



Lesson learnt from the abstracts of the 5th European Airway Congress 4.-7. December 2018 in Catania, Italy: Directions of learning

*I ain't comin' 'round searchin' for a crutch
I just want someone to talk to
And a little of that human touch
Just a little of that human touch
Human touch, B. Springsteen, CBS Records 1992*

The main part of this issue of *Trends in Anaesthesia and Critical Care* is dedicated to airway management. This is in tribute to the 5th European Airway Congress, held in Catania, Italy, 4 to 7 December 2018. TACC as the official Journal of the European Airway Management Society, hosts the 97 conference abstracts from many countries all around the world (Fig. 1). A broad variety of abstracts was accepted, from interesting case reports to breaking-new airway research. All accepted abstracts that are being presented at the conference in Catania are printed in this issue of TACC. We would like to highlight the best of the best, 6 abstracts that abstract committee selected to enter the oral presentation competition:

- Regional lung volume changes in apnoeic oxygenation using THRIVE compared to mechanical ventilation in adults undergoing laryngeal surgery [1];
- Cost effectiveness of video laryngoscopy for routine use in the operating room [2];
- Pediatric emergency front of the neck access (eFONA): assessing a novel experiential learning approach [3];
- Safety and efficacy of air-Q[®] for airway control during percutaneous tracheostomy in ICU: a 20 cases series [4];
- Successful awake intubation using Vivasight-sl – an endotracheal tube with integrated camera at the top – a case report [5];
- The comparison of Protector LMA[®] vs endotracheal tube in patients undergoing laparoscopic surgery a randomised controlled trial [6].

The winner will become part of the TACC editorial team for one year, assigned as associate section editor for airway management. He or she will also be granted the fee for the next EAMS conference.

The topics covered in the submitted abstracts incited some important reflections.

In the global communication era, where knowledge does not anymore know boundaries and lies literally on your fingertips, what is the value of participating in an international meeting, deciding to submit an abstract and to discuss it? The entire subject of attending a conference was questioned before [7,8]. We would like to add our perspective.

There is a valuable difference between observing a video

transmission on your computer and observing an expert performing a specific technique on a mannequin or model. One question is do we gain the same amount of benefit in knowledge and skill irrespective of the way it is presented to us – via attending a conference or observing a computer screen? Do we learn different things or do we learn differently?

These questions might be answered if we move towards the models of *horizontal and vertical learning* [9,10].

Horizontal learning relates to increase in our technical expertise by developing more competencies. It focuses on cognition, representing the knowledge and skills someone acquires while operating at a specific stage of growth and development.

Vertical learning is about the transformation of our thinking, our feelings, and how we make sense of the world. That includes the development of mental complexity and emotional intelligence. Vertical learning increases the complexity of pattern-recognition capacity. That is hard to learn from a book or from the internet. Horizontal learning is of importance to get the stuff done but vertical learning engages us with increasingly complex material and situations, leading us to mastery level of performance.

Transferring this thinking to our questions, it seems to provide the answer why a conference can teach everyone something new, from a novice to so-called experts. Higher learning is enhanced during simulation, face-to-face meetings, and interaction with experts. In other words, attending a conference brings us to the higher level of horizontal and vertical competencies. This is the reason why the conference program was largely developed with this in mind.

The original idea of this learning model came from industries and business companies who needed people that have the skills to do the job (horizontal) and the ability to perform at increased level of competence (vertical). Translating this model into anaesthetists' world and educational models, we basically need to be able to do what our job requires (e.g. airway management, pain treatment [11], ...). On the other side, there is the increasing need to promote and generate competent leaders who can adapt to new and changing conditions. Translated into the above-mentioned model, this means to add *crisis resource management (CRM)* and *non-technical skills* into the management of the airway and its education. This is the reason why more recent training models go into human factors teaching, CRM training, and non-technical skills mastery. Stealing a business quote from developmental psychology: "No leader needs convincing that improvement and change is at the top of the agenda" [12].

