Microbial ecology of hospital surfaces of maternities in the public hospitals of Lubumbashi in the Democratic Republic of Congo

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Introduction: In the healthcare environment, germs can contaminate surfaces that are in contact with vulnerable anatomical sites. The study had an objectives to identify the nature of germs present on the hospital surfaces and to evaluate their resistance to antibiotics used in clinical practice in the maternity wards of public hospitals of Lubumbashi.

Methods: The cross-sectional descriptive study was conducted in seven maternities in January 2015. These maternities were chosen depending on whether they met the inclusion criteria. Data collection was performed by swabbing the surfaces in using ISO/DIS 14698-1. The sample analysis was achieved in the laboratory of the University clinics in Lubumbashi.

Results: On 77 sampled and analyzed surfaces, 47 surfaces either 61% have made one or several germs. Candida albicans was the most isolated on 20 surfaces or 43% followed by Escherichia coli on 17 surfaces (36%), Staphylococcus aureus on 4 surfaces (9%) and Pseudomonas aeruginosa, Klebsiella oxytoca, Enterococcus faecalis respectively on 2 surfaces (4%). The Klebsiella oxytoca was found in the solution of Dakin reserved for disinfection in the operating room. The germs were multi-resistant to several antibiotics commonly used clinically in these maternities, including the Amoxicillin to Ampicillin and the Augmentin (amoxicillin + clavulanate).

Conclusion: We found a significant presence of multi-resistant germs on the hospital surfaces. We need to improve the bio-cleaning and good political use of antibiotics and disinfectants.

Biography

Kaj Francoise Malonga is Professor of Public Health and Nursing at the Faculty of Medicine and the School of Public Health at the University of Lubumbashi. Author of more than 20 scientific publications in International journals in the field of maternal and child health, hospital hygiene, HIV AIDS and management of health institutions. She is currently director of the School of Public Health of the same university.

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