Code Status Discussions in Psychiatric and Medical Inpatients

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ABSTRACT

Background: The Patient Self-Determination Act along with regulatory standards and institutional standards of care highlight the need for collaboration between care providers and patients with respect to goals of care and, in emergency situations, code status and measures to be taken in keeping with patients' wishes. Addressing code status may be lacking in patients who require psychiatric hospitalization due to the nature of psychiatric illness, relative medical stability, and a general expectation of survival. We sought to compare code status documentation and discussion between psychiatric and medical inpatients, as this knowledge will help shape future interventions for process improvement.

Method: We conducted a retrospective chart review of hospitalized patients in psychiatric and medical units during a 12-month period in 2008. For those with multiple admissions, we reviewed only the index (or first) hospitalization. Data collected included demographic information, clinical information regarding cancer as a primary diagnosis or a diagnosis that met National Hospice and Palliative Care Organization (NHPCO) guidelines, code status order and discussion documentation, the presence of an advance directive, length of stay, and 1-year mortality. Data were summarized using mean values, percentages, and frequencies. The 2 groups (psychiatric and medical groups) were compared.

Results: The charts of 276 psychiatric patients and 317 general medical patients were reviewed. More psychiatric patients had dementia ($P < .001$). Medical inpatients had a higher rate of code status order documented on admission (96% vs 65%, $P < .001$) and "full-code, discussed" order (67% vs 33%, $P < .001$). Psychiatric inpatients had more "do not resuscitate/do not intubate" orders (20% vs 13%, $P = .037$), more frequent changes in code status order (18% vs 7%, $P < .001$), and a higher percentage of advance directives (46% vs 25%, $P < .001$).

Conclusions: A code status discussion with hospitalized patients needs to occur at admission regardless of reason for admission. Strategies are needed to improve this process for psychiatric inpatients.

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The Patient Self-Determination Act requires that all patients be asked about their care wishes at the time of hospital admission, including the withholding of life-sustaining interventions.[1] Despite this requirement, code status discussion documentation rates for hospitalized patients remain low. In an article published in 2011, Anderson and colleagues[2] reviewed the charts of 11,717 patients admitted to 6 university hospital general medicine services and found that 9.3% of patients had code status discussion documentation within 24 hours of admission. In 2008, another large multicenter study of 17,097 patients admitted to general medicine services showed that 10.3% had a code status discussion documented within 24 hours of admission.[3] A controlled trial to improve care for seriously ill patients in 1995 showed that physicians were more likely to discuss code status with older and more seriously ill patients, and nearly 50% of all do not resuscitate (DNR) orders were written in the last 2 days of life.[4]

In addition to the low documentation rates for patients admitted to general medicine services, rates of documentation of end-of-life care preferences are low among patients with malignancies. In a 2010 retrospective review of patients with metastatic solid tumors at an academic cancer center,[5] 20.3% of patients had a documented code status. Other studies of patients with advanced cancers in the ambulatory care setting published between 2005 and 2010 showed fewer than 10% had a documented code status.[6–8] Even in the care of patients who face life-threatening illness, code status discussion is lacking.

There is little information regarding code status discussion and documentation at the time of psychiatric inpatient admission. What is known consists of a 2011 audit of 22 patient charts on an inpatient psychiatry service where 2 patients had a code status documented.[9] We suspect that the rate of code status discussion and documentation is especially low in this patient population and probably lower than the rates found in general medical and oncology patient populations. One reason is that whereas psychiatric patients often have medical comorbidities (increasingly so as age advances), medical issues are not typically the focus during psychiatric admission. Also, a health care provider may be reluctant to discuss code status because of the patient's underlying psychiatric disorder. The effect of affective illnesses, such as depression, on medical decision–making capacity has been an ongoing area of clinical difficulty.[10] Complicating matters, patients who are actively suicidal may request a no-code status in preparation for a suicide attempt.[11]

Code status may be part of a patient's advance directive. Advance directives are typically documents designating a health care agent and outlining specific health care instructions and goals such as comfort measures in cases of irreversible or terminal illness and are enacted when the patient is incapable of making decisions. Importantly, they may or may not contain specific code status wishes. Advance directive planning is also poor in the United States and is reported in the range of 18%–36%.[12]

