Clinical Scenario

At a Monday morning meeting of your hospital's Continuous Quality Improvement Committee, the last agenda item is an initiative "to enhance patient-clinician communication." The Chair proposes that all medical charts include a form to record patient wishes about cardiopulmonary resuscitation and end-of-life care. The Committee members agree in principle on the goals of enhanced communication and more accurate documentation of patient preferences. However, you raise potential concerns about how these forms might change the nature of end-of-life decision-making, and even impair communication. As the meeting draws to a close, you pose a fundamental question to the group for discussion the following week: Could life support preference forms unduly routinize and constrain dialog between clinicians and patients or family members?

Emerging from the meeting, you resolve to learn more about the influence of institutional record keeping on "do not resuscitate" communication during acute illness. Back in your office, you do a quick search of MEDLINE using key words "resuscitation orders [508 hits] and patient-physician relations [5040 hits] and patient participation [1680 hits]". Of 11 citations, one publication is a cultural analysis which you pick up en route to clinic. [1] The objectives of this study were to examine the influence of a "Limitations of Medical Care" form on discussions about cardiopulmonary resuscitation, and the meaning that underlies this communication.

Introduction

Clinicians are trained to think mechanistically and to draw conclusions using pathophysiologic rationale and deductive reasoning. The biomedical literature reflects this orientation, and we are therefore most familiar with deductive, quantitative research. Quantitative studies (such as epidemiologic investigations and clinical trials) aim to test well-specified hypotheses concerning some predetermined variables. These studies suitably answer questions such as whether? (e.g., whether an intervention did more good than harm), or how
much? (e.g., how strongly a risk factor predisposes to a disease). However, medicine is not only a mechanistic and quantitative science, but also an interpretive art. [2]

Interpretive research asks questions about social interactions that can be addressed systematically through qualitative methods. [3] Qualitative research offers insight into social, emotional and experiential phenomena in health care. Examples include inquiry about the meaning of illness to individuals and families, or the attitudes and behavior of patients and clinicians. Qualitative research questions tend not to ask "whether" or "how much" but rather to explore "what," "how," and "why." Qualitative studies may pursue a variety of theory-generating aims, including to faithfully explore and describe social phenomena (including surveying diverse perspectives or giving voice to those not usually heard [4]), to identify potentially important variables or concepts, to recognize patterns and relationships, and to generate coherent theories and hypotheses. Qualitative reports do not typically generate "answers" but rather narratives accounts, explanations typologies of phenomena, conceptual frameworks, and the like. For example, Ventres et al [1] explore what patient-physician communication occurred during discussions about resuscitation and how the use of a standard form influences communication between physicians and families about do-not-resuscitate orders. Another qualitative study probes why family members select certain processes for discontinuing life support. [5]

Just as clinicians use complementary types of information to draw clinical conclusions, complementary research methods are often useful to examine different aspects of a health problem. [6] [7] [8] [9] Qualitative studies offer a rigorous alternative to "armchair hypothesizing" for areas where insight may not be well-established, or where conventional theories seem inadequate. Qualitative and quantitative studies each make useful contributions to knowledge in themselves. They may also be used in tandem -- qualitative investigation to generate theories and identify relevant variables, quantitative investigation to test the implied hypotheses about relationships between those variables. Alternatively, qualitative and quantitative approaches can unfold concurrently within a research program, informing each other during the analysis and interpretation phases, yielding findings that are broader in scope and richer in meaning than if only one approach were used. We refer readers elsewhere for details about how to conduct qualitative research, [10] [11] [12] [13] as well as the attributes and limitations of qualitative versus quantitative research approaches [14] [15] [16] [17] [18] [19] [20].

In this Users' Guide, we suggest guides for understanding and critically appraising qualitative research articles using the previously established Users' Guide framework: I. Are the results of this study valid (or "credible")? II. What are the results? and, III. How can they help me care for my patients?

I. Are the Results Valid?

Clinical readers traditionally think of research "validity" as the truthful correspondence of results with an objective reality. Qualitative research offers empirically-based insights about social or personal experiences, which necessarily have a strongly subjective -- but no less "real" -- nature than biomedical phenomena. To avoid confusion, qualitative researchers typically avoid the term "valid" in favour of alternatives such as "credible." [9] [21] Even so, qualitative insights must emerge from systematic observations and competent interpretation, correspond well to the social "reality" experienced by the participants, and also have meaning for those who will read and learn from the report. Clinical readers in particular need to judge the relevance of qualitative research reports to their own practice, interests, or patient care questions.

