



An In-Depth Analysis of Microorganisms Linked to Various Forms of Hospital-Acquired Infections: A Systematic Review

Nadirah Yusof ¹, Rabiatul Basria S. M. N. Mydin ^{1,2*}, Chandrarohini Saravanan ^{2,3,4}, Nor Hazliana Harun ^{2,5}, Siti Salmah Noordin ⁵

Supplementary Data

No.	Microorganism (s)	Type/Group	NIs	Reference(s)
01.	<i>S. aureus</i> spp.	Bacteria	SSTI	Ahmad <i>et al.</i> (2015)
02.	<i>E. coli</i> spp.	Gram-Negative Bacteria	UTI, Gastroenteritis	Ahmad <i>et al.</i> (2015)
03.	<i>Enterococci</i> spp.	Gram-Positive Bacteria	Blood borne, UTI, SWI	Ahmad <i>et al.</i> (2015)
04.	<i>K. pneumonia</i> spp.	Gram-Positive bacillus	Pneumonia, neonatal septicaemia	Ahmad <i>et al.</i> (2015)
05.	<i>P. aeruginosa</i> spp.	Non-fermenter Gram-Negative	SWI, UTI, Pneumonia	Ahmad <i>et al.</i> (2015)
06.	<i>C. difficile</i> spp.	Gram-Positive Bacillus	Diarrhea	Ahmad <i>et al.</i> (2015)
07.	<i>Candida albicans</i> spp.	Fungus	VAP	Al-Abdelyet <i>al.</i> (2018)
08.	<i>Acinetobacter baumannii</i> spp.	Bacteria	VAP	Al-Abdelyet <i>al.</i> (2018)
09.	<i>Enterococcus faecium</i> spp.	Bacteria	BSI in patients with HMs	Alatore-Fernandez <i>et al.</i> (2017)
10.	<i>P. aeruginosa</i> spp.	Non-fermenter Gram-Negative	MDR <i>P. aeruginosa</i> NIs	Angelettiet <i>al.</i> (2018)
11.	<i>Pseudomonas</i> spp.	Gram-Negative Bacteria	BSI	Aydi <i>et al.</i> (2017)
12.	<i>E. coli</i> spp.	Gram-Negative Bacteria	BSI	Aydi <i>et al.</i> (2017)
13.	<i>Pseudomonas</i> spp.	Gram-Negative Bacteria	SSI	Balluset <i>al.</i> (2015)
14.	<i>E. coli</i> spp.	Gram negative Bacteria	SSI	Balluset <i>al.</i> (2015)
15.	<i>Candida</i> spp.	Fungi	SSI	Balluset <i>al.</i> (2015)
16.	<i>Cocci</i> spp.	Gram-Positive	SSI	Balluset <i>al.</i> (2015)
17.	<i>K. pneumoniae</i> spp.	Gram-Negative Bacteria	Pneumonia, SSIs, BSIs, UTIs	Barchiediet <i>al.</i> , (2016)
18.	<i>P. aeruginosa</i> spp.	Gram-Negative Bacteria	Pneumonia, SSIs, BSIs, UTIs	Barchiediet <i>al.</i> (2016)
19.	<i>E. coli</i> spp.	Gram-Negative Bacteria	Pneumonia, SSIs, BSIs, UTIs	Barchiediet <i>al.</i> (2016)
20.	<i>S. maltophilia</i> spp.	Gram-Negative Bacteria	Pneumonia, SSIs, BSIs	Barchiediet <i>al.</i> (2016)
21.	<i>A. baumannii</i> spp.	Gram-Negative Bacteria	Pneumonia, BSIs	Barchiediet <i>al.</i> (2016)
22.	<i>E. faecium</i> spp.	Gram-Positive Bacterium	Pneumonia, SSIs, BSIs, UTIs	Barchiediet <i>al.</i> (2016)
23.	<i>S. aureus</i> spp.	Gram-Positive Bacterium	Pneumonia, SSIs, BSIs	Barchiediet <i>al.</i> (2016)
24.	<i>S. epidermidis</i> spp.	Gram-Positive Bacterium	SSIs, BSIs, UTIs	Barchiediet <i>al.</i> (2016)
25.	<i>C. albicans</i> spp.	Fungus	SSIs, UTIs	Barchiediet <i>al.</i> (2016)
26.	<i>C. glabrata</i> spp.	Fungus	SSIs, BSIs	Barchiediet <i>al.</i> (2016)
27.	<i>C tropicalis</i>	Fungus	UTIs	Barchiediet <i>al.</i> (2016)
28.	<i>C dubliniensis</i>	Fungus	SSIs	Barchiediet <i>al.</i> (2016)
29.	<i>P aeruginosa</i> <i>S aureus</i> <i>A baumannii</i> MRSA	Bacteria	VAP	Borgata &Rello (2014)
30.	<i>E Coli</i> <i>Gram-Negative bacillus</i>	Gram-Negative Bacteria	Gram-Negative BSI	Brigmon (2015)
31.	<i>Pseudomonas sp</i> <i>Klebsiellasp</i>	Bacteria	UTIs, RTIs	Charan&Kelkar (2017)
32.	<i>A baumannii</i>	Bacteria	CRAB infections, CSAB infections	Chen <i>et al.</i> (2014)
33.	MRSA	Gram-Positive Bacteria	Nosocomial Infections in	Chen <i>et al.</i> (2017)

