

Calling it in: New emergency medical service system may predict caller's fate

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Japanese researchers have developed a computer program which may be able to tell from an emergency call if you are about to die. Research published in the open access journal *BMC Emergency Medicine* shows that a computer algorithm is able to predict the patient's risk of dying at the time of the emergency call.

Kenji Ohshige and a team of researchers from the Yokohama City University School of Medicine in Japan assessed the new Yokohama computer-based triage emergency system from its inception on 1st October 2008 until 31st March 2009, collecting information from over 60,000 emergency calls. For each call, triage information was entered into the computer system, which then categorized [patients](#) according to the severity of their condition. The researchers then compared the computer-estimated threat of dying at the time of the emergency call with the actual patients' condition upon arrival at the hospital emergency department. They found that the algorithm was effective in assessing the life risk of a patient with over 80% sensitivity.

According to Ohshige, "A patient's life threat risk can be quantitatively expressed at the moment of the emergency call with a moderate level of accuracy. The algorithm for estimating a patient's like threat risk should be improved further as more data are collected."

Ambulance response time has risen rapidly with the increased demand for this service in developed countries such as Japan. This emphasises the need to prioritise ambulance responses according to the severity of

the patient's condition. "As delayed response time reduces the number of patients who survive from sudden cardiac arrest priority dispatch of ambulances to patients in critical condition has become a matter of importance", says Ohshige.

More information: Evaluation of an algorithm for estimating a patient's life threat risk from an ambulance call, Kenji Ohshige, Chihiro Kawakami, Shunsaku Mizushima, Yoshihiro Moriwaki and Noriyuki Suzuki, *BMC [Emergency Medicine](#)* (in press), www.biomedcentral.com/bmcergmed/

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