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Appendix Table 1. Questionnaire administered at preadmission testing (PAT)

Intolerance History	Low Risk History	High Risk History
<ul style="list-style-type: none"> Isolated gastrointestinal upset (diarrhea, nausea, vomiting, abdominal pain) Headache Fatigue 	<ul style="list-style-type: none"> Family history Itching Isolated rash (e.g. only on arms) Unknown, remote (>10 years ago) reaction 	<ul style="list-style-type: none"> Acute generalized exanthematous pustulosis Anaphylaxis Anemia Angioedema/swelling Arrhythmia Bronchospasm (Chest tightness) Cough Dizzy/lightheadedness Drug reaction with eosinophilia and systemic symptoms Dystonia Erythema multiforme (rash with target lesions) Fever Flushing/redness Hypotension Nasal symptoms Organ injury Full body rash Serum sickness (rash with joint pain, fever, myalgia) Shortness of breath Stevens-Johnson syndrome (rash with mucosal lesions) Syncope/Pass out Throat tightness Thrombocytopenia Wheezing Unknown, remote (<10 years ago) reaction

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A SIMPLE ALGORITHMIC APPROACH ALLOWS THE SAFE USE OF CEPHALOSPORIN IN “PENICILLIN-ALLERGIC” PATIENTS WITHOUT THE
NEED FOR ALLERGY TESTING

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Appendix Table 2. International Classification of Diseases (ICD) codes used in electronic query for allergic reactions

Description	ICD-9	ICD-10
Unspecified adverse effect of drug medicinal and biological substance not elsewhere classified	995.2	T50.995
Other anaphylactic shock, not elsewhere classified	995.0	T78.2XX
Drug allergy NOS	995.2	T78.40X
Allergy, unspecified, not elsewhere classified	995.3	T78.49
Adverse effect of unspecified drugs, medicaments and biological substances	960.0 , 960.5, 960.8, 960.9	T36.0, T36.1, T36.8, T36.9, T50.9
Anaphylactic reaction due to adverse effect of correct drug or medicament properly administered, initial encounter		T88.6XXA
Unspecified adverse effect of drug or medicament, initial encounter		T88.7XXA
Allergic urticaria	708.0	L50.0
Urticaria, idiopathic	708.1	L50.1
Other specified urticaria	708.8	L50.8
Urticaria, unspecified	708.9	L50.9
Rash and other nonspecific skin eruption	782.0, 782.1, 782.3, 782.62, 782.8	R21, R23.2, R23.4, R23.8, R23.9, R20
Dermatitis due to drugs and medicines taken internally	693.0 , 693.8 , 693.9	L27.1 , L27.0, L27.8, L27.9
Unspecified pruritic Disorder	698.8 , 698.9	L29.8, L29.9
Laryngeal edema	478.6	J38.4
Wheezing	786.07	R06.2
Bronchospasm, acute	519.11	J98.01

Appendix Table 3. Multivariable regression analysis assessing independent variables associated with being in the protocol group versus the control group

	Odds Ratio	95% Confidence Interval	p-value
Age	1.000	0.993–1.007	0.939
Sex (Male)	1.013	0.893–1.149	0.844
BMI	0.999	0.987–1.011	0.855
CCI	0.923	0.824–1.033	0.163
ASA score	0.950	0.806–1.120	0.539
Antibiotic (Cefazolin)	2.970	2.380–3.706	<0.001

BMI, body mass index; CCI, Charlson Comorbidity Index; ASA, American Society of Anaesthesiologists

Appendix 4. Prophylactic antibiotics received and adverse reactions recorded, excluding patients who received dual antibiotics

	Control (n=2034)	Protocol (n=2034)	p-value
Prophylactic antibiotic			< 0.001
Cefazolin	1724 (84.8)	1916 (94.2)	
Vancomycin	284 (14.0)	101 (5.0)	
Clindamycin	26 (1.2)	17 (0.8)	
Allergic reaction	15 (0.7)	16 (0.8)	0.852
Cefazolin	13 (86.7)	15 (93.8)	
Vancomycin	1 (6.7)	1 (6.2)	
Clindamycin	1 (6.7)	0 (0)	

Values are given as number with percentage in parentheses

Appendix 5. Perioperative adverse events up to 90 days postoperatively, excluding patients who received dual antibiotics

	Control (n=2034)	Protocol (n=2034)	p-value
Superficial infection	24 (1.2)	16 (0.8)	0.204
Deep infection	8 (0.4)	10 (0.5)	0.637
<i>C. difficile</i> infection	4 (0.2)	3 (0.1)	0.705

Values are given as number with percentage in parentheses

Appendix Figure 1. Standardized differences for each variable before and after propensity score matching

