Reviewer's report

Title: Comparison of the Glidescope(R) and Pentax AWS(R) laryngoscopes to the Macintosh laryngoscope for use by Advanced Paramedics in easy and simulated difficult intubation.

Version: 1 Date: 13 March 2009

Reviewer: John C. Sakles

Reviewer's report:

Discretionary Revisions:

1. This is a reasonable paper but has a big limitation in that it is a manikin study and thus has very limited applications to live patients. Videolaryngoscopes give excellent views of the airway, but because they are optical devices they are extremely prone to fogging and lens contamination. Fogging and contamination of the lens is the biggest problem one encounters when using these devices in patients, particularly emergency patients. If the lens get contaminated you can't see anything and the device is useless. This is a real limitation and care should be taken not to extrapolate these data to real patients. This should be emphasized in the paper.

2. The difference you were looking for in time to intubate was only 10-20 seconds and I doubt that has any real clinical significance even though there is statistical significance. I can't imaging that a 5 sec difference that you found has any real clinical meaning.

3. The airway on this manikin must have been very easy to intubate as the times to intubate very very fast and the success rates perfect. It look like it doesn't matter what they use, they'll get the tube in.

4. In your conclusion you state that the Pentax AWS performed best overall, but the way I see it there success rate was 100% for all 3 devices, there were only a few seconds difference between intubation times and I don't know what the clinical significance of the dental pressure is. One could make the argument that it is not justified replacing a 50 dollar laryngoscope that works very well with a $10,000 videolaryngoscope which also works well.

Minor Essential Revisions:

1. The text is some places is difficult to follow. Please re-read it anf try to make it more understandable (for example in the Abstract, the first sentence of the Background doesn't read correctly; also the fist paragraph in the Background needs work, part of it is redundant)

2. I think a better measure for the time to intubation would be from the time the device is inserted into the mouth until the cuff passes the vocal cords. If you have
those numbers I would use those. The problem with the time interval you chose is that the process of withdrawing the stylet, inflating the cuff and confirming tube placement don't have any relevance to the time it takes to intubate with the device. By counting that extra time interval you might be adding times on that are independent of the devices.

Major Compulsory Revisions:

None

**Level of interest:** An article of insufficient interest to warrant publication in a scientific/medical journal

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I conduct research on videolaryngoscopy in the emergency department and have each of the devices mentioned in the study, as well as all the other currently available videolaryngoscopes. These devices were donated to me by the manufacturers. There is no grant support, only equipment support. I have no financial relationship with the manufacturers.