



RURAL EMERGENCY  
MEDICAL EDUCATION  
*Comprehensive Advanced Life Support*

Rural Emergency Care:  
**A PLAN FOR  
EDUCATION AND  
TEAM DEVELOPMENT**



*“You don’t need fancy equipment to do what we do. You just have to have a well thought-out plan.”* Rural emergency physician

# Why You Should Read This

This short “e-book” is intended for rural hospital CEOs, administrators, emergency medicine directors and other decision makers. Although the challenges faced in rural hospitals are many, the desire to develop world-class emergency medical teams is unwavering. This book provides a plan for an affordable and sensible approach to emergency medical education, team-building and continuing development.

## Share This Book



## A Plan for Education and Team Development

- Rural Emergency Healthcare Is Hard
- The Promises and Pitfalls of Training
- Comprehensive Advanced Life Support
- Making It Work: Four Key Elements
- Train The Team For Optimum Results
- Curriculum, Courses and Connections
- Two-Day Provider Course
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- Full-Day Benchmark Skills Lab
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# Rural Emergency Healthcare is Hard

As a rural hospital leader, you face many challenges as you strive to deliver the highest quality of care, including that of the emergency department. To deal with a wide range of clinical problems, you and your emergency staff must first overcome several obstacles:



## **Constrained financial resources**

Low patient volumes, the economic downturn and a high ratio of uninsured and low-income patients make it difficult to manage the fixed costs associated with operating your hospital. The impact is particularly hard-hitting in the higher-cost emergency department.



## **Limited technology support**

Insufficient access to capital affects your ability to modernize facilities and acquire or adopt new technologies. This means that your rural emergency department is often working with basic or even outdated life-support equipment, tools and systems.





### ✓ **Infrequent emergency care experience**

In your smaller community, the emergency medical team is called into action only sporadically. This makes it difficult to build the high level of experience and teamwork required in a life-support discipline.

### ✓ **Lack of specialized personnel**

Your rural setting means that specialized personnel such as obstetricians, cardiologists and trauma surgeons are often unavailable in your area. As a result the emergency team must handle a wider range of clinical problems without the support of specialists.

### ✓ **Difficulty recruiting qualified staff**

It can be a struggle to recruit physicians, nurses, technicians and other skilled staff – especially those needed in emergency medicine – to practice in rural settings.

It's going to take a dedicated effort to overcome these challenges and build a world-class emergency team in your hospital. But how do you do that, especially when advanced life support training comes with its own set of obstacles?

**We're glad you asked.**





# The Promises and Pitfalls of Training

Faced with the challenge of delivering quality emergency healthcare, a healthy dose of advanced life-support education and staff development could make a big difference. But that presents another series of hurdles in your rural hospital setting:

## ✓ **Focused curriculum, broad needs**

Most advanced life-support courses are narrow in scope, covering one topic in depth. Yet your team needs to understand the full breadth of emergency scenarios in order to be ready for the next ambulance to arrive.

## ✓ **Rural reality disconnect**

Most emergency care courses assume a level of resource availability inconsistent with a rural setting. Courses that teach dependence on specific advanced equipment or access to highly trained specialists won't prepare your team for the reality of your rural environment.





### ✓ **Lack of funds and time**

You could schedule multiple education courses in order to develop the breadth of knowledge your staff needs. But each course would require more of your limited funds and take your staff away from the hospital for several days.

### ✓ **Your remote location**

Traveling to distant training sites in larger cities increases the time drain and cost of emergency medicine education.

### ✓ **Distance-learning drawbacks**

Distance-learning options are available, which could work for refresher training. But online- or video-based courses don't work well for skills training or team building, both of which are key elements of success.

Is there an approach to advanced life-support education that solves these issues, one that's focused specifically on the requirements and realities of your rural hospital?

**The answer is yes!**



# Prescription: Comprehensive Advanced Life Support



## RURAL EMERGENCY MEDICAL EDUCATION

Comprehensive Advanced Life Support (CALS) is an education program specifically designed for rural emergency medical teams. CALS covers a broad range of emergencies in a single curriculum uniquely suited for resource-constrained environments.

CALS teaches an effective approach to the care of critically ill or injured patients with a wide range of emergencies. Content in trauma, cardiac, stroke, pediatrics, obstetrics, neonatal, airway compromise and sepsis are all covered in the CALS course.

