Dear Editor,

Although a small-scale disaster differs in many ways from a catastrophic disaster such as an earthquake, it may be a good idea for emergency physicians to use dynamic triage in such circumstances, as they would in a large disaster. The reason is that even in a small-scale disaster, a large number of patients with similar symptoms come to the emergency department (ED) within a short time frame.

In a Japanese high school in Tokyo, 13 students and a teacher noticed a strong odor and experienced irritation of their respiratory tracts and eyes. All of them were reviewed in our ED in an urban teaching hospital. This facility provides primary to tertiary care to an area encompassing approximately 100,000 people. Annually, almost 8,000 patients are received via ambulance and 32,000 patients are ambulatory self-referrals. Emergency department staff members include four attending physicians and seven senior residents although only half were on duty at the time.

Patients were alert, and their vital signs were stable. The mucous membranes of their orbits and oropharynges were normal, and their breath sounds were also normal. Complete blood count, blood chemistry and arterial blood gas data were all normal in each patient. A police investigation into the cause of the odor revealed that it was from a fuel tank in a ship that was anchored in a canal near the high school and that the substance was not harmful.

All patients were categorized as mild severity by an emergency medical technician (EMT) during the pre-hospital triage period using the Simple Triage and Rapid Treatment (START) protocol. The whole evaluation process of START is generally conducted in 60 seconds or less by measuring the respiration, perfusion, and mental status by the first responders. Once the evaluation is complete, the individuals are labeled with one of the four triage categories including Deceased, Immediate, Delayed, and Minor. However, we used the START protocol again for our triage process at the ED. This process also included key questions, reevaluation of the vital signs, simple physical examination including rapid auscultation, and quick manipulation, such as the 5-level triage protocol of emergency nursing.

Upon arrival to the hospital, three patients were triaged, according to the protocol, which indicated moderate severity. No one was triaged into the most severe category. Of the moderately severe patients, two of them received sedatives, and the other patient...
wept constantly. No patient was hospitalized, and there were no complications at follow-up after one week.

When disasters occur, our ED triages patients twice, which includes pre–hospital assessment by an EMT and then at the front of the ED by physicians. Only vital signs data are used for triage at the pre–hospital stage via the START protocol, but our ED triage is based on physical assessment in addition to vital signs.

The demand of medical resources exceeds medical supply, including human resources even during disasters. We succeeded in preventing a possible state of confusion within the hospital by triaging patients before they entered the ED. This advanced triage system may improve the patient flow within the ED. However, it is also difficult to decide the severity of the patients in a small–scale disaster with chemical exposure, because the acuity level of triage is strongly influenced by the patient’s mental state.

The authors report no conflicts of interest.

References