Horizontal learning has been compared to pouring water into the same old container. In our case, the container is our brain; a

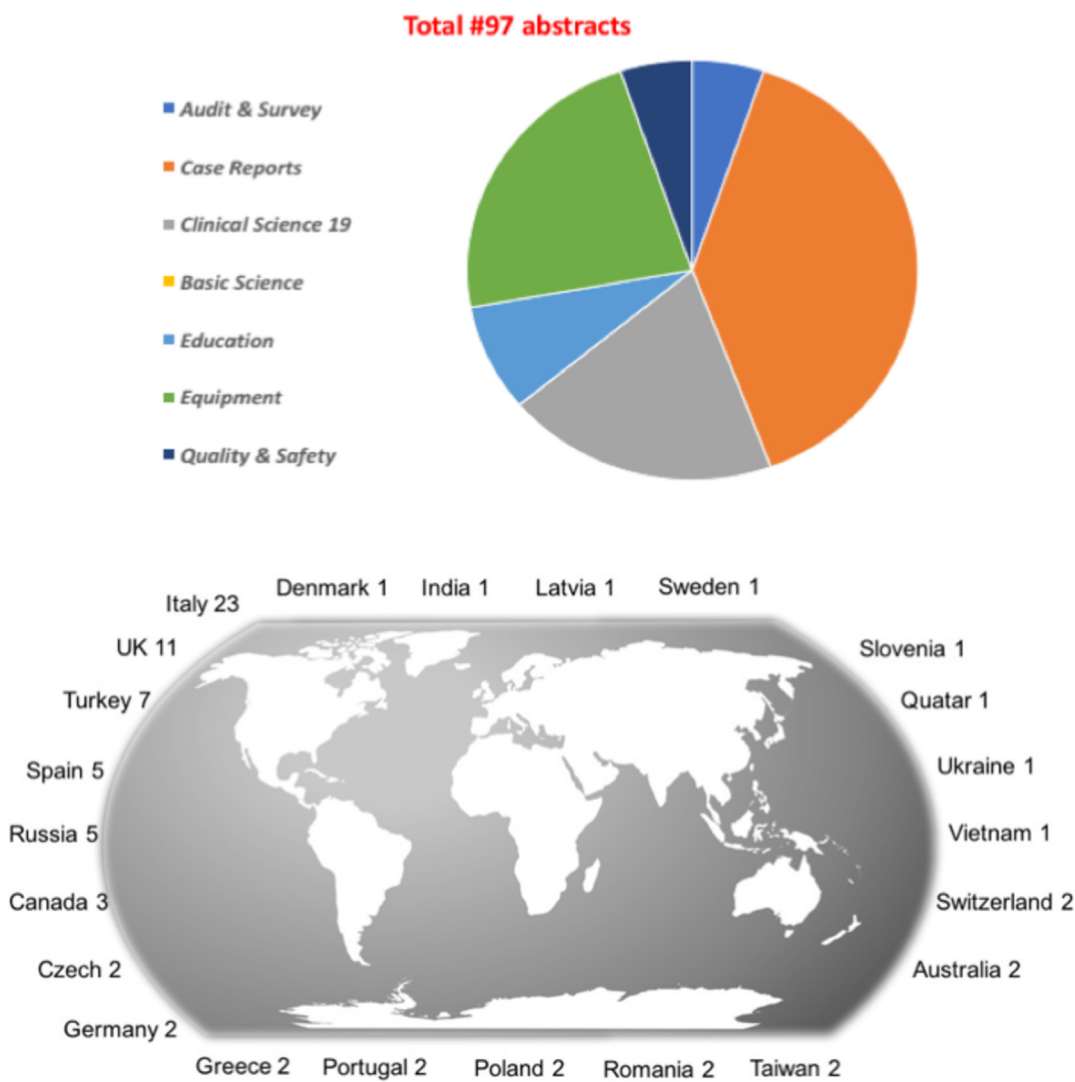


Fig. 1. Number of abstracts and submitters' country of origin presented to 5th EAC, December 2018.

container whose dimensions, unfortunately, cannot be changed. The horizontal development allows us to use the available space in a better way, just like re-formatting and initializing our neuronal hard-disk. The vertical component of learning, on the other hand, increases the speed and power of how we process and how we use the larger number of information available within our re-formatted hard-disk.

Nowadays we live in times where the amount of available information is enormous and everyday growing, whereas the dimensions of our brain (hard-disks) remains constant. The only upgrade we can (and should) look for is optimization of our hardware through vertical learning. That means: getting better in analyzing the masses of information accumulating in and outside

of our fantastic, but limited, natural hardware.

