ISMP Canada is an independent Canadian nonprofit agency established for the collection and analysis of medication error reports and the development of recommendations for the enhancement of patient safety.

The Healthcare Insurance Reciprocal of Canada (HIROC) is a member-owned expert provider of professional and general liability coverage and risk management support.

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Multiple Reports of Confusion Between Lamotrigine (LAMICTAL®) and Products with 'sound alike' / 'look alike' Names

ISMP Canada has received four reports from health care practitioners describing confusion errors between **lamotrigine** (**LAMICTAL**®) and three alternate products. The alternate products described in the incidents were: **lamivudine** (HEPTOVIR®); terbinafine HCl (**LAMISIL**®); and **liothyronine** (CYTOMEL®). Two of the errors occurred during patient transfers from one organization to another. The transfer information was handwritten and the name of the drug inadvertently changed during the writing of transfer information. It was not clear from the reports whether there was a reading error or a writing error.

In September 2000, Glaxo Wellcome issued a letter to Canadian pharmacists warning of dispensing errors reported in the US and UK, involving LAMICTAL and LAMISIL.[1] Even earlier, in August 1996, ISMP in the United States had warned its subscribers (predominantly American) of the potential for mix-ups with these products.[2] Patients who erroneously receive lamotrigine are exposed to potential risk for adverse effects, including serious skin rashes (possibly Stevens-Johnson syndrome). Conversely, patients with epilepsy, not receiving lamotrigine as ordered, could experience serious consequences including status epilepticus.

Recommendations:

- One of the general recommendations made by the National Coordinating Council of Medication Error Reporting and Prevention (NCCMERP) is to include the medication's purpose when prescriptions are written.[3] This recommendation, in particular, reduces the likelihood for 'sound alike' 'look alike' medication errors. NCCMERP is represented by major professional organizations and regulatory authorities such as ISMP, USP, FDA, AMA, APhA, ANA, AHA, PhRMA, ASHP, JCAHO and NABP. There has also been a suggestion to design prescription forms to include a reminder for documenting the medication's purpose.[4] If the purpose for use is not communicated with the medication order, then the pharmacist, physician, or nurse, providing the drug, or relaying information, is advised to seek information as to the general purpose* for use of the drug.
- Ideally, the general purpose of the medication can be incorporated into electronic order entry systems and printouts. When electronically stored data are shared between organizations there would be fewer opportunities for these types of errors.
- ISMP in the US has long recommended that patients be included as active partners in their care through education about their medications and ways to avert errors. Although in practice, the potential for medication errors is rarely discussed with patients, for the drugs listed above there would be significant value added if error potential is included in the medication counseling process. It is advisable to warn patients who are prescribed these drugs of the potential for mix-ups because of previous medication error reports, and to encourage them to know the indication for their medication use and to share this information with health care professionals providing them care. Patients can be a last defense against medication errors.
- When printing labels or designing labels, the use of TALL letters might help. For example: the LAMICTAL; LAMISIL pair would be more clearly differentiated if presented as LamICTAL; LamISIL.
- Error prevention strategies can also include built in warnings in computer systems, and "name alert" labels affixed to the products.
- Importantly, pharmaceutical manufacturers should be encouraged to apply the "Failure Mode and Effects Analysis" (FMEA) technique in order to identify potentially confusing drug names or packaging, prior to product marketing. Many manufacturers have used ISMP's Medication Error Recognition and Prevention Strategies service (Med-E.R.R.S) that systematically evaluates the potential for error with new product names, packages, and labels. This proactive approach will greatly minimize the potential of "look alike" and "sound alike" products.

* Examples of General Purpose of Drugs Identified Above:

lamotrigine (LAMICTAL®):	antiepileptic
lamivudine (HEPTOVIR®):	antiviral
terbinafine HCl (LAMISIL®):	antifungal
liothyronine (CYTOMEL®):	hypothyroidism therapy

References

1 Written correspondence from Glaxo Wellcome. September 2000.
2 ISMP Medication Safety Alert! Volume 1, Issue 17, August 28, 1996.
3 http://www.nccmerp.org/rec_960904.htm
4 Cohen, M.R. Editor Medication Errors. American Pharmaceutical Association, Washington D.C. 1999 p 8.10.