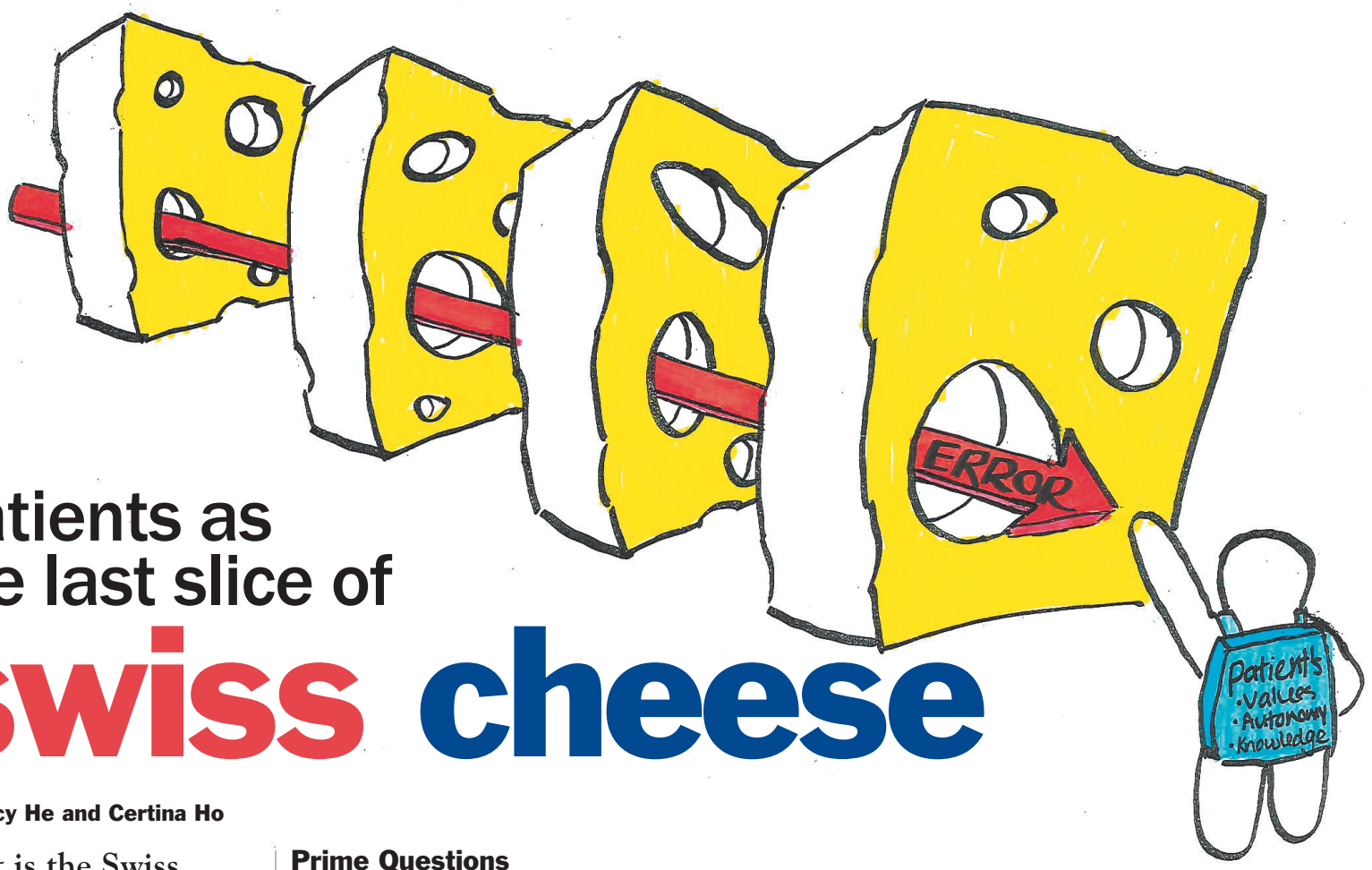

Patients as the last slice of swiss cheese

By Tracy He and Certina Ho

What is the Swiss Cheese Model?

