



Flying into Danger

Larry J. Sangrik, D.D.S.

*Director, Medical Emergency Preparedness
The Raven Maria Blanco Foundation, Inc.*

On June 1, 1999 American Airlines Flight 1420 from Dallas attempted to land at its destination, Little Rock, Arkansas, amid wind shear and a severe thunderstorm. The plane slid off the end of the runway. The resulting crash and fire killed the pilot and ten passengers. Investigation by the National Transportation Safety Board (NTSB) attributed the direct cause of the crash to the fact that the crew, caught up in the chaos of inclement weather, forgot to activate the spoilers on the wings which slow the plane upon touching down.

The question remained, “*What prompted this crew to attempt the landing in the first place?*” For that, the NTSB commissioned the Massachusetts Institute of Technology to study the behavior of commercial airline pilots when called upon to land in severe thunderstorms. The study observed 2000 airliners approaching Dallas / Fort Worth airport. Of those planes that approached a thunderstorm, two out of three attempted to land. When studied for statistical patterns, a glaring pattern emerged. If a previous plane had just been witnessed landing, most pilots decided that they too would attempt a landing, despite obvious dangers. The NTSB termed the condition, “get-there-itis,” a condition where a pilot tries to complete a maneuver despite evidence that its attempt should be avoided. Since the crash of 1420, the airlines have taken steps to help pilots address both of these problems.

At the time of this writing, January 2011, six patients have died during the past 13 months in the United States during the course of routine dental care. All were children. All received some type of sedation (ranging from oral medications to general anesthesia). Additionally, in every case, the underlying cause of death was a failure to ventilate the patient when an emergency developed.

Curiously, the lessons the airline industry learned from Flight 1420 are equally applicable to the dental profession in light of the recent barrage of deaths.

Lesson 1: Finishing the procedure is not the main goal of a dental appointment. All dental students are taught, “Treat the patient, not the tooth.” Yet, with time, all dental practitioners, like pilots, fall victims to “get-there-itis,” a desire to finish the planned procedure regardless of the physical state of the patient. It is easy to visualize this happening in someone else’s office on a sedated patient. The doctor while focusing on retrieving a root tip or keeping an implant straight, fails to monitor the level of oxidation and the patient stops breathing. What is less apparent is this same compulsion to “finish what I started” occurs on non-sedated cases. Whether it is searching for a fourth canal on tooth 14 or retaking an impression in the face of blood and saliva on tooth 30, it is (literally) vital that the doctor stay focused on how well the patient is tolerating the stress of the appointment.



PO BOX 65581, VIRGINIA BEACH, VA 23467

Mario Blanco: (C) 757.449.3565 | mario@rmbfinc.org

Fax: (C) 757.549.7931 Web: <http://www.rmbfinc.org>



Nicole Cunha: (C) 757.222.2876 | nicole@rmbfinc.org

Email: donations@rmbfinc.org

Lesson 2: “Others have landed safely. I will too.” Far too many dentists fail to perceive the practice of dentistry as inherently risky. “*All these death were due to anesthesia. I do not sedate patients. Nothing will ever happen to me,*” is the mindset of many.

In reality, all these death were ultimately caused by a failure to manage an airway. Moreover, every time a patient sits in a dental chair and opens their mouth, the dentist is teetering on the verge of an airway obstruction. It may be a fractured tooth fragment during an extraction, a slippery crown during cementation or an orthodontic bracket that fails to bond. It is not an exaggeration to say that the little ball of solder that holds a mouth mirror to a handle is all that separates a dentist from a major airway crisis.

While avoiding a medical emergency (airway obstruction or something else) may not always be possible, there are constructive steps *all* dentists should pursue to assure they are vigilant to avoid problems and be capable of responding should a situation develop. Developed by the Institute of Medical Preparedness, these steps, taken together, are called *The Six Links of Survival*[™].

- 1) Proper doctor training, including, but not limited to CPR
- 2) Proper staff training, also including CPR
- 3) Holding periodic mock drills
- 4) Having a written medical emergency plan
- 5) Stocking the appropriate medications
- 6) Having the necessary equipment including oxygen for both breathing and non-breathing patients

The Raven Maria Blanco Foundation, Inc, a 501(c) 3 charity, is a patient advocacy group dedicated to educating dentists about medical emergency preparedness. A free Reference Guide that provides detailed checklists on each of *The Six Links of Survival*[™] can be downloaded from their website at www.rmbfinc.org.

America’s dental profession is the world’s finest. It is also incumbent that it is also the safest.