To judge the methodologic rigor of qualitative research reports, readers need to critically appraise the study design and analysis. This appraisal should examine whether the study was designed appropriately to address
its research question and objectives, and whether it was conducted rigorously to achieve its empirical aims. Ventres et al [1] clearly describe their objective as follows: "to examine the use of the Limitations of Medical Care form in the context of actual hospital practice,... to evaluate interactive elements of the resuscitation decision,... [and] to explore what is said when discussing code status, how information is communicated among parties involved, and the meaning that underlies this communication." (p. 134) Consistent with typical aims of qualitative inquiry, the study focuses on social interactions and their meaning. The objectives describe the social phenomena to be explored and described, rather than specific hypotheses to be tested.

The methods section of a qualitative study should describe several aspects of the research design, including: (a) how study participants were selected, (b) the methods used to generate data, (c) the comprehensiveness of data collection, and, (d) procedures for analyzing the data and corroborating the findings. As with any research, qualitative research involving human subjects must undergo ethics review and approval and this approval should be noted in the report. Special ethical dilemmas in qualitative research should be addressed in the ethics and peer review of the study protocol, but usually cannot be appraised from the published report alone. Following are some general guidelines to help readers determine whether qualitative research design and execution is appropriate to the research objectives.

Were participants relevant to the research question and was their selection well reasoned?

Qualitative studies discover and describe important variables, particularly in terms of the social dynamics and the subjective realities of those involved a given situation. [3] [23] The units of analysis in a given qualitative study therefore may include myriad social phenomena, such as individuals, groups, documents, artifacts, interactions, dialogs, incidents or settings.

The exploratory nature of qualitative research typically requires investigators not to prespecify a study population in strict terms, lest an important person, variable, or unit of analysis be overlooked. In some studies (e.g., content analyses of documents) the scope of data collection can be prespecified, but if so, the rationale should be sensible to the reader. The consecutive or random selection of participants that is common in quantitative research is replaced by purposive sampling in qualitative research. Sampling aims to cover a range of potentially relevant social phenomena and perspectives from an appropriate array of data sources. Selection criteria often evolve over the course of analysis, and investigators return repeatedly to the data to explore new cases or new angles. Purposive sampling might aim to represent any of the following: typical cases, unusual cases, critical cases, politically important cases, or cases with connections to other cases (i.e., "snowball sampling"). [24] [25] Least compelling is the pursuit of merely convenient cases that are most easily accessed. Nevertheless, many qualitative studies do rely on convenience sampling to some extent (e.g., for pragmatic reasons, study participants may only be those who speak the same language as the investigators, or only individuals who are willing to be interviewed). Readers of qualitative studies should look for sound reasoning describing and justifying the participant selection strategies.

In the report by Ventres et al [1], the unit of analysis was not the patient but rather the social interaction among several parties: the patient, family members, nurses, social workers, clergy, and residents involved in resuscitation discussions about a particular patient. From a potential sample of 8 patients, 3 cases were selected for in-depth study. The criteria for selecting these particular 3 cases were not specified, leaving readers unable to judge their appropriateness and how comprehensively they illustrate communication issues involving resuscitation directives in the hospital.

Were the data collection methods appropriate for the research objectives and setting?

The most common qualitative data collection methods involve field observations, interviews, or document
analysis, separately or in combination. The collected data allow the researchers to observe, as clearly as possible, the social interactions or behavior that they seek to describe.

i) Field observation

The purpose of field observation is to record social phenomena directly and prospectively. There are 2 basic approaches: direct observation by investigators themselves, and indirect observation through audio or video recording. In direct observation, investigators spend time in the social milieu they are studying and record observations in the form of detailed field notes or journals. Observational techniques are categorized according to the role of the investigator in the setting (i.e., "non-participant" or "participant") observation. Field analysis techniques require investigators to explicitly consider how their presence might influence their findings.

