

IN VIVO ASSESSMENT OF SOLID DOSAGE FORMS

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The dispersion of solid dosage forms in the stomach and their rate of gastric emptying is one of the factors which can control the absorption of a drug (Heading et al 1973). The recent developments of scintiscanning and gamma camera techniques have made it possible to follow dispersion and gastric emptying by a non-invasive technique employing a formulation labelled with a low energy, gamma emitting isotope (Digenis et al 1976; Alpsten et al 1976; Hunter et al 1978).

In the current study, model formulations have been prepared consisting of an ion exchange resin with particle size and density characteristics similar to those of most pharmaceuticals. The resin binds the label ^{99m}Tc , tightly and can be formulated into tablets and capsules. Assessment of the dispersion and gastric emptying of formulations of varying properties have been undertaken in fasting and non-fasting human volunteer subjects. Data is accumulated throughout the study and stored on a magnetic disc, and in addition a visual display on an oscilloscope allows visualisation of the dose form, and photographs can be taken.

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