After the success of ‘quality indicators’ season 1, it is time for the sequel: ‘quality assurance’

François Schiele

Assessing the quality of care has become an integral part of modern healthcare, and it provides key information for health authorities, health insurance providers, patients, the general public, and physicians themselves. Quality indicators (QIs) are the most appropriate tools for assessing quality and based on the assumption that measuring quality through dedicated QIs is a fundamental step towards improvement, then measuring quality also means improving quality. When the European Society of Cardiology Acute Cardiac Care Association published its first ever set of QIs for Acute Myocardial Infarction in 2017, there was some uncertainty about whether the European community would be interested in this field. In fact, the enthusiasm for defining QIs has exceeded expectations. QIs have been defined for a range of other clinical situations, both acute and chronic, and QIs are now published systematically in conjunction with clinical practice guidelines by the ESC. This link with the guidelines is logical, since the QIs are partially defined using high-grade recommendations. Yet, QIs are different, since they serve solely to measure the quality of care in a standardized manner. Based on this measurement, we should be able to ascertain whether management is optimal for all the domains of care, construct composite indicators to summarize ‘quality’ in a single metric, and determine, for a given centre, whether their performance is excellent or unacceptable.

The use of QIs for the measurement of quality remains less widely developed in Europe than in other regions. Published experiences to date are limited to the setting of acute myocardial infarction (MI), likely because it is a clinical condition that lends itself well to quality assessment with QIs. Indeed, assessments of the quality of care in MI have been published using data from several existing national or international databases, albeit retrospectively. The conclusions of these studies are almost unanimous, and can be resumed in 3 key points: first, all QIs cannot be assessed all of the time; second, there is a significant association between the level of the individual or composite QI and subsequent clinical outcomes, and, third, using a composite QI, centre benchmarking and categorization are possible. Although these results are interesting, they have yet not been followed by concrete efforts at improvement, such as educational programmes, or other interventions to correct suboptimal performance, or to provide certification to excellent performers.

At first glance, the study by Leonardi et al.12 published in this issue of European Heart Journal Acute Cardiovascular Care (EHJ-ACVC) looks like just another publication detailing experience of measuring the quality of care in MI. However, it contrasts starkly with previous reports, notably with regard to several important specificities in design: first, regarding the use of a prospective Clinical Governance Framework to ensure that patients received safe and high-quality health care; second, regarding the use of the QIs defined by the ESC-ACVC group; third, regarding the inclusion of a large population of consecutive patients admitted to 6 centers for acute MI (>5000 pts); and fourth, with monitoring of the inclusion of all consecutive patients by comparing the rate of patients included to the number of patients eligible. Despite this more rigorous methodology, the results are in fact quite comparable to previous reports, showing that the proportion of STEMI patients who undergo timely reperfusion remains low (around 22%), 70% of patients have a discharge prescription that could be deemed optimal, and it has been demonstrated (yet again) that time to reperfusion and the quality of secondary prevention treatment are both associated with 1 year survival.

The bad news is that the study by Leonardi et al.12 also confirms that many QIs cannot be measured, in practice, such as those in the ‘patient satisfaction’ domain, or the QIs pertaining to bleeding and ischaemic risk. Others can be measured only partially, or by using a modified definition, such as ‘adequate P2Y12 inhibitor’, transformed into simply ‘P2Y12 yes/no’, or ‘high-intensity statins’, which becomes simply ‘statins yes/no’. In addition to problems with the QI definitions, Leonardi’s study also highlights another weak link in the current approach to quality measurement, namely case selection. By comparing the number of patients assessed with the (probably exact) number of actual admissions for MI, even using a prospective design, the index of consecutivity was only 79.2% in the centre with the highest volume of activity, and dropped to a low of 57% in the centre with the lowest volume of activity. This failure to include a sizeable and variable proportion of patients, more marked in low-volume centres, raises a major issue in the evaluation of quality of care, given the proven relationship between quality and volume of activity. The fact that only some of the QIs can be measured calls into the question the very definition of the indicators.

Faced with this growing body of evidence, it is perhaps time to admit that our QIs are only partially successfully measured using existing registries, and it is high time to make changes to QIs and measurement methods in general. Regarding the definition of QIs, the close link to high-grade recommendations has long taken precedence. The same tendency has been observed in the United States of America, where the American College of Physicians has called for a ‘time-out’ to review performance measures and give them a makeover, after their group observed that only 37% of the proposed measures for a national value-based purchasing program were valid.13 Based on published experience of QI measurement, we should consider withdrawing or redefining indicators that are not (or only very partially) measurable, those for...
which the margin for improvement is minimal, those that are obsolete and those that are no longer supported by the scientific evidence. For the measurement of quality, it is also clear that we cannot rely on databases that were designed for other purposes, even if (as in some countries) they are registries of high quality with exhaustive inclusions.

In the industrial sphere, quality measures serve to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the client or customer. A similar approach could easily be applied in medicine. The quality of the care dispensed in a university hospital, for example, could be likened to an industrial production process, and the same quality control could apply in the management of ACS, where many different providers are involved and where quality testing could be completed at each step of the medical process. While both industrial and medical errors incur associated expenses, medical errors also carry legal issues and significant financial repercussions. A programme to measure the QIs by centre or region should implement controls on a randomly selected sample from among all eligible cases, rather than trying to achieve 100% inspection, which is practically impossible (Figure 1).

Our current concept of simply defining indicators needs to evolve towards quality control, not to say quality assurance. These concepts do not stop at the definition of standards, but also encompass the measurement and analysis, implementation of corrective measures, and the follow-up of each centre’s overall level of quality and their weak points. This should be followed by reflection at each site about how to correct local weaknesses, followed by renewed evaluation and finally, quality certification.

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References