In non-participant observation, the researcher stays relatively uninvolved in the social interactions she observes. The crucial question for critical appraisal is whether in the particular social setting such "flies on the wall" will effectively be ignored by study participants, or might instead inadvertently influence participants' behavior. For example, a researcher in a crowded waiting room may go unnoticed and hence observe the natural unfolding of events. In contrast, in a clinic examining room, she may be conspicuous, and significantly change the social interactions she is there to observe. Video or audio recordings are sometimes used as less intrusive methods of capturing data. However, they also have drawbacks. First, recorders can occupy a social role and be experienced by participants as partaking in "surveillance", thus influencing participants' behavior. Second, recorders' observational powers are limited by their range of operation: if the "action" is moving around, or if visual cues are missing, important information may be lost.

In participant-observation, the researcher is acknowledged as a part of the social setting, either as a researcher per se or as a more directly involved actor (e.g., social worker, ethicist, committee member, etc.). Again, the question for critical appraisal is whether the dual observer-participant role allows access to natural, candid social interactions among other participants in the setting.

In both participant and non-participant field observation, the effect of the researcher on the social setting can never be "controlled" (a common goal of experimental study designs). Interactions between researchers and those they study are somewhat paradoxically, but necessarily, regarded as both a useful source of data and a potential source of bias. More than one observational technique (e.g., personal observations and tape recording of dialog) can sometimes be used to capture more detailed data, and to help analyze observer effects.

ii) Interviews

Qualitative studies may employ several types of interviews. The most popular are semi-structured in-depth individual interviews and focus groups. Structured approaches such as standardized questionnaires are usually inappropriate for qualitative research, because they presuppose too much of what respondents might say and do not allow respondents to express themselves in their own terms. These problems limit the opportunity to gain insight into personal and social phenomena, and can impose the investigators' preconceived notions onto the data.

The appropriate interview method depends upon the topic. Individual interviews tend to be more useful for evoking personal experiences and perspectives, particularly on sensitive topics. Group interviews tend to be more useful for capturing interpersonal dynamics, language, and culture. Focus groups can be appropriate for discussing emotionally sensitive topics if participants feel empowered speaking in the presence of peers; however, the public forum of a focus group can also inhibit candid disclosure. Critical readers
should look for the rationale for choosing a particular approach, and its appropriateness for the topics addressed. Using more than one interview method may be helpful for capturing a wider range of information.

iii) Document analysis

Finally, documents such as charts, journals, correspondence and other material artifacts can provide qualitative data. These are especially useful in policy, historical or organizational studies of health care. There are different approaches to the analysis of documents. One involves counting specific content elements (e.g., frequencies of particular words) while the other involves interpreting text as one would interpret any other form of communication (e.g., seeking nuances of meaning and considering context). The former approach, especially if used alone, rarely provides adequate information for a qualitative, interpretive analysis.

Ventres et al [1] employed 3 types of data collection: participant observation, audio tapes of discussions, and semi-structured interviews. Details of the interview strategy appear in an appendix, and provide additional information about the content of the interviews and techniques used to elicit responses. Three types of questions were asked: open-ended, semi-structured, and contrast questions, to elicit opinions on contrasting hypothetical patient situations. The use of multiple data collection methods and sources adds rigor to this study, because it allows investigators to examine discussions of the limitations of medical care from several angles, and to capture information with one method that may be overlooked with another.

Was the data collection comprehensive enough to support rich and robust descriptions of the observed events?

Another critical appraisal question is whether the social setting or experience was observed thoroughly enough to support rich and robust descriptions of the observed events. The analytic issue here is not one of "sample size" in the statistical sense. Rather than aim for a specific number of participants (or other units of analysis), researchers should strive for adequately in-depth observations. A qualitative study involving many participants but only cursory interactions with each one may be less rigorous than a study involving few participants but extensive observation of each. Data collection needs to be comprehensive enough in both breadth (types of observations) and depth (extent of observation of each type) to generate and support the interpretations. This criterion has a circular quality -- that is, whether data are adequate depends to some extent on the nature of the findings, and vice versa. For this reason, qualitative data collection and analysis steps usually iterate: data collection is followed by analysis, which in turn gives direction for new data collection, and so forth.

Several aspects of a qualitative report indicate how extensively the investigators collected data: the number of observations, interviews, or documents; the duration of the observations; the duration of the study period; the diversity of units of analysis and data collection techniques; the number of investigators involved in collecting and analyzing data; and, the degree of investigators' involvement in data collection and analysis.

