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VISION OF EDUCATION FOR PHARMACEUTICAL ASSESSMENT IN JAPAN

Dear Editor,

In Japan, pharmaceutical assessment education, such as physical assessment and lifesaving skills using an emergency care simulator, is becoming important.1 In recent years, the number of opportunities for pharmacists in emergency departments or intensive care units to provide pharmaceutical care and help prevent drug risks has increased, and pharmacists with these skills play a crucial role in providing safer and more effective drug use.2,3

I received certification as a basic life support (BLS) instructor from the American Heart Association (AHA) in 2010, and since then have taught BLS skills to various medical professionals participating in AHA BLS healthcare provider courses, including physicians (mainly residents), nurses and others. In addition, in the pharmaceutical education setting, I have taught vital signs, BLS and automated external defibrillator (AED) skills to pharmacy students and pharmacists.4 Since 2011, I have taught a half-day BLS class to fourth-year students (approximately 20–25 students) at the Faculty of Pharmaceutical Sciences, Tohoku University (Sendai, Japan) who are preparing to start hospital and community pharmacy practical training4 (Figure 1). In this class, students are taught cardiopulmonary resuscitation skills based on AHA guidelines,5 including the initial recognition and assessment of cardiac arrest, activation of the emergency response system (direct-dial emergency number 119 in Japan), chest compression, use of an AED and help for choking victims. I consider it important for a nationwide organisation to provide standardised pharmaceutical assessment skills for Japanese pharmacists, and thus I joined Clinical Pharmacist Okayama Simulation Training (CPOST; Directors: Toshiaki Sendo, PhD, Yasuhiro Mandai, MD, PhD, and Susumu Oozawa, MD, PhD; Okayama University Hospital, Okayama, Japan), which was established in 2014 and is currently developing nationwide activities for all Japanese pharmacists. CPOST provides emergency medical scenarios involving BLS, hypo- or hyperkalaemia, anaphylaxis and stroke in which hospital and community pharmacists are taught various techniques using an emergency care simulator by well-trained pharmacist facilitators, physicians and nurses. After the simulations, debriefing sessions are held to discuss the progression of pathophysiology and the efficiency of teamwork.

The objective of CPOST is to ensure that hospital and community pharmacists and pharmaceutical educators have a standardised ability of pharmaceutical assessment. The members of CPOST are not only pharmacists, but also physicians and nurses who aim to provide better patient outcomes as part of a multidisciplinary medical team with pharmacists. In the near future, pharmacotherapy for elderly patients could be more complex because of the super-aging society. Therefore, evaluation of pharmaceutical assessment skills and practice in various settings is necessary.

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Conflict of interests statement

The author declares that he has no conflict of interest.
Dear Editor,

It has been identified that approximately 50% of approved drugs have serious adverse events that are not detected prior to approval; as a result, approximately 1.5–6.5% of hospital admissions are caused by the adverse effects of medications, extending hospital stay by 1.91–2.38 days. In 1968, the World Health Organization launched the Programme for International Drug Monitoring, with the objective of systematic collection of information on serious adverse drug reactions (ADRs) during development and particularly after medicines have been made available for public use. Mexico entered the Programme in 1989 by creating the National Center for Pharmacovigilance, which is in charge of establishing pharmacovigilance policies, managing information about drug safety, and designing and promoting the safe and rational use of medications. However, the regulatory framework for pharmacovigilance was not instituted until 2013, with the publication of The Official Mexican Standard NOM-220-SSA-2012 (‘Installation and Operation of Pharmacovigilance’, https://www.who-umc.org/global-pharmacovigilance/who-programme/). Among the policies included in this Standard are: (i) all hospitals have to establish a pharmacovigilance unit (PVU) to report ADRs to the State Center for Pharmacovigilance; and (ii) pharmacovigilance activities must be led by a health professional with training in medical, chemical or pharmaceutical sciences. The scheme for the notification of ADRs is shown in Figure 1.

The profession of pharmacist is not well established in Mexico. Commonly, staff with a Bachelor’s degree in the pharmaceutical field undertake pharmacy practice. Such is the case of a secondary care hospital in northwest Mexico, where the PVU was established in 2013, appointing a biopharmaceutical chemist (BC) as Head of Pharmacovigilance (HP). The first activity of the HP was to write ‘The Procedures Manual for Reception, Evaluation, and Notifications of ADRs’ (https://www.anafarmex.com.mx/wp-content/uploads/2014/11/GUIA-RAM-CNFV-1.pdf), according to the NOM-220-SSA-2012.

Nurses, physicians and BCs report suspected ADRs to the PVU using a Suspected Adverse Reaction to Medicines Notice Form, available from the webpage of the Federal Commission for the Protection Sanitary Risks (COFEPRIS, https://www.gob.mx/cofepris/). These forms are electronically stored in a patient’s medical record and automatically sent to the PVU. The HP revises the forms in order to ensure they meet the minimum criteria for a valid notification according to

![Figure 1 Process of reception and notification of suspected adverse drug reactions (ADRs).](https://www.who-umc.org/global-pharmacovigilance/who-programme/)