Supplementary Table. Emergency Department (ED) Visits for Adverse Drug Events (ADEs) from Oral Antibiotics, by Drug Class and Adverse Event Manifestation, Children ≤19 Years, United States, 2011-2015[a]

Adverse Event Manifestation[b]	Cases	Annual National Estimate		
	ED Visits for Antibiotic ADEs			NNH[c]
	No.	No.	% (95% CI)	
Penicillins				
Moderate-to-Severe Allergic Reaction	457	3,678	9.5 (7.2 - 11.8)	8,658
Mild Allergic Reaction	3,173	31,497	81.4 (77.4 - 85.5)	1,011
Gastrointestinal Disturbance	220	2,879	7.4 (4.5 - 10.4)	11,063
Other or Unspecified Effect	54	625	1.6 (1.1 - 2.2)	50,928
Cephalosporins				
Moderate-to-Severe Allergic Reaction	134	1,295	15.7 (11.0 - 20.4)	9,368
Mild Allergic Reaction	475	5,549	67.2 (59.3 - 75.0)	2,186
Gastrointestinal Disturbance	106	1,176[d]	14.2 (8.4 - 20.1)	10,313
Sulfonamides				
Moderate-to-Severe Allergic Reaction	92	979	12.7 (9.0 - 16.4)	4,381
Mild Allergic Reaction	501	6,233	80.9 (76.7 - 85.1)	688
Gastrointestinal Disturbance	25	399	5.2 (3.2 - 7.2)	10,741
Macrolides				
Moderate-to-Severe Allergic Reaction	64	730	13.9 (9.2 - 18.6)	18,372
Mild Allergic Reaction	246	3,462	66.0 (59.2 - 72.7)	3,874
Gastrointestinal Disturbance	59	952[d]	18.1 (10.6 - 25.7)	14,091
Lincomycins (Clindamycin)				
Moderate-to-Severe Allergic Reaction	26	273	15.0 (6.8 - 23.2)	4,016
Mild Allergic Reaction	136	1,279	70.3 (59.8 - 80.7)	856
Tetracyclines				
Moderate-to-Severe Allergic Reaction	24	297	19.5 (11.0 - 28.0)	13,167
Mild Allergic Reaction	60	807	52.9 (41.8 - 64.1)	4,852
Gastrointestinal Disturbance	34	261[d]	17.1 (6.5 - 27.7)[d]	15,027
Quinolones				
Moderate-to-Severe Allergic Reaction	20	291	30.0 (16.9 - 43.1)	2,525
Mild Allergic Reaction	33	499	51.4 (36.1 - 66.7)	1,474

[a]Estimates of ED visits for ADEs based on the National Electronic Injury Surveillance System-Cooperative Adverse Drug Event Surveillance project (2011-2015); estimates of dispensed oral prescriptions from retail pharmacies based on the National Prescription Audit from QuintilesIMS (2011-2015). Data represent only ED visits in which a single oral drug class was implicated. Data exclude cases of unsupervised ingestion in which children aged ≤10 years accessed medications without caregiver oversight.

[b]Adverse event manifestations were categorized in a mutually exclusive and hierarchical manner based on severity for each drug class. For example, a case involving angioedema and mild nausea would be classified as a moderate-to-severe allergic reaction. Allergic reactions include immunologically-mediated effects, including severe hypersensitivity reactions. Adverse event manifestations with estimates based on <20 cases or with total (5-year) estimates <1,200 are not shown since they are considered statistically unreliable.

[c] Number needed to harm (NNH) calculated as the reciprocal of the estimated number of ED visits divided by the number of dispensed prescriptions.

[d]Coefficient of variation >30%.