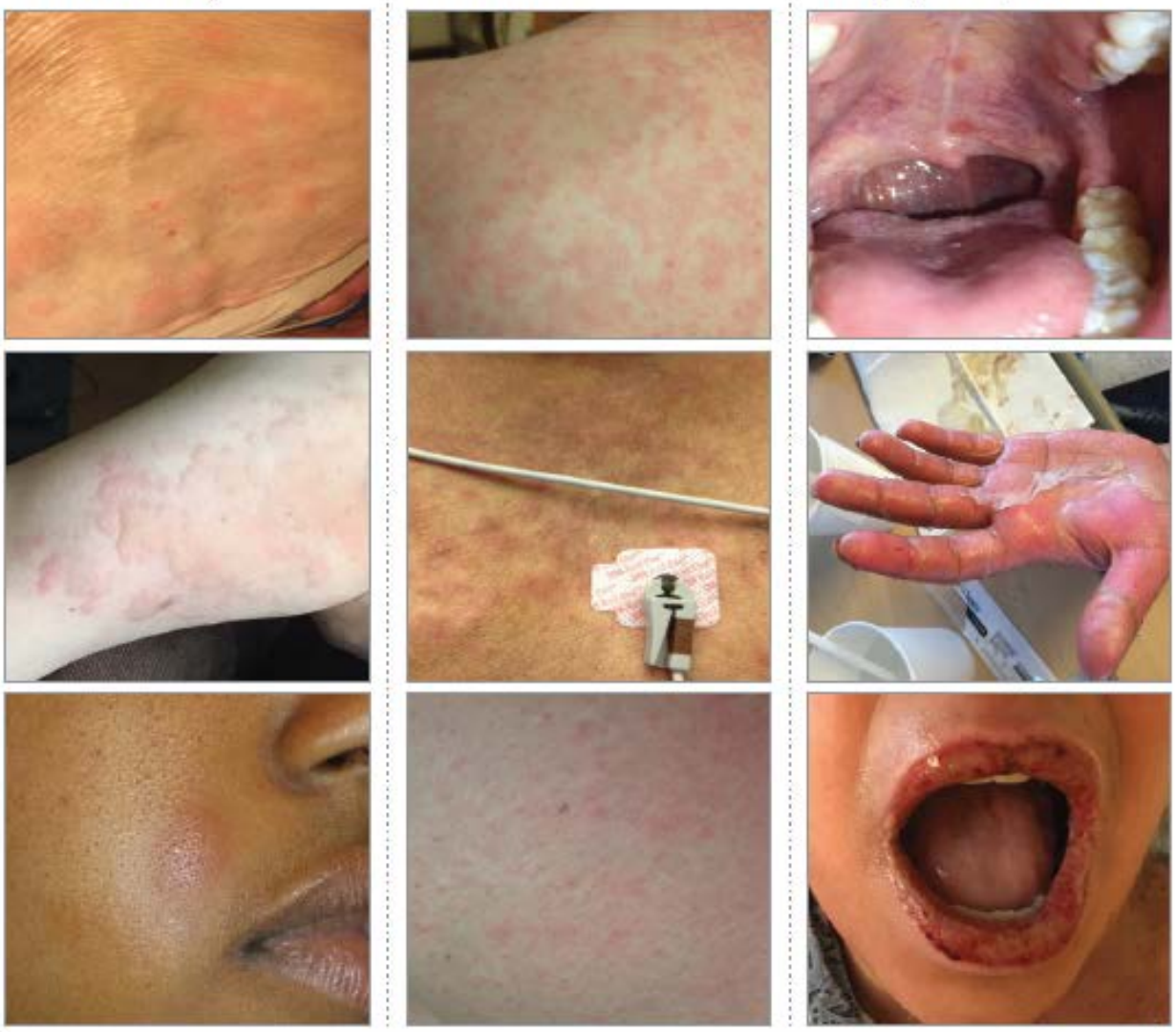
Figure 1. Symptoms Distinguishing Groups of Cutaneous Drug Reactions



IgE-mediated reactions, benign T-lymphocyte-mediated reactions, and severe T-lymphocyte–mediated or severe cutaneous adverse reactions, including Stevens-Johnson syndrome, toxic epidermal necrolysis, and drug reaction with eosinophilia and systemic symptoms. Although benign T-cell–mediated eruptions are low-risk for rechallenge, it is often difficult to distinguish these from IgE-mediated reactions, and, therefore, considering all nonsevere cutaneous eruptions moderate risk is recommended.

Table 3. Risk Stratification for Penicillin Allergy Evaluation

	Low Risk	Medium Risk	High Risk
History[a]	Isolated reactions that are unlikely allergic (eg, gastrointestinal symptoms, headaches) Pruritus without rash Remote (>10 y) unknown reactions without features of IgE[b] Family history of penicillin allergy	Urticaria or other pruritic rashes Reactions with features of IgE but not anaphylaxis[b]	Anaphylactic symptoms[c] Positive skin testing Recurrent reactions Reactions to multiple β-lactam antibiotics
Action	Prescribe amoxicillin course or perform a direct amoxicillin challenge under observation.[d]	Skin test followed by amoxicillin challenge under observation if the skin test is negative.[e] Consider allergy/immunology referral.	Allergy/immunology referral or desensitization.

[a] No penicillin allergy testing should be performed on patients with possible penicillin-associated severe cutaneous adverse reaction, hemolytic anemia, organ-specific reaction, drug fever, or serum sickness. Patients with unstable or compromised hemodynamic or respiratory status and pregnant patients should never be considered low risk.

[b] IgE features classically include cutaneous symptoms, such as itching, flushing, urticaria, and angioedema, but also involve respiratory system (rhinitis, wheezing, shortness of breath, bronchospasm), cardiovascular system (arrhythmia, syncope, chest tightness), and gastrointestinal system (abdominal pain, nausea, vomiting, diarrhea) symptoms.

[c] The most severe IgE-mediated reaction is anaphylaxis (eFigure 1 in Supplement 1). Allergy/immunology consultation is advised.

[d] Considering patient comfort level with trying penicillin again and whether resources exist for observation.

[e] If skin testing is not possible, a graded amoxicillin challenge can be considered for medium-risk histories. A graded challenge often requires administration of a one-tenth to one-fourth full dose of the desired drug and a 30- to 60-minute period of monitoring followed by administration of a full dose of the desired drug and a final 30- to 60-minute period of monitoring (Toolkit C in Supplement 2).

Common amino R1 group	Common methoxyimino R1 group
Ampicillin Amoxicilin Cefaclor Cephalexin Cefadroxil	Ceftriaxone Cefotaxime Cefuroxime ← オラセフ Cefepime Ceftazidime Cefpodoxime ← バナン
*Beta-lactam antibiotics have shared beta-lactam rings and may have R1 (6/7 position) and/or R2 (3 position) side chains that can be structurally identical or similar. Cross reactivity appears highest for beta-lactams that share identical R1 side chains. More comprehensive cephalosporin cross-reactivity matrices[2] may be used if avoiding identical and similar structures at both side chain locations is desired.	

本院では従来から先ずオラセフ、バナンを処方してアレルギーが無い場合に
ペニシリン系を処方する手順でしたが、皮膚テストを再度試みようと思います。
以前にはメーカから皮膚テストようの薬剤を提供してもらっていましたが、
最近では無くなっていますので職員の皆さんと検討しましょう。