Hospitalization represents an opportunity for clinicians to discuss health care goals with patients, including end-of-life care and code status. The decision for intervention is not static and may change depending on circumstances.[13] Ideally, care providers who have a longitudinal relationship with admitted patients would be involved in a code status discussion. However, at the study institution as at other facilities, these discussions are not always possible in the context of urgent admission or admission to facilities away from the patient's medical home. With more institutions moving to hospitalist care, ensuring these discussions take place will very likely become more challenging. At the study institution, information about providers for patients seen within the health care system is available in the patient's chart, and attempts are made to coordinate care when feasible. Our objective was to determine whether there is a difference in code status order discussion rates and advance directive documentation rates between patients admitted to a general medicine service and those admitted to an inpatient psychiatry service at a single academic institution.

METHOD

This study was approved by the Mayo Clinic Institutional Review Board.

We conducted a retrospective chart review of hospitalized patients admitted to an inpatient psychiatric service and a general medical service from January 1 through December 31, 2008, at a single academic center in the Midwest. Patients were identified through an electronic search of the Mayo Clinic Life Science System, an institutional clinical database. Information from the index (or first) hospitalization was used in cases in which multiple admissions occurred during the specified 12-month period. The records of patients admitted to 1 of 4 general internal medicine services were examined. All 4 services maintained a census of approximately 12 adult patients and were similarly staffed by a partnership of 1 hospitalist and 1 midlevel provider. The pool of providers included 22 physicians and 20 midlevel providers. The psychiatry service included in the study was a 14-bed dedicated inpatient medical psychiatry unit, evenly divided between geriatric patients aged 65 years and over and patients aged 18 years and older with active medical illness or from 50 to 64 years old without medical complications. Each 7-bed team consisted of a consultant psychiatrist, a rotating resident, and, often, a medical student. The majority of admissions, which included initial code status documentation, were conducted by resident physicians or midlevel providers. The provider pool incorporated approximately 21 residents, 4 midlevel providers, and approximately 10 attending physicians over the course of the study period.

Specific demographic information collected included age and gender. Clinical information collected included length of stay, 1-year mortality, code status, and advance directive documentation. Additional clinical information collected included cancer as a primary diagnosis or a diagnosis that met National Hospice and Palliative Care Organization (NHPCO) guidelines.[14]

Clinical Points

- All patients admitted to a hospital, regardless of diagnosis or hospital service, should have code status clarified at admission. This includes psychiatric patients.
- While computerized physician order entry platforms may prompt a code discussion, thoughtful intentionality on the part of the admitting provider is still required to ensure that this takes place.
- Increased attention to education for staff and resident physicians on the issues of end-of-life care and appropriate code status discussions is needed.

The standard of care at the study institution is that providers discuss and document code status on all inpatient admissions regardless of reason for admission or admitting service. In the computerized physician order entry system, 4 choices existed with respect to code status order: (1) full code, discussed; (2) full code, not discussed; (3) do not resuscitate (DNR)/do not intubate (DNI); and (4) DNR. It was the responsibility of the admitting physician to choose the appropriate code status order based on a discussion with the patient or surrogate decision maker. While the computerized ordering system provided a menu of options, it was also possible for the provider not to choose any option and bypass the order altogether. Data were summarized using mean values, percentages, and frequencies. The medical and psychiatric inpatient groups were compared using Pearson χ^2/Fisher exact test and 2-sample t test analyses. A P value of .05 was considered statistically significant.

RESULTS

During the 12-month study period, 276 patients were admitted to the inpatient psychiatry service and 317 patients were admitted to the general medicine service. Demographic and clinical information, length of stay, and 1-year mortality are shown in Table 1. Psychiatric inpatients were older ($P < .001$) and had a higher female-to-male ratio ($P = .004$). Length of stay and 1-year mortality were similar between the 2 groups. Six medical patients had cancer as a primary diagnosis. No psychiatric patients had cancer as a primary diagnosis. More psychiatric patients met NHPCO non-cancer criteria for dementia compared to medical patients ($P < .001$), whereas more medical patients met NHPCO non-cancer guidelines for pulmonary disease than psychiatric patients ($P < .001$). Medical inpatients had a higher rate of code status documentation at admission (96% vs 65%, $P < .001$) as well as "full code, discussed" orders (67% vs 33%, $P < .001$). Of those with code status orders, psychiatric inpatients had a higher percentage of "DNR/DNI" orders (20% vs 13%, $P = .037$) and more frequent changes in their code status order (18% vs 7%, $P < .001$). Psychiatric inpatients also had a higher percentage of advance directives on record (46% vs 25%, $P < .001$).

