

To The Editor:

Most studies of prehospital resuscitation have demonstrated that bystander cardiopulmonary resuscitation (CPR) improves the likelihood of resuscitation for victims of out-of-hospital cardiac arrest.¹ The current epidemic of such deadly infectious diseases as AIDS and multiply drug-resistant tuberculosis may inhibit some from performing mouth-to-mouth (MTM) ventilation and, thereby, decrease the incidence of bystander CPR. While MTM resuscitation should not be required in normal working situations of emergency medical services (EMS) providers, where appropriate resuscitation equipment is readily available, such people are likely to be called upon as rescuers when not at work. We recently surveyed a cross section of EMS providers that attended a conference on general EMS issues as to their attitudes regarding the performance of MTM ventilation on strangers in respiratory arrest.

Fifty surveys were distributed and 40 (80%) were returned. Of the respondents, 28% were paramedics, 28% nurses, 25% physicians, and 20% EMTs. Of those who responded, 47.5% were employed in an ambulance service, 47.5% in an emergency department (ED), 2.5% administration, and 2.5% in some other capacity. Twenty-six percent of the respondents had performed MTM in the prior five years.

To assess the providers' attitudes about MTM resuscitation, a series of four hypothetical patients in respiratory arrest was presented. The respondents were asked to respond as to whether they "would," "would not," or "might hesitate" in performing MTM ventilations (Table 1).

Each case was presented with and without a barrier shield (i.e., face shield). In the first case, a patient with AIDS, 90% of respondents would not do MTM and the remaining 10% would hesitate without a barrier device. With a face shield, 53% would do MTM, whereas 28% definitely would not. Only 3% of respondents definitely would do MTM on either a "disheveled, poorly-groomed, 40-year-old" or a "50-year-old, well-dressed, well-groomed male" without a barrier device. Seventy-eight percent and 65%, respectively, definitely would not do MTM in these situations. With a barrier device, 80% of respondents would do MTM in each case. In the final case, a 5-year-old drowning victim, only 50% of the EMS providers definitely would do MTM without a barrier device, whereas 80% would, with a face shield.

As noted above, in each case presented, a higher percentage of respondents reported that they would do MTM ventilations if some sort of barrier device was available. Only 18% "always" carried a barrier device with them, whereas 58% rarely or never carried one. The majority of respondents (58%) reported that they would be "very concerned" about the possibility of contracting an infectious disease from a patient after performing MTM ventilations. Thirteen percent rated their concern as "a lot," 24% "a little," and 5% "not at all."

To assess the respondents level of education regarding the true risk involved in treating HIV-positive patients, each was asked to estimate the risk of contracting HIV infection from a percutaneous exposure to HIV-infected blood to intact skin. While it has been estimated that such an event would result in seroconversion in approximately 0.009% of cases,² 8% of respondents (including one physician) felt that their risk was greater than 10%. Overall, 58% correctly rated the risk as "<0.05%–0.5%," but 42% estimated the risk to be greater than 0.5%.

Case*	% Without Barrier (n = 40)			% With Barrier (n = 40)		
	Yes	Hesitate	No	Yes	Hesitate	No ⁺
1	0	10	90	53	20	28
2	3	20	78	80	5	15
3	3	33	65	80	8	13
4	50	38	13	98	2	0

⁺Numbers may not equal 100 due to rounding.
^{*}1 = 30-year-old AIDS patient
² = disheveled, poorly groomed 40-year-old
³ = 50-year-old well-dressed, well-groomed male
⁴ = 5-year-old drowning victim

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Table 1—Likelihood of emergency medical services professionals performing mouth-to-mouth resuscitation in four different scenarios (n = number)

Several conclusions can be drawn from this small study. First, there is a striking reluctance of EMS providers to perform MTM ventilations; even in the lowest risk patient, a 5-year-old drowning victim, only one-half of respondents definitely would resuscitate the child without a barrier device. Second, the availability of a barrier device markedly increased the likelihood that the health-care provider would perform MTM. Lastly, a large percentage of the EMS providers overestimate the risk of HIV infection from occupational exposure.

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References

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To the Editor:

Just as our issue was going to press, we received news and shortly thereafter a copy of *Prehospital and Disaster Medicine*, Volume 9, Issue 2, with a special Sarajevo supplement including five articles by our authors, previously published in the "The Medical Bulletin." In addition to these, the same issue of this respected American medical journal published six further articles by specialists, including an editorial by Professor Peter Safar, devoted to the experiences of our foreign medical workers in war-ravaged Bosnia and Herzegovina.

"Invited Papers from Sarajevo" represents the tip of an iceberg above a gray sea of silence and oblivion. War medicine in Sarajevo and Bosnia-Herzegovina has achieved recognition in the most beautiful possible manner. "The Medical Bulletin of Sarajevo State Hospital" has passed a maturity examination. The voice of experts and of a wealth of difficult and painful experiences has reached the ears of those who wanted to hear it and to respond to it. We offer thanks in the name of this ago-

nized land and of all our wounds, our burned out homes, and our destroyed illusions.

In 1992, a group of enthusiasts at the Sarajevo State Hospital decided that there should be some written record of what was being done and how it was done—for remembrance and for science. The idea led to the first issue of "The Bulletin for the Sarajevo State Hospital" in November that same year. A modest 15 pages presented initial experiences, solutions, and thinking about problems confronted readily, but rudely and unprepared. It was followed by three further issues of "The Medical Bulletin," richer in content and ever closer to scientific and methodological world standards.

The independent Bosnia-Herzegovinian daily *Ostobodjenje* and the printing and publishing house *Oko* have made an immeasurable contribution to the technical production of our journal. To say thanks is too little.

In addition to doctors from the Sarajevo State Hospital, the editorial staff also includes eminent specialists from the Clinical Center of the University of Sarajevo. Quality is our basic motto, and circulation beyond the borders of Sarajevo and the Republic is a priority goal.

And now this has been realized. Labor is rewarded, enthusiasm and perseverance have triumphed. The words of Professor Ernesto Pretto in *Prehospital and Disaster Medicine* also bear witness to this: "These articles . . . represent heroic attempts by

Sarajevo physicians to describe their experiences in the treatment of war casualties and to pursue scientific endeavors despite constant bombardment and under circumstances of unimaginable hardship."

We owe no lesser thanks to Dr. Mirsada Begovic, a Sarajevan currently living in Pittsburgh, Pennsylvania, USA and the group of young colleagues who invested many months of effort in the preparation of this international recognition of our works. Much credit also belongs to Dr. Mirza Begovic, a member of our editorial staff, without whose intervention realization of this project would have remained "an empty wish."

Cooperation with our friends in the United States will continue. The future of "The Medical Bulletin" is assured. Why is any stronger motivation and impulse needed for new efforts to build on, to continue, and to improve the quality of the first medical periodical from the Republic of Bosnia and Herzegovina to be heard in the wider world? To this end, we invite all current and future colleagues in this endeavor to participate in the further work of "The Medical Bulletin," and in writing the history of the health services of our young state.

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