Author’s response to reviews

Title: Streptococcal Peritonitis in Australian Peritoneal Dialysis Patients: Predictors, Treatment and Outcomes in 287 cases

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Author’s response to reviews: see over
RESPONSE TO REVIEWER #1

1. The major concern is to put all streptococcus species as one group for analysis. It seems logical to report the proportion of the cases being enterococci (which has intrinsic resistance to cephalosporin), and describe the response to antibiotic treatment in two groups (enterococci and non-enterococcal streptococci).

The ANZDATA Registry does not collect detailed information about species identification of isolated Streptococci in peritoneal dialysis-associated peritonitis. This limitation has been added to the Discussion (Page 14, Paragraph 2, Line 8).

Enterococci are now recognised as a separate genus of Gram-positive cocci and so were specifically excluded from analysis of streptococcal peritonitis in this paper. This point has received additional emphasis in the Methods section (Page 5, Paragraph 1).

RESPONSE TO REVIEWER #2

1. The author must list (or tabulate) the different organisms (and preferably their sensitivity) instead of simply stating "287 episodes of streptococcal peritonitis." After all, not all streptococcal organisms behave in the same manner. If this information is not available from the registry, the major weakness must be discussed (before any conclusion can be made with respect to the use of vancomycin). The spectrum of different streptococcal organisms should also be compared with that reported by Shukla and colleagues from Canada.

The ANZDATA Registry does not collect detailed information about species identification or antimicrobial susceptibilities of isolated Streptococci in peritoneal dialysis-associated peritonitis. This limitation has been added to the Discussion (Page 14, Paragraph 2, Line 8). A statement emphasising the limitation of absent data on antimicrobial susceptibilities of isolated streptococci or reasons for antibiotic selection was already provided in the Discussion (Page 14, Paragraph 1, Line 11).

2. Do you have data about the liver disease (in particular, liver cirrhosis)?

This information is not collected by the ANZDATA Registry.

3. There is a typographical mistake on page 12; the phrase "more virulent organism that" should be "more virulent organism than."

This typographical error has been corrected.

4. Is there any observed difference in the peritoneal dialysis exchange procedures between Aboriginal or Torres Strait Islanders, as compared to other Australian patients? For instance, with respect to wearing face masks? And, how about liver disease?

The authors are not aware of any differences in peritoneal dialysis management between Aboriginal or Torres Strait Islanders and other Australian patients or with respect to liver disease. However, as stated in the discussion of study limitations (Page 14, Paragraph 2), the
ANZDATA Registry does not collect information about individual unit management protocols.

RESPONSE TO REVIEWER #3

1. Page 11, Paragraph 1, last sentence: "21% of patients experienced more than one episode of streptococcal peritonitis". Missing word after 'more than'?

The missing word ("one") has now been added to the text.

2. Page 13, paragraph 3, line 7: "This maybe due to...". Should read 'may be'.

This has been corrected.

3. Page 25, Table 1, column 1 for peripheral vascular disease: reads 59(4%), but 59/256 is 23%.

This error has been corrected.

4. The authors mention that antibiotic choice did not affect outcomes. Given that patients were treated with antibiotics for varying periods of time, it may also be interesting to look at whether total antibiotic duration influenced outcomes.

The following text has been added to the Results section (Page 10, Paragraph 1, Line 3):

“Longer antibiotic course duration was associated with higher risks of hospitalisation (OR 1.02 per day, 95% CI 1.008-1.02), catheter removal (OR 1.01, 95% CI 1.004-1.02) and permanent haemodialysis transfer (OR 1.01, 95% CI 1.003-1.01), presumably reflecting the medical treatment response to more severe peritonitis episodes.”

5. Figure 1 does not add much to the text, and could be omitted.

The figure has now been deleted.

6. If the authors have data on the type of strep infection (eg. viridans vs. other), it would be worth reporting.

The ANZDATA Registry does not collect detailed information about species identification of isolated Streptococci in peritoneal dialysis-associated peritonitis. This limitation has been added to the Discussion (Page 14, Paragraph 2, Line 8).

RESPONSE TO EDITOR

1. Please clarify in the methods section whether ethical approval was obtained for the use of the registry data.

A statement re ethical approval has been added (Page 5, Paragraph 1).