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# Correction to: Minimum Quality Threshold in Pre-Clinical Sepsis Studies (MQTiPSS): an international expert consensus initiative for improvement of animal modeling in sepsis (Infection, (2018), 10.1007/s15010-018-1183-8)

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## Correction to: Minimum Quality Threshold in Pre-Clinical Sepsis Studies (MQTiPSS): an international expert consensus initiative for improvement of animal modeling in sepsis

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### Correction to: Infection

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The original version of this article unfortunately contained mistakes.

The Tables 1–3 were missing. The correct versions of Tables 1, 2 and 3 are given below.

Bettina Standhartinger was unfortunately not correctly named in the acknowledgments of the original version of this article. The correct acknowledgements are as follows:

The authors would like to thank Bettina Standhartinger for her valuable assistance in organizing the Wiggers–Bernard Conference.

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**Table 1** Combined Recommendations and Considerations from the Working Group (WG) 1 and 2

|  |   |          |          |
|--|---|----------|----------|
| <b>Study Design</b><br>(WG-1)  | 1. Survival follow-up should reasonably reflect the clinical time course of the sepsis model  | <b>R</b> |          |
|  | 2. Therapeutic interventions should be initiated after the septic insult replicating clinical care  |          |          |
|  | 3. We recommend that the treatment be randomized and blinded when feasible  |          |          |
|  | 4. Provide as much information as possible (e.g. ARRIVE guidelines) on the model and methodology, to enable replication.  |          |          |
| <b>Humane Modeling</b><br>(WG-2)   | a. Consider replication of the findings in models that include co-morbidity and/or other biological variables (i.e., age, gender, diabetes, cancer, immuno-suppression, genetic background and others). | <b>C</b> |          |
|  | b. In addition to rodents (mice and rats), consider modeling sepsis also in other (mammal) species.   |          |          |
|  | c. Consider need for source control   |          |          |
|  | 5. The development and validation of standardized criteria to monitor the well-being of septic animals is recommended   |          | <b>R</b> |
|  | 6. The development and validation of standardized criteria for euthanasia of septic animals is recommended (exceptions possible)  |          |          |
| 7. Analgesics recommended for surgical sepsis consistent with ethical considerations | <b>C</b>  |          |          |
| d. Consider analgesics for nonsurgical sepsis  |   |          |          |

R: Recommendation strength; C: consideration strength

**Table 2** Combined Recommendations and Considerations from the Working Group (WG) 3 and 4

|  |  |          |
|--|--|----------|
| <b>Infection Types</b><br>(WG-3)   | 8. We recommend that challenge with LPS is not an appropriate model for replicating human sepsis                                     | <b>R</b> |
|  | 9. We recommend that microorganisms used in animal models preferentially replicate those commonly found in human sepsis              |          |
|  | e. Consider modeling sepsis syndromes that are initiated at sites other than the peritoneal cavity (e.g. lung, urinary tract, brain) |          |
| <b>Organ Failure/ Dysfunction</b><br>(WG-4)  | 10. Organ/system dysfunction is defined as life threatening deviation from normal for that organ/system based on objective evidence  | <b>R</b> |
| 11. Not all activities in an individual organ/system need to be abnormal for organ dysfunction to be present   |  |          |
| 12. To define objective evidence of the severity of organ/system dysfunction, a scoring system should be developed, validated and used, or use an existing scoring system. |  |          |
| 13. Not all experiments must measure all parameters of organ dysfunction but animal models should be fully exploited   | <b>C</b>   |          |
| f. Avoid hypoglycemia  |  |          |

R: Recommendation strength; C: consideration strength

**Table 3** Combined Recommendations and Considerations from the Working Group (WG) 5 and 6

|   |   |          |
|---|---|----------|
| <b>Fluid Resuscitation</b><br>(WG-5)                              | 14. Fluid resuscitation is essential unless part of the study   | <b>R</b> |
|   | 15. Administer fluid resuscitation based on the specific requirements of the model                          |          |
|   | 16. Consider the specific sepsis model for the timing of the start and continuation for fluid resuscitation |          |
|   | 17. Resuscitation is recommended by the application of iso-osmolar crystalloid solutions                    |          |
|   | g. Consider using pre-defined endpoints for fluid resuscitation as deemed necessary                         |          |
| h. Avoid fluid overload   |   |          |
| <b>Anti-microbial Therapy</b><br>(WG-6)                           | 18. Antimicrobials are recommended for pre-clinical studies assessing potential human therapeutics          | <b>R</b> |
|   | 19. Antimicrobials should be chosen based on the model and likely/known pathogen                            |          |
|   | 20. Administration of antimicrobials should mimic clinical practice   |          |
| i. Antimicrobials should be initiated after sepsis is established |   |          |

R: Recommendation strength; C: consideration strength

The original article has been corrected.

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