



**FIGURE 144-1** Magnitude of infectious disease–related deaths globally. **A.** The absolute number (blue line; left axis) and rate (red line; right axis) of infectious disease–related deaths throughout the world since 1990. **B.** A map depicting country-specific data for the percentages of total deaths that were attributable to communicable, maternal, neonatal, and nutritional disorders in 2010. (Source: Global Burden of Disease Study, Institute for Health Metrics and Evaluation.)

infectious disease is a possibility. Once a specific diagnosis is made, the reader should consult the subsequent chapters that deal with specific microorganisms in detail. The challenge for the physician is to recognize which patients may have an infectious disease as opposed to some other underlying disorder. This task is greatly complicated by the fact that infections have an infinite range of presentations, from acute life-threatening conditions (e.g., meningococemia) to chronic diseases of varying severity (e.g., *H. pylori*-associated peptic ulcer disease) to no symptoms at all (e.g., latent *M. tuberculosis* infection). While it is impossible to generalize about a presentation that encompasses all infections, common findings in the history, physical examination, and basic laboratory testing often suggest that the patient either has an infectious disease or should be more closely evaluated for one. This chapter focuses on these common findings and how they may direct the ongoing evaluation of the patient.

## APPROACH TO THE PATIENT: Infectious Disease

See also Chap. 147.

### HISTORY

As in all of medicine, obtaining a complete and thorough history is paramount in the evaluation of a patient with a possible infectious

disease. The history is critical for developing a focused differential diagnosis and for guiding the physical exam and initial diagnostic testing. Although detailing all the elements of a history is beyond the scope of this chapter, specific components relevant to infectious diseases require particular attention. In general, these aspects focus on two areas: (1) an exposure history that may identify microorganisms with which the patient may have come into contact and (2) host-specific factors that may predispose to the development of an infection.

### Exposure History • HISTORY OF INFECTIONS OR EXPOSURE TO DRUG-RESISTANT MICROBES

Knowledge about a patient's previous infections, with the associated microbial susceptibility profiles, is very helpful in determining possible etiologic agents. Specifically, knowing whether a patient has a history of infection with drug-resistant organisms (e.g., methicillin-resistant *S. aureus*, vancomycin-resistant *Enterococcus* species, enteric organisms that produce an extended-spectrum  $\beta$ -lactamase or carbapenemase) or may have been exposed to drug-resistant microbes (e.g., during a recent stay in a hospital, nursing home, or long-term acute-care facility) may alter the choice of empirical antibiotics. For example, a patient presenting with sepsis who is known to have a history of invasive infection with a multi-drug-resistant isolate of *P. aeruginosa* should be treated empirically with an antimicrobial regimen that will cover this strain.