

North Carolina Board of Pharmacy

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Published to promote voluntary compliance of pharmacy and drug law.

Item 515 - Disciplinary Actions Of The Board

June: Two pharmacists licenses were suspended with stay orders, however, they are not included in this issue since the time for appeal had not expired prior to copy deadline.

July: Margaret G. Senn, High Point. Appropriating Schedule II controlled substances for her own use without obtaining authorization from a physician. License suspended two years, stayed for three years with conditions.

Justin E. Benfield, Concord. Motion for Termination of Probation and Suspension of License denied. No action taken.

John W. Gray, Jr. & Myers Park Pharmacy, Inc., Charlotte. Consuming and/or dispensing legend drugs and controlled substances without a valid prescription; refilling prescriptions for controlled substances without obtaining authorization from the prescribing physician; creating false prescriptions; destroying drug invoices; failing to record refills on the prescription document; refilling prescriptions for controlled substance more than six months after the date on which the prescriptions were issued and in refilling prescriptions more than five times. License revoked, stayed 10 years with active 90 day suspension and other conditions. No action taken on permit.

Disciplinary actions of the Board of Medical Examiners have been separately assembled and are included as an insert in the envelope which contains this Newsletter.

Item 516 - Board Election

The Spring Election for membership on the Board produced the following results: Region 3 - Whit Moose, 1,353; Ronald H. Small, 552. Region 4 - Bill Adams, 1,673, and a total of 14 write-in ballots with no person receiving more than 4 votes on the write-in line. In the Spring of 1987 Bill and Whit will begin serving their three year terms.

According to North Carolina statute and Board regulation any licensed pharmacist in the region designated for election can be a candidate. This can occur by nomination from a Committee appointed by the Board or by petition of ten pharmacists from that region.

The members of the Board are William Whitaker Moose, Moose Drug, Mount Pleasant, President; Joseph B. Roberts, III, Vice-President, Attorney and Public Member from Gastonia; Evelyn P. Lloyd, James Pharmacy, Hillsborough; William R. Adams, Jr., Wilson Memorial Hospital, Wilson; William H. Randall, Jr.,

Layfayette Drug, Lillington; and, Harold V. Day, Day's Drug, Spruce Pine.

Item 517 - Literacy And Medical Care

The Board staff has been concerned for many years regarding the problem of illiteracy and how it inhibits good medical care and specifically drug therapy. Item 373 in the October, 1981 issue of this Newsletter addressed this very subject.

The topic is now gaining more attention on the front pages of newspapers as well as television specials. The American Pharmaceutical Association has joined in the efforts to focus national attention on this problem and bring together those who need help with those who can give it.

The purpose of reminding pharmacists of this subject in this publication is to stress the need for patient contact. Estimates of illiteracy run from 10 to 20% and projections from census data indicate at least 13% of the public are illiterate. When one considers the normal recipients of prescription drugs, the fact that 26% of native born Americans over 60 are illiterate is a real shock. Please understand that these percentages apply to patients or customers who receive their drugs from pharmacists everyday in this state. These are not statistics which apply only to another state or some other situation!

It is an interesting exercise for each practicing pharmacist to multiply the number of prescriptions filled by that pharmacist in a day times 15%. This number is probably equal to the number of people who cannot read the directions you have typed on the prescription label. Clearly more is needed than just the prescription label or patient package inserts. Pharmacists should keep this in mind in their everyday practice.

Item 518 - Drug Designation In Computers

During some recent disciplinary hearings it has become apparent to the Board that a practice is occurring in pharmacies with computers that could lead to some detrimental results. It is an easy practice to accept the information on a computer screen indicating a generic drug has been dispensed with its NDC number when a generic drug from another manufacturer with a different NDC number has actually been used. Pharmacists are reminded that the Product Selection Law requires at 90-85.30 that, in the case of generic drugs, the name of the manufacturer (or designation through NDC number) must be on each prescription when pro-

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National Pharmacy

(Applicability of the contents of articles in the National Pharmacy and can only be ascertained by examination)

Generic Substitution/Drug Quality Issues

In an effort to address some of the questions pharmacists have regarding generic drugs, the following article was submitted to the National Association of Boards of Pharmacy by the FDA.

