Objective: To assess the level of medical staff awareness of bacterial resistance and characterize the most common resistant bacterial species, the factors contributing to the development of such resistance, and the possible measures to limit the increasing rate of resistance to current antibacterial therapies. Method: A questionnaire was administered to 352 health care professionals including physicians, pharmacists and nurses at four central university hospitals in Jordan. Results: Our results indicate that most of the responding physicians and pharmacists considered Pseudomonas aeruginosa and methicillin-resistant Staphylococcus aureus the most frequently encountered resistant bacterial species. However, nurses recognized both methicillin-resistant Staphylococcus aureus (MRSA) and vancomycin-resistant Enterococci (VRE) as the most prevalent resistant species. Physicians and nurses (50.0% and 61.6%, respectively) reported prolonged hospitalization as a factor likely to contribute to the increased incidence of bacterial resistance. About 58% of pharmacists indicated the use of antibiotics without prescription as a significant reason for the development of bacterial resistance. Most of physicians (61.2%) reported that appropriate infection control is the most important measure to reduce bacterial resistance. Pharmacists (58.1%) recognized better adherence to the infection control guidelines as the most important factor that could reduce the risk of bacterial resistance. Conclusion: The findings of this study indicate a varying level of awareness of bacterial resistance among the health care professionals. Thus, serious efforts are still needed to develop and implement strategies to decrease the future risk of bacterial resistance to antibiotics.