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.

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

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.