Editorial

How Safe is Safe Enough?

Kent A. Sepkowitz, MD

Hospitals are rather strange places to work. The rationale, after all, of purposely concentrating into close quarters the sick, the frail, and the contagious is elusive at times. Further compounding the situation is the introduction of healthcare workers into the mix, usually at the ratio of approximately five or six full-time employees for every hospital bed. In no other circumstance, except perhaps day-care or nursery schools, does a healthy person deliberately walk into an environment where billions of pathogens routinely are coughed and sneezed and excreted into the atmosphere.

Yet the risk of healthcare work is a seldom-discussed aspect of the job. Some might feel that such concern might be borne of wimpiness or, worse yet, is a form of indecent selfishness. After all, do workers have the right to suggest that their own health is of greater concern than that of the sick patient before them? Is fascination with this concern the ultimate selfish, self-centered act of a generation well-known for things selfish and self-centered? Are we dealing with just another baby-boom, "yes but what about me?" sort of whining? A generation aggrieved by yet another slight?

Well, no. The hazards of health care are real, are plentiful, and are ever-changing. This is indeed a serious business; as the list of potentially transmissible agents grows, for many, preventions or treatments are sorely lacking. Nor is the problem an abstract or remote one. Many of us have watched a colleague grow extremely ill from an occupationally acquired infection: a beloved medical attending during my house staff training years later developed fatal occupationally acquired multidrug-resistant tuberculosis during the New York City epidemic. More recently, a clinical trials nurse I had worked with for years died of fulminant hepatoma, 20 years after developing occupational hepatitis B while learning to draw blood in nursing school. At the less dramatic end, each of us has dragged and moaned and hacked and sniffled from something we have caught from a patient.

A mitigating concern runs through all formal reviews and assessments of healthcare-worker risk. As the recent adventures in tuberculosis control have shown, genuine concern about worker safety quickly can take on a regulatory life of its own, complete with particle-measurement experts, mask-thickness experts, and an alarming amount of administrative frenzy. Who would have dreamed, 10 years ago, that we would—each of us—be sniffing puffs of aerosolized saccharine under a Ku Klux Klan sort of white hood, all in hopes of equipping us to dodge the dreaded tubercle bacillus better? So, examinations of this issue are entered with not a small amount of knee-knocking fear.

The converse aspect of the relationship has been discussed more publicly: namely, the risk to patients of being cared for by (for example) a *Mycobacterium tuberculosis-,* human immunodeficiency virus-, or hepatitis B-infected healthcare worker. A recent decision by the French to restrict from the operating room all HIV-infected surgeons may presage the start of a renewed debate about this most complicated issue, a delicate balancing act between the individual rights of the worker versus the need to minimize patient risk.

The superb guidelines prepared by Elizabeth Bolyard and colleagues at the Centers for Disease Control and Prevention (CDC) authoritatively update both aspects of the problem, while giving practical recommendations for managing the thorniest of problems.[1] As such, it builds on the earlier landmark article by Walter W. Williams.[2] Careful guidance is given for prevention and management of over 25 diseases or conditions, supported by no less than 549 references. Areas range from common situations such as

From the Memorial Sloan-Kettering Cancer Center, New York City, New York.
Address reprint requests to Kent A. Sepkowitz, MD, Associate Chairman, Department of Medicine, Memorial Sloan-Kettering Cancer Center, 1275 York Ave, Box 288, New York, NY 10021; e-mail sepkowik@mskcc.org.
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tuberculosis and varicella control to emerging (pertussis) and potentially emerging (diphtheria) US pathogens. In addition, special situations, such as the pregnant healthcare worker and the laboratory worker, are considered. Latex allergy, which looms as the next great regulatory challenge for hospitals, also is given full-dress treatment.

The guidelines are broken into three large sections: the first is informational—the epidemiology and control of each condition; next, the no-nonsense management recommendations in the now-familiar CDC "strength of recommendation, strength of evidence" format. Finally, and perhaps most importantly for the many skimmers like myself out there, there is a set of concise tables that simplify otherwise complex issues, such as vaccinations, postexposure prophylaxis, work restrictions, and management of an exposure to hepatitis B.

Can one find anything to quibble about in these guidelines? Well, I'll try. First, the hepatitis B guidelines rely quite heavily on a single cohort of 1,760 Yupik Eskimos given a different hepatitis B vaccine (plasma-derived vaccine, Heptavax-B, Merck & Co, West Point, PA) 17 years ago. The guidelines conclude that protection against acute infection persists, even if vaccine-induced antibody wanes to low or even undetectable levels. Therefore booster doses of vaccine among responders whose antibody has waned are not recommended routinely. Although this may indeed be a correct approach, the data seem far too tenuous to derive such a firm recommendation, especially considering the prevalence and severity of this disease. Some relatively resource-poor countries routinely revaccinate every 5 to 10 years. We don't know the answer to this one—but it seems more prudent to admit that the jury is still out on the issue.

Management of two common syndromes, gastroenteritis and upper respiratory infection, is handled calmly and practically. However—through no fault of the guidelines—there are numerous challenges ahead, even as simple laboratory tests for many common pathogens become more widely available. For example, respiratory syncytial virus and influenza cause significant morbidity and mortality in certain compromised populations. Healthcare workers (unfortunately) often are key links in the perpetuation of nosocomial outbreaks. However, the need to staff hospitals is a contrary and equally compelling imperative. What then should a hospital do during cold and flu season? That which is "nosocomially correct" (send everybody who sneezes home for the week) is impractical; that which is practical is nosocomially incorrect. This seemingly intractable issue will intensify as hospitals increasingly traffic in sicker patients, leaving (most of) us looking south to the CDC for guidance and counsel. Alarmingly, as these guidelines demonstrate, there is little counsel to be given right now, except to use judgment and caution.

The near millennial appearance of these guidelines signals, one hopes, the dawning of a more rational approach to protecting workers that respects the need for safety, on the one hand, but accepts that a no-risk goal is, finally, mostly just misguided nonsense, a routine product of the Age of Unreason. The US obsession with no-risk enterprises, the very spirit that brought us antibiotic-impregnated children's toys, should not be allowed to drag down development of prudent management guidelines. These guidelines are an excellent example of common sense winning the day.

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