In the realm of patient safety, the Swiss Cheese Model helps visualize how errors may slip through the gaps of human and technological vigilance. Each slice of the Swiss Cheese Model represents an obstacle or a checkpoint that may prevent an error or incident from occurring. However, when the holes in each slice of the Swiss cheese line up, errors are able to slide through and may result in patient harm. Every medication incident has its own set of Swiss cheese slices, but the ultimate endpoint will always be the same – patients. So, how do we make sure that an error will not reach the patient?

The role of patient education

As the healthcare industry gears towards patient-centered care, the notion of equipping patients with knowledge becomes more and more essential and valued. The objectives of patient counselling are evident in improvements in health literacy and trusting patient-provider relationships, but the subliminal outcome is the potential mitigation of medication errors. When educating the patient, the healthcare provider is having a dialogue with the patient and supplying the patient with information and tools to make effective and informed decisions. During this conversation, the patient can also serve as an independent double check and help recognize and catch potential medication errors.

The Institute for Safe Medication Practices Canada (ISMP Canada) conducted a multi-incident analysis on how patient counselling can be utilized as an effective way to identify and catch medication errors in a community or ambulatory pharmacy. Over 100 medication incidents were analyzed, and two main themes emerged from this analysis: pharmacist-led identification of errors and patient-led identification of errors.

Prime Questions

Question 1	**Indication**	"What did the prescriber tell you the medication is for?"
Question 2	**Duration**	"How did the prescriber tell you to take the medication?"
Question 3	**Effect**	"What did the prescriber tell you to expect?"
Question 4	**Adverse effects**	"What side effects are you experiencing from the medication?"

Table 1. IDEA – The 4 Prime Questions to Use in Patient-Pharmacist Dialogue during Patient Counselling

Pharmacist-led identification of errors

When pharmacists educate patients on their medication use, errors can be caught in three ways – (1) through visual demonstration or showing of the medication; (2) through counselling from or referring to the original prescription provided by the prescriber to the patient; and (3) by verifying or checking with the patient regarding the indication and/or the potential side effects of the prescribed medications. The 3 Prime Questions have previously been identified as a method to engage patients in a patient-pharmacist dialogue, as they do not only verify therapy appropriateness, but also provide an opportunity for the pharmacist to catch or identify potential medication errors. We also suggested adding a fourth question to check on or monitor patients' medication therapy management if the medication is a refill prescription.

Patient-led identification of errors

On the other side of the prescription counter, when patients are educated on their medications, they inde-

pendently can identify potential errors and prevent unnecessary harm. Our analysis demonstrated that patients not only verified the logistic appropriateness of their own medications, such as correct patient identifiers and special storage requirements of their medications, but also the clarity of their prescribed medication therapy by recalling counselling points from a previous encounter. Therefore, to prompt for such opportunities, healthcare professionals should apply the IDEA framework (Table 1) and continue to provide key and specific medication information to patients, through visual reminders or descriptive identifiers of the medication(s) when counselling. Despite their subtlety, these methods have demonstrated to be simple but effective communication tools that can promote patient education and advance safe medication use.

WHEN PATIENTS ARE EDUCATED ON THEIR MEDICATIONS, THEY INDEPENDENTLY CAN IDENTIFY POTENTIAL ERRORS AND PREVENT UNNECESSARY HARM.

Although the healthcare practitioners involved in our multi-incident analysis were primarily pharmacists, the concept of patient education can be translated across various health disciplines; physicians, nurses, and caregivers of patients can all utilize the patient counselling techniques (e.g. the IDEA framework in Table 1) identified through this analysis. Most educational interventions (e.g. patient counselling) are behavioural in nature and can be implemented at any point of communication. For example, the appropriateness of medication therapy can be monitored by a physician when probing or checking on the patient for side effects; indication of a medication can be explained to the patient by a nurse prior to administration at the bedside; and quantity of a blister pack (or multi-medication compliance pack) can be verified by a caregiver at the point of prescription pick-up at the pharmacy.

When patients, the key stakeholders of medication use, are yielding the right knowledge, they can help independently identify and prevent medication errors. By educating patients at each patient-healthcare practitioner encounter, medication errors can be mitigated, paralleling improved health literacy and the construction of trusting relationships. Healthcare is a collective effort that requires care and vigilance at every level – the physician for the right diagnosis, the pharmacist for the right medication therapy, the nurse for the right administration, and the patient for the right education. Only this way, can we pride ourselves in true patient-centered care. H

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