The process of transferring new knowledge into our clinical practice after a conference, course or lecture is often very little. A major method to develop vertical learning is the training of leaders to enable them to deal with “immunity to change process” [11] and to implement change. It is about teaching to overcome personal resistance to change. This interesting process aims to examine a person’s thinking behind this resistance and why these changes are not adopted.

One of the most powerful ways to encourage and get people to change something in airway management, especially for anaesthetists (which are well-known to be change-resistant) is trust [13].

Trust in devices (which takes time to be built) and trust in

people [14–16]. People who are able to “do” something so good that they can show you and teach you how to do it better and we trust them. And such trust, comes at personal encounters, face-to-face exchanges, and discussion about new unknown concepts and ideas.

This concept fits perfectly into airway management, where there is tons of information and lots of devices so the need for manual skill, experience, expertise, mastery of non-technical skills, and for airway leaders is ever so important. The traditional airway management “toolbox” has been refurbished through years, including supraglottic airway devices from rescue to advanced use [17], videolaryngoscopes [18], the evergreen introducers’ revival [19], the big *FONA debate* [20], or the promising high-flow nasal oxygen application [21].

So many changes might be hard to implement, on one hand because of amount of information needed and on the other for the aforementioned “immunity to change” phenomenon. Time will help us, it already changed our practice in other fields: from abandoning the dear old *renal-dose* dopamine [22] to implementing the *low-Vt* ventilation strategies in ARDS [23] or assisting the CPR guidelines continuous update [24,25].

In such an evolving and revolving context, we need a different approach. Conventional literature reading and learning is barely able to keep up with all the rapid new discoveries, products and research. Here it is how e-learning through online courses, podcasts, Youtube videos, e-books and online journals’ services can help you stay updated and easily access a huge amount of information.

However, the real challenge becomes learning how to use this information and to developed ability to discriminate the quality of evidence behind information.

Face-to-face courses, meetings, events, workshops and *meet the expert* formulas might represent the completing part of our learning process. Because they create one of the environments for the vertical learning opportunity. Knowing an airway device from the hands and words of its inventors has a totally different value if compared with an anonymous video, with a methodologically perfect publication or with the latest version of the instructions for users from the manufacturer’s website. It allows us to see and discover what is behind the device, and to give us the opportunity to locate it in the right place in our mind and algorithms (vertical knowledge) before knowing how to use it with our hands (horizontal knowledge) [26,27].

Conferences, debates, discussions after and during workshops and lectures create such an environment. This is further enhanced in a more relaxed environment of social events. The abstracts and the way they are presented are important part of this process: an opportunity to learn about research, to put this information in a clinical scenario, to test a device or to report a unique case [28].

Adding the challenge to present these data to a panel of experts and interested colleagues, entering a debate to learn more about new ideas. Ready to take the challenge of defending our work but, at the same time, ready to accept advice on how to make it better.

Also this is learning, probably between the most effective in terms of changing our practice. Vertically or horizontally, anyway, exceedingly more effective face-to-face than with apps or pdfs.

Just a little of that human touch!

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None.

Conflict of interest

MS research and development and pre-clinical testing of the

LMAProtector™. Paid Consultancy with Teleflex Medical, Dublin, Ireland. Patent owner (no royalties), paid consultancy with DEAS, Castelbolognese, Italy.

GJM no COI.

IH Tried equipment for clinical use and training, travel and accommodation funding to give lectures from Medtronic, Fanin, Storz Medical, Cook Medical and Ambu.

RG no financial COI, R.G. is the current president of EAMS and the Editor in Chief of TACC.

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M. Sorbello*
*Anaesthesia and Intensive Care, AOU Policlinico Vittorio Emanuele,
Catania, Italy*

J.G. Maugeri
*Anaesthesia and Intensive Care, ARNAS Garibaldi centro, Catania,
Italy*

I. Hodzovic
Anaesthesia and Intensive Care, Cardiff University, Cardiff, UK

R. Greif
*Department of Anaesthesiology and Pain Therapy, Bern University
Hospital and University of Bern, Bern, Switzerland*

* Corresponding author. Viale Vittorio Veneto 109, 95127, Catania,
Italy.
E-mail address: maxsorbello@gmail.com (M. Sorbello).

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