Medical College of Virginia
Virginia Commonwealth University

November 11, 1985

Henry J. Heimlich, MD
Professor of Advanced Studies
Xavier University
3800 Victory Parkway
Cincinnati, Ohio 45207-1096

Dear Dr. Heimlich:

In response to your letter of September 24, I must again emphasize that the July Standards Conference meeting recommendations serve as an important, but not exclusive, source of input for the development of the new CPR Standards and Guidelines. Your beliefs regarding the necessity to perform an abdominal subdiaphragmatic thrust for the near-drowning victim are subject to the same peer review process as all other material proposed for inclusion in the Standards and Guidelines. Your peers on the panel do not consider the scientific evidence adequate at this time to support recommendation of a subdiaphragmatic thrust for the near-drowning victim who has no evidence of foreign body airway obstruction. Much of the evidence you refer to as supporting your position either consists of anecdotal information or is simply not where you say it is in the literature.

Please find enclosed a photocopy of all the references which you cited in your 1981 Annals of Emergency Medicine article (with the exception of the two First Aid manuals and the two review textbooks, which are too bulky to reproduce and contain no original peer-reviewed data on this subject). You claim that the committee ignored these references which you believe support your position. The committee members are familiar with this literature and cannot find the evidence in any of the publications you have cited which supports your belief that a subdiaphragmatic thrust is safe or effective for the near-drowning victim who has no evidence of foreign body airway obstruction. There are no prospective or retrospective, randomized or non-randomized studies in humans or animals which deal with this subject.

The six cases you mention in your 1981 Emergency Medical Services article are testimonials with little supporting clinical information about which to judge their significance. The report appears in a journal which contains articles of an informal, nonrigorous style. There is no information in the article about how these anecdotes were collected (solicited or unsolicited infor-

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mation), whether the rescuers were interviewed and by whom, the level of training of the rescuers, whether mouth-to-mouth was tried by a trained rescuer first, the patients age, sex, circumstances of the near-drowning incident, duration of immersion, fresh vs. salt water --- to mention but a few of the many relevant variables. There is no evidence that the fluid coming out of the mouth didn't come from the stomach.

These anecdotes may be of interest but do not constitute scientific proof, at least not in the form they are documented. This information is insufficient to recommend replacing immediate mouth-to-mouth ventilation with a subdiaphragmatic thrust when there are over 80,000 near-drowning incidents in the United States per year and only 8,000 deaths with the current recommendations. There are many unknowns about the safety of a subdiaphragmatic thrust in this setting such as the number of times a subdiaphragmatic thrust has been tried for a near-drowning victim and failed, the number of times it has been tried and resulted in aspiration from ejection of gastric contents, the number of lives which might be lost because of the delay in providing mouth-to-mouth ventilation if a subdiaphragmatic thrust were performed first and it is unsuccessful --- to mention but a few. These important facts are unknown because there is no data. The best that can be concluded from a scientist's perspective is that further study needs to be done.

Please look over the material you cited again, underline in red the evidence you are referring to, and return the material to me so the committee can understand what you consider to be proof of the safety or efficacy of a subdiaphragmatic thrust in this setting.

You have also claimed that there are additional case reports in the Journal of the American Medical Association (JAMA) and other journals, yet neither you nor Dr. Patrick referred to any such cases in your publications. Neither I nor other members of the committee are familiar with such case reports. I could not find any such case reports despite a search through Index Medicus and the indexes to JAMA for the last twenty years (a copy of the index section on "Drowning" for the last twenty years of JAMA is enclosed). If you have such an article which has been overlooked, please send a copy of it or send a specific citation so it can be reviewed.

Dr. Modell has pointed out that you have misinterpreted his studies and his publications which deal with aspiration of water

by the near-drowning victim. This material, dealing with the quantity of water aspirated by a near-drowning victim, is critical to your argument. I have enclosed a copy of the letter from Dr. Modell which points out his disagreement with your interpretation of his data.

Enclosed please find letters from the other members of the panel indicating their support of the latest version of the draft document. You will note that your position _is_ a minority opinion. Since you were upset by the lack of acknowledgement of your minority opinion in the draft document, I called Dr. Modell and discussed the matter with him. He suggested adding the following (underlined) sentence to the last portion of the section (the sentence prior to and following the proposed sentence are included to make clear the context of the addition):

> "Since the risk/benefit ratio of an abdominal thrust in this setting is unknown, the only time it definitely should be used is when the rescuer suspects that foreign matter is obstructing the airway". _However, some believe that if the victim does not respond appropriately to mouth to mouth ventilation, a subdiaphragmatic abdominal thrust may be indicated, after which basic CPR should be reinstituted_.
>
> Further investigation is needed to better define the need for, the risk of, and the timing of, an abdominal thrust in this situation."

I have phoned all the other panel members, who have no objection to forwarding Dr. Modell's addition to Dr. Ramiro Albarran-Sotelo, who is in charge of the next step in the review and writing process of this section.

Very truly yours,

Joseph P. Ornato, MD, FACC
Associate Professor of Internal Medicine (Cardiology)

cc: R. Albarran-Sotelo, MD
Conference Steering Committee
President, Virginia Commonwealth University
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President, American Red Cross
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J. M. Fattu, MD, Ph.D
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Enclosures