Interpretive research is characterized by voluminous data, consisting of paper files (e.g., field notes, transcripts, journals, analytic memos, photocopied documents, etc.) and electronic media (e.g., word-processed transcripts, audio tapes, video tapes, etc.). How these data are recorded and accessed affects the depth and quality of the findings. The goal of data collection is to produce detailed data as representative of the experience as possible, and to leave a trail of data and analysis that another investigator could potentially follow. While qualitative research cannot be replicated, it can be audited. Of course, outsiders to a study cannot observe exactly what the investigators observed, and because auditors bring their own unique perspectives, they can legitimately develop somewhat different interpretations of the same data. Such alternative interpretations would not necessarily reveal an analysis as faulty, as there are multiple truthful
ways to depict social behavior. Nevertheless, in principle, qualitative researchers should organize and interpret their data in such a way that another investigator could follow what was done, and could see a clear correspondence between the empirical data and the interpreted findings.

There are several conventions for taking field observations and interview notes. Most emphasize thoroughness, the classification of observations, and self-consciousness of personal experiences and biases. Taping and transcribing interviews (or other dialog) is desirable. Qualitative research transcription is different from that used for medical dictation. For typical medical records, breathing, pauses and changes in volume are ignored by the transcriptionist. For a qualitative research transcript, these behaviors can provide valuable data that help to elaborate the meaning of the spoken words; in fact, transcripts are seldom corrected for grammar or word choices. Qualitative investigators also often keep records of their personal thoughts and experiences to distinguish them carefully from other observations. This helps to isolate personal biases, as well as to use personal experiences as analytically useful information.

Ventres et al conducted their study over 4 months, during which family practice residents identified 8 hospitalized patients about whom they had discussions regarding resuscitation. Of these, investigators observed 3 discussions among patients, their families, and their physicians; 2 of these 3 cases are reported in detail. Both before and after the discussions, interviews were conducted with the patients, family members, nurses, social workers, clergy, and physicians regarding the decision-making process. Ventres et al audio taped and transcribed interviews as well as discussions among physicians, patients, and families. The transcription process is detailed in an appendix to the article. An observer also made written records of nonverbal communications, which are not well captured by audio tape. Finally, the investigators also recorded secondary interpretive data (i.e., their personal interpretations of the discussions they observed). By collecting data using several methods, these investigators enhanced their ability to capture important nuances in communication and to develop robust accounts of the discussions.

Including patients, family members, and several members of the health care team as participants in this study increases the number of perspectives from which the issue of resuscitation was considered. No key participants' perspectives seem to have been overlooked in the data collection. However, whether data collection was comprehensive for each participant is difficult to assess, given the different roles that each have in such decisions, and the complexities of end-of-life dialog. Examining only 3 cases in which resuscitation is discussed is unlikely to capture the diversity of perspectives, content, and styles found in such conversations, and could produce a limited description. The authors themselves note that this small number of cases is a potential study limitation, and that more variability may have yielded further insight into other possible structures of resuscitation discussions.

Were the data appropriately analyzed and the findings adequately corroborated?

Qualitative researchers begin with a general exploratory question and preliminary concepts. They then collect relevant data, observe patterns in the data, organize these into a conceptual framework, and resume data collection to both explore and challenge this conceptual framework. This cycle may be repeated several times. The iteration between data collection, analysis, and theory development continues until a conceptual framework is well-developed and further observations yield minimal or no new information to further challenge or elaborate the framework (a point variously referred to as theoretical saturation or informational redundancy). This analysis-stopping criterion is so basic to qualitative analysis that authors seldom declare that they reached this point, and assume this to be understood by the reader.

In the course of analysis, key findings are also "triangulated", meaning that they are corroborated using multiple sources of information (the term "triangulation" is a metaphor, and does not mean literally that 3 or more sources are required). The appropriate number of sources will depend upon the importance of the
findings, their implications for theory and the investigators' confidence in their validity. Because no 2 qualitative data sources will generate exactly the same interpretation, much of the art of qualitative interpretation involves exploring why and how different information sources yield slightly different results. [9] [37]

Readers may encounter several useful triangulation techniques for validating qualitative data and their interpretation in analysis. [9] [21] [37] Investigator triangulation requires more than one investigator to collect and analyze the raw data, such that the findings emerge through consensus between investigators. This is best accomplished by an investigative team. Use of external investigators is controversial because their involvement in the case could be too superficial to yield deep understanding. [21] If team members represent different disciplines, this helps to prevent personal or disciplinary biases of a single researcher from excessively influencing the findings. Member checking involves sharing draft study findings with the participants, to inquire whether their viewpoints were faithfully interpreted, whether there are gross errors of fact, and whether the account makes sense to participants with different perspectives. Theory triangulation, 38 is a process whereby emergent findings are corroborated with existing social science theories. [21] It is conventional for authors to report how their qualitative findings relate to prevailing social theory, though it is controversial whether such theories should be used to guide the research design or analysis.

