

| Hurricane | Total Number | Most Frequent Dx | % Total Pts |
|-----------|--------------|------------------------|-------------|
| Hugo | Approx 300 | Soft tissue injury | 5.6 |
| | | Misc. medical | 50.7 |
| | | Eye, ear, nose, throat | 4.5 |
| Andrew | 668 | Medication refill | 12.9 |
| | | URI/OM/bronchitis | 11.8 |
| | | Lacerations | 10.9 |
| Iniki | 399 | Tetanus immunizations | 20.1 |
| | | URI/OM/bronchitis | 18.5 |
| | | Lacerations | 9.3 |

Outreach Programs—The outreach programs came into existence during Hurricane Andrew. The Perrine Outreach Program evaluated 514 patients. During Hurricane Iniki, 54 patients were seen at the Kalaheo Outreach. For both of these outreach programs, tetanus immunizations led the list of required care followed by hypertension blood pressure checks and medication refills (83.3%, 34.0%, and 18.0%, respectively). In contrast, strains, sprains, abrasions, and contusions accounted for 1.9% and 4.1% of the total number of outreach patients evaluated.

| Hurricane | No. Patients Evaluated | Most Frequent Dx | % Total Pts |
|-----------|------------------------|-----------------------|-------------|
| Andrew | 514 | Tetanus immunizations | 31.4 |
| | | Medication refill | 12.4 |
| | | HTN/BP check | 13.6 |
| Iniki | 54 | Tetanus immunizations | 51.9 |
| | | HTN/BP check | 20.4 |
| | | Medication refill | 5.6 |

Triage information—By far the greatest patient numbers were classified into the Green Triage category with a combined total of 886 patients for both Andrew and Iniki. By comparison, for the same two hurricanes, 38 patients were classified into the Red Triage category.

TRIAGE CATEGORY

| Hurricane | Green | Yellow | Red |
|-----------|-------|--------|-----|
| Andrew | 507 | 128 | 32 |
| Iniki | 379 | 14 | 6 |

Comparative Costs—Hurricane Andrew, at a cost of [US] \$20 billion was the most costly. Accounts for Hurricane Hugo totaled \$6.3 billion, and Iniki cost \$1.8 billion.

Summary: Hurricane Hugo struck St. Croix on 18 September 1989. The 70-member DMAT team was activated on 28 September 1989 and remained on the island for 11 days. During that time, approximately 300 patients were seen. Hurricane Andrew touched down in Florida on 24 August 1992. A 71-member DMAT team was deployed on 27 August 1992 for a total of 10 days. A total of 1,182 patients were evaluated (includes those by the outreach program). Hurricane Iniki struck the Hawaiian Islands on 11 September 1992. A smaller DMAT team, consisting of 47 members, was deployed on 19 September 1992 and remained for eight days. A total of 453 patients were evaluated (including those contacted by the outreach program).

4. Development of a Disaster Emergency Medical Services (DEMS) Rotation at an Emergency Medicine Residency

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This system is designed to introduce the resident to the field of Disaster Emergency Medical Services (DEMS), providing basic skills in disaster required for emergency medicine and exposure to other aspects of this growing field.

Methods: The Instructional Systems Design approach was used to create the disaster rotation. A brief educational survey was taken to judge the basic DEMS knowledge of the residents. A nominal group technique was used to arrive at a core content for the one-month rotation stressing the elements of DEMS thought to be most useful for the practicing emergency physician. A self-paced, programmed educational module was developed with individual goals and objectives for each content section. Two mentor discussion sessions are carried-out during the rotation for evaluation.

Results: Residents enrolled in the rotation have completed the requirements in an efficient manner. Several residents have extended participation in the rotation beyond the basic requirements to include research.

Conclusions: Development of a formal DEMS rotation in the framework of an Emergency Medicine Residency Program can serve to introduce residents to DEMS and strengthen local DEMS programs.

5. Requirements for Hazardous Materials Incidents: A Statewide Plan

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Purpose: Conflicting information from a number of federal and state agencies has led to a lack of uniform statewide standards for hazardous materials operating materials operating procedures, equipment, and training. An ad hoc committee consisting of emergency medical services (EMS) physicians and nurses, EMS hazardous materials experts, and state emergency planners addressed this problem.

Methods: The committee drew on sources including but not limited to: 1) OSHA Hazwoper 1910.120 ruling, the Superfund Amendment Title III, HHS publications "Managing Hazardous Materials Incidents," Volumes 1 and 2, NFPA Document No. 3473, and documents related to the chemical weapons stockpile elimination's program (CSEPP). The committee then formulated a curriculum, operational standards, and equipment list that were both practical and affordable.

Results: The finished document addresses: 1) definition of hazardous materials; 2) classification of hazardous materials; 3) operating procedures for emergency medical services (EMS) and emergency department (ED) providers (analyzing the incident, planning and implementing the response, and terminating the incident); 4) a training curriculum for both groups; 5) a list of referenced publications; 6) recommended equipment lists (for personal protective equipment, decontamination equipment and facilities); 7) a respiratory program checklist (including fit-testing); 8) exposure logs; 9) guidelines for