	<i>S epidermis</i> <i>E faecalis</i> <i>E faecium</i>		NICU	
34.	<i>E coli</i> <i>K pneumonia</i> <i>K oxytoca</i> <i>P aeruginosa</i> <i>A baumannii</i> <i>E cloacae</i> <i>S marcescens</i>	Gram-Negative Bacteria	Nosocomial Infections in NICU	Chen <i>et al.</i> (2017)
35.	<i>C koseri</i> <i>C glabrata</i> <i>C parapsilosis</i>	Fungus	Nosocomial Infections in NICU	Chen <i>et al.</i> (2017)
36.	<i>A baumannii</i>	Bacteria	BSI	Chuang <i>et al.</i> (2018)
37.	<i>Streptococcus pneumonia</i>	Gram-Negative Bacillus	Pneumonia	Cillonizet <i>et al.</i> (2016)
38.	<i>P aeruginosa</i>	Bacteria	Pneumonia	Crotiet <i>et al.</i> (2014)
39.	<i>K pneumoniae</i>	Bacteria	UTI, Bacteremia, Abscesses	Cuberoet <i>et al.</i> (2016)
40.	<i>Ralstoniaspp</i> <i>R mannitolilytica</i>	Bacteria	ICU Bacteremia	De Souza <i>et al.</i> (2018)
41.	<i>E coli</i> <i>MS S aureus</i>	Gram-Negative Bacteria	ICU Abdominal Infections	De Waeleet <i>et al.</i> (2014)
42.	<i>E. coli</i> <i>Klebsiellasp</i> <i>MSSA</i> <i>Pseudomonas aeruginosa</i> <i>Enterobacter. sp</i> <i>Proteus.sp</i> <i>Enterococcus faecalis</i> <i>MRSA</i> <i>Streptococcus pneumoniae</i>	Gram-Negative Bacteria	Bacteremia	Del Arco <i>et al.</i> (2017)
43.	<i>Candida sp</i>	Fungus	Bacteremia	Del Arco <i>et al.</i> (2017)
44.	<i>E coli</i>	Gram Negative Bacteria	UTIs	Esteve-Palau <i>et al.</i> (2015)
45.	<i>P aeruginosa</i>	Bacteria	ICUAP	Fernandez <i>et al.</i> (2017)
46.	<i>Pseudomonas spp.</i> <i>Streptococcus spp.</i> <i>Acinetobacter spp.</i> <i>Klebsiellasp</i> <i>coagulase-negative staphylococci</i>	Bacteria	Pediatrics ICU	Ferreira <i>et al.</i> (2016)
47.	<i>P aeruginosa</i>	Bacteria	BIC	Fournier <i>et al.</i> (2016)

