ANTIMICROBIAL STEWARDSHIP STRATEGY:
ANTIBIOTIC ALLERGY ASSESSMENT

Clarifying allergy history, skin testing and/or direct oral antibiotic challenge, and clear documentation of allergy status to optimize the selection of antimicrobials.

REQUIRED RESOURCING:
MODERATE

Implementation Considerations

Increase Awareness of Misreported Allergies:
Allergic reactions to antimicrobials are overreported, particularly for beta-lactams (e.g., penicillin). The incidence of cross-reactivity among beta-lactam agents has also historically been overestimated and lacked nuance, such as cross reactivity by beta-lactam side chains. Even in individuals with a true penicillin allergy, the risk of cephalosporin allergy is very low (~2%). This can lead to unnecessary avoidance of safer, less costly and/or more effective first-line antimicrobials for treatment and prophylaxis (e.g., unnecessarily avoiding cefazolin for surgical prophylaxis in patients with penicillin allergy history).

Standardize Allergy Assessment:
Implementation can range from structured assessment of an individual's adverse reaction history (e.g., timing and nature of reaction), using a penicillin allergy clinical decision rule (PEN-FAST) to identify individuals appropriate for skin testing and/or oral challenge, to referring to a specialist for further assessment.

Update Records & Educate Patients:
Once an allergy is clarified or ruled out, the health record should be updated (e.g., de-labelling in the absence of a true allergy), and the individual should be counselled on how to communicate this in future medical encounters. Outpatient follow-up may be required.

Impact

Inappropriate allergy labelling results in unnecessary use of second-line, broader spectrum and/or less effective agents and is associated with negative clinical and public health outcomes (e.g., increased risk of treatment failure, greater treatment costs, prolonged length of stay, increased readmission rates, and higher prevalence of antimicrobial-resistant organisms).

Sources

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