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and predictive value to compare them with other reagents and to appreciate their interest.

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REFERENCES

- Matheu V, Pérez E, Sánchez-Machin I, de la Torre F, Garcia-Robaina JC. Major and minor determinants are high performance skin tests in β-lactam allergy diagnosis. J Allergy Clin Immunol 2005;116:1167-8.
- Cars O, Molstad S, Melander A. Variation in antibiotic use in the European Union. Lancet 2001;357:1851-3.
- Torres MJ, Blanca M, Fernandez J, Romano A, Weck A, Aberer W, et al. Diagnosis of immediate allergic reactions to beta-lactam antibiotics. Allergy 2003;58:961-72.

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Carbapenem cross-reactivity with penicillin

To the Editor:

On page S510 of "The diagnosis and management of anaphylaxis: An updated practice parameter," Lieberman et al¹ state that carbapenems do not cross-react immunologically with penicillin.

Penicillin and carbapenem cross-reactivity has been established on the basis of skin testing.² There are no clinical challenge studies available, but avoidance of carbapenems is usually recommended in patients allergic to penicillin. On the other hand, monobactams have not been shown to be cross-reactive with penicillin.³

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REFERENCES

- Lieberman P, Kemp SF, Oppenheimer J, Lang DM, Bernstein IL, Nicklas RA, editors. The diagnosis and management of anaphylaxis: an updated practice parameter. J Allergy Clin Immunol 2005;115:S483-523.
- Saxon A, Adelman DC, Patel A, Hadju R, Calandra GB. Imipenem cross-reactivity with penicillin in humans. J Allergy Clin Immunol 1988; 82:213-7.
- Saxon A, Hassner A, Swabb EA, Wheeler B, Adkinson NF. Lack of cross-reactivity between aztreonam, a monobactam antibiotic, and penicillin in penicillin-allergic subjects. J Infect Dis 1984;149:16-22.

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Reply

To the Editor:

We thank Dr Meier for identifying the misleading statement in the practice parameters for anaphylaxis concerning the use of carbapenem antibiotics (imipenem/ cilastin, meropenem, or ertapenem) in individuals with a history of penicillin allergy.² Penicillin and carbapenems, in contrast with monobactams, cross-react immunologically, as reported in the reference provided by Dr Meier.³ The package insert for meropenem indicates that hypersensitivity to β-lactam antibiotics is a relative contraindication or caution for its use. Retrospective patient reports have not identified a statistically increased risk of reactions when carbapenems are administered to individuals with a history of penicillin allergy. 4-6 These observations have resulted in the suggestion that carbapenems may be reasonable for patients allergic to penicillin. However, caution is advised because immunologic cross-reactivity is documented and a trend for increased allergic reactions to carbapenems in subjects with penicillin allergy has been observed in at least 1 series.⁵

The standard of care would be to use monobactams, if appropriate, or another antibiotic class in a subject with definite penicillin allergy. Cautious use of carbapenems is a consideration, but there is potential risk, as identified by Dr Meier.

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REFERENCES

- Lieberman P, Kemp SF, Oppenheimer J, Lang DM, Bernstein IL, Nicklas RA, editors. The diagnosis and management of anaphylaxis: an updated practice parameter. J Allergy Clin Immunol 2005;115:S483-523.
- Meier EA. Carbapenem cross-reactivity with penicillin. J Allergy Clin Immunol 2005;116:1169.
- Saxon A, Beall GN, Rohr AS, Adelman DC. Immediate hypersensitivity reactions to beta-lactam antibiotics. Ann Intern Med 1984;107:204-15.
- Sodhi M, Axtell SS, Callahan J, Shekar R. Is it safe to use carbapenems in patients with a history of allergy to penicillin? J Antimicrob Chemother 2004;54:1155-7.
- Prescott WA Jr, DePestel DD, Ellis JJ, Regal RE. Incidence of carbapenemassociated allergic-type reactions among patients with versus patients without a reported penicillin allergy. Clin Infect Dis 2004;38:1102-7.
- McConnell SA, Penzak SR, Warmack TS, Anaissie EJ, Gubbins PO. Incidence of imipenem hypersensitivity reactions in febrile neutropenic bone marrow transplant patients with a history of penicillin allergy. Clin Infect Dis 2000;31:1512-4.

Available online September 28, 2005. doi:10.1016/j.jaci.2005.06.037