BACKGROUND:
Video Laryngoscopy (VL) utilization is becoming more frequent within the prehospital setting. A paucity of literature exists comparing video laryngoscopy success rates to direct laryngoscopy (DL) as the primary technique for intubation by Emergency Medical Services (EMS).

OBJECTIVE:
To compare the view during laryngoscopy and first-attempt success rates (FASR) with DL and VL as the primary method of intubation in the prehospital environment.

METHODS:
This prospective study includes consecutive intubations between March 18 - June 26, 2013 employing a standardized protocol. The King Vision® Video Laryngoscope (KVL) was utilized as the primary device with DL as back-up within two suburban EMS systems on 50% of the ambulances and rotated monthly. FASR, Cormack-Lehane (C-L) grade I or II view: KVL 65(77%) and DL 42(59%). POGO scores of ≥80%: KVL 61(73%) and DL 34(71%). Most frequent PF: DL 8(42%) inability to expose vocal cords and KVL 9(38%) Secretions / Blood / Vomit.

RESULTS:
A total of 155 intubations with 84 KVL (54%) were performed by 118 paramedics who had a mean experience with DL of 9 years, and 0.25 years with KVL. FASR: KVL 60(71%) and DL 48(68%) (95% CI: 0.107 - 0.185). C-L grade I or II view: KVL 65(77%) and DL 42(59%). POGO scores of ≥80%: KVL 61(73%) and DL 34(71%). Most frequent PF: DL 8(42%) inability to expose vocal cords and KVL 9(38%) Secretions / Blood / Vomit.

LIMITATIONS:
- Limited population / sample size
- Study Design

REFERENCES:

CONCLUSIONS:
During the first 90 days of the run-in period, the paramedics were able to achieve equivalence in FASR with the novel device (KVL). Further studies are warranted to evaluate KVL as a primary technique for intubation in the prehospital setting following a run-in period.

Key Points
- 180 paramedics received four hour didactic, trouble-shooting and performed over 2520 KVL training intubations attempts on both Laerdal AT Kelly Torso and Levitan Series manikins.
- Paramedics completed weekly manikin competency training on both VL and DL during this period.
- VL was successfully utilized on two FBAO patient cases.
- Another key point to the study

CHART 1. Intubation Position

CHART 2. Intubation Position