Some qualitative research reports describe the use of qualitative analysis software packages. Readers should not equate the use of computers with analytic rigor. Such software is a data management tool offering efficient methods for storing, organizing, and retrieving qualitative data. These programs do not perform analysis. Investigators themselves conduct the analysis as they create the keywords, categories, and logical relationships used to organize and interpret electronic data. The credibility of qualitative study findings depend on these investigator judgments that cannot be programmed into software packages. More generally, credible qualitative interpretation requires well-trained and well-prepared investigators who approach their work with both discipline and creativity. [9]

We indicated earlier that qualitative data collection must be comprehensive -- adequate in its breadth and depth to yield a meaningful description. The closely related criterion for judging whether the data were analyzed appropriately is whether this comprehensiveness was determined in part by research results themselves, with the aims of challenging, elaborating and corroborating the findings. This is most apparent when researchers state that they alternated between data collection and analysis, collected data with the purpose of elucidating the analysis-in-progress, collected data until analytic saturation or redundancy was reached, or triangulated findings using any of the methods mentioned.

Ventres et al [1] approached data coding using 3 broad preliminary concepts in patient-clinician communication: i) control, ii) giving/withholding information, and, iii) attentiveness. Researchers commonly use sensible, broad conceptual categories such as these to begin making sense of their data, but the categories also are commonly revised in the course of analysis. These investigators noted that data collection and analysis proceeded iteratively, by reporting that, "data collected and analyzed on the first members of the sample influenced the collection of information on subsequent members." (p. 141) Several triangulation techniques were used, including methodologic triangulation (employing several data collection methods of participant observation, audio taping, and semi-structured interviews), investigator triangulation (duplicate interpretation of audio tapes), disciplinary triangulation (clinical, anthropological, psychiatric, and sociologic perspectives), and member checking (by both professional and lay participants in the study). The authors report that the principal author and a sociolinguist reviewed the audio tapes blinded to "all but necessary case information," however it is unclear which data were and were not available to these investigators prior to analysis. Readers should not assume that blinding necessarily improved the rigor of the analysis, as limiting access to data also limits investigators' ability to make well-informed interpretations of possibly complex social interactions.
We note that Ventres et al's final findings (see "Discussion") quite appropriately do not strictly follow their 3 provisional analytic categories (control, information giving, attentiveness), but instead reveal more specific and concrete dynamics focusing on i) the Limitations of Medical Care form's tendency to frame discussions to exclude patient values and beliefs, ii) family-physician differences in reasoning style and iii) consequential confusion between instrumental treatment decisions and more general "goals of care." This progression suggests that the conceptual findings did develop as a result of the empirical observations. The authors relate their findings back to general social, health policy, and ethical concerns about who is, and who should be, in "control" of limitations-of-care decision processes.

II. What are the Results?

In summary, Ventres and colleagues [1] found that use of the Limitation of Medical Care form, which is intended to facilitate decision-making, can routinize clinician-patient dialog to meet bureaucratic needs, narrowing rather than enhancing communication about resuscitation. After outlining the foundation of the results of qualitative research reports below, we will describe the results of the Ventres study in more detail.

The goal of qualitative research is to develop theoretical insights that describe and explain social phenomena such as interactions, experiences, roles, perspectives, symbols, and organizations. Qualitative analysis is foremost a process of summarizing and interpreting, "based on the value of trying to represent faithfully and accurately the social worlds or phenomena studied." [39] A good qualitative report will be received as robust and truthful across multiple perspectives (i.e., those of study participants, authors, readers, colleagues). Broad endorsement does not make the findings infallible, but helps to establish that the analysis offers a meaningful approximation to the "truth" of a social phenomenon.