CALS has been recognized by professional groups such as American Academy of Family Practice Physicians (AAFP), American College of Emergency Physicians (ACEP) as an equally acceptable alternative to other advanced life support and/or trauma life support and/or emergency response training. Because the CALS curriculum is more comprehensive, there may be additional benefit in the rural **practice**. CALS stresses a



*“The supply of emergency medicine residency-trained, board-certified emergency physicians is not likely to meet demand in the United States in the foreseeable future.” Acad Emerg Med., 2008*

## What sets CALS apart from other life-support courses?

### ✓ **Comprehensive curriculum**

Training is delivered across all life-support disciplines, providing the broadest available knowledge for your team.

### ✓ **Rural hospital focus**

All course concepts and methods are tuned to the unique resource constraints of rural settings.

### ✓ **Team-building approach**

Your emergency team is trained together, leading to more successful implementation and a stronger overall staff.

### ✓ **Local delivery**

Critical training and staff development is available in nearby rural communities.

As you'll see in a moment, the results can be remarkable. But first, take a look at how this works.





*"Success of caring for critically ill or injured patients depends upon the overall skills and knowledge of the health care professional team."* Certification and EM Workforce newsletter, 2009

# Train the Team for Optimum Results

Comprehensive advanced life-support education is held onsite at local rural communities, allowing your entire emergency team to participate. Team training results in better implementations and raises the functional level of your entire staff.



Providers are encouraged to attend in teams consisting of:

- physicians
- physician assistants
- nurse practitioners
- nurses
- paramedics
- allied health professionals





*"Energized our multidisciplinary team."*



The unique roles of team leaders and team members are emphasized, so participants learn their specific responsibility. Your entire team will gain hands-on experience, shared knowledge and collaborative process, all in a familiar environment.

Besides improving your immediate effectiveness in emergency medicine, a higher-functioning staff can also help you recruit additional qualified personnel.

After all, who doesn't want to be part of a winning team?



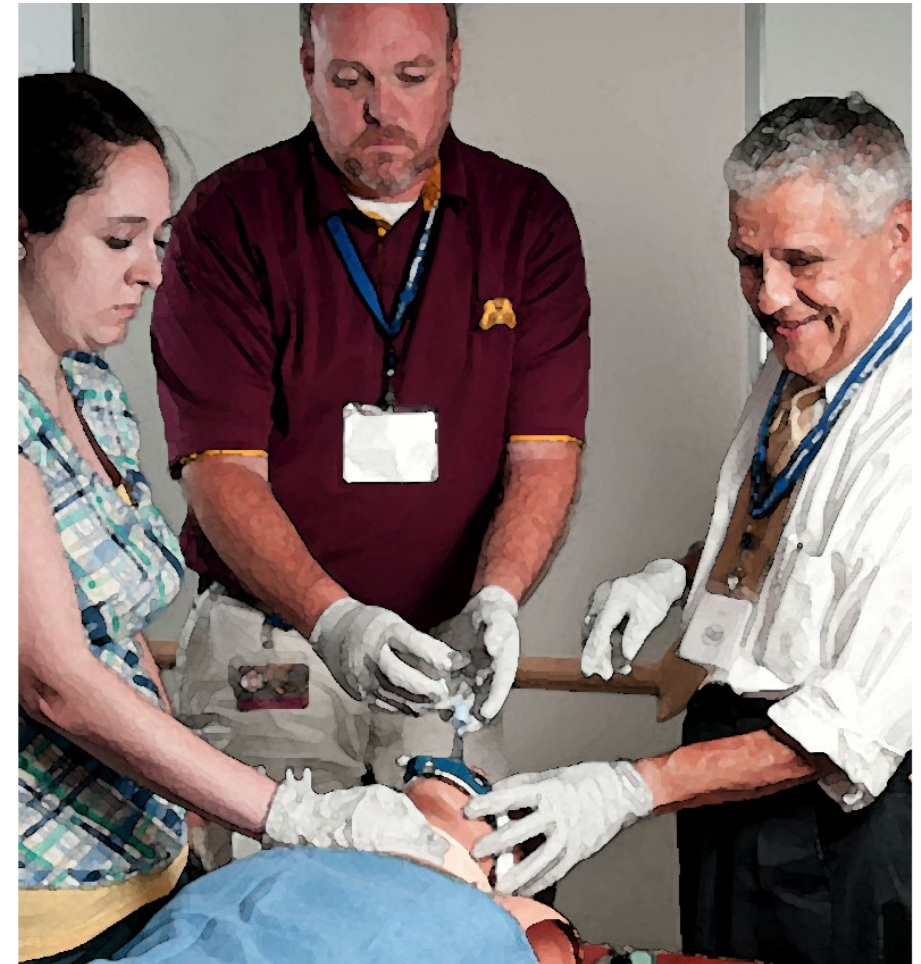
# Curriculum, Courses and Connections

CALS curriculum teaches an effective approach to the care of critically ill or injured patients. The curriculum covers a wide range of emergencies including trauma, cardiac, stroke, pediatric, obstetric, neonatal, airway compromise and sepsis.

