Mass Casualty Incidents: The Pima County, Arizona, Sheriff’s Department’s Development and Use of Individual First Aid Kits

SUMMARY
The Pima County, Arizona, Sheriff’s Department developed and distributes Individual First Aid Kits (IFAKs) to all deputies. These kits provide deputies with the necessary equipment to perform life-saving procedures in the minutes before emergency medical services personnel arrive on scene. Pima County Sheriff’s deputies used the IFAKs after the January 8, 2011, mass shootings to treat the wounded. The IFAKs saved at least three lives on that day.

BACKGROUND
The Pima County Sheriff’s Department purchased and distributed basic first-aid kits to all deputies. The kits contained supplies, such as bandages, from bulk packages that deputies could use to treat injuries to themselves or members of the public. However, the first-aid kits did not contain the materials necessary to treat serious injuries, such as gunshot or stab wounds.

A Pima County Sheriff’s Department Special Weapons and Tactics (SWAT) medic recognized that deputies needed advanced first-aid equipment and supplies. The SWAT medic observed that better first-aid kits could help reduce fatalities suffered by the Department and the public. These kits would be particularly valuable during incidents in areas of the county that are not near hospitals, some of which require a 35-minute air medical flight. The SWAT medic realized that deputies could employ some of the same supplies as combat medics to treat the injured in the “golden hour” and, thus, save lives in Pima County.

GOALS
IFAKs provide Pima County Sheriff’s deputies with advanced first-aid equipment in a convenient, easy-to-access package, which enables them to treat injured individuals.

DESCRIPTION
The Pima County Sheriff’s Department developed IFAKs and the training to augment the basic first-aid kits used by deputies. By the end of July 2010, all Pima County Sheriff’s deputies had received IFAKs and the necessary training.
### IFAK Development Process
The Pima County SWAT medic began development of the IFAK by evaluating off-the-shelf first-aid kits available through vendors. None of the vendor kits proved comparable to the kits used by combat medics in Afghanistan or Iraq. Consequently, the Pima County Sheriff’s Department decided to develop its own IFAK. The SWAT medic consulted other jurisdictions throughout the U.S. to determine if any had undertaken a similar initiative, but none had. The medic collaborated with other SWAT-trained paramedics, emergency physicians, and a Pima County Sheriff’s Department deputy who had been deployed to Afghanistan to determine the standard supplies and equipment that would be included in every IFAK.

### IFAK Contents
The IFAK is designed to enable deputies to treat blunt force and penetrating trauma usually associated with traumatic gunshot and stab wounds. Every IFAK contains the following standard equipment and supplies:

- One tactical black nylon tourniquet;
- Two six-inch emergency military bandages pioneered by the Israeli Army;
- One Asherman chest seal that fits over a wound and has a valve that allows fluid to escape;
- One strip of Quick Clot combat gauze that coagulates blood on contact; and
- One pair of emergency medical technician shears that can slice victims’ clothing.

The Sheriff’s Department explored and sampled other types of medical equipment for inclusion in the IFAKs. However, it determined that the above combination of materials would achieve the goal of the program: namely, enabling deputies to treat gunshot and stab wounds successfully. Each IFAK includes $99.00 worth of supplies, 4 times the cost of the basic first-aid kits.

### IFAK Training and Deployment
The Pima County Sheriff’s Department developed a training program, entitled “The First Five Minutes,” for deputies on the use of IFAKs. This training familiarizes deputies with the medical equipment and supplies in each IFAK and how to use them. The Department also provides annual IFAK refresher training for deputies. Further, the State of Arizona’s Good Samaritan Law (32-1471) protects deputies from legal liability when using IFAKs or the basic first-aid kits to assist injured persons.

By July 2010, the Pima County Sheriff’s Department had assembled 550 IFAKs, trained all personnel on their use, and deployed them in every departmental vehicle. The Department mandated that every IFAK be placed on the passenger headrest; this standard location was intended to ensure that deputies could access the IFAKs quickly and easily in an emergency.

### January 8, 2011, Mass Shootings
On Saturday, January 8, 2011, at 10:10 a.m. Mountain Standard Time, a gunman opened fire on Representative Gabrielle Giffords and a group of citizens attending her “Congress on Your Corner” event in front of a Safeway supermarket in Tucson, Arizona. The gunman fired 31 rounds, killing 6 people and wounding Representative Giffords and 12 others. U.S. District Judge John M. Roll and Gabriel M. Zimmerman, a staff member for Representative Giffords, were among those killed. Citizens acted immediately to detain the gunman while Congressional staff and two doctors, who were shopping at the Safeway, provided first aid to the victims.
Pima County 9-1-1 operators received the first call from the incident scene at 10:11 a.m. A Pima County Sheriff’s Department deputy arrived on site at 10:15 a.m. and detained the suspect; a second deputy arrived soon after and secured the shooter’s weapon. As the incident site was being secured, Sheriff's Department deputies used IFAKs to administer first aid to survivors of the shooting in the six minutes before emergency medical services personnel entered the incident scene. Deputies used tourniquets and gauze in the IFAKs to stop bleeding, chest seals to close wounds, and shears to cut victims’ clothes. The standard location of IFAKs in departmental vehicles enabled an Oro Valley police officer to quickly and easily locate a kit to provide first aid. An attending physician at University Medical Center examined the survivors and stated that the use of the IFAK chest seals saved the lives of at least three people.

**Future Plans**

After the Tucson shootings, the Pima County Sheriff’s Department reviewed the use of IFAKs and assessed whether additional equipment or supplies should be included in the kits. The Department determined that the current composition of the kits is appropriate. However, the Department observed that some departmental personnel who responded to the incident were off-duty and arrived at the incident scene in their personal vehicles. Consequently, the Department has decided to provide each officer with an IFAK that can be placed in his or her personal vehicle. This will require the purchase of an additional 700 IFAKs.

Many departments and other organizations have considered adopting IFAKs and have contacted the Pima County Sheriff’s Department. The Metropolitan Medical Response System in Tucson has adopted the IFAKs, and the Oro Valley Police Department has considered developing them as well.

**Resources**

Each IFAK’s medical equipment and supplies cost $99.00. The Pima County Sheriff’s Department developed 550 IFAKs for departmental vehicles and is in the process of developing an additional 700 kits for personal vehicles. The Department has funded the IFAK program through its general operating funds.

**REQUIREMENTS**

**Keys to Success**

**IFAK Contents**

The use of IFAKs after the Tucson mass shooting confirmed the Pima County Sheriff’s Department’s decisions regarding which medical equipment and supplies to include in each IFAK.

**Standardization**

The standardized IFAK contents and location in vehicles promotes familiarity and ease of use.

**Training**

“The First Five Minutes” training program helps to ensure that deputies are able to employ the IFAK equipment and supplies to save lives.

**REFERENCES**

Duarte, Frank. Captain, Pima County Sheriff’s Department. Interview with Lessons Learned Information Sharing, 20 May 2011.
Gwaltney, Byron. Captain, Pima County Sheriff's Department. Interview with Lessons Learned Information Sharing, 20 May 2011.


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