A MICROPROCESSOR-CONTROLLED SAMPLING DEVICE FOR USE IN DISSOLUTION TESTING

S.T. Papworth and W.J. Bowtle, Lilly Research Centre Limited, Windlesham, Surrey, U.K.

Dissolution testing of multiple samples of solid-dosage forms is becoming an increasingly common requirement from international regulatory authorities and represents a significant part of the quality-control programme in their manufacture. Additionally, pharmaceutical development of such dosage forms involves the testing of many samples, often in multiple time cycles. The difficulties in sampling during such testing are well known and minor differences in technique seriously affect reproducibility of each method used. At present, the apparatus available for sampling is very expensive and is restricted in adaptability where samples cannot be assayed directly. A microprocessor-controlled sampling system has been designed to execute such sampling reliably, flexibly, reproducibly and cheaply.

The sampling system consists of a microprocessor control unit which, according to one of ten sets of timing programmes, issues control signals to a variable speed pump, a multiple-sample-arm drive and a sample turntable stepping mechanism. Six discrete samples are simultaneously withdrawn at specified time intervals. The method of sample collection assures maximum reproducibility and minimum handling of samples prior to assay. The controller and sampler (overall dimensions 38 cm depth x 23 cm width x 43 cm height) can be operated with commercially-available 6-pot dissolution equipment. The apparatus is adaptable with a range of sampling programmes, facilities for varying sample size and compatibility with auto-analytical equipment.

THE EXETER COMMUNITY HEALTH SERVICES COMPUTER PROJECT (ECHSCP)

R.H. Fisher,ECHSCP, Royal Devon & Exeter Hospital (Wonford), Barrack Road, Exeter EX2 5DW

The ECHSCP has developed community based systems leading eventually toward shared records between hospital and general practice. The provision of visual display units on many sites in hospital and general practice, including wards, outpatient reception areas, accident and emergency, general practitioners' surgeries, means that the computer system can be used very cheaply for broadcasting information throughout its network.

The Exeter system includes the facility for the automated printing of repeat prescriptions, the keeping of medication histories for general practice patients, an on-line drug information system, which is also available on microfiche, and the ward nursing orders system which has expansion capabilities into the recording of administration of drugs in hospital.