with infection may be more stoic or familiar with the examination process, and pain will be less obvious on examination. There are other studies that also suggest that findings such as cervical, uterine, and adnexal tenderness are insensitive and nonspecific, and vary when different clinicians perform the examination.[2-5]

In the "Limitations" section of the study, we acknowledged that pelvic inflammatory disease can be attributed to other organisms such as *Mycoplasma genitalium*, herpes, and normal flora overgrowth. However, the antibiotic regimens that the Centers for Disease Control and Prevention suggests are targeted toward chlamydia, gonorrhea, and trichomonas. Visualization or palpation provided by the pelvic examination does not clarify which organism is involved or which antibiotic is needed.

We agree with the concern for patients with negative test results for sexually transmitted infections and positive results for pelvic examinations, and the related risk of chronic complications because of untreated cases. In the article, we discuss a stepwise approach that begins with urine point-of-care testing for chlamydia, gonorrhea,[6] trichomonas, candida, and clue cells. For patients with negative urine testing results, we suggested the pelvic examination can be considered to aid diagnosis.

Surveillance data show that rates of sexually transmitted infections and their subsequent complications are increasing every year, as is antibiotic resistance to gonorrhea. The current approach, which relies heavily on the pelvic examination, is proving unsuccessful at combating this epidemic. Empiric treatment of all patients with positive pelvic examination results, as Dr. Swartz points out, means that almost 60% of women are being treated with antibiotics that do not truly target the cause of their infection. This approach does not necessarily resolve the patient's problem and creates resistance. The use of point-of-care sexually transmitted infection results and development of additional sensitive tests for other causes of cervicitis and pelvic inflammatory disease will aid in making a correct diagnosis. New treatment guidelines are imperative, and we encourage physicians who work in high-risk areas to repeat our study for external validity and assess whether it pertains primarily to cervicitis and not pelvic inflammatory disease.

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Hypothermic Cardiac Arrest Patients' Selection Criteria for Extracorporeal Life Support Rewarming in Extreme Cases

To the Editor:

We read with great interest the recent case report by Forti et al.[1] We appreciate the professionalism and dedication of the rescue and medical teams and applaud their success. They pushed the limit of human potential for survival, proving once again that "no one is dead until warm and dead."

We would like to add some additional comments in regard to patient selection criteria for extracorporeal life support rewarming in accidental hypothermia, and notably in regard to such extreme cases.

Although to our knowledge no cutoff for the duration of cardiopulmonary resuscitation (CPR) has been defined

in the literature, a state of cerebral low flow lasting 8 hours and 42 minutes could have prompted rescuers to withhold extracorporeal life support rewarming for fear of poor neurologic outcome. Similarly, no lower cutoff of body temperature is available to clinicians on which to diagnose reversible versus irreversible hypothermia. On the other hand, a precise cutoff value of serum potassium concentration has been determined to have a high negative predictive value for survival and is used as a criterion to withhold futile extracorporeal life support rewarming. However, triage decision based on this single criterion may have fatal consequences if the measure of serum potassium is falsely elevated because of sampling or analytic errors.

In view of these limitations, a new multivariable score to predict survival after extracorporeal life support rewarming in hypothermic patients with cardiac arrest was recently published.[2] The Hypothermia Outcome Prediction After ECLS score is a promising new tool in modern hypothermia management. Its accuracy to predict survival with extracorporeal life support rewarming after hypothermic cardiac arrest was superior to a potassium-based prediction.[2] The score includes the following 6 clinical variables determined at hospital admission: age, sex, hypothermia with or without asphyxiation, CPR duration, core temperature, and serum potassium level (online calculator available at http://www.hypothermiascore.org).

We calculated the probabilities of survival of the patient published in this journal[1] and of several other patients presenting with extreme values of the variables included in the Hypothermia Outcome Prediction After ECLS score and who survived without neurologic sequelae. Based on the score, the survival probability was 23% for the study by Forti et al, with a CPR duration of 222 minutes until extracorporeal life support rewarming, 87% for the lowest published adult body temperature (13.7°C [56.7°F]),[3] 36% for the oldest patient (95 years),[4] and 35% for the highest reported serum potassium concentration (11.8 mmol/L).[5] None of these cases were included in the derivation sample of the Hypothermia Outcome Prediction After ECLS score.[2]

The publication of these cases of survival considered as exceptional attest to the underestimation by clinicians of their prognosis: the patients' probability of survival was in fact higher than that of most normothermic cardiac arrest patients. These a posteriori calculations of Hypothermia Outcome Prediction After ECLS scores clearly show that ECLS rewarming was justified because survival chances were higher than the 10% cutoff above which extracorporeal life support rewarming is recommended.[2] However, these cases confirm the robustness of the Hypothermia Outcome Prediction After ECLS score even for outliers. An accurate estimate of survival is essential to prevent mismanagement, and in particular the risk of lethal undertreatment (ie, no extracorporeal life support rewarming) despite a good prognosis.

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