Qualitative results contain description and theory. Reports typically present these in an integrated fashion, by describing key theoretical insights and illustrating them with descriptions from the data. Readers can judge the importance and usefulness of the findings by asking how evocative and thorough the descriptions are, as well as how comprehensive and relevant the theoretical insights are.

How evocative and thorough is the description?

The product of a qualitative study is a narrative. It describes a social phenomenon and draws theoretical insights (and sometimes practical lessons) in conclusion. The writing style should be clear, accessible, and "tell the story" well. A good qualitative report provides enough descriptive detail to evoke a vivid picture of the social setting or interactions studied. To do this, authors usually illustrate key findings with data excerpts from field notes, interview transcripts, or documents. These data should clearly support the main points and offer contextual detail. The use of examples and reference to sources gives the reader insight into the nature of the social phenomenon as well as the sensibility of how investigators interpreted it. Because of the importance of detail in qualitative reports, some health research journals allow substantially longer page limits for qualitative studies. However, longer articles are not necessarily superior. Unfocused analyses, weighted too heavily with description, can prevent readers from "seeing the forest for the trees." At the other extreme, theoretical treatises without adequate support by illustrative data and empirical description may raise questions about the extent to which the findings derive from the evidence.

In their results section, Ventres et al "tell the story" by recounting the case histories of two patients and those involved in their care. These two stories are organized chronologically (rather than conceptually), which helps draw the reader into the events and discussions as they unfold. The narratives are liberally
illustrated with excerpts from interviews and taped discussions, which give readers more intimate insight into the situations studied. The excerpts also support the authors' interpretations of the structure of these life support discussions (i.e., as involving characteristic content, dyadic conversation, and pervasive ambiguity). Although the exposition is restricted to 2 cases and selected excerpts, the information is rich and coherently organized.

How comprehensive and relevant are the theoretical conclusions?

Qualitative inquiry aims to develop theoretical conclusions. Some systematic approaches to theory development are described elsewhere ([35] [40] [41] [42] [43] [44] [45] [46]), however, there is no one "right" approach. Whatever the system, the investigators' training, perceptiveness, creativity, and intellectual discipline will also play a role. [9] [26] The critical analysis of social theory commands extensive attention in the humanities and social sciences, and much is beyond the scope of this Users' Guide. Basically, to be meaningful and useful, a theory should be adequately comprehensive and relevant.

i) Comprehensiveness

Theoretical findings must be well-reasoned and coherent. Elder & Miller [47] suggest that coherent theory possesses the qualities of parsimony (i.e., invokes a minimal number of assumptions), consistency (i.e., accords with what is already known, and inconsistencies are well explored and explained), clarity (i.e., expresses ideas evocatively and sensibly), and fertility (i.e., suggests promising directions for further investigation). On a concrete level, narrative arguments should be logical and plausible, metaphors should provide useful analogies, and illustrative frameworks such as diagrams should meaningfully label the elements and relationships depicted.

Readers can think of theory as having a kind of anatomy, and examine each of its parts to understand its contribution to knowledge. Theory consists of (a) concepts and, (b) their relationships. Further, empirically-based theory (c) evolves from a process of exploration, discovery, analysis and synthesis, and in its final form relates clearly to the data, and, (d) makes a contribution to theoretical knowledge in the field. Readers can examine these 5 aspects of theory by asking the following corresponding questions:

(a) What major and minor concepts does the theory entail, and how well-defined are they?

Concepts are the basic building blocks of theory. Sometimes (but not necessarily) concepts will be organized hierarchically, with one overriding concept (perhaps a useful metaphor), a few broad categories within it, and a series of sub-categories within those. It is possible for qualitative concepts to overlap, or to be related in a non-hierarchical structure such as a web of interrelationships. Taxonomies and domain descriptions are conceptual frameworks that commonly appear in the biomedical literature. Whatever their number and form, each concept should be defined carefully and in a way that is meaningful to the reader.

(b) What are the relationships between the conceptual categories, are these dynamics clearly described, and do they make sense?

This question focuses on relationships between concepts. Such dynamics may take a form similar to quantitative relationships between variables (e.g., changes in one variable causing an increase or decrease in another). Alternatively, categories may have qualitative effects on each other (e.g., one phenomenon may frame the form that another can take).

