Implementing a database for bone and joint infections throughout a French network (CRIOGO): experience and first analysis of the cohort


Context: Since 2008, referee centers were designated in France, for organizing pluridisciplinary diagnosis and treatment of bone and joint infections (BJI). An interregional network was developed in Western France (CRIOGO), gathering 6 university tertiary care hospitals together. Through an association with the C-CLIN (network for nosocomial infection control), a secured web-database was developed to collect data from each center. We describe here the implementation, and the first analysis results. Methods: In each center, a multidisciplinary team reviewed all files of patients suffering BJI. Data on admission, comorbidities, diagnosis of BJI and microbiology, surgical treatment and antibiotics were then collected. During first year of implementation, a survey was conducted to evaluate the use of the database throughout the CRIOGO. Results: Among 6 centers, 3 have gradually begun to collect their data during 2011-2012 and 3 were unable to complete the database. The main pitfall explaining the inability of centers was the local organization, particularly due to the lack of research assistant. For one center, data were completed and validated for the year 2011, which were analysed. 176 patients were included, 26% prosthesis infections, 7% rachis devices and 30% others bone devices infections, 19% osteomyelitis, 18% others (including septic arthritis, foot infection). BJI were polymicrobial infections in 21.7%. Among the others, 65% were due to staphylococci (42% to MSSA, 3% to MRSA, 20% to coagulase negative staphylococci), 18% to gram negative bacilli, 8% to streptococci and 9% to anaerobes. 166 patients have undergone a surgical treatment, most often removal or change of infected device, and for 169 antibiotic treatment was known, totaling 328 antibiotics. The most frequently prescribed were fluoroquinolones (32.9%) following by rifampin (16.5%). Conclusion: Such a database is useful to validate all the cases treated in a referee center, to transmit information, and to produce continuous epidemiological monitoring. That could also be useful for comparing medical and surgical practices between the different centres. Analysis of recorded data could represent a basis to focus clinical research protocol. A new project, national, is under development, which aims to collect data in the national network of referee centres.