

025: WHAT ARE MY INDICATORS OF PRESCRIBING QUALITY TELLING ME?

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Objective:

To develop and agree on a harmonised conceptual framework for prescribing quality indicators.

Methods:

The method involved a literature review and expert meeting. Embase, medline and Pubmed records were searched for the years 1998-2003, using quality health care and prescribing indicators or drugs and validity. The expert meeting was held in May 2004, with 40 experts and policy makers as well as researchers from 19 countries.

Results:

110 potentially relevant articles were found of which 67 were selected after reviewing the abstracts. A prescribing quality indicator was defined as 'a measurable element of prescribing performance for which there is evidence or consensus that it can be used to assess quality, and hence can be used in changing the quality of care provided' following the general definition of an indicator of quality of care. Fifteen different kinds of indicators were found. A taxonomy grid of prescribing quality indicators could be constructed on two dimensions, the widely used structure-process-outcome, as well as drug oriented (providing information on quality of drug characteristics, irrespective of the indication), disease oriented (providing information on medication in relation to a disease) and patient oriented indicators (providing information on medication in relation to individual clinical characteristic, e.g. disease severity). A third dimension refers to the documentation needed for good prescribing practice. Most indicators in the literature were drug oriented process indicators. Available large-scale databases in public health range from wholesale databases, administrative databases for health insurance usually based on pharmacy data, and, in some countries, GP databases. The databases differ in both the information provided, and their internal validity.

The most easily available types of database are administrative databases. The usefulness is determined by the data captured, which varies from data on prescribed medication only, for a sub-population covered by the insurance, to medication data linked to a patient ID, patient age and sex, and prescriber's ID for the whole population. Only GP data provides routine information on medication linked to an indication. Quality indicators on the patient outcome level are still largely missing as well as indicators describing the patient perspective. The 'external validity' (meeting the indicator is considered better prescribing) of the prescribing indicators is often good for drug oriented indicators, but often not known or more problematic for disease oriented indicators and patient oriented indicators. 'External validity', if established, is limited to content and face-validity, with the only exception being asthma. For this condition, it was shown that different indicators, purportedly measuring the same concept with established face validity, had low correlation. Concurrent validity between indicators derived from GP computer database and an individual clinical assessment (reference value) showed low sensitivity and positive predictive value (PPV). The choice of indicator as well as the need for validity, and the acceptable levels of sensitivity and PPV, is clearly determined by the use of the indicator, by policy makers ('public indicators') or the support it provides when prescribing ('professional indicators'). In particular public indicators of prescribing quality need extended validation, more so when they are used to direct health care and financing.

Conclusion:

There exists a wide range of prescribing quality indicators with an emphasis on drug oriented process indicators. They are relatively easy to measure in view of the available administrative databases, but less meaningful for measuring prescribing quality as a part of treatment quality. There is a need for development of more disease-oriented indicators, and indicators encompassing the patient perspective. Databases are available to construct such indicators, but validation is called for, in particular concurrent validity. Harmonisation of the development between countries will facilitate international comparison, of particular importance in Europe.