PHARMACOVIGILANCE AND DRUG SAFETY

The National Medicines Information Centre (NMIC) and the National Drugs Advisory Board (NDAB) are collaborating to produce information on topical aspects of drug safety. From time to time, we wish to advise prescribers of recently recognised adverse reactions to medicines and alert them to potential problems with a view to minimising the risk of toxicity to patients. Fundamental to this process is the early recognition of potential problems which can be successful only with the help and vigilance of prescribers - this aspect of drug safety is now referred to as pharmacovigilance. We begin with a description of the system of reporting adverse drug reactions (ADR's).

Background
The spontaneous reporting of ADR's by yellow cards remains the most effective surveillance system of drugs in clinical practice. Its value is determined by the nature and volume of reports received, factors which themselves are determined by the vigilance and commitment of those involved with the prescribing and dispensing of drugs to patients.

Although pharmaceutical products undergo extensive testing and review by means of controlled clinical trials prior to marketing, such trials have inherent shortcomings. They seldom involve more than 2000 patients or last for more than three years, thus uncommon side-effects or delayed effects of long-term administration may not be detected. In addition, most patients enrolled in clinical trials have relatively uncomplicated disease and are drawn from restricted groups. Accordingly, pre-marketing data often do not apply to the elderly, pregnant women, children, and patients with more than one disease who require treatment with multiple drugs. Such patients, however, are among those most likely to be exposed to a drug after marketing begins. Post-marketing surveillance is therefore crucial for providing additional safety information that cannot realistically be collected before approval of a drug.

A key component of such surveillance is the reporting of ADR's. ADR reporting systems, based on the spontaneous reporting of suspected ADR's by yellow cards, were formalised during the 1960's in the wake of the thalidomide disaster. In 1968, the WHO International Drug Monitoring Programme began to pool ADR data from individual countries so that rare and serious reactions could be detected as early as possible. Ireland has been involved since the outset and has established a strong tradition in the area. Despite the obvious importance of ADR reporting, however, and the value of reports received, fewer than 10% of ADR's are reported. A recent study among hospital and general practice prescribers in Ireland, identified some of the problems and constraints encountered in utilising the system, particularly the absence of clear guidelines on what to report and the unavailability of yellow cards.

In Ireland, the National Drugs Advisory Board (NDAB) maintains the ADR scheme on a national basis. Health care professionals (doctors, dentists, pharmacists) are requested to report all suspected adverse reactions. Of particular importance are all suspected reactions especially to newly marketed products, serious suspected reactions and suspected reactions to medicines used in pregnancy and vaccines.

An adverse reaction is defined as "a reaction which is noxious and unintended and which occurs at doses normally used in man for the prophylaxis, diagnosis or therapy of disease or
for the modification of physiological function". (This definition excludes accidental or
deliberate excessive dosage or maladministration).

To maximise the value of the ADR reporting system in ensuring drug safety, prescriber
vigilance is essential. The possibility of adverse reactions must continually be borne in
mind, and once suspected, such relations should be reported. It is appreciated that all the
data requested on the card may not be available to you which should not deter you from
sending in a report. The importance of this aspect of patient care cannot be over-emphasised.

We hope that this outline will go some way in raising prescriber awareness and thus help
generate the sort of vibrant "reporting culture" that is necessary in the long-term. Using the
attached yellow cards is the best way of familiarising yourself with the system.

- ADR reporting is vital for drug safety.
- If you suspect an ADR, report it, drug safety depends on the vigilance of the prescriber.
- ADR's do not have to be proven by the reporter.
- Report:
  - All suspected reactions to new products.
  - Serious suspected reactions to established products.
  - Any suspected increase in the frequency of minor reactions.
  - All suspected reactions to vaccines.
  - All suspected teratogenic effects.

Further information on ADR reporting and additional yellow cards are available from:
The National Drugs Advisory Board,
12, Adelaide Road,
Dublin 2,
Telephone 01-6764971, Fax 01-6767836.

The National Medicines Information Centre is happy to help whenever possible with specific
ADR queries.