

Using IP rights to clarify drug names

We all know that Tylenol is Paracetamol, a drug for relieving muscle and body pain and for reducing symptoms of headaches, cold and fever. Many of us also know that Sara and Carpol are Paracetamol. But Paracetamol is called Acetaminophen in North America and can also be called N-(4-hydroxyphenyl)-acetamide.

All these names refer to the same item, so what are their differences?

When a drug is first discovered, it is given a chemical name describing its molecular structure. After a drug is approved by the Food & Drug Administration, it is given a non-proprietary or generic name, and the proprietary or trade name is then developed by the company requesting approval.

The World Health Organisation (WHO) designates the International Nonproprietary Names (INN) to facilitate the identification of pharmaceutical substances, thus establishing a global standard for each pharmaceutical substance throughout the world. Occasionally, the US and/or Britain may designate their own non-proprietary name for a particular substance, rather than adhering to the INN:

- ◆ INN or generic name: Paracetamol;
- ◆ United States Adopted Name (USAN): Acetaminophen;
- ◆ Chemical name: N-(4-hydroxyphenyl)-acetamide;
- ◆ Proprietary name or trade name: Tylenol, Calpol, Sara.

Categories of pharmaceutical products can be recognised by their INN prefixes, roots, and suffixes. The suffix -cillin, for example, covers the penicillin (antibiotic) category, such as amoxicillin, ampicillin, and dicloxacillin. The root -tretin is connected to the retinoid category which is a form of vitamin A, including acitretin, alitretinoin, and tretinoin.

However, many drug names in different categories share similar spellings or pronunciation between INN and/or trade name, such as Toradol and tramadol, acetazolamide and acetohexamide, Celebrex and Cerebyx. This is a serious problem because significant illness or perhaps even death may result from a patient being given the wrong drug.

On July 3, 2007, *Thai Rath* newspaper reported that a 75-year-old man was in a coma for more than 20 days after receiving Depzide (a diabetic drug) when a Parkinson drug was supposed to have been administered. The hospital conceded that a dispensing error occurred as a result of a pharmacist providing the incorrect drug.

An instructive study, "Dispensing Error in Maha Sarakram Hospital", written by Chompunuch Pattanajak and published on April 20, 2006 on the Association of Hospital Pharmacy (Thailand) website, shows that the most common cause of dispensing errors is provision of the wrong drug, which

accounts for 36.3% of errors.

One possible way of reducing these errors is to use unique names and ornamental designs for the drugs themselves as well as for their packaging and/or container, as provided under intellectual property protection.

In Thailand, copyright, trademark, and design patent laws may be applied in order to emphasise differences between similar names.

Protection of names: Trade names are usually not more than four syllables in order to make them easy to remember. Sometimes, the trade name is simply a shortened version of the generic name, such as Minocin for minocycline. The trade name should be memorable without promising efficacy because any name that makes direct reference to the character or quality of the goods will not be registrable under Thai trademark law.

Nevertheless, trade names often use linguistic tricks, such as plosive letters (P, T, or D) to convey power, or fricative letters (X, P, S, or Z) to imply speed. The registration of a trade name that is deceptively similar to an INN or an existing trade name should be prohibited.

Protection of colour and shape: Most medicines are dispensed in cylindrical capsules with rounded ends or in circular, biconvex, or oval tablets because investment costs for manufacturing these shapes are low. However, drugs with a specific shape and/or colour(s) may be entitled to receive protection under three major areas:

- ◆ copyright for applied artwork creativity, based on the principle of originality;
- ◆ three-dimensional mark for trade symbol creativity, based on the principle of distinctiveness; and
- ◆ design patent for industrial creativity, based on the principle of novelty.

A particular drug may simultaneously seek multiple forms of protection to complement and accumulate the protections applicable in each case. The protections can be harmonised and overlapped without causing disruption.

IP can further be used to prevent drug name confusion if doctors write both INN and trade names together on prescriptions. Pharmacists will then be able to decipher the drug name, even if poor handwriting or spelling mistakes are made on the prescriptions.

Finally, patients who are normally not familiar with drug names but have been on the same medication for a long period will become accustomed to the drugs and will notice if they receive a drug with a different colour or ornamental design.

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