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Local doctor provides insight in rural hospitals with essay in new book, “The Country Doctor Revisited: A Twenty-First Century Reader”

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Advocate Tribune
Posted Nov 11, 2010 @ 09:47 AM
Last update Nov 11, 2010 @ 10:10 AM

Granite Falls, Minn. —

Within the new book, “The Country Doctor Revisited: A Twenty-First Century Reader,” an essay by Granite Falls Associated Community Medical Care (ACMC) doctor Darrell Carter gives readers insight into a hypothetical evening-in-the-life of a rural hospital that has adopted the Comprehensive Advanced Life Support (CALS) Program.

Dr. Carter has served as a family physician in Granite Falls since 1972 and is the co-founder and Program Director of the CALS Program. In early 2009 the Granite Falls Municipal Hospital and Manor became only the second hospital in the state to be awarded a CALS hospital certification and it requires no great leap in logic to imagine that the experiences Carter has had while practicing at the local hospital heavily influenced his essay.

Watered down, the CALS approach to patient care entails a method of medical response in which hospital and ambulance personnel are better prepared to anticipate, recognize, and treat life-threatening emergencies, above all, as a team.

“The CALS program has developed from an idea into a reality to improve rural emergency and critical care and to that point it is being shown that it is helping, it is making an impact,” said Dr. Carter of the program’s effectiveness.

The Granite Falls Municipal Hospital and Manor has received growing recognition for their implementation of, and success with, the CALS program approach. Carter began leading the CALS training at the Granite Falls Hospital in 2000, and since then 100 percent of the hospital’s medical staff, registered nurses, emergency care and paramedics have completed the CALS Provider Course and Benchmark lab training, allowing the hospital to garner the CALS designation.

The first CALS program was developed in Minnesota in 1996 and has gone on to become adopted in much of the U.S., in parts of Canada and throughout the globe. According to the CALS website, over 5,000 medical professionals have finished the course while, in response to a request by the U.S. Department of State, a modified CALS based curriculum was created and completed by 350 foreign service health providers.

“It is having a positive impact in the more rural areas and it is gratifying to see that the work is being helpful. It’s not my work, it’s the work of a whole collection of providers that have really dedicated themselves to make this work,” Dr. Carter said.

Dr. Carter has provided a number of lectures and articles attesting to the success of CALS, and his essay, “A Night in the Life of a Rural Emergency Care Team: The Value of the Comprehensive Advanced Life Support Program” continues in this vein. In its entirety, “‘The Country Doctor Revisited: A Twenty-First Century Reader’ is a collection of new stories, poems, and essays, written by rural health care professionals across the United States, that captures the joys and tribulations of rural health today,” according to the anthologies editor, University of Minnesota Professor Therese Zink, MD, MPH.

From Dr. Carter’s perspective, “The book is an interesting collection of stories and other aspects of rural family medicine and so it’s interesting to read and gives some flavor as to what’s different about rural practice. It’s an interesting book,” he said.

Dr. Carter’s essay is printed in its entirety below and continues on to page 14B.

“A Night in the Life of a Rural Emergency Care Team: The Value of the Comprehensive Advanced Life Support Program”

Another cold blustery January night in northwestern Minnesota, and you hope everyone stays home and your hospital’s emergency department remains quiet. As the night charge nurse on duty, you are responsible for overseeing the care your night staff (one other RN and an LPN) gives to the twelve inpatients in your twenty-two bed Critical Access Hospital (CAH). These twelve patients include a mother and her hours-old newborn and an eighty-two-year-old female who is two days post-op after a hip pinning and who is exhibiting increased confusion and agitation. You hope to let your on-call doctor get some sleep since she was up much of last night delivering the baby in your nursery. The only other practicing physician in your community is gone for a much-deserved five-day break to Cancun.

All has remained routine until 1:00 AM when the squawk from your ambulance paging radio disturbs your charting. The Basic Life Support ambulance is dispatched to a motor-vehicle-crash involving two vehicles and an unknown number of victims. At least two of the patients sound seriously injured. Reluctantly, you shift your role from more mundane tasks to organizing the team for the soon-to-be-busy emergency department.

In the twenty-first century, seriously ill or injured patients benefit from a growing amount of advanced technology for diagnosis and treatment of their ailments or injuries. Highly trained specialists are now available to help manage a wide variety of complex conditions, and well-trained and highly skilled teams staff emergency departments. Unfortunately, this is true only in the larger population centers of the United States. Rural health care facilities do not have immediate access to this wide variety of specialists and frequently lack the more advanced equipment needed to diagnose or treat the seriously ill or injured patient. Rural providers frequently lack the organized team, knowledge, and skills to rapidly perform the life-saving procedures and treatments needed by the more seriously ill or injured patients. Extensive distances lengthen the time required to transport patients to specialized urban medical centers for life- or organ-saving procedures. It is little wonder that rural trauma victims have a higher mortality rate than their urban counterparts. In 2004 the Minnesota Statewide Trauma System reported that fewer than 30 percent of all motor vehicle crashes occurred in rural areas, but 70 percent of the fatal crashes are rural.