Four unique courses organize this curriculum into easily scheduled sessions, delivered through a combination of home study, hands-on labs and in-person classes:

- Two-day interactive Provider Course
- Three-hour Trauma Skills Module
- Four-hour Advanced Obstetric and Neonate Life Support
- One-day Benchmark Skills Lab  
(offered in Minnesota only)

*Occasionally, we receive requests for specialized Emergency Medical Education Programs. Call us if you have a customized need for training.*



## Online Connection

For refresher training, an online connection to a curriculum resource library completes the study cycle.

The next few pages describe each of these courses in a bit more detail. If you're in a hurry, you can skip to page 17. But we really hope you don't!





*"One of the best CME courses that we have had in my 21-year experience."*

## Two-day Provider Course

This course provides the foundation for all aspects of advanced life-support education.

The Provider Course combines home study and two days of hands-on, scenario-based training to cover the full spectrum of emergency care. It provides an introduction to critical concepts, algorithms and an over-arching "Universal Approach" to critically ill or injured patients. The Universal Approach is particularly helpful as it defines the manner by which care providers evaluate and treat emergency patients.

Presented on-site in rural or remote communities, the Provider Course includes interactive sessions in cardiac, traumatic, pediatric, obstetrical, neonatal and medical advanced life support.



**Upon completion of the course, participants will be able to:**

- Demonstrate the ability to solve problems in a variety of clinical situations
- Identify key threats and demonstrate therapeutic interventions
- Discuss the roles of each team member involved in patient evaluation and treatment
- Perform skills consistent with the provider's role on the advanced life support team



*"This course was well done and I feel updated and affirmed in my current level of knowledge and skill."*

## Three-hour Trauma Module

This course provides physicians, advanced practitioners, nurses and paramedics with the opportunity to learn and practice infrequently used, life-saving skills. It expands upon skills covered in the Provider Course, and may satisfy your state's education requirements for level III or IV trauma designation (in some states).

Specific skills taught include:

1. Cricothyrotomy
2. Needle thoracostomy for tension pneumothorax
3. Chest tube insertion, adult
4. Percutaneous pericardiocentesis
5. Helmet removal
6. Leg traction splint
7. FAST Exam: introduction to the use of ultrasound in trauma care



CALS Trauma Modules are usually held immediately prior to the Provider Course, although they can be arranged as a stand-alone course.



# Four-hour **OB Module**

This course provides nurses and paramedics with the opportunity to learn and practice infrequently used, life-saving skills for the obstetric and neonatal patient. It expands upon skills covered in the Provider Course, provides additional hands on skill time, and is ideally suited for the rural hospital who needs to maintain emergency OB/ Neonatal emergency skills.

Specific skills taught include:

1. Bleeding/Hemorrhage
2. Premature delivery
3. Neonatal resuscitation
4. Shoulder Dystocia
5. Magnesium Toxicity
6. Maternal Arrest
7. Malignant Hypothermia
8. Emergent C-Section
9. Ectopic Pregnancy
10. Trauma and Pregnancy
11. And much more...







## Full-day **Benchmark Skills Lab<sup>1</sup>**

This lab provides realistic, hands-on experience in many of the skills necessary for stabilization of critically ill or injured patients. An emphasis is placed on the value of preparation, teamwork, and hands-on skills learning and practice.

The experience is realistic, but friendly and without pressure. Two team leaders and two nurses (or other appropriate team members) attend each lab session, which lasts for up to 8 hours. The Benchmark Skills Lab satisfies the lab requirement of the Comprehensive Advanced Life Support (CALS) course.

<sup>1</sup> Offered in Minnesota only



Lab teams are comprised of two team leaders (MD, DO, NP, PA, CRNA) and two other appropriate team members (RNs, EMT-Ps). Attendees can expect hands-on practical application of skills. Each lab is taught by an emergency physician and RN.



# Refresher Resources

CALS recertification is required every four years. In between courses, CALS offers providers the ability to refresh their skills and update their emergency medical knowledge.

An online library of articles, skill assessments and home study materials is available on demand. Many of these resources are linked to CALS' extensive provider manual which is available online.