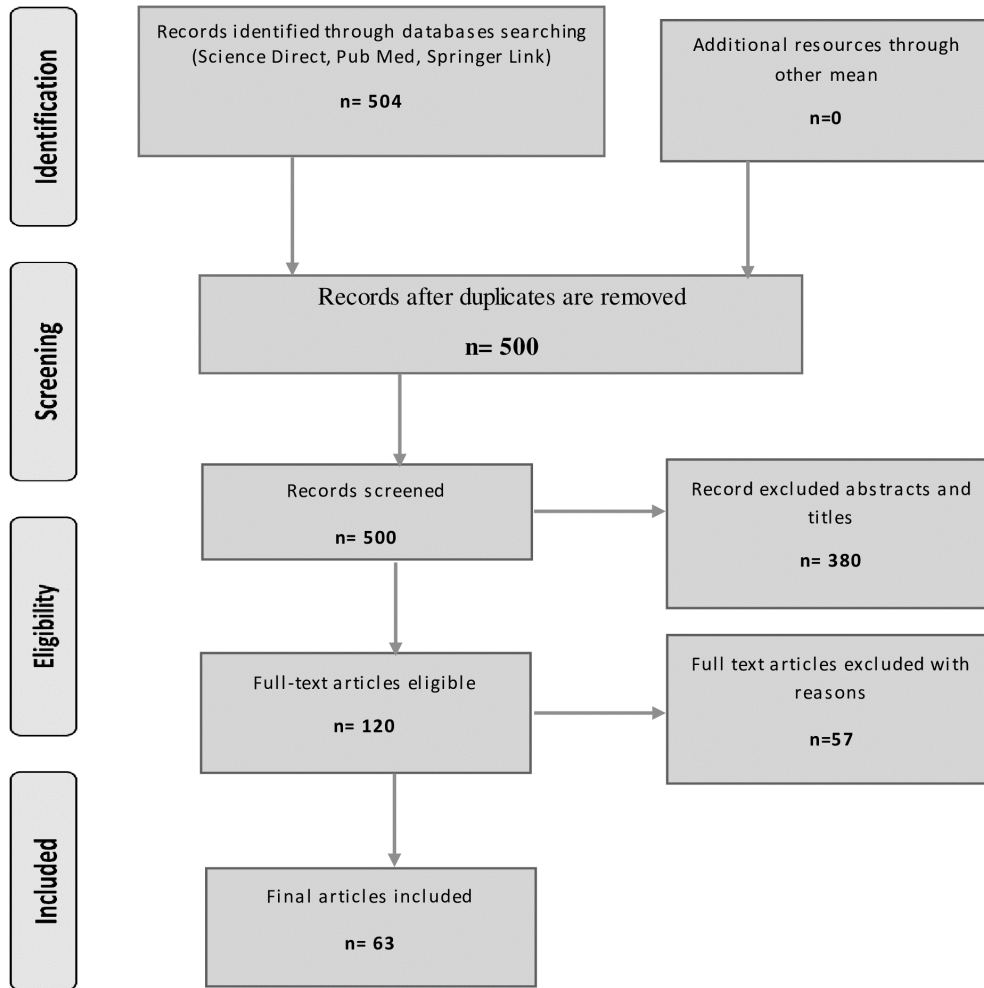


Figure 1. PRISMA flowchart

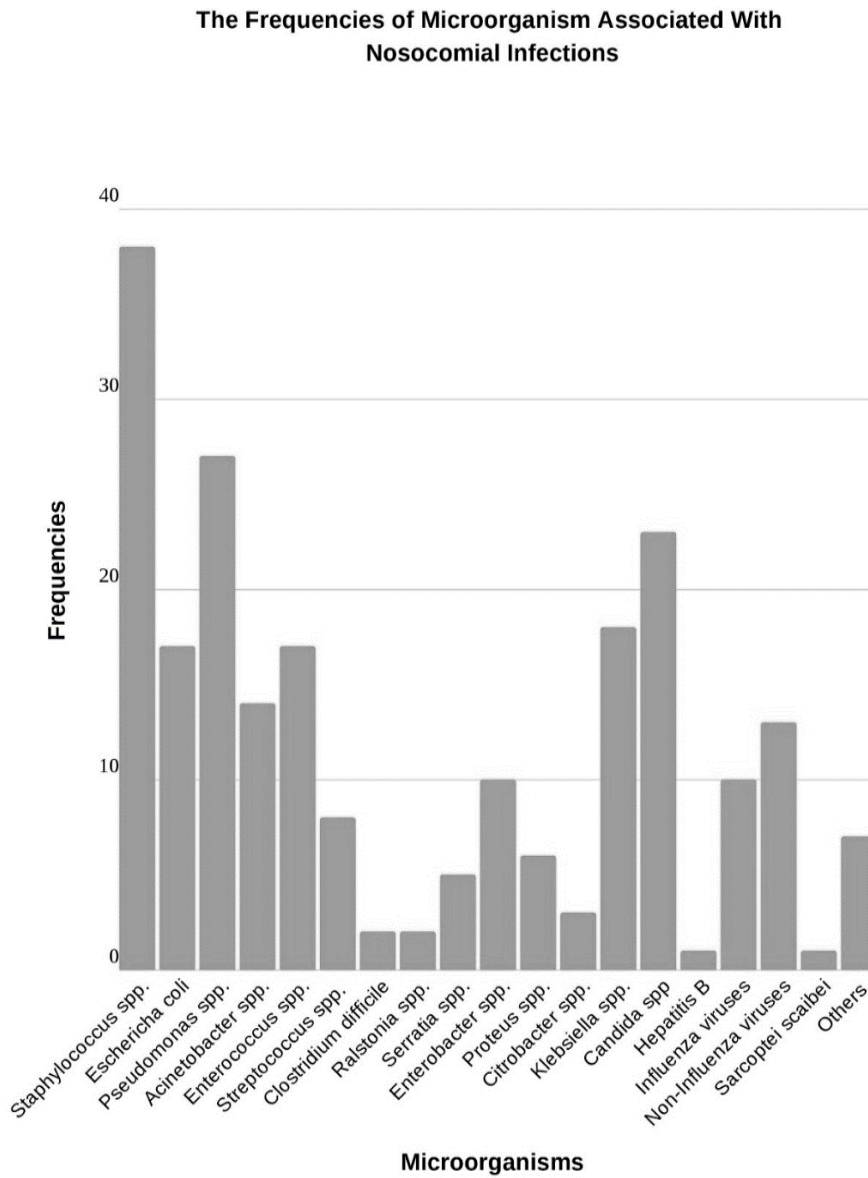


Figure 2. Bar Chart showing the group of microorganisms