DISCUSSION

Our goal was to compare code status discussion and order rates on psychiatric and general medicine hospitalization

Table 1. Demographic and Clinical Information for Medical and Psychiatric Inpatients[a]

Variable	Overall (N = 593)	Medicine (n = 317)	Psychiatry (n = 276)	*P* Value
Age at admission, mean (SD), y	63.79 (22.83)	60.1 (23.40)	68 (21.42)	< .001
Age at admission, y				< .001
< 55	149 (25)	112 (35)	37 (13)	
55–65	93 (16)	56 (18)	37 (13)	
66–75	136 (23)	49 (15)	87 (32)	
76+	215 (36)	100 (32)	115 (42)	
Gender				.004
Female	337 (57)	163 (51)	174 (63)	
Male	256 (43)	154 (49)	102 (37)	
Length of stay, mean (SD), d	9.8 (51.20)	9.66 (63.07)	9.97 (32.73)	.94
Mortality within 1 year from hospitalization				.55
No	475 (80)	251 (79)	224 (81)	
Yes	118 (20)	66 (21)	52 (19)	
Was there a resuscitation order at admission?				< .001
No	111 (19)	14 (4)	97 (35)	
Yes	482 (81)	303 (96)	179 (65)	
Resuscitation status at admission				< .001
Full code, discussed	303 (51)	211 (67)	92 (33)	< .001
Full code, not discussed	75 (13)	43 (14)	32 (12)	.47
DNR/DNI	96 (16)	42 (13)	54 (20)	.037
DNR	13 (2)	7 (2)	6 (2)	
Unknown/undocumented	106 (18)	14 (4)	92 (33)	
Was the resuscitation order changed during hospitalization?				< .001
No	520 (88)	295 (93)	225 (82)	
Yes	73 (12)	22 (7)	51 (18)	
Advance directives				< .001
None	388 (65)	238 (75)	150 (54)	
Yes, on file	204 (34)	78 (25)	126 (46)	
Yes, not on file, no copy	1 (0)	1 (0)	0 (0)	
Non-cancer hospice guidelines				
Renal	5 (1)	5 (2)	0 (0)	.036
Cardiac	8 (1)	6 (2)	2 (1)	.22
Liver	4 (1)	4 (1)	0 (0)	.06
HIV/AIDS	1 (0)	0 (0)	1 (0)	.28
Dementia	73 (12)	12 (4)	61 (22)	< .001
Pulmonary	14 (2)	14 (4)	0 (0)	< .001
Stroke/cerebrovascular accident	2 (0)	1 (0)	1 (0)	.92
Neurovascular	3 (1)	3 (1)	0 (0)	.11
Cancer primary diagnosis	18 (3)	18 (6)	0 (0)	< .001

[a]Values shown as n (%) unless otherwise noted.
Abbreviations: DNI = do not intubate, DNR = do not resuscitate.

in the context of an institution-wide standard of care for code status discussion and documentation. We found that psychiatric inpatients were less likely to have an order regarding code status at admission, and of all records with a code status order at admission, "full-code, discussed" was more common in medical patients whereas "full-code, not discussed" was more common in psychiatric patients. As we hypothesized, psychiatric inpatients were less likely to have an appropriate discussion with a medical practitioner regarding the possible need for acute, potentially life-saving intervention in the hospital. There may be several reasons for this. A provider may be concerned about patient capacity and the ability of a patient with acute psychiatric pathology or cognitive disorder to make appropriate decisions regarding medical care. Twenty-two percent of psychiatric patients did a have a significant dementia, which perhaps was a barrier to code status discussion. With respect to other psychiatric pathology, a patient's potential or actual suicidal ideation should not, however, obviate the need for a careful discussion about code status, and it does not automatically infer incapacity with regard to this issue. A discussion of code status may, in fact, be a therapeutic intervention for a patient with suicidal ideation and present an opportunity to reframe, assess acuity, and provide further information about overall decision-making capacity. Further, in cases in which cognitive impairment is a prominent part of the clinical picture, surrogate decision makers should be involved in code status discussions.

