

June 9th 2020

## Letters to a Young Airway Learner

Dear friend,

Thank you for your letter, and congratulations on starting your training! You asked me to share any lessons I might have from my own experience in emergency airway before you begin yours, and I am happy to share with you what I can.

Thinking back to my early training, one of the first hard lessons I remember learning was that there's a big difference between knowing the path, and walking the path. I began my career confidently (perhaps overconfidently) thinking I had enough of the basics to assist with emergency airway care, and maybe even to intubate (how naive I was back then!) but what I discovered was that during an airway emergency, anything I thought I knew was often useless because I couldn't successfully translate it into action during those chaotic, stressful, and time-sensitive moments when it mattered most! Later, though my airway procedure skills had improved, I still found myself frequently unable to handle emergency airway situations successfully. Needless to say this type of failure weighed heavily on me for many years as I advanced in my residency.

I decided to seek out a mentor (which I encourage you to do too) and I continued to watch the experts at their craft. It was then, that I hit upon an important idea that subsequently changed my airway practice forever. I discovered that even though the laryngoscopy I performed looked to my eyes the same as the experts that I admired, they still succeeded far more often than I did. I began to understand that, what appeared to me to be the same knowledge was in fact different because the expert perceived that knowledge in a different way. They had the key that allowed them to act in the right way, and in the right time, using the same procedural techniques I had. What this key was I will tell you now, so that you may benefit from my struggles.

What I discovered was that unseen in the mind of the expert was a different cognitive framework: more than just procedural skill, they had an understanding of timing and a problem

-solving ability that I lacked. When they ran into trouble their minds led them to the right solution, whereas mine was overcome with uncertainty.

It slowly began to dawn on me that perhaps it was not only about what we learn, but how we learn it that is important. Perhaps the way the expert organized their knowledge is what made the difference. I came to understand that how we learn can help us place knowledge in context, that it can help us problem solve, and understand our predicament better when faced with a challenge. How we learn impacts how we recall vital information and thus our ability to act effectively in a time of need. In short, how we learn can be the difference between success and failure just as much as what we learn.

I tell you this now my friend, being committed to how you learn and not just what you learn can transform you into an expert over time. Ignoring it can lead you astray, hold you back, and limit your potential. If you're going to take the journey of emergency airway and walk the path, how you walk it matters. This is why I have spent so much time in my current years designing airway training that is focused on how we learn, and you should too. If you too take this idea to heart and apply it to your own learning it will repay you tenfold.

By now I'm sure you must be wondering in what practical way can you possibly use this key that I have given you? How will you apply this knowledge: learning all you need to learn, but in a way that will, in time, create a successful emergency airway strategy that works for you in the real world? As I said, learning airway procedures is exciting, but without context they will fail (I speak from experience). What you need above all else is a high quality conceptual framework: one that will allow you to organize all those procedures and skills into a framework that will guide you take the right action at the right moment.

You asked me once why all of the training installations at the Protected Airway Course are theme based and narrative driven? Well, it is for this reason. They are intended to be the scaffold for airway trainees like yourself to create a robust conceptual framework of the emergency airway so that you may continue developing your skills long after the course is over. You asked why we study the human factors that play into airway management and not just procedural skills. It is for the same reason. Similarly, the use of cognitive tools like intubation checklists, DAS guidelines for a difficult airway, and the Vortex Approach should all be an important part of

your airway training, so that you can organize your knowledge more effectively.

That is all well and good you might say, but how do I build this conceptual framework for emergency airway care? Where does the rubber meet the road? For that you will need a training plan. To my mind it is a very specific type of training plan you must follow. One that is not built from a textbook, or an algorithm, or even an expert. No, if we human clinicians are going to truly learn in a way that will help our patients and protect them from harm, then our training must be guided by a set of principles. Here they are.

The first is something I have already talked a lot about. If you want to learn anything you have to spend some time thinking about how we learn and choose learning that is built around an understanding of the human mind: how we learn: how we absorb, retain and recall knowledge. This is another topic in itself, but suffice it to say here that it should not rely on only one modality. Spaced and blended learning is best.

It must also be one created for the environment our airway knowledge inhabits. What good is it to learn a lifesaving skill in the safety of a classroom if in the chaos of the resuscitation room we are fumbling to recall the information we need; denied access to our own brain due to a change in circumstance? Chaos, stress, confusion, fear, these are often the realities of the environment we work in during airway emergencies. How you learn should plan for this reality.

As humans, stress, fear, frustration heavily impact our abilities. When you build your training plan you must have one that anticipates our weaknesses, but that also leverages our strengths. We can be great as a team, we can be creative, intuitive, sizing up situations quickly and accurately. Your training must also understand this and play to your strengths. You should be honest about your weaknesses too. Understand the limits of your ability, and learn to lean on communication and teammates that can help you. There is no need to try and be the hero. Take your ego out of the picture as best you can, then learn from your mistakes.

Most importantly, a training plan must be one that inspires you to continue the lifelong learning journey of emergency airway training. Even after many years, I have always found I can be better at what I do. For me it is the desire to create great airway training that inspires me to continue the journey. That is my airway sandbox (I will write more on this

for you soon). You must find that source of inspiration too.

I have gone on too long, but I hope my words are helpful to you. I wonder often how much easier my path would have been had I had someone to write to me in this way. Keep learning, keep growing and I will write again soon on a similar topic that I think will help you. However you choose to learn emergency airway my friend, always make sure that you remember that how you learn is important; have a conceptual framework, and use the principles of learning for humans (which I have written out again for you at the end of this letter). If you do this, then when you learn a new technique or procedure it will always be there for you when you need it.

Yours Sincerely

Jonathan St. George MD.

Creator of the Protected Airway Course

#### Principles of Learning for Humans

1. Focus on how you learn
2. Anticipate your weaknesses
3. Leverage your strengths
4. Learn for the environment you work in
5. Seek learning that inspires