Supplementary File: Bloodstream Infections and Antimicrobial Susceptibility Profile Evaluations Among Febrile Neutropenic Patients with Hematological Malignancies: A Single Center Retrospective Observational Study (2009-2019)

**Table ST1: Definitions of clinical terms used in the manuscript**

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| Clinical situation | Definition | Reference |
| Fever | A single oral or tympanic temperature exceeding 38.3 degrees Celsius (101 degrees Fahrenheit) or consistently above 38.0 degrees Celsius (100.4 degrees Fahrenheit) for at least one hour. | (Klastersky et al., 2016) [S1] |
| Septecemia or sepsis | is a severe medical condition where pathogenic microorganisms or their toxins are in the bloodstream, leading to a systemic inflammatory response. | Gustinetti et al., 2016 [S2] |
| Neutropenia | A granulocyte count < 500 cells/mL or < 1000 cells/mL with an expected decline greater than or equal to 500 cells/mL over the next 48 hours  Prolonged neutropenia defined by ANC 500 cells /mm3 for more than 7 days.  Profound neutropenia is defined by ANC ≤100 cells/mm3 | Gustinetti et al., 2016 [S2] |
| High risk neutropenia | High risk neutropenia patients are those who have sustained prolonged and profound neutropenia exceeding 7 days. | Gustinetti et al., 2016 [S2] |
| Colonization | Presence of microorganism on/in a host with growth and multiplication of the organism but without interaction between host and organism. | Gustinetti et al., 2016 [S2] |
| Blood stream infection | Blood stream infection or blood culture is considered positive if one or more sample yielded an organism with the exception of coagulase negative *staphylococci*, *Corynebacterium* species other than *C. diphterie*, *Bacillus* species *B. anthracis*, *Micrococcus spp.,* etc…at least 2 consecutive positive blood cultures, drawn in different occasions are needed | Gustinetti et al., 2016 [S2] |
| Catheter-related bloodstream infection (CLABSI), | BSI and clinical manifestations of infection in presence of an intravascular device with > 1 positive blood culture from a peripheral vein and no other reliable sources of infection. One of the following should also be present: a positive semiquantitative or quantitative catheter culture; blood culture obtained through catheter positive at least 2 hours earlier than the blood culture drawn peripherally at the same time; quantitative cultures of blood with a ratio of 3:1 cfu/mL of blood (catheter vs. peripheral blood) | Gustinetti et al., 2016 [S2] |
| Empiric antibiotic | Treatment given based on experience without precise knowledge of the cause or nature of the microorganism. | Mettler et al., 2007 [S3] |
| Antibiotic prophylaxis | Administration of antibiotics to patients without any signs or symptoms of infection with the aim of preventing infectious complications | Gustinetti et al., 2016 [S2] |
| Multidrug resistance | Multi-drug resistant Gram-negative bacilli (GNB) infections arise from various types of bacteria, including those producing extended-spectrum β-lactamases (ESBL-E) and AmpC β-lactamases (AmpC-E), as well as carbapenem-resistant strains (CRE) of Enterobacterales. Additionally, Pseudomonas aeruginosa with challenging-to-treat resistance (DTR-P. aeruginosa), carbapenem-resistant species of Acinetobacter baumannii (CRAB), and Stenotrophomonas maltophilia are implicated. It's worth noting that a number of these pathogens have been classified as urgent or serious threats by the Centers for Disease Control and Prevention (CDC). | Tamma et al., 2023 [S4] |
| Polymicrobial BSI | More than 1 bacterial or fungal species positive-culture in the same blood isolate | Rolston et al., 2007 [S5] |

**References**

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[S2] Gustinetti, G., & Mikulska, M. (2016). Bloodstream infections in neutropenic cancer patients: A practical update. Virulence, 7(3), 280–297. <https://doi.org/10.1080/21505594.2016.1156821>.

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