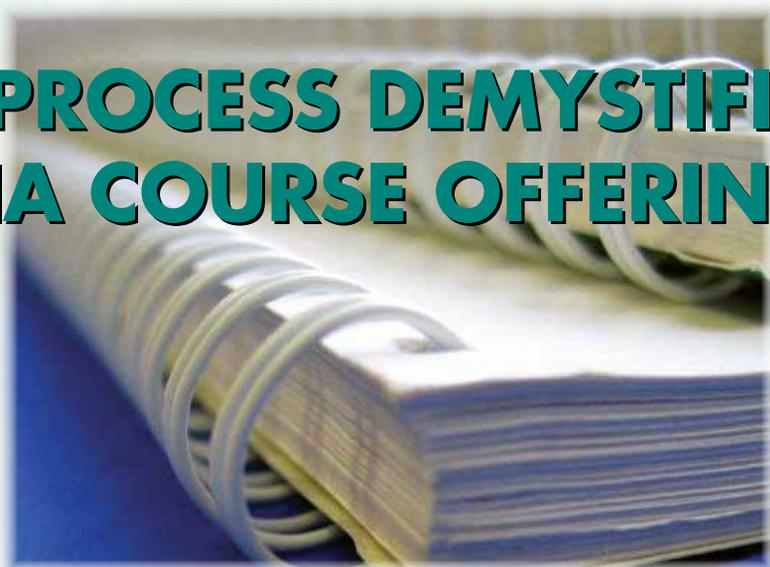


FDA PROCESS DEMYSTIFIED BY DIA COURSE OFFERINGS



Tremors are felt in the halls of pharmaceutical companies all around the country when an FDA drug application has been filed. Whether for a new drug or the new use of an existing drug, the anxiety is still the same. Will it be successful? Did we miss something? Anything? Will we get a letter? Or worse, a phone call from an FDA official demanding additional information?

Pharmaceutical companies, drug researchers and clinicians alike are stymied by the beast known as the FDA. For many involved in drug production, the FDA remains an enigma and the review process can paralyze even the most sophisticated among them. Not necessary, says George H. D’Addamio, PhD, who specializes in the preparation of clinical development documents and demystifies the FDA submission and review process in the DIA training course, *Overview of Drug Development*.

“One of the greatest misconceptions about the FDA,” says D’Addamio, “is that it is unreasonable and that every time a product fails, either in the review phase or at market, it is the FDA’s fault.” This is simply

not true, he says, and there is a lot of needless expense and worry expended by those in the field of drug development because they either “don’t follow or don’t understand what the FDA wants.” The FDA protocol is very clear and provided in a comprehensive, readily available regulation handbook which is updated regularly with “guidances” that are non-binding for the FDA but provide current thinking in a particular research field. “Use guidances when preparing an application because they provide direction on situations that regulations did not anticipate but always comply with the regulations in your submission” in order to have the best shot at getting your drug approved, D’Addamio recommends.

Even after a drug has successfully navigated the arduous review process, the final step before bringing the drug to market can be just as grueling. New FDAAA guidelines require all drugs to undergo an FDA Advisory Council hearing and, as is discussed in another article in this issue by Peter Taft, pharmaceutical companies still fear that part of the FDA approval process tremendously. “One of the most stressful moments in the life of any drug or biologic

team is the day they face an FDA Advisory Committee. The challenge is daunting: Present a convincing argument for approval in an hour, then answer questions from a panel of experts whose vote could spell the success or failure of a product — even a company,” Taft writes. It is only after this intense, real-time hearing is over, can a collective sigh of relief be uttered. How do you prepare for such a high-stakes event as a FDA Advisory Council hearing or AdComm as it is known in the industry? DIA will offer its first course on the topic later this fall where the development of AdComms and their current processes will be discussed. Most importantly, instructor Taft will examine the best preparation tactics a company can take: How do you craft an argument for approval (critical to the panel’s understanding)? How do you prepare for the bevy of questions from the panel? How do you motivate your team, stay on message and gain approval? All that, plus a breakdown of FDA lingo and how to understand it and use it in your presentation. Go to www.diahome.org for information on these and other learning opportunities. ■

*Q&A Dr. George D'Addamio, PhD
President, PharmConsult, Inc.*

What is the greatest misconception about the FDA? That it is “unreasonable.” Clinical trial applications have very specific inclusion and exclusion criteria designed to keep homogeneity and excessive risk out of the study. There are a well-defined group of regulations that researchers simply need to follow in order to submit a successful FDA new or new use drug application.

Everytime a product fails, it is perceived to be the FDA's fault? Why? Once a product is approved by the FDA it is done so for a certain patient type with a specific disorder/illness, at a specific dosage, for a specific timeframe of use (one a

day, twice daily, etc.). These are the conditions under which the drug is studied during the clinical trial and the arena in which adverse events and serious adverse events are measured. Once the drug is approved by the FDA and distributed on the open market, there is no control over how and/or why the medication is dispensed by physicians to particular patients. Often times, the physicians are not prescribing as was done so in the clinical trials, the patients are then not using the drug as studied and the results, therefore, are not as intended. In addition, there is no way of determining if the patient is complying with the physician's prescribing guidelines or has provided accurate medical history to

their physician thereby determining their contra-indications or risk factors for taking the drug accurately.

Why do US drugs take so long to reach the market? There are not enough patients to take a really deep look at rare events that occur from drug usage (i.e, a study may have 10,000 participants for a medication that eventually could be used by millions). Our process builds in extra time for a broader scope time-wise for measuring adverse events in the context of use. Pharmacovigilance allows the medical researchers to evaluate the post-marketing effects of approved drugs and is very important because of this.

DID YOU KNOW?

- **In 2007, the biopharmaceutical industry spent 80 billion USD in research and development**
- **Approximately 18% of domestic sales are reinvested in R&D**
- **Outpatient prescription drugs accounted for only 10% of national health care expenditures in 2006**
- **Despite this data, only 44% of consumers have a favorable opinion of the pharmaceutical industry**
- **Drug development can take 10-15 years and patent life is 20 years**
- **Cost of new product development is estimated to be 1.2 billion USD**
- **For every 10,000 compounds screened, 250 will advance to pre-clinical trials, 5 will go on to clinical trials and ONE will be approved. But, each compound will cost in the billions to develop, whether it advances or not**
- **The review time specified in FDA regulations for IND is 30 days**
- **The review time specified in FDA regulations for NDA is 180 days**
- **The Bureau of Chemistry, the precursor to the FDA was founded in 1862 during the presidency of Abraham Lincoln**

FDA: TIMELINE OF GROWTH



1862

Bureau of Chemistry formed under Abraham Lincoln, President

1906

Pure Food and Drugs Act founded as a result of Dr. Wiley's Poison Squad

1938

Federal Food, Drug and Cosmetics Act was the first act to require drugs to be test for safety

1962

Kefauver-Harris Amendments formed the basis for the current IND drugs and required demonstration of efficacy and safety.
First time formal FDA approvals were mandatory

1987

IND Rewrite Regulations ensured data integrity and protection of human participants via informed consent

1988

Expedited NDA Approval Process for Life-threatening illnesses was precipitated by the AIDS epidemic and starts reliance on post-marketing surveillance to assess safety

1992

Prescription Drug Use Fee Act (PDUFA) started fee collections for FDA applications to fund hiring of more NDA reviewers

1997

FDA Modernization Act (FDAMA) extended PDUFA and fast tracked drug approval, and expanded patient information access

2007

FDA Amendment Act of 2007 (FDAAA) required post-marketing studies and clinical trials with specific reporting requirements