



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	Microbiology Research Journal International
Manuscript Number:	Ms_MRJI_41483
Title of the Manuscript:	PSEUDOMONAS AERUGINOSA INFECTION IN HUMANS AND ANTIBIOTIC RESISTANCE
Type of the Article	Review Article

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
The author also states the prevalence of infection in various units like the ICU and the burn wards. Is it just hygiene that is prominent or does the immune system of an individual have an important role in making the individual susceptible? Can the author add some points about the genetics of the organism and its relevance to this resistant behavior of the pathogen? Can the author add some points on the significance of genetics in conferring broad spectrum resistance to antibiotics? If the bacterial proteases are inactivated will it affect the pathogenicity of the organism?	Nutrition, genetics and hygiene. <i>P. aeruginosa</i> secretes several virulence factors, including toxins, lipases and proteases. Four pathways of protein secretion have been described for Gram-negative bacteria and three of these were evident in <i>P. aeruginosa</i>. The prototypic type I system in <i>P. aeruginosa</i>, which directs secretion of alkaline protease (encoded by <i>aprA</i>), consists of the ABC transport protein AprD, the membrane fusion protein AprE and the OprM-family outer membrane protein AprF. The PAO1 genome appears to contain four additional type I systems. One of these clusters (PA3404–PA3408) is homologous to the haem acquisition system (Has) of <i>Serratia marcescens</i>. (C. K. Stover, X. Q. Pham[...]M. V. Olson(2000) Complete genome sequence of Pseudomonas aeruginosa PAO1, an opportunistic pathogen. Nature research journal. 406;959-964) release of beta-lactamases, decreased permeability of the outer membrane, active outdoor pumping systems. If active pumping systems are activated together with chromosomal beta lactamases or separately, carbapenems many antibiotics, including one or multiple resistance occurs. More importantly, the system can become active during treatment, so that multiple resistant strains can appear. Türk Dağı H, Arslan U, Fındık D, Tuncer İ. (2011) Kan kültürlerinden izole edilen pseudomonas aeruginosa suşlarının antibiyotiklere direnç oranları. ANKEM Dergisi; 25(2):107-110



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	when bacterial proteases become active they increase the pathogenicity of the organism.
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