In September of 1984, Congress passed and the President signed the Drug Price Competition and Patent Term Restoration Act. That Act provided, among other things, for an expedited approval by the Food and Drug Administration (FDA) of generic copies of brand name drugs. In so doing, the new law expanded the potential generic market for prescription drugs by more than 2 billion dollars a year. As might be expected, this sudden expansion of and new competition in the prescription drug market have caused a reaction on the part of some brand name drugs manufacturers. There have been many challenges from a wide variety of sources about the relative merits of generic drugs versus their brand name predecessors and about the FDA's ability to ensure that generic drugs are equivalent to the brand name drugs they are copying. This article discusses and rebuts from FDA's ability to ensure that generic drugs are equivalent to the brand name drugs they are copying. This article discusses and rebuts from FDA's perspective ten charges or myths currently being raised by brand name firms, directly or through intervening sources under the guide of independent scientific dialogue, aimed at discouraging health professionals from prescribing or dispensing generic drugs.

Myth 1: The 1984 action by Congress has eliminated safety and effectiveness testing requirements for generic drugs and has thus reduced the confidence that physicians and patients can have in the safety and effectiveness of generic drugs.

Fact 1: What the new law in fact does is eliminate the unnecessary requirement for duplicate testing to redemonstrate the safety and effectiveness of active drug ingredients that have already been shown to be safe and effective by adequate and well controlled studies and that have been widely used and accepted by the medical community for many years. By eliminating unnecessary testing, the law does not lessen the assurance that the drug active ingredient is safe and effective. Instead, the new law requires that anyone who plans to market a copy of a previously approved drug product submit to FDA evidence that 1) they can make the drug according to FDA's stringent requirements, 2) that the drug can be expected to have the same therapeutic effect (i.e., that it can deliver to the blood or other site of drug action the same amount of the active ingredient as does the innovator's product), 3) that the proposed product meets appropriate requirements for stability, purity, strength and quality as does the innovator's product, and 4) that the drug is labeled with the same claims, warnings and other information as is the innovator's product.

Myth 2: FDA requires pioneer drug manufacturers to study their drugs in thousands of patients, but it requires generic firms only to test their drug products in twenty or thirty healthy volunteers.

Fact 2: This statement is misleading. Testing in a large number of patients is required for the pioneer drug in order to establish the safety and effectiveness of the new active drug ingredient. The

innovator's investigation, demonstrating that an active ingredient works against a specific disease, showing how it works and establishing the proper dosing level, requires a large number of patients. Once it has been established that the new active drug ingredient is safe and effective, FDA need ensure only that others wanting to market a copy of the innovator's product make their product correctly. This does not require duplicative testing in large numbers of patients, because showing statistically that one drug product can deliver the same plasma level as another with the same active ingredient requires the generic firms to do only the testing necessary to show that their drug product behaves the same in vivo as the innovator's product.

In fact, in FDA's experience, the formulation the innovator uses to test its active ingredient clinically is not the same one that is eventually marketed. In order for the innovator to gain approval for the reformulated dosage form, it is required only to perform the same kind of bioequivalence test for approval of its new formulation that a generic manufacturer would do to show equivalence to the brand name product. Thus, for most drugs, the generic product and the marketed brand name product stand in the same relationship to the formulation that was originally tested for safety and effectiveness.

Myth 3: Plasma level studies do not show how a drug acts at the site of action and therefore are not indicative of how well a drug will perform.

Fact 3: Once the active ingredient is shown to enter the bloodstream at the same rate and extent as that same active ingredient from another product, there is no currently recognized scientific basis to allege that the therapeutic effects of the two drugs will differ.

