political goodwill and financial provision from the centre, including adequate funding for research.[13] They will also depend on the interest and creativity of all those working in the community.

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Controlling your vocabulary

A NEW year and a new feature in the *Journal*: at the end of the summary for each paper is a list of keywords. This idea is not new and has been used by many academic journals. However, what is new is that the keywords used here are taken from the Royal College of General Practitioners' GP-LIT thesaurus, a list of keywords dedicated to general practice used by the College's librarians to index material for GP-LIT. GP-LIT is a computerized database, which was started in 1985, dedicated to general practice and allied material.

A thesaurus is a structured list of approved terminology with signposts (non-preferred terms) from words and phrases that cannot be used to those that can (preferred terms), for example AGED use ELDERLY. This technique is called controlled vocabulary, a method of controlling the words and phrases in order to allow easier and more effective keywording (indexing) and searching (retrieval) of records from catalogues, filing systems, databases or other information systems. The example most familiar in medicine is the medical subject headings (MeSH) used to search the National Library of Medicine's database, MedLine.[1-3]

The alternative to using a controlled vocabulary is to use free text searching. This means that to search a database, all the words or phrases that describe a concept or object are thought of and a search is undertaken using those words. Using the example of a WASTE-PAPER BIN, this could involve searching for the following words and phrases: BIN, WASTE-PAPER BIN, WASTE-PAPER BASKET, DUSTBIN, TRASH CAN, GARBAGE CAN, and so on. This is inefficient and one can never guarantee that all the alternatives have been thought of. A controlled vocabulary, however, allows efficient searching by selecting the term that will be used.

There are international standards[4,5] and instructions[6] for the construction of thesauri and guides to indexing.[7-9] A thesaurus is structured around relationships — generic or hierarchical, and associated. Generic relationships, indicated by either 'broader term' or 'narrower term' are concepts or objects that are a species or type of another concept or object. Associated relationships, indicated by 'related term' are concepts or objects that are connected, but are not a species or type of another concept or object. As a simple example, MICE are a type of RODENT and

therefore a narrower term of RODENT. A MOUSE-TRAP is not a type of mouse but a method of pest control and is therefore a related term of MICE but a narrower term of PEST CONTROL METHODS. Generic relationships in thesauri can also be constructed by the creation of hierarchical tree structures. On the printed page these look similar to a classification of diseases.

The Royal College of General Practitioners has been collecting literature on general practice since the late 1950s and is a unique source of information. Before the computerized database, GP-LIT, was started in 1985, bibliographical records were created for a card catalogue, and it is hoped to transfer these records onto the new database. GP-LIT currently contains over 20 000 bibliographical records of books, pamphlets, articles and chapters from the world's literature. A thesaurus of appropriate terminology, the GP-LIT thesaurus, which was begun at the same time to keyword (index) these records, now stands at approximately 5000 words and phrases (preferred terms) and 1500 signposts (non-preferred terms).

GP-LIT and the GP-LIT thesaurus are complementary to existing commercially available databases and thesauri in both content and terminology. The keywords used reflect the concerns of general practice, especially as practised in the United Kingdom, and therefore activities such as consultation, referral, audit and practice organization are well represented. For example, to search for material about referral using MedLine, the keywords that could be used are FAMILY PRACTICE together with REFERRAL AND CONSULTATION; after this one would have to employ a free text search. The GP-LIT thesaurus, however, contains over 20 keywords and phrases connected with the activities of referral and consultation.

Many general practitioners have their own collections of literature and all training practices must now have a library. As these collections grow, the need to organize and retrieve this material becomes more important and Margaret Hammond, in her book *The practice library,*[10] describes how to do this. Advances in computer technology have made personal and general practice computer systems a reality for many general practitioners and they may be tempted to record details of such collections on a computer database. Once recorded, such infor-

mation needs to be retrieved. To enable such a system to work uniformly and consistently, a list of approved keywords for searching is of paramount importance. Diseases on medical records are coded using a classification of diseases, and bibliographical records use a controlled vocabulary of natural language — a thesaurus.

The *Journal* is keywording its papers to assist speedy assimilation of key concepts of articles, and to suggest keywords for the material if entered into personal databases. It is hoped that this will be of value to general practitioners and members of the primary health care team in both their professional reading and in the creation of databases of personal and practice literature.

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