The simultaneous elevation of PCT and CRP was not associated with infection. Correlation between PCT and CRP values was positive in both the infectious group and the noninfectious group. Thus, PCT was not a discriminator between having and not having infection.

In conclusion, the diagnostic utility of PCT to discriminate between infectious and noninfectious CRP elevation in patients with NSCLC could not be shown. Therefore, not every PCT elevation in NSCLC patients with elevated CRP is associated with infection. This knowledge could be an important factor in antimicrobial stewardship.

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Katrin Scheinpflug, MD;[1,*]
Enrico Schalk, MD;[2,*]
Elske Grabert;[3]
H. Jost Achenbach, MD[1]

Affiliations: 1. Department of Oncology, Clinic for Pulmonary Diseases Lostau, Germany; 2. Department of Hematology and Oncology, Medical Center, Otto-von-Guericke University Magdeburg, Germany; 3. Center for Laboratory Medicine, Microbiology, Hygiene and Human Genetics Magdeburg, Germany

* These authors contributed equally to this work

Address correspondence to Katrin Scheinpflug, MD, Lungenklinik Lostau gGmbH, Lindenstr. 2, D-39291 Lostau, Germany (katrinscheinpflug@hotmail.com).

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The Slippery Slope of Mandatory Quarantine for Healthcare Workers with Exposure to Ebola—Let's Do the Math

To the Editor—Recently in the United States, attempts have been made to place into quarantine for 21 days asymptomatic healthcare workers with exposure either to patients infected with Ebola virus or to their laboratory specimens. These actions have been taken despite the absence of scientific evidence that asymptomatic persons who may be incubating Ebola virus pose any risk of transmitting the virus to others. The selection of persons for this unwarranted isolation has been seemingly arbitrary, with policies differing from state to state. This procedure is reminiscent of some of the irrational early responses to the HIV epidemic, driven by fear, in which patients with AIDS were kept in strict isolation and were sometimes shunned in the community.[1,2]

Fortunately, the majority of healthcare workers in the United States who are or who have been providing care or other services for Ebola patients have not been placed into quarantine. But what if some state governors or other authorities decided to actually enforce a policy in which all healthcare workers who have cared for Ebola patients either in West Africa or in the United States were quarantined for 21 days?

Imagine the following scenario. If 10 hospital workers were involved each day with a single patient with Ebola in the United States (a conservative estimate), after 2 consecutive days of care, these individuals would have to be sent into a 21-day quarantine, because the incubation period extends from 2 to 21 days. Of course, as a consequence, other hospital workers would need to take their places. If we assume that the patient with Ebola would be hospitalized for 14 days (also a conservative estimate), then 60 additional hospital workers would eventually be needed to provide care for this 1 patient—a total of 70 healthcare workers. The 70 healthcare workers would eventually spend a total of 1,470 days in quarantine, more than 4 years in total days.

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While it makes sense to regularly monitor the temperatures and symptoms of hospital workers with exposure to Ebola, no additional measures are really either necessary or useful. Not only is a policy of mandatory quarantine impractical, it also serves as a disincentive for the very healthcare workers who are needed to care for these sick patients in a manner that will improve their chances of survival while containing the epidemic. In conclusion, mandatory quarantine of asymptomatic healthcare workers who have had exposure to patients infected with Ebola virus simply does not compute.

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Gary P. Wormser, MD;[1]
Eugene D. Shapiro, MD[2]

Affiliations: 1. Professor of Medicine, of Microbiology and Immunology, and of Pharmacology, New York Medical College, Valhalla, New York; 2. Professor of Pediatrics, of Epidemiology of Microbial Diseases and of Investigative Medicine, Yale University, New Haven, Connecticut.

Address correspondence to Gary P. Wormser, MD, New York Medical College, Division of Infectious Diseases, 40 Sunshine Cottage Road, Skyline Office #2N-C20, Valhalla, NY 10595 (gwormser@nymc.edu).

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Short- and Long-Term Effects of a Challenge Dose of Hepatitis B Vaccine in Individuals With and Without Residual Anti-HBs

To the Editor—In the recent article "Response to challenge dose among young adults vaccinated for hepatitis B as infants: importance of detectable residual antibody to hepatitis B surface antigen,"[1] Spradling et al. raise important questions regarding (1) the considerable resources spent in settings such as occupational and student health clinics where individuals are tested for antibody to hepatitis B surface antigen (anti-HBs) many years after vaccination and (2) the need to identify persons who retain HB-induced immunity despite a decrease in anti-HB level to <10 mIU/mL. The authors report excellent response to a challenge dose among 16–19-year-olds with residual anti-HB levels (0.5–9.9 mIU/mL) but lower response in those without detectable antibodies (0 mIU/mL).[1] Our data, obtained from subjects vaccinated at school age with 2 different vaccines, also indicate the presence of immune memory in those with residual antibodies and in the great majority of those without detectable antibodies.

We conducted two 15-year-long follow-up clinical trials.[2] Subjects were vaccinated at 8–10 years of age with 3 doses (0, 1–2, and 6 months) of Engerix (10 μg; n = 1,129) or Recombivax (2.5 μg; n = 1,126). Subjects were tested for the presence of anti-HBs 1 month following the third dose and were randomly allocated to be retested 5, 10, or 15 years later. Nonresponders to the primary vaccination (anti-HBs <10 mIU/mL) received additional doses of vaccine and were excluded from the follow-up. Despite different vaccine dosage used and almost twice higher GMTs in Engerix group when compared to Recombivax (7,307 vs 3,800 mIU/ml), similar seroconversion (99.1%–99.7%) and seroprotection rates (98.9%–99.2%) were observed in the 2 study groups.[2] The great majority of followed subjects (99.1%–100%) showed the presence of immune memory defined as at least 10 mIU/mL and a 4-fold anti-HB titer increase 1 month following the challenge dose. Here, we present the response to a challenge dose in subjects with and without residual antibodies (0.5–9.9 or 0 mIU/mL) 5, 10, or 15 years after vaccination (Table 1), as well as the persistence of ≥10 mIU/mL anti-HB levels 1, 5, and 10 years following challenge-dose administration.[3,4]

The criterion for the presence of immune memory was met by 99.1% (226 of 228) and 94% (79 of 84) of subjects with and without residual anti-HB levels, respectively. Among subjects with an immune memory, anti-HB titers ≥10 mIU/mL were still persistent 1, 5, and 10 years after challenge in 91.3% (158 of 173), 77.3% (109 of 141), and 64.4% (38 of 59), respectively.[3,4]

Similar to the study by Spradling et al., our results indicate that virtually all those vaccinated with residual anti-HBs titers (0.5–9.9 mIU/mL) have an immune memory to the HBV surface antigen (HBsAg). However, in our study, a higher proportion of those without residual anti-HBs showed an immune memory compared to those in the aforementioned study (94% vs 82%). This difference might be related to the exclusion of nonresponders to primary vaccination (≈1%), to different age at the time of vaccination, to longer period between challenge dose administration and blood collection (4 weeks vs 2 weeks), to differences in assay performance characteristics at the low end of antibody detection, or to shorter follow-up before challenge in our studies (5–15 years vs 16–19 years). However, our results indicate no trend toward a lower proportion of subjects showing an immune memory with time since vaccination among those with and without residual anti-HBs (Table 1). The similar proportion of subjects

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