

The use of colour on the labelling of medicines

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Abstract

Medication errors occur as a result of a breakdown in the overall system of prescribing, dispensing, and administration of a drug. Problems with packaging and labelling can be thought of as being latent conditions in the system that can predispose to errors during dispensing and administration. Errors often arise through different strengths of the same product and different products from the same manufacturer having similar packaging. One possible way to aid to product differentiation is to use colour, however, whether or not colour is an appropriate aid to the correct identification of a product is a controversial issue. We present a series of visual search studies investigating the use of colour on drug labelling as a systems change to aid the identification of drug products. Participants were given the task of searching for a target drug product amongst a range of products. In some trials colour could be used as a cue to product identification. Findings provide support for the judicious, or unambiguous use of colour on the packaging and labelling of medicines; participants made fewer errors when colour was an unambiguous cue to identity, but made more errors when similar products were also the same colour.

Introduction

The systems approach to error has been widely documented (e.g., Leape et al., 1995, Reason, 2000). Problems with packaging and labelling can be thought of as being latent conditions in the system that can predispose to errors occurring in the dispensing and administration of drugs. Problems often arise through different strengths of the same product and different products from the same manufacturer having similar packaging (Department of Health, 2004). System changes or 'error traps' that can be put in place relating to packaging and labelling can include; the physical separation of drugs with similar packaging in the dispensary or where they are to be administered, and the design of systems to avoid look-alike containers and unclear labelling. One possible way to aid product differentiation is to use colour.

The appropriate use of colour on drug packaging has been the subject of much debate (see e.g., Institute for Safe Medication Practices, 2003). One perspective is