
EDITORIAL

Name That Prostate Cancer Drug

The last year has been unprecedented in terms of new medications for prostate cancer with four prostate cancer related approvals. This is even more impressive when you consider that on average the FDA approves between 20 to 25 new drugs a year in total. Many other prostate cancer related drugs are in late stages of investigation and will be brought forward in the next few years. While this is good news for our patients, it is problematic for those of us who may be linguistically challenged. *Jevtana*, *Provenge*, *Xgeva* and *Zytiga* sound more like exotic character names from a movie than do their generic equivalents cabazitaxel, sipuleucel-T, denosumab and abiraterone in the lexicon of urologic pharmacology.

These recent approvals raised my curiosity on how drugs are actually named. Early on, new drugs are usually identified by a basic chemical or developmental name. An example is XRP-6258, the taxane-based chemotherapy that became the generic cabazitaxel and ultimately the brand name of *Jevtana*. The novel autologous immunotherapy APC8015 became the generic sipuleucel-T and is now branded as *Provenge*.

The United States Adopted Names (USAN) council is responsible for assigning “simple, informative and unique non-proprietary names” (AKA generic names) to new medications. The generic name is *supposed* to be easy to pronounce, euphonic and suitable for use in the US and internationally. The name cannot be misleading or confusing, imply efficacy or application to specific anatomical parts. The USAN council is supported by the American Medical Association (AMA), the United States Pharmacopeial Convention (USP), the American Pharmacists Association (APhA) and the FDA and interacts with the WHO to standardize the generic names worldwide. Did you ever wonder why the generic names for the PDE5 inhibitors sildenafil, vardenafil and tadalafil all sound similar? This is due to the work behind the scenes of the USCAN group who use defined naming “stems” when coining new generic names for drugs that belong to an established series of related agents. In this case the stem “-afil” is tagged to the drugs in the PDE5 inhibitor class. I am somewhat relieved to see there is some method to the madness of naming generic medications although “easy to pronounce, euphonic” seems to have escaped some of the newer prostate cancer drugs like sipuleucel-T (“si-pu-LOO-sel tee”).

The next step in drug naming gets more complicated when establishing protectable, recognizable and marketable brand names for the product. Not only must the trade or brand name be unique and registrable with the US Patent Office, the FDA can weigh in at any point in the approval process and reject a name based on a variety of factors, not the least of which as being too similar to another product that may result in medication errors (e.g. look-alike and sound-alike drug names). In addition, while generic names are standardized across the globe, trade names are not standardized from country to country due to language differences.

This issue of naming medications is going to get more complicated as many new drugs come forward for all diseases including prostate cancer. Consider *orteronel*, the generic name for the androgen biosynthesis inhibitor TAK-700 and ipilimumab, an immunomodulatory anti-CTLA-4 monoclonal antibody, approved for melanoma as *Yervoy*. Both are in Phase 3 study for prostate cancer. And I have not even mentioned tasquinimod, custirsen or aflibercept. Thank goodness the new androgen receptor blocker MDV3100 is still called MDV3100.

So the next time a new drug comes out with a tongue twisting name, consider checking out the patient information section of the manufacturers web site where you can often find help with the phonetic pronunciation of these new agents. Thanks to the manufacturers of drugs such as abiraterone who help us out with this phonetic web site explanation of *Zytiga* (“zye-tee-ga”). If and when ipilimumab receives approval for prostate cancer, someone please help us with its proper phonetic pronunciation. As newer products are developed and marketed, the challenging task of naming a new prostate cancer drug will become more difficult and much more important, pronunciation issues notwithstanding.

Leonard G. Gomella, MD
Thomas Jefferson University, Philadelphia, Pennsylvania
Editor-in-Chief