(c) Are the concepts adequately developed and illustrated?
Several devices may be used to explain how the theoretical conclusions were drawn. For example, a report may offer a chronological description of the experience of entering the field, and from there lead the reader through the key discovery experiences that form the backbone of the author's findings (however this approach is not appropriate for all studies, e.g., document analysis, or the study of familiar settings). Theory can also be explained and justified using other devices such as argument. Conceptual frameworks are strongest when their categories or variables embrace a full range of empirical phenomena observed. Illustrative data excerpts offer glimpses into the analytic process, but these glimpses help demonstrate how the investigators interpreted the data. If the illustrative examples do not seem to fit well with the interpretive explanation, the validity of the rest of the analysis comes into question.

(d) Where does the empirically-generated theory fit in relation to existing theory and beliefs in the field?

Readers should look for whether the results of a qualitative research report address how the findings relate to other theory in the field. Empirically-developed insights need not agree with existing beliefs. Whether they agree or not, the findings' relationship to prevailing theories and beliefs should be addressed in a critical manner. Qualitative approaches vary with regard to the role that theoretical literature plays: some methods use existing literature to guide empirical work, while others do not address the literature until after empirical findings are established. [48] [49] In either case, the report should indicate how the findings relate to scholarship in the field.

Ventres et al [1] offer relatively pragmatic theoretical conclusions about how an administrative form can both reflect and reinforce mechanistic objective-oriented dialog to the neglect of patient needs, values, and beliefs. In this study, the hospital's Limitation of Medical Care form was used as both the foundation for dialog and the vehicle for expression of patient wishes. Ventres et al describe how the form -- together with conventional physician communication styles -- can have the adverse effect of structuring conversations to obstruct candid conversation and obscure patient and family wishes. To best help the clinician, the study might have developed a more comprehensive model of communication about life support or of how administrative forms express (or suppress) meaningful health directives. Ventres et al [1] do not develop their theoretical conclusions to this degree. Rich description with relatively light theorizing is typically of many ethnographic or naturalistic studies, and this appraisal does not by any means indicate a scientific failing of the research. However, it may limit the usefulness of the research for the clinician's purposes. We should also note that this type of qualitative study does not feed directly into a hypothesis-testing research program, because it does not put forth specific variables or causal relationships to be tested. This limits neither the research's usefulness nor its scientific contribution, and the Ventres et al study well demonstrates the value of qualitative studies for enlightenment purposes. While the report offers modest formal theory, it does offer credible, evocative evidence of the sorts of dynamics that can occur during life support discussions. The illustrative excerpts and interpretive descriptions offer the clinical reader vicarious experience and a unique vantage on interactions between patients, families, physicians, and forms.

The study's findings allow the practicing clinician to stand back from the clinical encounter, and view some common communication dynamics from a more critical distance. Normally, clinicians are directly involved in their discussions with patients and families, and cannot both participate actively in a conversation and analyze it objectively. Clinicians reading the Ventres et al study may recognize in the scenarios something of themselves, the people they care for, and the administrative forms they use. It may be both surprising and affirming to see graphic evidence that inanimate forms can "participate" in discussions and control what can both be said and heard. The theoretical insight that forms can play an active role in communication may help clinicians recognize this dynamic in other settings. This qualitative evidence provides a cautionary tale of how medical forms can do more than promote administrative efficiency.
ii) Relevance

The results of a qualitative research report are best understood as an empirically-based contribution to ongoing dialog and exploration, rather than as documentation of an invariant fact. The dialog concerns the meanings of social experiences, and the results translate these for people who might not otherwise understand each other's perspectives well. The relevance of the results of a qualitative paper depends partly on its ability to communicate between the investigators, the study participants, and the readers of the report. Each of these parties should be actively involved in making sense of the research results. [47]

The results of the Ventres et al study [1] translate between the perspectives of participants (patients, families, physicians-in-training and clinicians involved in life support decisions) and the readers of the research. For clinicians who are not routinely engaged in life support decisions, these results offer a view like that through a window, providing insight into a clinical world often sequestered from sight. For clinicians more involved in life support decisions, this study offers a view more analogous to that seen in a mirror, reflecting familiar interactions in a way that allows clinicians to examine their own role, other participants' roles, and even the role of a form in determining how life support decision-making unfolds. Operating either as "window" or "mirror," valuable perspective can be gained from qualitative evidence. The study highlights the potential "tyranny" of administrative forms when they are used to structure sensitive personal discussions.