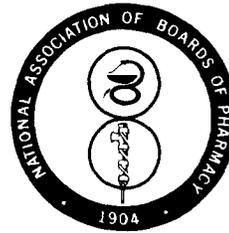
Myth 4: Bioequivalence studies are performed in healthy volunteers, who are usually in their twenties, while many of the drugs are used primarily in elderly patients. These elderly patients can be expected to absorb and metabolize the drug differently than do the healthy volunteers. Therefore bioequivalence testing is not an indicator of how the drug will perform in patients.

Fact 4: Although the metabolism and the absorption rate of drugs in healthy volunteers often will differ from that of elderly and ill patients, it does not follow that the bioequivalence testing is thereby invalidated. The testing in healthy volunteers, which shows an equivalent blood level between the generic and the name brand product, is a strong indicator that the two tested dosage forms will behave the same under the same conditions. No one has demonstrated that two products found by conventional tests to be bioequivalent perform inequivalently in different patients. Therefore, the agency continues to believe that it is entirely appropriate to determine bioequivalence based upon testing in healthy volunteers. There are also ethical reasons for testing in healthy volunteers. It is preferable to subject healthy people, rather than already weakened or disabled patients, to the blood sampling and other discomforts of bioequivalence testing.

Myth 5: FDA applies lower standards for generic approval com-

Compliance News

Compliance News to a particular state or jurisdiction should not be assumed (unless the law of such state or jurisdiction.)



pared to those required for the brand name products.

Fact 5: The lesser standard that is usually implied in such a statement relates to the safety and efficacy testing that was mentioned earlier. In actual fact the standards for manufacturing and marketing drug products are the same, whether it is a generic or a brand name product. FDA requires that the manufacturer in both instances follow good manufacturing practice, that they show that their drug is stable, that it is bioequivalent, and that it meets the same standards of identity, strength, quality and purity.

Myth 6: FDA has no written rules or criteria for how it determines bioequivalence.

Fact 6: FDA has required generic drugs to be bioequivalent to innovator products since the mid 1970's, and it published final regulations on bioequivalence in January, 1977. Basically, FDA's requirements are as follows: 1) for drugs first approved after 1962 and for older drugs that may have a bioequivalence problem, the generic product must be shown to have the same extent of bioavailability as the innovator's by an appropriate method that shows that the mean extent of absorption (area under the curve or AUC) will not differ from that of an innovator's product by more than 20 percent; 2) the generic product must be shown to have the same rate of bioavailability as the innovator's by an appropriate method that shows that the average maximum and minimum concentrations will not differ from those of the innovator's product by more than 20 percent, and that the times for the two products to reach their maximum concentrations do not differ significantly. Statistical methods are then applied to ensure that the generic product is not excessively variable from dose to dose within patients. A few drugs, because of an inherent variability of both the innovator's and generic products, cannot meet the statistical criteria. For these drugs, another criteria may be employed, the so-called 75/75 rule, which is a test to show that at least 75 percent of the people tested do not show a variation of more than 25 percent between the innovator's and generic products. For one class of drugs, the psychotropic phenothiazines, that criteria has been expanded to allow 70 percent of the people tested to show a variation of 30 percent or less between the two products.

Myth 7: Because FDA allows a variation of plus or minus 20 or 30 percent in blood levels between the brand name and the generic products, generics may differ by as much as 60 percent from each other.

Fact 7: The test that FDA employs and the standard that is applied is a statistical one. The generic manufacturer must show that its product has a statistically significant difference of not more than plus or minus 20 percent from the innovator's product. There are currently no products for which a 30 percent variation in the extent of absorption has been permitted. This statistical confidence, however, means that it is virtually impossible for a generic product to pass if it in fact differs in its average plasma level by 20 percent from the standard product. Deviations of more than 10 percent between generic and brand name products are rare; usually

the differences are much less than 10 percent.

