Reviewer's report

**Title:** Emergence of Endemic Serogroup C Meningococcal Disease Associated with a High Mortality Rate in Hefei city, China

**Version:** 3  **Date:** 20 March 2012

**Reviewer:** Mignon du Plessis

**Reviewer's report:**

**Major (compulsory) revisions:**

**General:**

1. The article lacks an abstract?
2. The English is poor and needs to be revised throughout - spelling, grammar and general formatting.
3. A mixture of different fonts were used in the tables and figure - looks like the data were 'cut and paste' together.

**Specific:**

1. Page 1, line 7 - author affiliation is listed as 'Department of Center Laboratory'. Is this correct as it doesn't make sense?
2. Page 3 - Methods - please indicate which area was sampled - only Hefei City? How many hospitals/clinics and during which years.
3. Page 4, line 70 - 'as soon as possible' is quite vague - was it generally within several hours or several days?
4. Page 4, lines 76-77 - please specify what methods were used for biochemical testing or cite appropriate reference. Which serogroups were detected by latex?
5. Page 4, line 85 - which PCR method was used - please specify or cite relevant reference.
6. Page 5, line 102 - sentence is incomplete? '..... assuming that the distribution of serogroups .....' is what?
7. Page 6, line 114 - P<0.1 is not usually considered to be statistically significant. Is this correct or should it be P<0.01 or 0.05?
8. Page 6, line 126 - Table 1 shows characteristics of meningococcal strains - not 'demographic characteristics of patients'.
11. Page 7, line 135-136 - incidence of serogroup C from 2008-2010 - please show individual incidences for the 3 years as 0.92-3.14 is quite varied and therefore confusing.

12. Figure 1 - perhaps I missed it but this figure is not mentioned anywhere in the text? Ideally, it should be referred to in the first paragraph on page 7.

13. Page 7, line 141 - there were 845 cases in total and only 374 meningococcal strains? What happened to the remaining 471 - please clarify?

14. Page 7, line 142-145 - penicillin nonsusceptibility is mentioned but no indication is given in the ‘Methods’ section as to how antimicrobial susceptibility testing was performed or which breakpoints were used?

15. Page 8 - age, sex and seasonal distribution - no age data are shown in Table 2. Please also clarify why numbers for serogroup A and C (lines 153-154) are different to those mentioned in Table 2.

16. Page 9, lines 184-185 - this is shown in table 2 - not table 3 as indicated in the text?

17. Table 2 - what is DIC and MOF? 'sequelas' should be 'sequelae'

18. Table 3 - the data should show characteristics/risk factors for serogroup A and C separately to assess whether there are any differences i.e. column showing mortality rate should be split into two - one showing data for serogroup A and the other for serogroup C.

19. No mention is made of the reference by Zhou et al. published in Epidemiol. Infect. in Sept 2011 which describes epidemiological data from China over a 4-year period (2004-2007). Since this work appears to be an extension of that study and there is some degree of overlap, it should be mentioned either in the Introduction or Discussion.

**Level of interest:** An article of importance in its field

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.