

## The impact of a negative penicillin skin test on clinical practice

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After FDA approval in 2009 as Pre-PEN<sup>®</sup>, penicillin skin testing (PST) with penicilloyl-polylysine has been used as an easy and efficient method of diagnosing penicillin allergy. We previously demonstrated a high negative predictive value (NPV), healthcare cost-saving and beneficial impact on antibiotic utilization in hospitalized patients with a history of penicillin allergy. We assessed the impact of a negative PST on antibiotic selection upon repeat hospitalizations in a 1 year period. 150 charts of patients with a negative PST were retrospectively reviewed for antibiotic selection upon repeat hospitalizations within a one-year period (March 2012 – March 2013) at Vidant Health, a system of 10 hospitals in eastern North Carolina. Demographics, antimicrobial use and documentation of allergic reaction(s) to penicillin agents were recorded. Of the 150 patients with a proven penicillin tolerance, 55 (37%) revisited Vidant Health within a year period. 22 (40%) received a penicillin agent once again for infections such as pneumonias (20%) and urinary tract infections (15%). No allergies were reported in any of the patients challenged with penicillin agents once again. After a negative PST, patients are comfortable no longer reporting allergy to penicillin agents. Moreover, healthcare providers are also confidently re-challenging penicillin agents. This can expand antimicrobial selection, reduce healthcare costs and improve patient outcome upon repeat hospitalizations or healthcare provider visits.

### Biography

Ramzy H. Rimawi completed his BA at the age of 20 years from the State University at Stony Brook. He earned his medical doctorate degree from Ross University School of Medicine. During his residency at Lutheran Medical Center, he won awards for best resident, teaching resident of the year, and excellence in patient care. He was elected chief fellow of Infectious Diseases at East Carolina University. He has presented over 20 posters at local, national and international conventions. He has published more than 10 papers in peer-reviewed journals and textbooks/e-Books. He serves as an editorial board member of *repute*.

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