Myth 8: Brand name drugs are made in modern facilities, while generics are often made in substandard facilities. Thus generics are of generally inferior quality.

Fact 8: Both brand name drugs and generics must meet the same FDA standards for manufacture. In most instances the generic firms have modern, state of the art equipment and plants that compare favorably to or even surpass those of innovator firms.

No one has been able to demonstrate that the quality of generic drugs differs from that of the brand name counterparts. The rate of defects found by FDA in both brand name and generic products are extremely low and speak well of the pharmaceutical industry's care in producing prescription drugs. In fact, the innovator drug firms themselves account for an estimated 70-80 percent of the generic drug market. Thus to believe generics are inferior, one would have to accept the premise that the research oriented drug firms can't adequately manufacture products other than the ones they pioneered. It is also true that many innovator drug firms distribute products made by smaller generic firms. It is unlikely they would continue such arrangements if they really doubted the ability of generic firms to manufacture quality products.

Myth 9: In calling drugs bioequivalent, FDA overlooks documented cases of bioequivalence.

Fact 9: While there have been a few well known, documented cases of bioequivalence, they are either samples from many years ago that have long since been corrected or the problems resulting from drugs which have never gone through FDA's approval system. **FDA is not aware of a single documented bioequivalence involving any generic drug product that has been approved by FDA as bioequivalent.**

Myth 10: Patients using generic products are more likely to suffer adverse reactions than those taking the brand name drug.

Fact 10: There is no evidence of a different rate of adverse drug reactions (ADRs) between brand name products and their generic equivalents. The FDA monitors adverse reactions carefully and compares them to expected rates of adverse reactions. There have been some efforts recently by several brand name firms to stimulate reporting to FDA's voluntary ADR system of adverse reactions to the products of their generic competitors. FDA's voluntary system is based on spontaneous reporting by physicians and other health practitioners. If adverse reaction reports to a spontaneous reporting system are encouraged or stimulated with respect to one or a few drug products, a distortion of that system will result. Thus, FDA has vigorously opposed any attempts by drug firms to solicit or otherwise stimulate adverse reaction reports for any product.

The FDA has an obligation to investigate all allegations of drug product defects or failures. The agency has not found any allegations raised thus far in the brand name vs generic drug controversy to be valid. Just as FDA has an obligation to investigate such reports, FDA also has an obligation to make known to health care professionals and the public its conclusions that false or misleading reports are being generated.

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duct selection occurs. The name (or number) of the drug actually dispensed needs to be shown on the computer screen.

Item - 519 Quarterly Query

The transfer label, "Caution, Federal Law prohibits the transfer of this drug to any person other than the patient" applies to: 1. All drugs dispensed on prescription. 2. Schedule II drugs. 3. Schedule II and III drugs. 4. Schedule II, III and IV drugs. 5. Schedule II, III, IV and V drugs.

Item 520 - Does Unit Dose Packaging Satisfy Safety Closure Regulations?

A North Carolina pharmacist inquired of the Consumer Product Safety Commission about unit dose drugs and if they satisfied federal requirements. Mr. Charles Jacobson, from the Division of Regulatory Management of the Consumer Product Safety Commission responded that some unit dose packaging does meet federal requirements. Federal regulations provide for testing of unit dose packaging at 16 Code of Federal Regulations 1700.20.

Pharmacists dispensing unit dose medications who are concerned about this matter should contact the unit dose packager or manufacturer to determine if the packaging is child resistant. If it is not child resistant, alternative packaging should be used for outpatient dispensing unless the prescriber or patient requests conventional packaging.

Item 521 - Suspicious Prescriptions From Teaching Medical Centers

The Board office received copies of correspondence this summer between a pharmacist in South Carolina and officials at Duke University Medical Center regarding a suspected forged prescription. The essence of the problem is that it can be difficult for a pharmacist to confirm the presence or absence of validity in a prescription purportedly written by a prescriber from the medical center.

