Supplementary Material: Questionnaire

Thank you for taking time to participate in this survey. This survey should take approximately 5 minutes and your results will be anonymous.

MUTT (Myotic Ulcer Treatment Trials) is an NEI-funded randomized controlled trial comparing voriconazole (1%) and natamycin (5%), applied topically every hour while awake until re-epithelialization, then 4 times daily for at least 3 weeks. The primary outcome is best spectacle-corrected visual acuity (BSCVA) at 3 months, correcting for enrollment BSCVA. We would like to estimate expert opinions on the potential outcomes of this study BEFORE the MUTT results are publicly presented or published. The expert opinions gathered from this survey will allow us to perform a Bayesian analysis of the clinical trial results.

When answering the following questions, please consider all of the information you have available to you including experience in clinical practice, knowledge of literature, and discussions with colleagues. Although you do not have to answer each question, we would appreciate it if you made an educated guess.

1. Are you aware of the results of the MUTT trial? Results have not yet been publically presented or published, so any knowledge would have had to come through one of the investigators.
   - Yes
   - No

2. What is your current title? Please check ALL that apply:
   - Cornea specialist or fellow
   - Ophthalmologist or ophthalmology resident
   - Optometrist
   - Other (please specify)

3. How many corneal ulcers have you treated in the last 12 months?
   - 0
   - 1-10
   - 11-100
   - >100

First, we would like you to describe your expectations of the difference in BSCVA between the treatment arms at 3 months. We will ask you to think about your best estimate of this difference in terms of Snellen lines and to describe the uncertainty you have about this estimate. You can assume that approximately 40% of fungal keratitis cases are Fusarium species, 16% are Aspergillus species, and the rest are a variety of species.

4. Which antifungal do you expect to perform better, on average, in terms of BSCVA at 3 months?
   - Neither I expect no difference.
   - Natamycin
   - Voriconazole

5. In the BEST ESTIMATE row, please specify how many Snellen lines better you expect the antifungal you chose in the previous question to perform compared to the antifungal you did not choose.

Please specify an UPPER and LOWER LIMIT between which you believe the difference is almost certain to lie. Think of this like you would a 95% confidence interval for your best estimate. Your response will actually be your 95% Bayesian credible interval.

Example: If your best estimate is that the two drugs are equivalent, your response would be 0 lines. Then, estimate the best that natamycin could do and the best that voriconazole could do in the remaining rows. Your interval need not be symmetric.

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Note that 0 lines indicates no difference between treatment arms, the options to the left of 0 lines indicate that natamycin performs better, and the options to the right of 0 lines indicate that voriconazole performs better. Also note that each response option refers to a range of possible values, so that 1 line refers to 0.5-1.5 lines.
6. Here, we are trying to elicit your opinion in a slightly different way. Please assign percentages to each of the following possible study outcomes. Each percentage is, in your opinion, the probability that MUIT will find the corresponding outcome.

Example: You feel there is most likely no difference between treatment arms, but there is a chance of a 1 line difference in either direction. You might then enter 50% for 0 lines, 26% for 1 line to the left of 0 lines, 26% for 1 line to the right of 0 lines, and 0% for the rest of the options. See example below.

Your percentages should add up to 100%.

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*7. Would your responses to the previous questions change if all fungal keratitis cases were Fusarium species?

- Yes
- No

If respondents answered “Yes” to question 7, they would proceed to questions 8-10. If they answered “No”, they would proceed to question 11 (comments).

Since you selected yes, we would like you to describe your expectations of the difference in BSCVA between the treatment arms at 3 months ASSUMING that all fungal keratitis cases are Fusarium species. We will again ask you to determine your best estimate of this difference and to describe the uncertainty you have about this estimate.

8. Which antifungal do you expect to perform better, on average, in terms of BSCVA at 3 months if all fungal keratitis cases are Fusarium species?

- Neither I expect no difference.
- Natamycin
- Voriconazole

9. In the BEST ESTIMATE row, please specify how many Snellen lines better you expect the antifungal you chose in the previous question to perform compared to the antifungal you did not choose. You should assume all cases are Fusarium species.

Please specify an UPPER and LOWER LIMIT between which you believe the difference is almost certain to lie. Think of this like you would a 95% confidence interval for your best estimate. Your response will actually be your 95% Bayesian credible interval.

Example: If your best estimate is that the two drugs are equivalent, your response would be 0 lines. Then, estimate the best that natamycin could do and the best that voriconazole could do in the remaining rows. Your interval need not be symmetric.

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Thank you for participating in this survey! We appreciate your time and effort. If you have any questions or concerns, please contact the principal investigators, Drs. Lieberman and Acharya, or the study coordinator, Kieran O’Brien, at (415) 514-2160 or kieran.obrien@ucsf.edu.

11. Comments: