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Journal Name:	Ophthalmology Research: An international Journal
Manuscript Number:	2014_OR_10600
Title of the Manuscript:	Identification of Risk Factors for Development of Inpatient Exposure Keratitis
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<u>Compulsory</u> REVISION comments	1. The term “risk factor” should be used in reference to something that contributes to an illness or condition and that increases the risk or susceptibility to the illness. The manuscript should be reviewed throughout to assure the proper use of the term. 2. The terms incidence and prevalence are not interchangeable. The authors use the term prevalence throughout the manuscript, but it appears that it was actually the incidence they were evaluating. 3. The level of risk contributed to each “Primary Risk Factor” presented in the body of the manuscript and in Figure 1 was determined largely by the absolute number of cases for each situation. While some effort was made by the authors to relate this to the number of floors or units, a more quantifiable method would be to relate it to the total number of ophthalmic consults in each situation since this information was gathered by the authors according to the manuscript (page 2, line 65ff). This would possibly provide a more precise number for the incidence of exposure keratitis relative to non-keratitis patients and give a better indication of the actual level of risk a patient may face for each condition. For instance if 25 patients from one unit suffered while 10 suffered from a second unit, the absolute number would suggest patients in unit one are at a greater risk. However, if unit one contains 1000 total patients and unit two contains only 100 patients, the actual risk is greater for the patients in unit two	1. Reviewed and believe that use of the term is in keeping with this definition throughout. 2. Reviewed and correction made throughout. 3. Agreed that it would helpful to know the total number of patients admitted to each unit during the time period of interest. However, this is beyond the scope of the Institutional Review Board approval for our study, as it would involve tallying admissions and discharges for all units of the hospital for all causes over a 3 year period. This puts it beyond the scope of our approval.



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	(2.5% unit one vs. 10% unit two). This should also be considered throughout the manuscript.	
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Minor REVISION comments	1. The Abstract is in a structured abstract format and includes the heading “Background.” The information provided in this section is the purpose of the study instead of background information. Either the heading or the content should be modified for consistency. 2. The authors may consider replacing the word “leading” with the term “most common” in the first sentence of the Results section of the abstract relating to the four risk factors, and in the Results section (page 4, line103). 3. New information should be presented in past tense, while common knowledge or previously published information should be presented in present tense. On page 2, line 35 “is” should be replaced with “was.” 4. Additional information should be provided for the results regarding mean and medium numbers of age, and duration of admission at time of consult (presented in text and in Table 1). The additional information should include the standard deviations (+/- SD) for the means and the ranges for the medians. This would provide the reader with a better idea of the breadth and variation in these data. 5. Table 2 should be given column headings. Also, “Fungal Species” should be changed to “Candida albicans” to keep the level of identification consistent throughout the table since the bacterial organisms are presented as specific genera. 6. The authors state that the findings presented in Figure 2 show a disproportionate number of cases coming from the physical therapy and rehabilitation floors, and from the ICU compared to general	1. Agreed – changed title to Purpose. 2. Agreed and changed. 3. Agreed and changed. 4. Agreed and changed. 5. Agreed and changed. 6. Language was changed removing the term disproportionate and presenting this portion of the data without that interpretation. 7. Corrected to 3 in the graph. 8. Patients were examined by several different ophthalmologists who did not use a standardized grading system for severity of keratitis. Therefore, in this retrospective study design, this level of analysis is not feasible. 9. There was no indication of variation in the risk factors from quarter to quarter. 10. References reviewed and #13 corrected. 11. We do think this would enable educational materials (PDF etc) to be made which would highlight for physicians and caregivers the identified risk factors. This would hopefully encourage caregivers to look for signs of exposure and keratitis and initiate intervention early on in the disease course.
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	medical or surgical wards. While the findings support this, statistical analysis should be done comparing these groups. 7. The number of cases of exposure keratitis from the “Step Down Unit” is unclear. The number should total to be 3 based upon a sample size of 59, but the graph appears to be 5. This should be corrected as appropriate. 8. The authors report a significant decline in the number of exposure-keratitis referrals during the second half of the academic year compared to the first quarter. They suggest that this may be due to the staff physicians becoming more comfortable in treating minor cases since the overall number of total referrals while lower, was not significantly so. Is it possible for the authors to determine the average severity levels of the exposure keratitis at time of referral between these two time periods? If their suggestions is correct, then the average severity level of the exposure keratitis referred would be expected to be greater in Q3 and Q4 compared to Q1 and Q2. 9. Was there any significant variation in the patient profiles with respect to the identified risk factors from quarter to quarter of the academic year? 10. The references should be reviewed for correctness. For instance, reference 13 has the author Rosenberg JB listed twice. The second listing should be deleted with only two authors being noted (Rosenberg JB and Eisen LA). 11. The authors state that a purpose of the study was to “make possible the development of improved educational tools for	
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	providers.” Do the authors feel that this goal was accomplished? This could be expanded within the Discussion section of the paper.	
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<u>Optional/General</u> comments	Keratitis is a serious corneal condition with potentially vision threatening outcomes. It can have either an infectious or non-infectious basis, which is a determinant in consideration of appropriate therapeutic intervention. Exposure keratitis (lagophthalmic keratitis) is inflammation of the cornea as a result of irritation caused by the inability to close the eyelids. In the current manuscript the authors present a retrospective study at a teaching hospital of patients over a three-year period that were referred to the ophthalmology consult service for exposure keratitis. In addition to basic demographics, the 61 identified cases were evaluated for duration of hospital stay to time of consult, inpatient location at the time of consult, and academic quarter at time of time consult. The authors' overall findings/conclusions were that sedation and mechanical ventilation, facial nerve palsy, nocturnal lagophthamos, and cicatricial or post-surgical lid changes were the four leading risk factors. They also found a disproportionate number of cases came from the physical therapy and rehabilitation floors, and intensive care units. Finally, they reported that there were significantly more exposure keratitis cases during the first half of the academic year compared to the second half. Overall the manuscript is fairly well written including the 3 graphs (the two tables could be improved). In general, the paper includes some interesting findings, but would be strengthened with consideration of the specific comments made in this critique.	Thank you for your thoughtful review and commentary. Table formatting has been improved and efforts to address critiques have been made as above.
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