There are many obstacles to our delivering the highest and most modern emergency and critical care to rural patients. However, the medical legal standards of care and the general public expect similar care to be delivered in both urban and rural communities.

Disparity in the availability of advanced emergency care has adverse consequences. In rural areas, these include: higher rates of trauma deaths, increased burnout among providers, difficulty recruiting staff for existing health care facilities, and an increase in medical-legal risks for practitioners due to the inability to rapidly deliver emergency care or obtain easy consultation for some critically ill or injured patients.

So what is the solution to this developing crisis in rural medicine? Some recommend more helicopters to rapidly transport the rural patients to urban centers. Others promote equipping rural communities with all the latest equipment, as well as hiring skilled specialists to respond to the infrequent events. But is society willing to finance the cost of such solutions? Others claim living (and vacationing and driving) in the rural parts of our country is simply more dangerous, so if you elect to live in, or even venture into rural areas, then you need to accept the inherent risks.

Out of a feeling of inadequacy to deal with the wide array of clinical problems and the desire to improve the outcomes of rural patients came the concept that there is a better way to prepare the rural health care team for the variety of medical emergencies that arise. Although traditional advanced life support courses such as Advanced Cardiac Life Support and Advanced Trauma Life Support offer valuable education to thousands of health care providers, they don’t meet all of the needs of rural providers. Each course presents an excellent summation of the major treatment protocols for a specific aspect of emergency care such as trauma, cardiac, pediatric, newborn, or obstetric, but they include much overlap of subject matter and fall short in meeting many of the rural provider’s needs such as the management of the difficult airway.

In the mid-1990s the Comprehensive Advanced Life Support (CALS) Program was created after a four-year collaborative effort that involved several Minnesota professional and academic entities to improve the emergency care in rural health care facilities.1

CALS is designed for all members of the health care team who deal with emergencies.2 The CALS training consists of three components: 1) home study completed prior to participating in the formal courses; 2) a two-day interactive, scenario-based CALS provider course typically presented in rural hospitals; 3) a one-day CALS benchmark skills lab that focuses on the skills to resuscitate a critically ill or injured patient. Providers are encouraged to attend in teams consisting of a team leader, usually a physician, and other facility staff.

Four thousand heath care providers have attended CALS since its inception in September 1996. The majority of courses have been held in Minnesota (160), in Wisconsin (6), and for the U.S. Department of State Medical Personnel who staff U.S. embassies around the globe (14). Several hundred CALS skills labs have been conducted in Minnesota and Wisconsin.

The real success of the CALS Program should be measured by the positive changes that occur in the care given to the seriously ill or injured patients who present to the doors of our rural hospitals. This is hard to measure, and to date no formal CALS outcome study has been conducted. We do have many anecdotal examples that suggest positive results. Helicopter-critical transport teams have noticed an improvement in patient airway management by hospitals that have participated in CALS training. The use of RSI (Rapid Sequence Intubation) in rural Minnesota hospitals has increased significantly. The success rate of performing rescue airway procedures has been very high among those trained with CALS. The time needed to stabilize trauma victims for transport has been reduced. Rural providers who have participated in a CALS course report having greater comfort levels when they encounter critical patients. Tertiary centers have noted an improvement in the condition of patients initially managed in rural hospitals.

Other states with large rural populations are interested in developing the CALS Program, which was originally developed and introduced in Minnesota. In response, a national CALS Program, incorporated as a 501(c)(3), has been organized to assist other states in this effort. The Minnesota State Trauma Advisory Council accepted CALS as one of the educational training programs to prepare level III and IV trauma center personnel for its institution’s trauma designation. The U.S. State Department has designated CALS as its advanced life-support training program to prepare its medical personnel. Afri-CALS is being developed in Nairobi, Kenya, a version designed for the developing world with a different set of needs and resources.

CALS training offers an approach to the care of rural emergency patients and emphasizes teamwork. Team members learn a universal systematic approach to the critically ill and injured patients using basic, affordable, easy-to-use equipment. In the process, CALS also helps a rural hospital understand its limitations. According to one physician, “The philosophy of CALS is not that we, as a rural hospital, are going to be able to take care of all clinical situations on our own. Instead, the goal is to increase our ability to rapidly stabilize patients, rapidly determine their conditions, and rapidly transfer to appropriate care.”

From The Country Doctor Revisited: A Twenty-First Century Reader, edited by Therese Zink. Reprinted with permission from The Kent State University Press, Kent, Ohio.