Nosocomial Infections (NIs)

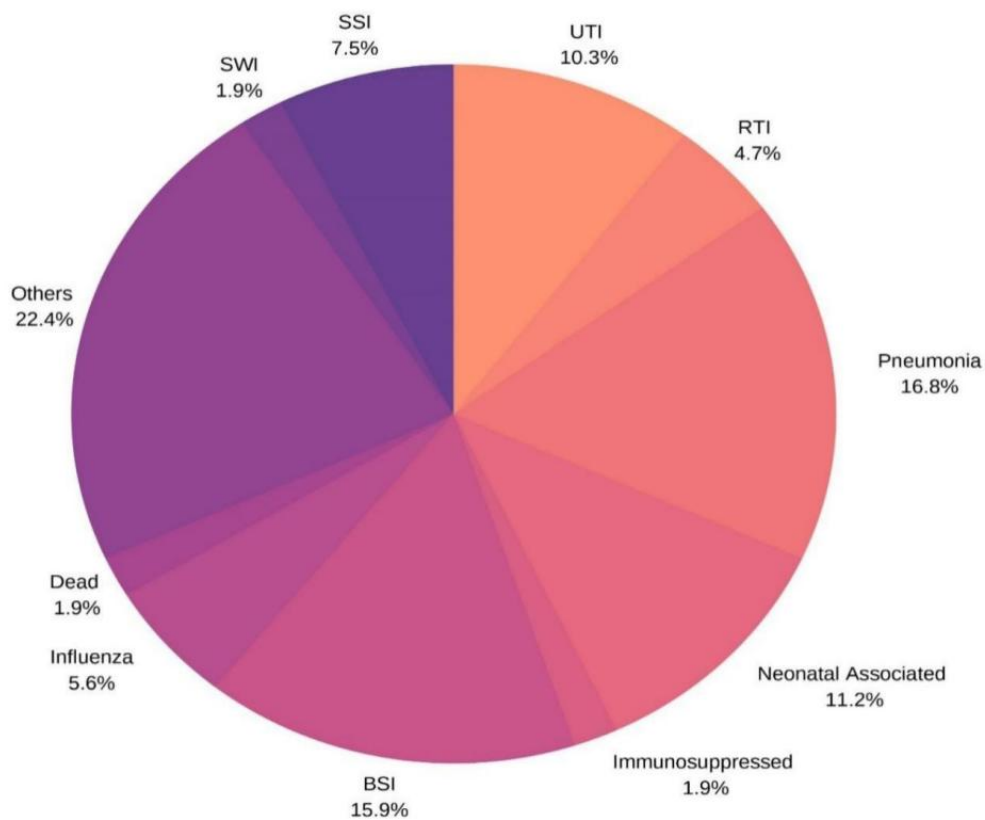


Figure 3: Pie Chart showing the types of Nosocomial Infections (NIs)