

PERFORMING UNDER STRESS

APPLYING WHAT HE LEARNED IN THE MILITARY, MIKE LAURIA ('18) SHARES WHAT IT TAKES TO REMAIN CALM UNDER PRESSURE.

THE BLADES BEGIN TURNING SLOWLY—quickly becoming a blur. A flawless liftoff sends the flight crew on its next mission. As the air ambulance team flies over the majestic mountains of New Hampshire and Vermont, the crew anticipates the unpredictable circumstances they will likely encounter.

Being part of an in-flight critical care transport team requires sharp clinical and critical thinking skills, along with the ability to remain calm in high-pressure situations that engender stress, which doesn't come naturally to us.

A paramedic with the Dartmouth-Hitchcock Advanced Response Team (DHART), Mike Lauria is well versed in this resuscitation scenario. A third-year Geisel School of Medicine student with an interest in critical care, he spent several years flying as an Air Force Special Operations Pararescueman prior to enrolling in medical school, and he brings the psychological skills training he learned in the military to civilian emergency medicine. Psychological skills training, or stress inoculation, refers to a group of performance-enhancing techniques typically used in high-risk occupations.

Lauria speaks and writes extensively about these techniques, and a Department of Surgery Grand Rounds presentation at Dartmouth-Hitchcock, "Making the Call: Enhancing Cognition, Critical Thinking, and Decision Making in Acute Care," went viral after he posted it on YouTube.

That initial talk led to other projects, including an invitation to write about critical care issues for the EMcrit website—a site dedicated to resuscitation and critical care issues. "I started blogging about these techniques and the response was phenomenal," Lauria says.

His EMcrit blog posts and podcasts are widely viewed and frequently downloaded. He also has a substantial Twitter following. In demand as a speaker, Lauria receives more



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requests to talk about human performance under stress than he can fulfill. Last summer, he spoke at The Social Media and Critical Care Conference held in Chicago, a gathering of more than 2,500 people from around the world.

On the heels of the conference, Lauria traveled to Australia where he spent one month working with the Sydney Helicopter EMS program. The in-flight team, including physicians and paramedics, provides a high level of critical care in very difficult nontraditional medical situations and was interested in improving their performance under duress.

Stress inoculation revolves around three things that when implemented can improve our performance when we are stressed: understanding the physiological aspect of stress; engaging psychological skills, such as positive self-talk and visualization; and developing trigger words to enhance concentration. All of these work together to improve our ability to focus and to block out diverting thoughts and distractions, which reduce errors and omissions.

Together, he and the Sydney HEMS physicians began developing ideas to incorporate into the training. The team, which was already impressive in harrowing situations, first practiced the skills in low stress scenarios. Slowly, the scenarios reach a level of complete chaos—numerous sick people, noise, people running around, and a host of other distractions.

"The idea is to expose people to escalating situations so they become aware of how their performance will naturally deteriorate, and then understand how to offset that deteriora-

tion by putting the stress inoculation skills they learned into action," Lauria explains. "In addition to the chaos, there are equipment malfunctions to trouble-shoot and decisions to be made about what each member of the team will do along with all of the clinical procedures that need to be accomplished."

Based on his expertise, Lauria has been invited to write a chapter on human factors in critical care environments for the third edition of "Emergency Airways". He's also written a series of journal articles for *Emergency Medicine Australasia*, the first of which was published spring 2016.

"The best part of this is that it has introduced me to some of the coolest people around the world," he says. "Amazing surgeons, critical care physicians, anesthesiologists, and pediatricians, who have taught me about their experiences—it's a phenomenal community of inspired people.

"None of this would have been possible without the support of the physicians and staff of the Emergency Department, the ICU, and the trauma service at Dartmouth-Hitchcock—they have been an amazing source of inspiration and education both in my regular work with DHART and in medical school. I'm also indebted to my colleagues at the DHART program for their continued friendship and encouragement. It has allowed me to explore an area of medicine that is of interest to me and has kept me going in challenging times."

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