Evolution of antibiotic resistance in urinary tract infections diagnosed in the bacteriology laboratory of the Centre MURAZ (Burkina Faso, West Africa) from 2004 to 2013

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The emergence of bacterial resistance to antimicrobials is a growing problem in medical practice. We describe the evolution of the antibiotic resistance of the main bacteria isolated in urinary infections in the bacteriology laboratory of the MURAZ Center at Burkina Faso (West Africa). This was a retrospective descriptive study of ten (10) years from 2004 to 2013 conducted at Centre MURAZ bacteriology laboratory and covering all urine sample records of that period. A total of ten thousand four hundred and forty-six (10,446) urines were carried out between January 2004 and December 2013, including 2360 infections (22.6%) confirmed. Among the isolated bacteria, there was a predominance of Escherichia coli (53.09%) and Staphylococcus (13.69%). We observed a significant change in the levels of resistance to the main antibiotics commonly used in the treatment of urinary infections: Resistance to amoxicillin was already high in 2004 on isolated E. coli strains (95.6%) and increased to 98.5% in 2013. Resistance to ceftriaxone increased from 4.2% to 31.5% between 2004 and 2011 and from 21.1% in 2004 and 88.9% in 2013 for ciprofloxacin. For Staphylococcus, resistance to Penicillin and Ceftriaxone increased respectively from 70.8% in 2010 to 94.1% in 2013 and 11.1% in 2005 to 66.67% in 2012. This study provides objective evidence of the alarming situation of the evolution of antibiotic resistance of bacteria isolated in urinary tract infections in West Africa. This rapid evolution affects the therapeutic management of these infections.

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