

United States Air Force



Presentation

Before the Senate Appropriations
Subcommittee on Defense

Defense Health Programs

Witness Statement of
Lieutenant General (Dr.) Mark Ediger
Surgeon General of the Air Force

March 29, 2017

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BIOGRAPHY



UNITED STATES AIR FORCE

LIEUTENANT GENERAL MARK A. EDIGER

Lt. Gen. (Dr.) Mark A. Ediger is the Surgeon General of the Air Force, Headquarters U.S. Air Force, Washington, D.C. General Ediger serves as functional manager of the U.S. Air Force Medical Service. In this capacity, he advises the Secretary of the Air Force and Air Force Chief of Staff, as well as the Assistant Secretary of Defense for Health Affairs on matters pertaining to the medical aspects of the air expeditionary force and the health of Air Force people. General Ediger has authority to commit resources worldwide for the Air Force Medical Service, to make decisions affecting the delivery of medical services, and to develop plans, programs and procedures to support worldwide medical service missions. He exercises direction, guidance and technical management of a \$5.9 billion, 44,000-person integrated health care delivery system serving 2.6 million beneficiaries at 75 military treatment facilities worldwide.

Prior to his current assignment, General Ediger served as Deputy Surgeon General, Headquarters U.S. Air Force, Washington, D.C.



General Ediger is from Springfield, Missouri. He entered the Air Force in 1985 and has served as the Aerospace Medicine Consultant to the Air Force Surgeon General, commanded two medical groups and served as command surgeon for three major commands. He deployed in support of operations Iraqi Freedom, Enduring Freedom and Southern Watch.

EDUCATION

- 1977 Bachelor's degree in chemistry, University of Missouri, Kansas City
- 1978 Doctor of Medicine degree, University of Missouri, Kansas City
- 1981 Residency in family practice, Wake Forest University, Winston-Salem, N.C.
- 1991 Master of Public Health degree, University of Texas School of Public Health, San Antonio
- 1992 Residency in aerospace medicine, USAF School of Aerospace Medicine, Brooks AFB, Texas

ASSIGNMENTS

1. June 1986 - August 1988, Chief, Family Practice, Air Transportable Hospital Commander, 1st Medical Group, Langley AFB, Va.
2. August 1988 - July 1990, Flight Surgeon and Chief, Flight Medicine, 94th Fighter Squadron, Langley AFB, Va.
3. July 1990 - July 1992, Resident in Aerospace Medicine, USAF School of Aerospace Medicine, Brooks AFB, Texas
4. July 1992 - July 1994, Chief, Aeromedical Services, 325th Medical Group, Tyndall AFB, Fla.
5. July 1994 - July 1996, Chief, Aerospace Medicine Branch, and Chief, Professional Services Division, Headquarters Air Education and Training Command, Randolph AFB, Texas
6. July 1996 - July 1998, Chief, Aerospace Medicine Division, Air Force Medical Operations Agency, Bolling AFB, D.C.
7. July 1998 - July 2000, Command Surgeon, Air Force Special Operations Command, Hurlburt Field, Fla.
8. July 2000 - June 2002, Commander, 16th Medical Group, Hurlburt Field, Fla.
9. June 2002 - July 2003, Commander, 363rd Expeditionary Medical Group, Southwest Asia
10. July 2003 - July 2007, Command Surgeon, Headquarters U.S. Air Forces in Europe, Ramstein Air Base, Germany
11. July 2007 - September 2008, Command Surgeon, Headquarters Air Education and Training Command, Randolph AFB, Texas
12. September 2008 - July 2012, Commander, Air Force Medical Operations Agency, Lackland AFB, Texas

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13. July 2012 – June 2015, Deputy Surgeon General, Headquarters U.S. Air Force, Washington, D.C.

