

# Bacteremia in Febrile Neutropenic Cancer Patients in Egypt **Ali Gad Al Karim<sup>1</sup>, Sohair Eissa<sup>2</sup> and Hesham M Mahdy<sup>3</sup>**

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## Introduction

Bacteremia is one of the major causes of life-threatening complication in patients with cancer. Significant changes in the spectrum of microorganisms isolated from blood culture BC have been reported in cancer patients over the past years.

The aim of this study was to determine the predominant bacterial species causing bacteremia among febrile neutropenic FN cancer patients at the national Cancer Institute in Egypt (NCI).

## Materials and Methods

A total number 300 BC from 300 FN cancer patients at NCI, Cairo University were included in this study. All cases were inpatients with mean age of 51 years, 158 patients were male (53%) while 142 patients were females (47%). BC was collected for microbiological investigations. Identification of the isolated organisms by the cultural characters (Morphological of bacterial isolates, Gram stain reaction, motility test and biochemical tests) for each organism using standard semi-automated techniques.

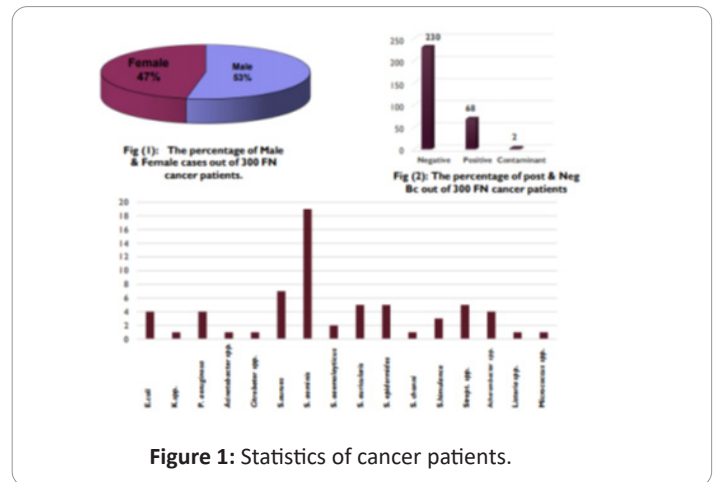
## Results and Discussion

Sixty-eight BC were positive (22.6%) and 232 BC were negative (77.4%). Gram negative bacteria isolated and identified in 11 blood cultures (16.17%), while gram positive isolates identified in 57 BC (83.8%). Among the Gram-negative organisms, 4 (5.8%) were *Pseudomonas aeruginosa*, 4 (5.8%) were *E. coli*, 1 (1.5%) was *Klebsiella pneumoniae*, 1 (1.5%) was *Acinetobacter* and 1 (1.5%) was *Citrobacter freundii*

**Table 1:** The study showed the resistant bacterial isolates to the commonly used antimicrobial agents. Similarity between CNS isolates was ~ 85-90%

	Total	Mean Age	Underlying Center					
			Hematological cancer			Solid tumor		
			A. Leukemia	Lymphoma /HD	Other	Ovarian	Lung	Other
Complication (Non – Lethal)	3348.50%	47 (18-76)	312.50%	1771%	417%	222%	111%	667%
Complication (Lethal)	3551.40%	53(18-82)	623.00%	1558%	519%	556%	111%	333%

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