

# *Stenotrophomonas maltophilia* infection in 40 patients after Hematopoietic Stem Cell Transplant (HSCT) at HC-FMUSP from 2001 to 2014



Luciana Becker Mau, Marjorie Vieira Batista, Gladys Villas Boas do Prado, Thais Guimarães, Fernanda de Souza Spadão, Maria Cristina Martins de Almeida Macedo, Silvia Figueiredo Costa

**Introduction:** *Stenotrophomonas maltophilia* is a gram-negative bacillus ubiquitous in the environmental, with low virulence and intrinsically resistant to broad-spectrum antibiotics. In patients after hematopoietic stem cell transplant (HSCT) *S. maltophilia* is, besides *Pseudomonas aeruginosa*, the most common cause of blood stream infections (BSI).

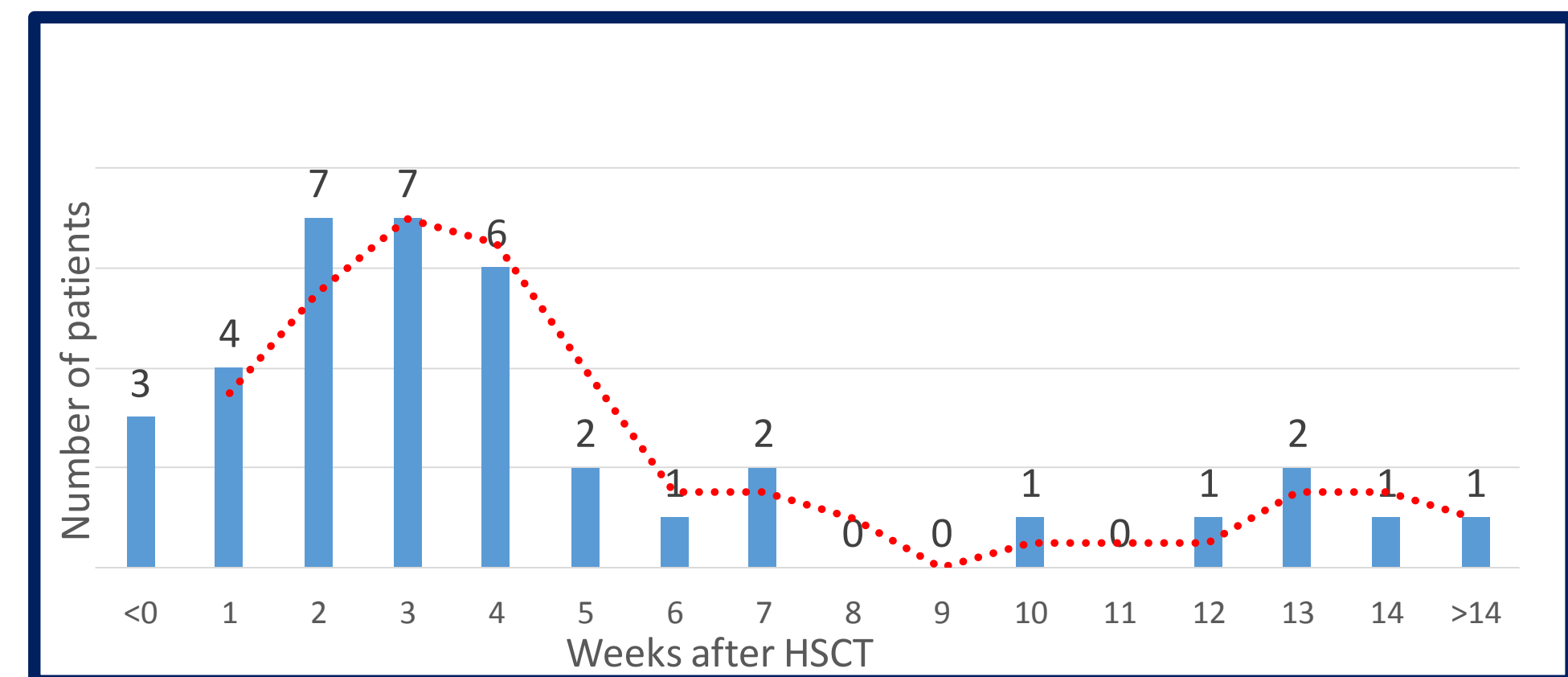
**Objectives:** Determine the risk factors associated with mortality, until 30 days, after *S. maltophilia* infection in HSCT unit at HC-FMUSP from 2001 to 2014. Evaluate resistance profile of isolated strains.

**Methods:** Medical records were reviewed of the patients with *S. maltophilia* selected in infection control and day hospital database. Infections were classified as BSI, pneumonia or other sites as CDC criteria. Patients were classified according to severity by Sepsis criteria and MASSC for those who were neutropenic. **Results:** Between 2001-2014 were performed 1052 transplants and a total of 40 patients had *S. maltophilia* infections, see Table 1 and Figure 1.

**Table 1: Characteristics of 40 HSCT patients with infection caused by *S. maltophilia***

Characteristic	Total (n=40)	Characteristic	Total (n=40)
Median age	43.5(7-65)	mucositis	18/40 (45%)
Female	17/40 (42.5%)	GVHD	8/40 (20%)
Male	23/40 (57.5%)	Sepsis	9/40(22,5%)
Autologous	18/40 (45%)	Severe sepsis/septic shock	7/40 (17,5%)
Allogenic	21/40 (52.5%)	MASCC in neutropenic	2/13 (15,4%)
Acute myeloid leukemia	1/40 (2,5%)	Carbapenemic in the last 30-days	22/32 (68,8%)
Bloodstream infection	36/40 (90%)	Resistance to SMX-TMP	3/37* (8,1%)
Pneumonia	3/40 (7,5%)	Resistance to Levofloxacin	6/37* (16,2%)
Sinusitis	1/40 (2,5%)	Resistance to both	1/36 (2,7%)
Neutropenic in the last 30 days	25/40(62,5%)	30-days mortality	11/40 (27,5%)

**Figure 1: Timming of 40 *S. maltophilia* infections during HSCT**



**Conclusion:** *S. maltophilia* BSI was the most frequent site of infection. There were isolates resistant to TMP-SMX and Levofloxacin what warns for the possibility of dissemination of resistance in this population of patients.

**References:** Denton M, Kerr KG. Microbiological and clinical aspects of infection associated with *Stenotrophomonas maltophilia*. Clin Microbiol Rev 1998;11(1):57–80 // Kikuchi M, Akahoshi Y, Nakano H, et al. Risk factors for pre- and post-engraftment bloodstream infections after allogeneic hematopoietic stem cell transplantation. Transpl Infect Dis 2015;17(1):56–65 // Shiratori S, Wakasa K, Okada K, et al. *Stenotrophomonas maltophilia* infection during allogeneic hematopoietic stem cell transplantation: a single-center experience. Clin Transplant 2014;28(6):656–61 Email: lubeckermou@gmail.com