Feasibility and Limitations of Quality Measurement of Hospital-Based Palliative Care

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Dear Editor:

Clinical quality measures (CQMs) such as the Measuring What Matters (MWM) metrics provide an objective, evidence-based approach to help assess and improve the quality of palliative care.¹ Manual calculation of CQMs can be time

consuming and inefficient, so there is increasing movement toward automated, electronic health record (EHR)-based measure implementation. However, EHR-based data collection associated with CQM calculation presents particular difficulties for hospital-based palliative care consult teams (PCCTs).²

TABLE 1. CHALLENGES IN COMPUTING EHR-BASED VERSIONS OF QUALITY MEASURES FOR PALLIATIVE CARE CONSULT TEAMS

<i>Issue</i>	<i>Comments</i>	<i>Example</i>	<i>Proposed solution</i>
Population-related challenges	Sedation, confusion, or intubation may interfere with communication necessary for some measures Palliative care team may be directed to avoid certain topics, e.g., code status	Nausea is a subjective symptom requiring patient communication Discussion of emotional and spiritual needs is impossible with some patients	Make exclusion criteria more explicit Develop specific measures for noncommunicating patients and off-limits topics Use a standardized nonverbal symptom assessment scale
Identifying denominator population and relevant time periods	Measures do not adequately define a relevant patient, or the time period in which data are to be gathered Assessing symptoms only once in a long stay is insufficient Defining “seriously ill” is difficult	Billing codes and care by a given physician do not guarantee that a patient received a palliative consultation Some patients have long stays or multiple iterations of palliative care	Create specific patient list for palliative care team Search by billing code (imperfect) Specify reasonable timeframes
Data format, location, absence	Data may be structured or unstructured Data may be found in physician notes or nursing notes Format may be note, order, or scanned document Searching all possible locations is time consuming Data entered in multiple locations may conflict Overly rigid search parameters may miss some data	Records of symptom assessment vary between ICU and floor notes, and between nonverbal and patient-reported types Palliative care and nursing pain assessments may conflict	Specify which data locations “count” as meeting the criteria, based on clinical applicability Encourage team to standardize entry of MWM items Configure EHR for palliative care needs in consideration of MWM and other quality reporting goals
Resource requirements	Time investment EHR modifications Paper forms	Review of five charts for this project averaged 17.5 min	Repetition may decrease time investment

EHR, electronic health record; MWM, Measuring What Matters.

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The Agency for Healthcare Research and Quality (AHRQ) has said that CQMs, besides being clinically important and scientifically sound, should be feasible to interpret and implement.³ Electronic CQM implementation requires that each of the relevant clinical concepts be accessible and at least partially computable. To be partially computable after some manual mapping and interpretation, a clinical concept must be both present and recorded in a discrete field (as opposed to a narrative note). Recording that concept in a structured format (e.g., structured numeric data or items from a pull-down menu) further improves computability. Full computability requires that a concept be present in a structured discrete field in which data are in accordance with an appropriate standard (vocabulary, terminology, or coding system).

We selected 5 of the 10 measures for in-depth analysis, and reviewed the charts of five patients chosen at random from the palliative care service's consults from the previous nine months (Human Research Review Committee at the University of New Mexico Health Sciences Center determination number 16-396).

Our analysis indicated that it would not be feasible to implement automated, EHR-based versions of the MWM measures for our hospital-based palliative care team. From the 5 measures, we identified 10 relevant clinical concepts necessary for determining measure eligibility and adherence. Nine of these concepts were present in the EHR, but only six had discrete fields, three of which were unstructured, and only one (pain medication) utilized a data standard. Therefore, three of the nine fields were computable with some manual mapping, and one would be fully computable using a standard CQM value set.

One fundamental problem is that the denominator requirement for all MWM measures is that a patient must have received palliative care for more than one day, but this is a nontrivial distinction. In our EHR, for example, there is nowhere in the EHR that denotes palliative care status. And,

although all nine of the numerator concepts could be found in the EHR, only three could be recorded entirely in discrete fields, and none could be recorded entirely in structured or standards-based fields.

Major challenges in computing EHR-based versions of the measures included limited availability of required clinical concepts in computable form, unclear measure requirements and definitions, and lack of exception or exclusion criteria that are common in palliative care populations (Table 1).

Going forward, the feasibility of EHR-based implementation of the MWM measures must be addressed. Possible avenues for improvement include changes to make the measures more computable, or templates that can be adapted for different EHRs to improve capture of computable data, while being mindful of burden on providers.

References

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