Reviewer’s report

Title: Comparison of videolaryngoscopy and direct laryngoscopy by German paramedics during out-of-hospital cardiopulmonary resuscitation. An observational prospective study.

Version: 0 Date: 26 Nov 2019

Reviewer: Sarah Voss

Reviewer's report:

This is a well written paper that addresses a topic of significance to pre-hospital and emergency care. The manuscript will be of interest to a readership in emergency medicine, paramedicine and resuscitation science. I have only minor points for the authors’ consideration:

The term 'less experienced paramedics' is used in the title and throughout the manuscript. This needs defining; are there two groups of paramedics in Germany, one of whom have less experience or does this term infer that paramedics are generally less experienced than physicians? If it is the latter, I suggest explaining in the background and removing 'less experienced' where appropriate and throughout the manuscript.

Abstract:

The phrase 'paramedics from four ambulances' may lead the reader to conclude that paramedics working on four vehicles were included in the study. Should this read 'paramedics working on 32 vehicles' or 'paramedics from four areas’?

Introduction:

The clear description of EMS in Germany is helpful.


Page 5, line 24: Avoid beginning sentence with the word 'but'.
Check that use of the terms ETI, intubation and endobronchial intubation are consistent throughout.

Methods:

It would be beneficial to have more detail on how the VLs were rotated on 32 vehicles over 4 years and how staff changes were managed in the study. For example, how were paramedics trained if they joined during the study period? It is clear the training was made available but did they have the opportunity to practice on a manikin with medical supervision?

There is some repetition between the 'design' and 'setting sections'

Page 7, line 22: attempt rather than performance?

How did the research team know if a paramedic had been to an arrest? Was this entirely paramedic notification/report? Did the research team check any pre-hospital cardiac arrest data registries?

Page 8, line 9: CRFs - should be plural

Page 9, line 2 - is frequency the correct word? Consider 'number'.

Page 11, line 18: Avoid beginning sentence with 'But'.

Discussion:

Please check that the citation numbers [X] are in the correct positions within the text.

The phrase 'paramedics from a single emergency department' (and further reference to emergency departments) is confusing. Earlier on in the manuscript they are described as from 4 areas(?) or working on 32 vehicles?

The study was conducted over 4 years and there has possibly been an increase in SGA use over this time - this should also be considered in the limitations.

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.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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