Letters to the Editor

When Searches Become Futile

To the Editor:

As long-time veterans of search and rescue, we read with great interest the recent paper by Annette Adams and colleagues entitled “Search is a Time-Critical Event: When Search and Rescue Missions May Become Futile.”¹ While the results of their work fill an obvious void, we feel that the title of the paper is misleading. After the 51-hour point noted in the paper, the subject still has a 57% chance of being found alive. This hardly qualifies as futile. To a search manager without a background in statistics, it would be very easy to infer that searches are futile after 51 hours. This was clearly not the intent of the authors. Contributing to the likelihood of this misconception is Figure 1, which clearly states “low survival” after 50 hours.

Within the body of the paper, the authors point out that “after the 51-hour mark, survival was still quite good; 56.6% of searches in this longer time period found survivors.” To a search manager, this is the most important piece of information contained in the paper; unfortunately, it was not strongly emphasized nor mentioned in the abstract. That one piece of information tells us that even though it is unusual for a search to last 51 hours, the subject still has a good chance of being found alive—good enough that it would be negligent to terminate the search without some other overriding reason.

As a tool for search managers, it would have been very useful if the data had been analyzed in a way that yielded information on survival probability versus time. The authors presented one data point (56.6% at 51 hours), which is extremely valuable, and additional data of this type would be a great asset to the search and rescue community.

As a final note, water activities represent only 5% of the total number of incidents, yet they account for 28% of the fatalities. The authors point this out, but the data analysis does not separate land searches from searches involving water-related activities. Since water-related activities result in lower survival rates, this results in a falsely low predicted survival rate for land searches. If only land searches are considered, one would expect a higher survival rate than 56.6% at 51 hours, and the time to any given survival rate would increase.

The work done by the authors is valuable, and our comments are in no way intended to diminish the value of their work. We hope they will present the additional analyses we are suggesting. Terminating a search is a

very difficult decision, and any information that can help guide that decision will be tremendously valuable.

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References

1. Search is a time-critical event: When search and rescue missions become futile. *Wilderness Environ Med* 2007;18: 95–101.

Searches Past 100 Hours Successful in Oregon in 2006

To the Editor:

I was elated to see an Associated Press (AP) story referencing *Wilderness and Environmental Medicine* in my hometown newspaper.¹ Dr. Adams and her colleagues put together a much-needed summary of search and rescue (SAR) missions in Oregon that will be useful across the SAR community.² With prolonged searches, this exact question regularly arises: “When do we stop?”

Unfortunately, the AP story and the study focused on the 51-hour search cut point. The 51-hour cut point is academically interesting and may, as the authors suggest, give search managers more direction with regard to hasty teams and allocating resources earlier in a search. But the study will probably not have much bearing on when search managers decide to conclude searches. I disagree with the authors when they suggest that search managers “might use a cutoff of 2 to 3 days for most searches.” The authors did not mention the tremendous pressure upon sheriff departments from families and media to continue searches, even when the chance of successful outcomes is slim. Nor did they include any searches past 100 hours: it only takes 1 survivor to make a typical week-long search worthwhile.