Penicillin Allergy in Pregnancy

Eight in 10 medications prescribed during pregnancy are antibiotics, and many people who believe they have a penicillin allergy are not allergic.

All first-line antibiotic regimens for prevention and treatment of infection during pregnancy are either penicillins or related drugs, which together are called beta-lactam antibiotics.

Most people who believe they have a penicillin allergy are not actually allergic. Patients who report a penicillin allergy are often given non-beta-lactam antibiotics, which are associated with increased treatment failure, resistant bacteria, serious side effects, and Clostridioides difficile infection. Patients with a history of penicillin allergy have an increased risk of cesarean delivery, postcesarean wound complications, and longer hospital stays for delivery.

How Common Is Penicillin Allergy Among Pregnant Women?
About 1 in 10 women believe they are allergic to penicillin. Those who have a history of penicillin allergy usually had the allergy established during childhood, but, when tested, more than 9 in 10 pregnant women who think they are allergic to penicillin are not.

Penicillin Allergy and Choice of Antibiotics During Pregnancy
Most antibiotics used to prevent and treat infections during pregnancy are penicillins and other beta-lactam antibiotics. For example, up to 1 in 3 women are found to have group B Streptococcus, for which penicillins are the antibiotic of choice during delivery to prevent serious complications in both mothers and infants. Penicillins are also used during delivery when patients develop fever or prolonged ruptured membranes. In the US, 1 in 5 deliveries is cesarean, for which a beta-lactam is the antibiotic of choice to prevent surgical site infection. In all of these cases, use of non-beta-lactam antibiotics has been associated with worse outcomes.

Evaluation for Penicillin Allergy
Women who need antibiotic therapy who believe they are allergic to penicillin should be evaluated to make sure that the allergy is truly present. Such evaluation begins with taking an allergy history related to the symptoms of the reaction. Many women report low-risk symptoms, such as headache, nausea, vomiting, or itching, or a family history of allergy. For these women, penicillin can be tried again without need for a specialist or special precautions.

For patients with a history of moderate or severe reactions to penicillin, such as rash or hives, skin testing can be performed. This takes about 45 minutes to complete; for those with negative test results, a full dose of a penicillin is given under observation.

Timing of Evaluation for Penicillin Allergy During Pregnancy
Pregnant women should have an allergy history taken at the initial obstetrical visit, regardless of trimester. If they report low-risk symptoms, a penicillin can be tried if needed. For those reporting moderate symptoms, penicillin skin testing should be done, often in the third trimester by an allergy specialist. If allergy history includes anaphylaxis or a severe cutaneous adverse reaction, penicillin allergy evaluation is not recommended in pregnancy. Severe allergic reactions to a challenge dose of a penicillin, given to patients only after a negative skin test result, are very rare. However, when they occur, they must be addressed immediately. Women of childbearing age who plan to become pregnant who have any allergy history should consider penicillin allergy evaluation prior to conceiving so any needed testing can be done prior to pregnancy.

FOR MORE INFORMATION
American Academy of Allergy, Asthma, and Immunology
www.aaaai.org/conditions-and-treatments/library/allergy-library/penicillin-allergy-faq

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Penicillin allergy in pregnancy
Penicillin is the most commonly used drug to treat infections during pregnancy. Evaluation of penicillin allergy begins with assessment of the patient’s symptom history.

- Low-risk symptoms: headache, nausea, vomiting, itching
  - Penicillin can be tried again when indicated.
- Moderate symptoms: rash, hives
  - Skin testing is done in the third trimester by an allergy specialist.
  - Testing is safe during pregnancy and takes less than 2 hours.
- Severe symptoms: anaphylaxis, severe cutaneous adverse reaction
  - Evaluation is NOT recommended during pregnancy.

Negative result
If result is negative, a full dose of a penicillin is given under observation to confirm result.