



# Clinical Application of the Tele-Airway Management System in the Emergency Department Pilot Study

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## Introduction



Table 1 Success rate of endotracheal intubation

	TAMS (n=17)	Control (n=16)
Successful intubation*	16 (94%)	10 (63%)
Failed intubation	1 (6%)	6 (38%)

\*Successful endotracheal intubation within 2 min

(P=0.04, Fisher's exact test)

2007;13:S3:29-32



## Objective

- This study aimed to show the usefulness of TAMS when applied to real patients in the ED.



## Materials and Methods





# Materials and Methods



# Materials and Methods



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## Tele-Airway Management System (TAMS)

Department of Emergency Medicine  
Yonsei University College of Medicine

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## Materials and Methods



- Prospective, Randomized study
  - Mar. 1<sup>st</sup> 2008 to Feb. 28<sup>th</sup> 2009
  - TAMS or On-scene directed (OSD) group



13 km



## Materials and Methods



- Excluded patients
  - Who had been dead on ED arrival
  - Could not be intubated
    - Oropharyngeal cancer or tracheostomy status
  - When Emergency physician or remote consultant was not available



## Materials and Methods



- Primary outcome
  - Time to intubation
    - From gripping the laryngoscope to confirming tube placement by auscultation
- Secondary outcome
  - Success rate
    - Confirmed by EtCO<sub>2</sub>
  - Complications



## Results



Table 1. Demographics of patients by the groups

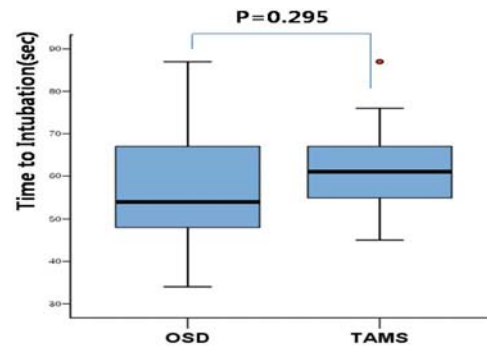
	OSD(n=13)	TAMS(n=12)	P value
Age (mean±SD)	53.1±19.0	46.8±19.0	0.376
Female (n)	7	3	0.226
Crash Airway (n)	2	2	1.000
Difficult Airway (n)	0	4	0.039
Trauma Case (n)	3	8	0.047
Systolic Blood Pressure (mean±SD)	110.8±18.6	119.1±39.8	0.979
Diastolic Blood Pressure (mean±SD)	71.2±18.5	72.8±20.2	0.936
Pulse Rate (mean±SD)	87.8±15.5	91.4±29.5	0.810
Respiratory Rate (mean±SD)	19.8±8.5	16.7±2.7	0.728

OSD: on-scene directed; TAMS: Tele-Airway Management System; SD: standard deviation.



## Results

- Time to intubation



## Results

- Success rate and complication
  - All intubation trials were successful in both group.
  - 2 esophageal intubation in TAMS  
4 in OSD (p=0.363)



## Conclusion

- TAMS was useful as much as on-scene direction when applied to real ED patients in time to intubation, success rate and complication occurrence.



## Limitations

- The number of patients
- Airway difficulty
- Experiences of intubator



Thank you for your  
trying to listen to my  
father's  
presentation!



Papa, you  
can do  
better than  
this next  
time

