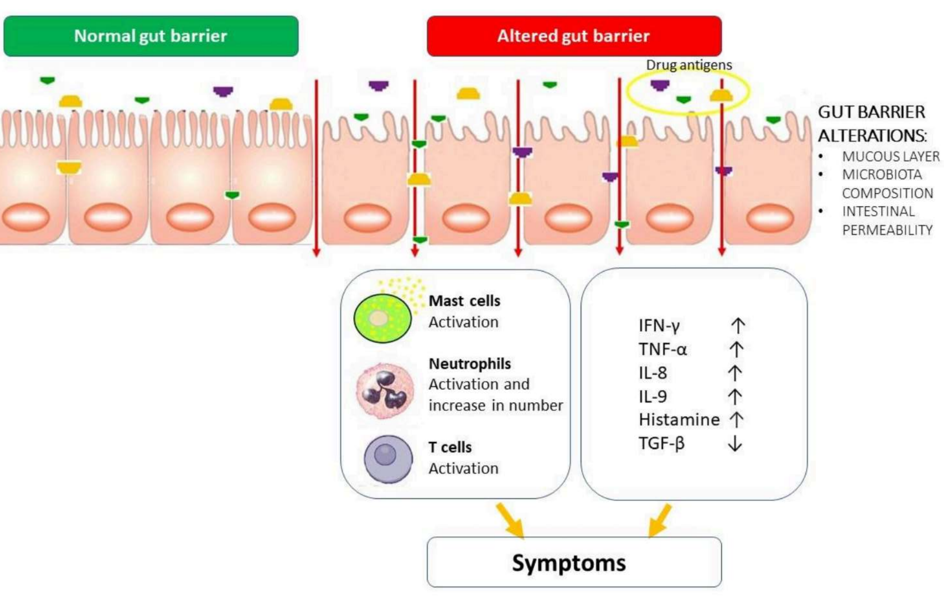
19 cases reported



Filippo, Int. J. Mol. Sci., 2023

19 CASES OF DIES IN THE LITTERATURE

- **Mostly children: median 10 yo (1-69)**
- **Cause:**
  - amoxicillin or amoxicillin-clavulanic acid in 84.2%
  - acetaminophen in 10.5% (2 of 19)
  - pantoprazolein 5.3% (1 of 19)
- **Clinical presentation:**
  - Digestive symptoms always present
  - Vomiting in all cases 1 to 4 hours after drug ingestion
  - Abdominal pain (13/19)
  - Diarrhea (10/19) simultaneously to vomiting
  - No cutaneous or respiratory symptoms
  - Lethargy (15/19)
  - Pallor (16/19)
  - Hypotension (6/19)
  - No hypothermia

- **Laboratory results**
  - Absolute neutrophilia (12/13)
  - All had normal tryptase
- **Management:**
  - All required urgent hospital care
  - Intensive intravenous fluids (18/19)
  - Most cases resolved within 12 hours.

Arriba-Mendez et al, J Investig Allergol Clin Immunol 2025

Table 3. Major and Minor Diagnostic Criteria for DIES (Values in Parentheses Indicate the Percentage of Patients Presenting Each Symptom in all Reviewed Published Cases).

Major Criterion	Minor Criteria
The onset of vomiting within 1 to 4 h[a] after drug ingestion, in the absence of cutaneous or respiratory symptoms typical of an IgE-mediated allergic reaction (100%)	(1) A second episode of vomiting occurring 1-4 h[a] after ingestion of the same drug or another drug with known cross-reactivity (89.5%)
	(2) Lethargy (78.9%)
	(3) Marked pallor (84.2%)
	(4) Hypotension, with or without hypothermia (26.3%)
	(5) Need for emergency department care and/or intravenous fluid therapy (100%)
	(6) Diarrhea within 24 h (usually 2-8 h) after drug ingestion (57.9%)
	(7) Intense abdominal pain (68.4%)
	(8) Absolute neutrophilia (increase >1500/μL or return to normal within 24 h) (92.3%)

The diagnosis of DIES requires that a patient meets the major criterion and at least 3 minor criteria (If a patient presents with only a single episode of vomiting, a DPT should be seriously considered to confirm the diagnosis).
DIES symptoms generally resolve within hours, provided the drug is discontinued.

[a]In the case of a DPT, the time frame will be considered from 1 hour after the first dose to 4 hours after the final dose.
Abbreviations: DIES, drug-induced enterocolitis syndrome; DPT, drug provocation test.

Arriba-Mendez et al, J Investig Allergol Clin Immunol 2025

MANAGEMENT BASED ON FPIES

ORIGINAL ARTICLE EXPERIMENTAL ALLERGY AND IMMUNOLOGY

Ondansetron in acute food protein-induced enterocolitis syndrome, a retrospective case–control study

S. Miceli Sopo[1], G. Bersani[1], S. Monaco[1], G. Cerchiara[1], E. Lee[2], D. Campbell[2] & S. Mehr[2]

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EAACI: Consider ondansetron as adjunctive management of emesis in patients with acute FPIES.
[Strength of recommendation: Weak; Evidence strength: IV; Evidence grade: D]

Nowak-Wegrzyn, EAACI position paper, JaCi, 2017

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ROSTRUM PAPER

WILEY

Drug-induced enterocolitis syndrome: Similarities and differences compared with food protein-induced enterocolitis syndrome

Francesca Mori[1] | Giulia Liccioli[1] | Oliver Fuchs[2] | Simona Barni[1] | Mattia Giovannini[1] | Lucrezia Sarti[1] | Elio Novembre[1] | Jean-Christoph Caubet[3]

Remaining questions:

- What is the natural history of the disease?
- What is the level of cross-reac□tivity among drugs of the same class?
- Can drugs other than beta lactams cause this kind of reac□tion?
- Does atypical DIES exist?
- Does chronic DIES exist?

Mori et al., PAI, 2021

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DRUGS CAN ALSO INDUCE ENTEROCOLITIS SYNDROME