14. June 2015 – present, Surgeon General, Headquarters U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION

Rating: Chief flight surgeon

Flight hours: More than 800 hours, including 90 combat support hours and 38 combat hours

Aircraft: C-130, MH-53, F-15, T-38 and KC-135

MAJOR AWARDS AND DECORATIONS

Air Force Distinguished Service Medal

Legion of Merit with two oak leaf clusters

Bronze Star Medal

Meritorious Service Medal with four oak leaf clusters

Aerial Achievement Medal

PROFESSIONAL CERTIFICATIONS

1982 American Board of Family Practice (most recent recertification in 2015)

1992 Aerospace Medicine, American Board of Preventive Medicine

EFFECTIVE DATES OF PROMOTION

Major April 28, 1986

Lieutenant Colonel April 28, 1992

Colonel April 28, 1998

Brigadier General April 14, 2008

Major General July 13, 2012

Lieutenant General June 5, 2015

(Current as of June 2015)

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Chairman Cochran, Vice Chairman Durbin, and distinguished members of the Subcommittee, thank you for this opportunity to testify before you today.

In Air Force Medicine, we are integral to the team of Airmen integrated into the Joint team defending our nation through a broad array of capabilities, overcoming diverse challenges in demanding missions around the world. Today approximately 200,000 airmen are engaged in special operations, combat air operations, strategic reconnaissance, space operations, cyber operations, rapid global mobility, homeland defense, and nuclear deterrence in direct support to the warfighter in every region of the world. The Air Force is performing these tasks with 38 percent fewer active duty Airmen and 37 percent fewer aircraft than during DESERT STORM.

We ask much of our Airmen, and place great responsibility on them. In return, the Air Force Medical Service has a great responsibility to provide the best possible health services for our Airmen and their families; provide fit, healthy and medically ready Airmen; and sustaining an innovative expeditionary medical and aeromedical evacuation force in support of ongoing and emergent contingency operations.

As today's Airmen meet the challenges of expanding operational capabilities evolving to meet changing threats, we call upon them for precise performance, technological prowess, innovation, sustained vigilance, physical endurance, spiritual strength, and mental resilience. Today's Airmen are doing what the mission requires but there are clear signs of stress on the force, including nine years of rising suicide rates and diminished retention within heavily tasked career fields.

The strategy for Air Force Medicine supports the Air Force Strategic Master Plan and is integrated with Military Health System strategic lines of effort. Focus areas within our strategy

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pertain to full spectrum readiness for the medical force, mission-specific operational outreach, high reliability health services and patient-centered, precision care. Action within the focus areas are reconfiguring our medical force to efficiently align capabilities with operational requirements, cultivating a patient-centered culture, and improving our operational agility. My comments will touch upon each of these four focus areas.

Full Spectrum Readiness addresses our greatest challenge—sustaining a ready medical force with innovative capabilities to provide advanced care and prevention anytime, anyplace. Today we have 726 medical Airmen deployed in 31 nations. Today’s readiness challenge is adapting medical support to agile military operations across vast geographic expanses wherein a wounded service member may be 1,000 miles from a hospital with suitable trauma capabilities. Today’s readiness challenge is also sustaining readiness for alternative conflict scenarios with potential to generate large numbers of casualties concentrated in specific locations.

Today’s operations in CENTCOM and AFRICOM have increased requirements for agile surgical and critical care teams trained and equipped for forward trauma resuscitation and damage control surgery in a pre-hospital (field) environment. We have completed successful operational tests of trauma teams tailored to this requirement. We are currently training and equipping teams such that enhanced capability and capacity for surgical and critical care in austere environments will be ready by the end of this year.

During operational testing in 2016, such teams working in a shelter of opportunity in Africa surgically resuscitated and saved a wounded U.S. service member and an allied service member, each of whom arrived stable at hospitals in Europe after aeromedical evacuation over a distance of 1,000 miles.

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An Air Force Special Operations Surgical Teams (SOST) recently deployed to the vicinity of Syria in support of coalition forces. Finding that casualties had overwhelmed local civilian hospitals, SOST rapidly converted four buildings into triage, treatment, and surgical rooms. In just seven weeks, the team completed over 100 trauma resuscitations and treated more than 1,000 casualties. The SOST also saved four wounded coalition troops through use of resuscitative endovascular balloon occlusion of the aorta (REBOA). This was the first reported use of REBOA outside a hospital setting. REBOA, using an FDA approved balloon catheter invented by an Air Force Surgeon, Dr. Todd Rasmussen, is gaining use in trauma centers internationally. The innovative use of this tool in the field represents a new opportunity to reduce death due to traumatic hemorrhage.

