

The VivaSight® DLT for VATS

Reducing surgery time and costs

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Introduction

Reliable unilateral lung ventilation with a double lumen tube (DLT) is of great importance for video assisted thoracic surgeries (VATS). The classic DLT requires confirmation of tube placement with a flexible fiberoptic bronchoscope, since clinical evaluation alone is not sufficient in recognizing tube misplacement. However, this is a time-consuming procedure, which can only be done in intervals. Recently, ETVIEW introduced the VivaSight® DLT, with a built in camera system, providing continuous monitoring of tube placement. Thus, overcoming the problems of the classic DLT.



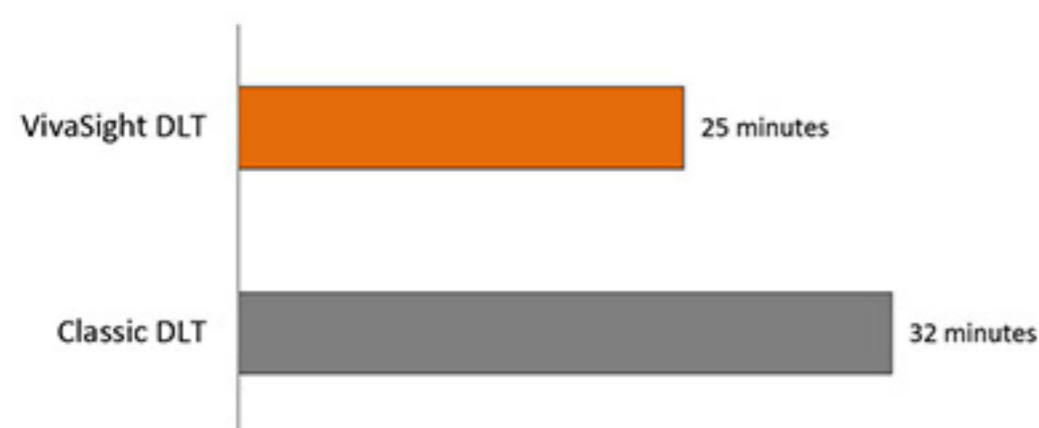
Methods

We performed a retrospective analysis on all VATS patients operated between 25-06-2012 and 25-11-2013 at the Haga Hospital. We extracted data on DLT type, time needed for intubation and for patient positioning. In addition, we analyzed the per patient costs of both methods.

Results

In total, 201 patients were operated for VATS, of which, 101 by VivaSight® DLT. We found a significant difference in the time needed to secure reliable unilateral lung ventilation, with an average 25 minutes for the VivaSight® DLT and 32 minutes ($p < 0.001$).

Intubation time



Cost-effectiveness analysis

The per patients costs for the VivaSight® DLT were € 135,-, and ranged from € 163,- to € 278,- for DLT with fibroscope, depending on the need for a bronchial blocker. Thus, the VivaSight® DLT resulted in a per patient cost reduction ranging from 17.2% to 51.6% (€ 28,- – € 143,-).

Cost analysis

	VivaSight DLT	Classic DLT	Br. blocker
Purchase price	€ 135,00	€ 63,31	€ 179,00
Fiberscope use		€ 99,86	€ 99,86
Total	€ 135,00	€ 163,17	€ 278,86
Cost reduction		€ 28,17	€ 143,86

Conclusion

The VivaSight® DLT resulted in significant decrease in the time needed to secure reliable unilateral lung ventilation when compared to the classic DLT with fibroscope. This was done with a considerable reduction of the per patient costs compared to classic DLT with fibroscope. Moreover, there was a greater surgeon and anesthesiologist satisfaction.

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