

appropriate epidemiologic setting. The Centers for Disease Control and Prevention (CDC) lists *Francisella tularensis* and *Yersinia pestis* (the agents of tularemia and plague, respectively) along with *Bacillus anthracis* (the agent of anthrax) as important organisms that might be used for bioterrorism (**Chap. S3**).

■ **SEPSIS WITH SKIN MANIFESTATIONS (SEE ALSO CHAP. 19)**

Maculopapular rashes may reflect early meningococcal or rickettsial disease but are usually associated with nonemergent infections.

Exanthems are usually viral. Primary HIV infection commonly presents with a rash that is typically maculopapular and involves the upper part of the body but can spread to the palms and soles. The patient is usually febrile and can have lymphadenopathy, severe headache, dysphagia, diarrhea, myalgias, and arthralgias. Recognition of this syndrome provides an opportunity to prevent transmission and to institute early treatment.

Petechial rashes caused by viruses are seldom associated with hypotension or a toxic appearance, although there can be exceptions (e.g., severe measles or arboviral infection). Petechial rashes limited to the distribution of the superior vena cava are rarely associated with severe disease. In other settings, petechial rashes require more urgent attention.

Meningococcemia (See also Chap. 155) Almost three-quarters of patients with *N. meningitidis* bacteremia have a rash.

Meningococcemia most often affects young children (i.e., those 6 months to 5 years old). In sub-Saharan Africa, the high prevalence of serogroup A meningococcal disease has been a threat to public health for more than a century. Thousands of deaths occur annually in this area, which is known as the “meningitis belt,” and large epidemic waves occur approximately every 8–12 years. Serogroups W135, X, and C also are important emerging pathogens in Africa. For example, Nigeria experienced a large serogroup C outbreak in 2016–2017 in the setting of aggressive vaccination programs against serogroup A. Outside Africa, outbreaks for the past 50 years reported in the United States and Europe are caused primarily by serogroup C (approximately 60%) followed by serogroup B (29%). In