Discomfort regarding code discussions on the part of admitting providers as well as a standardized order set with the option "full code, not discussed" may allow admitting providers a way to opt out of a discussion that may be difficult or uncomfortable. As with other specialties,[15] psychiatric resident training and competency in facilitating a code discussion may be lacking. Educational interventions have been developed to improve internal medicine resident capability and comfort with discussing end-of-life care with patients.[16] While residents routinely rotated on the inpatient psychiatry service, only staff physicians, nurse practitioners, and physician assistants rotated on the medical service; these providers may be more comfortable having end-of-life discussions. With respect to the Hospital Internal Medicine service at the study institution, code status is a required component of the handoff communication between

providers at end-shift or end-of-service and is documented on the electronic service list.[17] Therefore, code status is commonly discussed regardless of expectation for survival, which may not be the case at other institutions or even other departments within the same institution.

It may be that psychiatric providers discuss code status less often with their patients because of a more robust expectation of survival to hospital discharge. Patients with acute psychiatric illness who do have active medical issues are often treated in the general medical setting until stable for transfer. Psychiatric treatment often involves significant education, social participation, and milieu therapy, all of which can be impeded by acute medical illness. Consequently, medical stability may negate the perceived need for code status discussion. However, 1-year mortality was not significantly different between the 2 groups, which underscores the importance of discussing code status and end-of-life care during any hospitalization regardless of perceived medical stability.

Interestingly, we found that more psychiatric inpatients had advance directives. The rate of 46% was comparable to that in a study of patients over the age of 65 years seen at an outpatient family medicine clinic[18] and higher than reported for the United States population.[12] When encountering acute emergencies during hospitalization, an emergency response team will often consult the most recent code discussions with the patient and/or health care agents when deciding how to proceed. The advance directive is kept by the patient and may not be available and, if available, may not indicate code status. It is unclear why more psychiatric patients than medical patients had advance directives in place, but the low percentage of 35% for the study population overall highlights the need for increased public health education and improved systems processes to ensure that patients have a say in what happens in life-threatening situations.

This study has several limitations. Because this is a retrospective study, data analyses are limited by the quality and accuracy of data in the electronic medical record. Additionally, the data are from a single institution with an ethnically homogeneous patient population, limiting the external validity of its results. The finding of greater availability of advance directives in the psychiatric cohort needs replication. Further, the study is limited to 1 medical psychiatry unit and to 1 medical inpatient service, which may limit the generalizability of the results within the study institution and to other facilities. Concerns about the comparability of the 2 study populations may be a limitation. Dementia within the psychiatric population may play an important role in 1-year mortality. Additionally, the difficulty of clarifying code status in the cognitively impaired may present significant challenges and influence an admitting provider's decision to bypass a code discussion altogether.

CONCLUSIONS

Code status discussion and documentation may be lacking in psychiatric inpatient populations. Although more psychiatric inpatients had advance directives, only 35% of all patients had an advance directive in place. These findings highlight the need for improvement in resident and staff education with respect to code status and advance directive planning. Providers should recognize hospitalization as an opportunity to discuss end-of-life goals with their patients regardless of age or reason for admission. When discussing the important issues of emergent treatment interventions and code status with both psychiatric and medical inpatients, it is important for providers to respect the ethical questions at issue. The principles of nonmaleficence, beneficence, justice, and autonomy all have bearing on end-of-life or emergent interventions. Of particular relevance, however, is the principle of autonomy. In light of the Patient Self-Determination Act, institutional and regulatory guidelines and standards of care, and appropriate ethical management, all patients or surrogate decision makers (regardless of the reason for admission) should be engaged in a thoughtful discussion regarding code status and advance directive planning.

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