

To the Editor:

We compliment the initiative undertaken by Leonard et al in presenting the Disaster Outreach concept.¹ However, in an effort to improve future operations, we wish to present additional recommendations. These are the result of the Toledo Area Disaster Medical Assistance Team (TADMAT) OH-1 experience during its Outreach missions during Hurricanes Andrew and Marilyn (over 2,100 patient contacts combined).

- 1) Each DMAT must accept that an Outreach Program may be one aspect of its overall mission. Therefore, it should reconfigure its supplies and equipment so that an "Outreach Cache" is identified separately for rapid utilization.
- 2) No Outreach team should deploy without traditional security personnel attached to it (e.g., National Guard, U.S. Marshalls).
- 3) Since Outreach may involve extended territorial and population coverage, DMATs should familiarize themselves with Geographic Information Systems (GIS), and should forge an affiliation with the Geography Department at a local university. Outreach teams require general-purpose maps as well as thematic maps that could allow the teams to navigate areas efficiently while identifying populations at greatest risk.²

Another technological advance that would enhance safety is the provision and utilization of GPS (Global Positioning System) devices by each Outreach team. This technology is imperative especially in disaster areas where landmarks and street signs may be all but destroyed.

Although a certain degree of reliance must be placed upon local authorities, knowledge and utilization of GIS mapping and GPS would enable a DMAT to maintain its flexibility and independence.

- 4) A specific data-gathering instrument is needed for DMAT Outreach operations. Because extended disasters can entail the deployment of multiple teams to evaluate thousands of possible or potential victims, the ability to collate these encounters, to stratify the levels of acuity, to determine specific needs (medical and material), and to decide what and when the resources are needed can be problematic. The Disaster Outreach Severity Score (DOSS) was created by the TADMAT to provide a quantifiable needs assessment for Outreach contacts.³ This instrument (Figure 1, next page) can be initiated by each team as it canvasses stricken communities. It is divided into four sections: a) Medical; b) Psychiatric; c) Environmental; and d) Demographic.

The emphasis on medical information is in keeping with the DMAT mission. The scoring system allows subjective and objective information to be developed into an easily quantifiable format. The scores are generated for each sub-section as well as one comprehensive score which encompasses all areas of injury. The lower the score, the more critical the situation mandating rapid follow-up. The scoring method was developed to be compatible with triage concepts, so that any health care provider on the

team can complete it efficaciously. Once the data are brought back to the base, the results can be collected, tabulated, prioritized, and plotted on maps in order to plan follow-up trips more efficiently. It lends itself to utilization with modern database or electronic tabulation methods. The data could be displayed by physical location, GPS coordinates, or by block groups via GIS. Furthermore, this information can be disseminated to local authorities as well as to successive DMATs as they assume Outreach responsibilities.

In closing, as the United States becomes increasingly susceptible to large-scale disasters, the DMAT response must continue to improve. An effective DMAT Outreach program as outlined, is critically important for that response.

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References

1. Leonard RB, Spangler HM, Stringer LW. Medical outreach after Hurricane Marilyn. *Prehospital and Disaster Medicine* 1997;12:189-194.
2. Worso PJ: *The application of GIS technology for Disaster Medical Assistance Teams providing aid in response to a natural disaster*. Master thesis (unpubl), University of Toledo. 1995.
3. Rega PR, Budd C, Burkholder-Allen K: Disaster Outreach Severity Score. 1995; National Disaster Medical System Conference, Nashville, TN USA.

NAME: _____ Address/GPS Location: _____ Date _____ Time _____

	RED(1)	YELLOW(2)	GREEN(3)	Score
I) Environmental				
A) Electricity	NO	Intermittent	Reliable	_____
B) % Habitable Space	0–33.3%	33.3–66.6%	66.6%–100%	_____
C) Thermal Control	None	Partial	Constant	_____
D) Transportation	None	Unreliable	Reliable	_____
E) Potable Water (1 gal/person/day)	<1 day	Few days	>1 week	_____
F) Food	Inadequate	Few days	>1 week	_____
G) Suitable Clothes	None	Partially	Fully	_____
H) Scorer's Impression	Poor	Fair	Good	_____
			Environmental sub-total	_____
II) Demographic				
A) Occupancy (# inhabitants)	1 or >10	5–10	2–5	_____
B) Responsible Adults	None	1	>1	_____
C) Pediatrics Score * number of kids	diaper ag	toddler	child	_____
D) Geriatrics Score * number of adults	>80 yrs	65–79 yrs	55–65 yrs	_____
E) No Peds Add 4 pts / No Geriatrics Add 4 pts:				_____
F) Scorer's Impressions	Poor	Fair	Good	_____
			Demographic sub-total	_____
III) Medical				
A) Pregnant complications	term / major complications	minor	OK	_____
B) Chronic Unstable	Currently Unstable	Potentially	Stable	_____
C) Acute for Care	Immediate Evac Follow-up < 3days	Field Tx. No Follow-up	Minor Tx.	_____
D) Med Needs	<24hr supply	>24hr <7days	7–14 days	_____
E) Scorer's Impressions	Poor	Fair	Good	_____
			Medical sub-total	_____
Comments: _____				

IV) Psychiatric				
A) Family Death	Not Coping	Partial	Coping	_____
B) Family Missing	Not Coping	Partial	Coping	_____
C) Pet Dead or Missing	Not Coping	Partial	Coping	_____
D) Scorer's Impressions	Poor	Fair	Good	_____
			Psychiatric sub-total	_____
Comments: _____				

			Total Points:	_____

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Figure 1—DMAT Outreach Severity Score, Toledo Area Disaster Medical Assistance Team, Copyright: TADMAT CDER (Revised: 05 March 1995) (Peds = pediatric patients; pts = patients; Evac = evacuation; Tx = treatment)