Drug exposure from the viewpoints of pharmacists

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In Japan, as several guidelines regarding the preparation of hazardous drugs (HD) were issued, countermeasures against HD exposure have been increasingly adopted at the time of preparing injections. After the 2010 revision of healthcare fees, 100 points became allocated for the treatment of sterile preparations, for which a closed-system transfer device (CSTD) was used for the first time. After the 2012 revision, 150 points became allocated when such a device was used to treat highly volatile drugs (cyclophosphamide, ifosfamide, and bendamustine). However, at present, CSTD use is limited to these 3 drugs in many medical centers because of the cost and other issues. Concerning oral HD, because of the risk of exposure to their cytotoxic effects during preparation, it is not recommended to divide/pulverize these drugs, or remove their capsules. In Japan, as anticancer drugs are available in powder form, it is necessary to adopt appropriate countermeasures against exposure to such agents when preparing them. In addition, among patients who have difficulty taking oral drugs (e.g., those with swallowing difficulty and pediatric patients), the pulverization of HD and removal of their capsules can be problematic.

In our workshop, CSTD, biological safety cabinets, isolators, and personal protective equipment (PPE) are used when preparing HD injections. We are planning to discuss countermeasures against exposure to oral HD. It is also important to consider these countermeasures from the perspective of education and, therefore, we intend to discuss how to educate healthcare providers to adopt such measures with accurate information, knowledge, and understanding.