III. How Do The Results of This Study Help Me Care For Patients?

In their descriptive role, qualitative research findings can enhance awareness of social dynamics in the clinical setting. As illustrated by Ventres et al, [1] social dynamics can powerfully influence the process of care and consequently, the outcomes. The more clinicians and patients are conscious of social factors at work in health care, the more constructively they can use them or change them in the pursuit of health and healing. In their theory-generating role, qualitative findings provide models for understanding. These models can be used to analyze similar situations, and like all models, help to simplify our understanding of complex phenomena. Qualitative studies may give us insight about the experiences of our patients and their families.

Does this study help me to understand the context of my practice?

One criterion for the generalizability of a qualitative study is whether it provides a useful road map for readers to understand and navigate similar social settings themselves. The North American cultural value of autonomy was encoded in 1991 by the US Congress in the Patient Self-Determination Act, [50] and since then many health care systems have created documents such as advance directives and other decision tools to systematize conversations about life support.

The article by Ventres et al [1] invites us to contemplate this policy trend critically. Readers may reflect on how business metaphors have infiltrated clinical practice, and how these types of resuscitation documents symbolically contractualize health care at the end of life, especially when patients are referred to as "clients", and health care workers as "providers". In this study, discussions about resuscitation were intervention-specific, focusing on a series of basic and advanced life support technologies, in part due to the task-oriented prompts of the Limitation of Medical Care form. One family member of a patient unable to speak for himself explained that "resuscitation was not appropriate in Indian culture" [1] (p139). The resident continued to describe the technical details of resuscitation even after the family had made it clear
that none were desired, which made this family member feel as though the physician did not really trust the family's decision (or implicitly, their portrayal of his wishes, were he able to speak for himself).

**Does this study help me to understand my relationships with my patients and their families?**

Interpretive research offers clinicians an understanding of roles and relationships. Many qualitative studies of interest to clinicians focus on communication among patients, families and caregivers. Other studies describe behaviors of these groups, either in isolation or during interactions with others.

In the study by Ventres et al [1], the acuity and severity of the patients' illness meant that dialog typically occurred between residents and family members, rather than with patients themselves. The small number of patients and physicians-in-training in a university hospital who were studied limits the range of discussion styles that were identified. Some clinicians may be more likely to have a prior long-term relationships with patients than the family practice residents in the setting of this study, allowing for such conversations to occur in the relative comfort of the out-patient setting rather than during an acute illness episode. Regardless of whether readers work with residents or not (or are residents themselves), a report such as this one affords an opportunity for all readers to ask themselves frankly how they broach end-of-life discussions with hospitalized patients, whether they can relate to the communication styles described in the study, and if they can, what implications this has for their practice.

Some clinicians may tend to focus on the overall goals of care in ways that are culturally meaningful for patients, rather than consider discrete interventions, as were reported in this study. Some clinicians may revisit goals of care periodically, and not necessarily coincidentally with hospital admissions. The study by Ventres et al [1] can increase our self-consciousness about how well we listen to patients and families, what language we use when explaining resuscitation to them, how well we try to understand their values and preferences (especially when patients and surrogate decision makers give discordant messages), [51] [52] and how we may unwittingly influence patient wishes even as we try to discern them.

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**Resolution of the Scenario**

Reflecting on the article by Ventres [1], you cast your mind back to the Continuous Quality Improvement Committee meeting you attended this morning about patient-clinician communication. Thinking about your hospital's proposal for a similar Limitations of Medical Care form to that described in the Ventres article, you wonder to what extent introduction of this form might shift your own discussions with patients away from eliciting illness experiences and understanding values toward a more routinized dialog with patients or next-of-kin regarding technologic aspects of basic and advanced life support.

You decide that at the next meeting you will share the evidence you found about routinizing conversations between clinicians and patients, should such a Limitation of Medical Care form be introduced. You plan to pre-circulate the Ventres et al [1] article, and recommend that the committee use it to help outline the potential advantages and disadvantages of introducing such a document in your hospital. Meanwhile, if this form is adopted, you plan to request that the committee evaluate its influence on end-of-life discussions, employing multidisciplinary qualitative research methods.

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**References**


17. Morse J. Is qualitative research complete? Qualitative Health Research. 1996;6:3-5.


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