



Important New Evidence Service In Partnership with The Centre for Medicines Optimisation at Keele University

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Communication and shared decision-making: UK questionnaire-based study finds that many people do not fully understand common medical terms

A UK study involving 123 patients found that many did not understand the meaning of common medical terms. Understanding was higher in people whose first language was English and in people educated to a higher level. This small study can act as a reminder to all clinicians of the importance of adjusting their language appropriately when speaking to patients, to ensure information is delivered in a clear and understandable manner, and enabling people to make informed decisions about their care.

Reference: Hayes E, Dua R, Yeung E *et al.* [Patient understanding of commonly used oral medicine terminology](#). British Dental Journal 2017; 223: 842–845 doi:10.1038/sj.bdj.2017.991

What do we know already?

- Effective communication between healthcare professionals and their patients is important, especially as people become increasingly involved in their own care through shared decision-making. Effective communication has been linked to improved health outcomes ([Stewart 1995](#)). Medical terminology can be complex and sometimes confusing, and it is essential that a clinician's vocabulary is tailored to the individual to avoid misunderstanding and ill-informed decisions.
- In 1993, [Thompson and Pledger](#) found there were clear gaps in understanding between patients and doctors. The authors suggested that medical practitioners need to adapt their language to match the knowledge of the patient.
- A 2014 survey found a considerable lack of understanding of cardiology terms among patients and that estimates by doctors of patient understanding were generally inaccurate and often overestimated knowledge ([Blackman and Sahebjalal 2014](#)). Within this discipline, the most poorly understood terms were '**heart attack**', '**echo**', '**leaking heart valve**' and '**heart failure**'.

What does this evidence add?

- A questionnaire-based study conducted in a UK dental outpatient clinic tested 123 patients' understanding of commonly used medical terms.
- In general, terms that can also be used outside of a medical setting, for example '**blister**' and '**ulcer**', were the best understood by patients. Terms that are generally only used in a medical context, for example '**lesion**' and '**benign**', were less well understood. There also appeared to be confusion around terms directly or indirectly related to cancer, including '**biopsy**' and '**pre-malignant**'.
- Understanding of the medical terms was significantly better in people whose first language is English, and in people educated to university level or higher.
- It should be noted that participation in the survey was voluntary, and that it is possible that patients who chose to take part may be more knowledgeable than the average person, which may lead to an overestimation of understanding.
- The survey was conducted in a metropolitan area using a group of patients who were generally very well educated. It is not clear whether the same level of health literacy would be seen in the rest of the UK population.

Study details

Participants:

- Patients attending an outpatient clinic at a London teaching hospital were invited to complete a questionnaire while waiting for their appointment. Patients were recruited over two separate three-day periods.
- The mean age of the patients was 44 years (range 15 to 87 years) and 49.6% were male. 90/123 (73%) of respondents gave English as their first language. Twenty-two other first languages were reported, the most common being Polish followed by Portuguese.
- Patients were asked about their highest level of education. The most common was university education (29.0%), followed by school (27.6%), college (24.4%) and postgraduate (11.1%). Nine patients (7.3%) did not give their level of education.

Intervention and comparison:

- In a multiple-choice section of the questionnaire, patients were asked to select the most appropriate definition from three or four choices for five terms used in oral medicine:
 - Blister:
 - Pocket of fluid under the skin or lining of the mouth
 - Acne or 'spot'
 - I don't know
 - Ulcer:
 - A break in the skin or lining of the mouth
 - Acne or a "spot"
 - Same as a blister
 - I don't know
 - Malignant:
 - Not a cancer
 - Cancer
 - I don't know
 - Lesion:
 - Cancer
 - Any type of change/damage to the tissue
 - I don't know
 - Benign:
 - Cancer
 - Not a cancer
 - I don't know
- The final part of the questionnaire asked the patient to define five more medical terms, using free-text answers. These were 'biopsy', 'metastasis', 'pre-malignant', 'lymph node' and 'tumour'. Patients were not required to provide an answer for the free-text questions.
- The list of terms was intended to cover terms that were commonly used in verbal and written communication with patients (ulcer, blister, biopsy) and less common words (malignant, benign, metastasis).

Outcomes and results:

- In total, 123 questionnaires were completed. Not all questions were completed in all questionnaires.
- For the multiple-choice questions, 'blister' was the most commonly understood term, with 109/120 people (91%) picking the correct answer. 'Malignant' was the second best understood (70%), followed by 'ulcer' (67%), 'lesion' (65%) and 'benign' (64%).
- Significantly more people whose first language was English answered all the multiple choice questions correctly compared with those people who did not speak English as their first language ($p < 0.0087$).
- People educated up to a university or postgraduate level were significantly more likely to answer all the multiple choice questions correctly compared with those people educated to a GCSE or A-level standard ($p = 0.028$).
- For the free-text questions, 'biopsy' was the most correctly answered question, with 45% of patients stating that it was an investigation involving taking a sample. However, nearly a third of patients specifically defined biopsy as a test for cancer.
- There was a clear lack of understanding around the term 'pre-malignant', for which 22% of people correctly stated that it refers to the potential for malignant transformation. However, 19% of people thought pre-malignant meant that there was already cancer, and 28% thought it meant that it would definitely progress to cancer.
- There also appeared to have been some confusion with other, similar sounding medical terms. The responses to some questions suggested that patients mixed up 'metastasis' with 'metatarsal' or 'mastitis', and 'tumour' with 'thrombosis'.

Level of evidence: Level 3 (other evidence) according to the [SORT criteria](#)

Study funding: Not reported.