

Title : QUALITATIVE STUDY OF THE UNCOATED ASPIRIN TABLETS
AVAILABLE IN PHNOM PENH, CAMBODIA

Author : Mr. Yang Daravuth

Major Adviser : Assoc. Prof.Dr.Nuwat Visavarungroj

Adviser : Assist. Prof.Dr.Pinyupa Plianbangchang

: Assist. Prof.Soravoot Rujvivipat

Type of Degree : Master of Pharmacy Degree in Pharmaceutical Sciences (M.Pharm.in
Pharmaceutical Sciences (International Program)
Naresuan University, 2003

Abstract

Nowadays, it is widely recognized that quality of drugs in third world countries is an oft neglected issue. Quality procedures may be compromised in some cases to be commercially competitive with other products. Sometimes lack of quality assurance can lead to dire consequences of drug quality. The drug under quality determination in this study was the uncoated tablets of aspirin. The objective of the present study was to investigate the quality of the uncoated aspirin tablets available in drugstores in Phnom Penh, Cambodia.

The quality control methods used in pharmaceutical technology were applied to the uncoated aspirin tablets which were collected randomly regardless of the brand name from 96 drugstores, 76 legal and 20 illegal drugstores, in seven districts of Phnom Penh, Cambodia. The data were collected between October and November 2002, using drug fishing method. The methods applied included (1) labeled amount, (2) weight variation, (3) hardness, (4) friability, (5) disintegration time, and (6) dissolution rate. The test results were compared with the limits of in USP XX 1980, USP XXV 2002, BP 1993, Encyclopedia of Pharmaceutical Technology 1996, and Remington 1995. The results indicated that the quality of the uncoated aspirin tablets available in Phnom Penh, Cambodia, was almost not in compliance with the standard criteria. Of 96 samples, only 6 samples met the standard. All these 6 samples were collected from legal drugstores.

Of 66 samples, 60(90.9%) samples failed the dissolution test, 15 (15.63%) samples failed the labeled amount test, and 16 (16.67%) samples failed the disintegration test. In summary, the overall results obtained showed that the quality of the uncoated aspirin tablets from drugstores in Phnom Penh, Cambodia, did not meet the standard requirements. Only six items (6.25%) reached requirements among 96 items studied.

This project has an important implication for the Cambodian government regarding the quality control of the uncoated aspirin tablets available in the market. Strict regulations should be imposed on the import of the drugs, manufacturing of the local drugs, as well as the storage conditions in drugstores.

