Reviewer’s report

Title: Update of incidence and antimicrobial susceptibility trends of Escherichia coli and Klebsiella pneumoniae isolates from Chinese intra-abdominal infection patients

Version: 0 Date: 27 Jul 2017

Reviewer: Brandon Eilertson

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Major Comments

1. The applicability of this data would be improved by describing the rates of carbapenem susceptibility in more detail and explaining how the trends in carbapenem resistance might effect treatment of these organisms.
2. The very low susceptibility to ETP and IPM among Klebsiella pneumoniae ESBL + isolates is noteworthy and needs to be described further.
3. FQ susceptibility rates are also very dramatic for ESBL positive organisms. The treatment implications of such low susceptibility rates should be discussed.

Minor Comments

1. Lines 100-103 This is a confusing way to describe susceptibilities. Give the exact numbers if possible and perhaps just focus on the carbapenems as they are the first-line therapy for treatment of ESBL producing Enterobacteriaceae.
2. Line 106 - Change percentages to prevalence
3. Line 137 ESBL producing rather than ESBL screen-positive
4. Line 171 - Were these pure cultures? Or were other organisms isolated. Can the authors include data on rates of polymicrobial cultures and other species isolated? If the authors are most concerned about resistance rates in the population then inclusion of samples that may reflect colonization rather than infection would be reasonable, however these were excluded.
5. Lines 199 - Is this definition of HA vs CA still accepted?
7. Lines 222-225 - the authors initially narrow the focus of the paper to Klebsiella pneumoniae and E. coli but now mention Klebsiella oxytoca. The denominator for the percentages quoted here is unclear.

8. Lines 225-226 - "IAI strains" is vague and would suggest these numbers include Pseudomonas and Acinetobacter isolates. If this is incorrect specify which species are included here.

9. Lines 235-236 - Abscesses must occur in an organ or space and are generally from another organ source. Are these abscesses where the sample is from a potential intraperitoneal space? Or is this a case where the source may be unspecified?

10. Lines 248-255 - need to specify the individual rates and trends for AMK, ETP and IPM here. >70 or >80 is very vague should highlight whether that means 71 or 99%.

11. Line 257 - susceptibility rates

12. Lines 257-8 - specify is this for both organisms or just E. coli

13. Line 264 specify for which drugs, again this wording is unclear.

14. Lines 269-271 - this is just a restatement of results - just state that the rates are similar to 2002-2009.

15. Line 276 - remove the word constant

16. Lines 280-283 - again this is a restatement of results. Why did the decrease happen?

17. Lines 292-293 - was this test performed? This may be true need to cite prevalence of this clone in China to justify

18. Line 297, 300 - These references are not numbered, need to be included in the bibliography if not already

19. Line 300 - cite other studies showing high rates of carbapenem resistance in Eastern China

20. Line 307 - were these changes statistically significant, if so include p values.

21. Lines 311-313 - again awkward wording, the dramatic change is the drop from 2013 to 2014, say so

22. Lines 317-381 - may be worth describing the molecular epidemiology of the ESBL epidemic in China here, which enzymes? Do they vary between the hospitals and the community.

23. Lines 319-321 - This statement suggests that administration of IV antibiotics in Chinese hospitals was inconsistent in the past but is now improving. Is this correct? The more logical
causes would be improved antibiotic restrictions in the inpatient setting paired with improved infection control.

24. Lines 326-327 - You need to describe your IPM and ETP susceptibility rates in the Results and then put them in perspective here, especially note the decreased susceptibility to ETP and IPM in Eastern China compared to other regions.

25. Line 333 - The decreased susceptibility to fluoroquinolones is notable here. Likely related to outpatient over-prescribing. Combination therapy of an E.coli of KP with FQ and metronidazole will still not kill a FQ resistant organism, another class of antibiotic is needed.

26. Table 2 - Are these values for all years pooled?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

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