Antibiotics are extraordinary medicine and are often curative. In general, antibiotics are remarkably free of adverse effects, eradicating the microorganism and usually leaving the host unaffected. Because antibiotics are typically well tolerated and effective, they are often used when the diagnosis of a bacterial infection is unclear. The liberal use of antibiotics has contributed to antibiotic resistance—a problem that has become a crisis.

As a drug class, antibiotics are virtually unique because once an antibiotic is released for wide-scale use, its efficacy diminishes. In contrast, aspirin, one of the oldest drugs, is as effective an analgesic today as the first time it was used. The same cannot be said of penicillin. In the 1950s, the use and overuse of penicillin resulted in penicillin resistance. In the 1960s and 1970s, the use and overuse of gentamicin resulted in gentamicin resistance. In the 1980s and 1990s, the use . . . *[Full Text of this Article]*

Author Affiliations: Division of Infectious Diseases, Emory University School of Medicine and Atlanta VA Medical Center, Atlanta, Georgia.