*“Provides the best opportunities for the best outcomes for patients.”*

## **What Does CALS Cost? Where's The Value?**

We know you're concerned about cost, so we will work with you individually to develop an education plan that is affordable for you. Typically, registration fees are competitive or less than other life support programs and dependent on role, state, course configuration and other factors.

The cost of a Provider Course can be offset by:

- Local grant funding
- Hospital funding
- Individual participant fees
- State organizations
- Donated hospital space and food

## **What's the benefit for your hospital?**

Hospitals that implement the CALS approach have reported substantial improvements in teamwork, communications, patient outcomes, staff recruitment and staff retention.

In other words, CALS training helps your hospital make significant progress toward the development of world-class rural emergency care.





## CALS Hospital Benefits

Hospitals that meet CALS standards for training, equipment, and staffing can earn “**CALS Hospital**” recognition, highlighting their commitment to improve rural emergency care.

Among other benefits, CALS Hospitals enjoy increased stature in their community, region, and state; and are better able to attract and retain the finest clinical staff.



*"More lives will be saved because of what you presented to us."*

## **I'm From Missouri (or Montana, or Malawi, or...) Show Me!!**

**12,500** More than 12,500 medical professionals across the U.S. and around the world have completed Comprehensive Advanced Life Support training.

**96%** More than 96% of participants report that taking the CALS course enhanced their skills, confidence and teamwork abilities, leaving them better prepared to treat critically ill or injured patients.

**2300** The CALS Program is proud to be the exclusive provider of emergency training to U.S. embassy medical personnel around the globe. More than 2300 of the US Department of State's foreign-service medical personnel have completed CALS training.

### **Continuing Education Credits**

The Provider Course has been reviewed by the AAFP (American Academy of Family Physicians) CME Accreditation Department and the Commission on Continuing Professional Development and is acceptable for up prescribed credit hours.





# Next Steps

If this plan makes sense, it's time to take the next step toward making it work for you.

Here are five suggestions:

## 1. Share It

Share this plan with your emergency team and other hospital leaders.



## 2. Dig Deeper

Check out the resources and links on the next page for more detailed insight.

## 3. Contact Us

Contact Ann Gihl, CALS Education Manager, to discuss your questions, ideas and concerns.

**612-624-5901** or **[ann.gihl@calsprogram.org](mailto:ann.gihl@calsprogram.org)**

## 4. Try Us Out

Send one or two people to a CALS course to observe our team-building in action.

**Course calendar & registration**

## 5. Develop Your Team

Send one or more full emergency teams to a CALS course. **Course calendar & registration**



# Resources

To learn more about the CALS Program, visit [www.calsprogram.org](http://www.calsprogram.org) or check out one of these resources:

## Overview

**General Brochure pdf**

**About CALS pdf**

**Benefits of CALS Fact Sheet pdf**

## Provider Course

**CALS Course Content pdf**

**Trauma Module**

**Benchmark Skills Lab**

**Benchmark Skills Lab pdf**

**EM News article pdf**

**Certification and EM Workforce article pdf**



## About CALS Rural Emergency Education Program

CALS is an acronym for Comprehensive Advanced Life Support, our exclusive curriculum for professionals working in rural, remote and global emergency departments.

CALS was started in 1996 by a coalition of Minnesota health care providers, led by Dr. Darrell L. Carter and Dr. Ernest Ruiz, who wanted to improve patient care and outcomes in rural settings.

A multi-disciplinary task force was formed under the umbrella of the Minnesota Academy of Family Physicians, and volunteers contributed thousands of hours to create an advanced life support course tailored for the unique needs of rural providers.

A grant from the state of Minnesota helped the program expand, advancing rural emergency care in multiple states along the way. CALS now teaches courses across the mid-western US and Canada, and is developing affiliate programs and partnerships globally.

The CALS Program is the exclusive provider of emergency training to U.S. embassy medical personnel around the world.

CALS is an independent 501(c)(3) nonprofit organization.

For more information: Visit the **CALS web site.**



*"Truly a remarkable program."*

## CALS Summary

Designed for **rural healthcare practitioners**

One course that **covers concepts** contained in many of the other advanced life support courses

**Adaptable to the specific needs** of a variety of settings

Emphasizes **teamwork** in a team-training environment

Provides a **favorable ratio of students to instructors** for optimal student learning

Focuses on a **Universal Approach** to emergency care of rural patients

**Identifies equipment** essential for resuscitation

Includes **all age groups** from birth to geriatrics

Offers **both classroom and lab components**