The Air Force continues the development and refinement of our Expeditionary Medical Support Health Response Teams (EMEDS-HRT), an evolution of our combat-proven and scalable Expeditionary Medical Support (EMEDS) system. EMEDS-HRT provides emergency care within one hour of arrival, surgery and critical care within six hours, and hospital capability within 12 hours of arrival.

In 2016, the Air Force deployed EMEDS-HRT in joint exercises with East Asian partner nations simulating a major natural disaster in the Pacific. The scope of services in HRT is tailored to the mission, adding specialty care such as obstetrics/gynecology and pediatrics for humanitarian assistance or disaster relief missions.

The Air Mobility Command has continued to refine and exercise the Transport Isolation System developed and fielded during the Ebola crisis in West Africa. This system enables response to an infectious disease crisis through capability to safely treat and transport multiple

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patients with infectious diseases of high concern in the C-17 and C-130 aircraft. Through a research and training partnership with the University of Nebraska Medical Center, we continue to build our capabilities in this area.

To build and sustain teams capable of advanced care in operational environments and safe aeromedical evacuation over great distances, we apply standards for clinical aspects of readiness as we manage our medical force within a program known as Sustained Medical and Readiness Trained (SMART). To meet these standards, we employ partnerships with multiple trauma centers outside the Department of Defense (DoD) within the U.S. and within major medical centers in the United Kingdom to ensure our deployable teams maintain clinical skills required in contingency operations. Most of our partner institutions have a full-time presence of deployable Air Force clinicians in addition to rotational clinicians from Air Force hospitals. Included are three level one trauma centers serving as Centers for Sustainment of Trauma and Readiness Skills (C-STARS), the University of Maryland's R Adams Cowley Shock Trauma Center in Baltimore, the Saint Louis University Hospital, and the University of Cincinnati Medical Center, as well as level one trauma centers at the University of Nevada, the University of Alabama-Birmingham, the University of Miami Ryder Trauma Center, and University of California-Davis. We also have a large contingent of Airmen providing trauma care at Brooke Army Medical Center in San Antonio. Multiple Air Force hospitals and clinics maintain local partnerships to enable commanders to manage readiness through apportioned week-to-week clinical practice. These partnerships are critical to our readiness and their importance will grow over time.

The SMART program offers expanded training opportunities for certain skills that require experience not available in our smaller military treatment (MTF) facilities. This includes

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skills for which a higher volume of cases is needed to remain current, or those with a greater complexity of hands-on care. The SMART program is tiered to provide commanders with options for each skill requirement. The first tier occurs at home station where medical personnel train with a standardized curriculum using routine operations and simulation-based training opportunities. The second tier utilizes local training affiliation agreements and partnerships with civilian, DoD or VA hospitals. The third tier, regional currency sites, such as the University Medical Center in Las Vegas, are utilized when Tier 1 or Tier 2 opportunities are inadequate to ensure the preservation of essential medical skills.

We are responsible for enabling Airmen to successfully sustain health, fitness, resilience and strong performance across the spectrum of operations in an Air Force whose capabilities are in great demand. Since 2012, we have gain experience from embedded medical support in mission areas including special operations (SOCOM's Preservation of the Force and Family), remotely piloted aircraft operations, intelligence operations centers and personnel recovery. We are now building plans to apply what we have learned from embedded medical support to apply medical outreach more broadly across the Air Force mission employing expertise in exercise physiology, physical therapy, behavioral health, nutrition, and wellness.

An example of our experience with embedded medical support comes from the 480th Intelligence, Surveillance, and Reconnaissance Wing (ISRW), a globally dispersed unit that specializes in time-dominant intelligence fusion. This Wing has employed embedded medical and chaplain support continuously since 2012 as its combat mission has grown considerably in complexity and scope. The embedded support interacts with Airmen individually and works across multiple domains to fix the processes that negatively impact Airmen, while increasing operational effectiveness of the Wing. The embedded presence ensures an intimate knowledge of

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the problems facing Airmen, a full understanding of the mission, and awareness of the impacts for Airmen. With this unique perspective, the embedded support can quickly advise and assist Airmen under stress, and coordinate specialty care when needed.