First of all it should be remembered that state law requires that all written prescriptions must bear the printed name, address, telephone number and DEA number of the prescriber. It is the Editor's opinion that a prescription for an abusable drug that does not have this information is a good candidate for a suspicious prescription. Also, any prescription for Dilaudid for a person the pharmacist hasn't seen before is a suspicious prescription. In a normal situation a pharmacist will see a patient or customer progress from less powerful analgesics to stronger drugs and, if necessary, the most powerful drug such as Dilaudid, morphine or methadone. This is a good place to remind pharmacists that they have a right and a responsibility to refuse to fill a prescription for several reasons. Board regulation .1801 states that this is justifiable when there is a question as to the prescription's validity, where the pharmacist believes it would harm the patient or if the pharmacist believes that filling the prescription would not be in the patient's best interest.

Returning to the subject of confirming prescriptions from teaching medical centers, Board staff recommends contacting the prescriber by telephone. If reasonable efforts to do this are not successful, additional steps may be necessary. Officials at Duke University Medical Center recommend contacting the pharmacist on call at (919) 681-2996. At North Carolina Memorial Hospital these calls are handled through the switchboard at their general number (919) 966-4131. Depending on the situation, callers are referred to the responsible pharmacist on duty or to the security department. At Baptist Hospital in Winston-Salem it is recommended that a call be made to the outpatient pharmacy and talk to the supervising pharmacist at (919) 748-3363. At Pitt County Hospital

which is the teaching institution for the Medical School at ECU, the pharmacy number is (919) 757-4586 where they can confirm a prescriber as a member of their staff.

The SBI reports that a commonly used scheme for passing forged prescriptions is to use a "runner" to bring in the prescription document and return the goods to another person outside. Teenagers are often recruited for this transaction and are paid a significant amount of money in cash to deliver the drugs outside. Pharmacists should be alert to this procedure and call your local law enforcement when appropriate.

Item 522 - Don't Forget Continuing Education

Time is growing short for obtaining the ten hours of continuing education needed for pharmacists renewing licenses to practice pharmacy. An abundant supply of continuing education courses are listed on enclosures with this Newsletter. This note should be sufficient to remind pharmacists of their responsibilities.

The Board has approved programs offered by ACPE approved providers and local programs approved by a committee of the North Carolina Pharmaceutical Association. State approval requires submission of the proper forms at least 30 days prior to the program. Serving as a preceptor can yield up to 5 contact hours of credit and Continuing Medical Education Category 1, originally intended for physicians, is also acceptable for pharmacist license renewal purposes.

Item 523 - Impaired Pharmacists

Disciplinary actions involving pharmacists impaired from drug use are a regular and disturbing event at Board meetings. Board members are in the process of developing a Position Paper on this issue to serve as a benchmark for dealing with impaired pharmacists. The North Carolina Society of Hospital Pharmacists and the North Carolina Pharmaceutical Association have jointly made a commitment to implement an Impaired Pharmacist Program. If you know a pharmacist who has a problem with abusing drugs to the extent that it is a public safety concern, please consider urging this person to seek help through this Association sponsored program.

Item 524 - New Numbering System For DEA Registrants

On October 1, 1985 the Drug Enforcement Administration began a new numbering system for DEA registrants. New registration numbers for pharmacies, physicians, hospital/clinics and teaching institutions will begin with the letter "B," instead of the letter "A" used currently. For example, if a practitioner named John Doe applied for a new DEA number, after October 1, 1985, the DEA number issued to him may be BD1234563. The "B" is the new prefix letter, the "D" is the first letter of the doctor's last name, and these letters are followed by a seven digit number. DEA numbers currently in use will remain the same and are not affected by the new numbering system. Thus, in the future, pharmacists will see prescriptions issued by practitioners with DEA numbers beginning with both letters "A" and "B." The answer to Item 519, Quarterly Query is 4, Schedule II, III and IV drugs.

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