An Airmen Resiliency Team's combined operational and medical knowledge, along with ties to research communities, dramatically shortens the research and development loop for new training and techniques in identifying and treating mental health challenges. Human Performance Optimization and Human System Integrations projects by the embedded 480th Intel Wing teams have led to a six percent reduction in errors while actually increasing production. The 480th ISRW ART is currently guiding operationally relevant research at the U.S. Air Force School of Aerospace Medicine, the Air Force Research Laboratory, Uniformed Services University of the Health Sciences, and Naval Medical Research Unit Dayton.

Air Force primary care is provided in Air Force Medical Home clinics, consisting of 239 clinics at 76 installations. Air Force Medical Home clinics include family medicine, pediatrics, internal medicine, flight medicine, and associated graduate medical education (GME) clinics. There are 1,085,779 beneficiaries enrolled in Air Force Medical Homes. Overall satisfaction with the health care delivered at Air Force Medical Groups has consistently scored at or above 95 percent, a strong rating but one we strive to improve every day.

Every Air Force Medical Group provides medical support tailored to missions conducted from home station while sustaining the readiness of the deployable medical force. Every patient engagement is relevant to the performance and resilience of Airmen.

While we have made great strides in partnership with our patients through the Air Force Medical Home, we are acting on opportunities for further progress. We have increased the

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number of same day appointments, embedded clinical pharmacists within the Medical Home, expanded direct patient access to physical therapy, improved MiCare registration for digital interaction, and streamlined patient transfers from the Nurse Advice Line. This year, we are piloting the use of health coaches in the Medical Home to assist patients with wellness actions prescribed by their Medical Home teams such as injury prevention, fitness improvement, stress management, tobacco cessation, weight loss and healthy nutrition.

In accordance with the DoD strategy for pain management, and to reduce use of opioids, we are embracing integrative medicine by training clinicians to use non-pharmacologic tools such as acupuncture. Battlefield acupuncture or BFA, a highly effective rapid acupuncture treatment for pain, was developed by an Air Force physician and is now taught internationally. BFA has been taught in 59 classes, including 3,855 clinicians and certified 119 instructors across DoD and VA. Eighty-one percent of all Air Force Medical Groups are providing acupuncture services today. We have doubled the number of physicians trained annually as medical acupuncturists in a 300-hour acupuncture course yielding robust skills in acupuncture. The Family Medicine Residency at Nellis AFB has successfully provided an advanced acupuncture course as a popular elective, a successful initiative we are now seeking to program resources in the future with expansion to another site. Col (Dr.) Paul Crawford, the Nellis Air Force Base Director of the Family Medicine Residency and his team are collecting data to measure impacts on patient outcomes and opioid usage with promising initial results.

Air Force Medicine remains committed to improving access to primary care services. Actions in progress include additional primary care providers to enable “gap fill” contracts, improved fill rates for Medical Home positions, standards for managing schedules within the

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Medical Groups to meet forecasted demand, and a hub and spoke concept for filling temporarily gapped positions due to deployments.

In 2015, Air Force Medicine committed to a new approach to patient safety we call Trusted Care, employing the principles for high reliability care. These principles are the same as those applied in aviation to produce the dramatic reduction in major aviation mishaps. The principles relate to clear, purposeful team communication, vigilance for risks to patient safety, a systems approach to variance, a responsibility to report risk and a team approach to mitigating risk. Application of these principles and their inclusion in developmental training along with continuous process improvement, is a powerful combination for attaining high reliability

As an illustration of how we apply these principles in Air Force medicine, a physician assistant with the 61st Medical Squadron at Los Angeles Air Force Base recently saved a life when he caught an error made two weeks earlier by a civilian emergency room physician. The civilian emergency room sent this patient home with routine primary care manager follow-up instructions. However, when the patient was seen by the Air Force physician assistant, he identified the patient as having a serious cardiac condition. This resulted in an emergency same-day stent surgery. By not taking the previous diagnosis for granted, and having the vigilance and independence to perform and trust his own analysis, this Airman demonstrated Air Force Trusted Care principals and saved a life.

We are an innovative system for contingency medical support, day-to-day medical support to special missions, and delivery of team-based patient-centered health services. We are engaged in strategic programming actions to meet evolving and looming mission imperatives that will potentially significantly change our configuration and scope of services. In so doing, we

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remain committed to Trusted Care Anytime, Anyplace in support of the national defense, our Airmen, Sailors, Soldiers and Marines and our veterans.