




Clinical Ethics Consultation During the First COVID-19 Pandemic Surge at an Academic Medical Center: A Mixed Methods Analysis

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Abstract

While a significant literature has appeared discussing theoretical ethical concerns regarding COVID-19, particularly regarding resource prioritization, as well as a number of personal reflections on providing patient care during the early stages of the pandemic, systematic analysis of the actual ethical issues involving patient care during this time is limited. This single-center retrospective cohort mixed methods study of ethics consultations during the first surge of the COVID 19 pandemic in Massachusetts between March 15, 2020 through June 15, 2020 aim to fill this gap. Results indicate that there was no significant difference in the median number of monthly consultation cases during the first COVID-19 surge compared to the same period the year prior and that the characteristics of the ethics consults during the COVID-19 surge and same period the year prior were also similar. Through inductive analysis, we identified four themes related to ethics consults during the first COVID-19 surge including (1) prognostic difficulty for COVID-19 positive patients, (2) challenges related to visitor restrictions, (3) end of life scenarios, and (4) family members who were also positive for COVID-19. Cases were complex and often aligned with multiple themes. These patient case-related sources of ethical issues were managed against the backdrop of intense systemic ethical issues and a near lockdown of daily life. Healthcare ethics consultants can learn from this experience to enhance training to be ready for future disasters.

Keywords Ethics · Ethics consultation · COVID-19 · Disaster medicine

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Introduction

The coronavirus disease 2019 (COVID-19) pandemic is a defining period in world history. As of January 2022, there have been over 5.55 million deaths globally, 850,575 in the United States alone, attributed to the novel coronavirus, SARS-CoV-2 (Centers for Disease Control and Prevention [CDC], 2022). While these numbers are staggering, they do not capture the toll this pandemic has had, and continues to have, on every aspect of society, especially healthcare (Baines et al., 2020). Many ethical issues have emerged in healthcare settings across the world ranging from policies for crisis standards of care to dilemmas about specific patient cases (Baines et al., 2020; Fins & Prager, 2020; Fischkoff et al., 2020; Roadevin & Hill, 2021; Schmidt, Roberts, & Eneanya, 2021).

The ethics consultation service at Massachusetts General Hospital (MGH) in Boston, Massachusetts (MA) routinely participates in policy development, performs a high volume of ethics consultation, and provides education to frontline healthcare professionals (Robinson et al., 2017). The MGH ethics service continued all of these roles throughout the first surge of the pandemic in Massachusetts, against the backdrop of fear of the unknown, worries about scarce resources and that care might eventually need to be rationed, evolving personal protective equipment (PPE) guidelines, changing isolation and social distancing policies, and the intense physical and emotional stress among frontline health professionals.

While a significant literature has appeared discussing theoretical ethical concerns regarding COVID-19, particularly regarding resource prioritization, as well as a number of personal reflections on providing patient care during the early stages of the pandemic, systematic analyses of the ethical issues involving patient care and ethics consultation during this time are limited (Emanuel et al., 2020; Isaacs, Britton, & Preisz, 2020; Kramer, Brown, & Kopar, 2020; Robert et al., 2020; Truog, Mitchell, & Daley, 2020). Better understanding of the experience of ethics consultation during the first surge of the COVID-19 pandemic can inform future policies, demonstrate the preparedness and versatility of the healthcare ethics consultant role, and inform approaches to ethics consultation during future episodes of disaster medicine (Fins & Prager, 2020). The aim of this study was to describe ethics consultations at one academic medical center during the first COVID-19 surge.

Methods

Design

We performed a single-center retrospective cohort mixed methods study of ethics consultations at our center during the first surge of the COVID 19 pandemic in Massachusetts between March 15, 2020 through June 15, 2020. This wave was defined by the number of cases in Massachusetts, Massachusetts emergency

orders for shutdown and phased reopening, as well as our hospital operations (Massachusetts Department of Public Health, 2022).

Setting

MGH is an academic medical center in Boston, MA with 1,019 beds, 150 of which are in specialized intensive care units (ICUs). In preparation for the expected surge in critically ill patients related to COVID-19, MGH expanded its ICU capacity by 90% with six new surge ICUs, staffed by redeployed ICU nurses who were paired with general care nurses. Over the course of the surge, MGH instituted a strict no visitor policy with exceptions for parents and other adult caregivers of pediatric patients, support persons of obstetric patients, caregivers of patients with a disability, and visitors to patients at the end-of-life.

Ethics Consultation Process

The MGH Optimum Care Committee, one of the nation's first hospital ethics committees founded in 1974, provides a high volume of yearly ethics consultations (Robinson et al., 2017). Any member of the health care team, patient or surrogate can request a consultation. Our interprofessional team of ethics consultants, who are trained according to the American Society of Bioethics and Humanities (ASBH) Core Competencies, typically initiate the consultation process on the same day as the request (American Society for Bioethics and Humanities, 2011). Consultants review the patient's medical record, engage with stakeholders to understand diverse perspectives on the ethical issues, conduct an ethical analysis, and make recommendations that are documented in the medical record. The overarching aim of ethics consults at MGH is to honor the dignity and values of each patient, mitigate conflict, balance ethical principles, and provide emotional support for all stakeholders by placing the values and experience of patients at the center of deliberation (Robinson et al., 2017). All MGH ethics consultation case details are entered into a secure REDCap Database for quality review and research. There has been a substantial increase in ethics consultations over the past decade with 24 consults in 2010, 133 in 2015, and 258 in 2019. Consistent with other ethics consultation services in the United States, the most common reason for ethics consultation at MGH is disagreement regarding whether it is appropriate to continue or initiate a new life-sustaining treatment, including CPR (Robinson et al., 2017).

Analyses

Sociodemographic and clinical characteristics of patients at MGH who had an ethics consult during the first COVID-19 surge in Massachusetts were captured from medical record and consult note review. Specific data definitions (i.e., underinsured, modified independence, etc.) are described elsewhere (Robinson et al., 2017). Independent t-tests or Fisher's exact tests were performed to compare sociodemographic, clinical characteristics, and ethics consult characteristics

of those patients who were COVID-19 positive versus COVID-19 negative. To assess whether there was a change in the volume of consults related to the COVID-19 surge, we compared the median number of ethics consults during the surge to the same period the year prior using a Wilcoxon Rank-Sum test.

We also performed an inductive thematic analysis of the ethics consults during the study period to enrich our understanding of the nature of the consults during the first surge of the pandemic (Ryan & Bernard, 2003). The study team separately reviewed medical record and ethics consult notes to identify preliminary themes. Themes were then collectively reviewed and initial consensus categories were identified. These were further revised with iterative sampling whereby initial themes were tested against a random sampling of cases. Study authors then agreed upon the final broad thematic categories. Individual cases were selected to highlight aspects of the general themes that illustrated specific ethical challenges during the COVID surge.

The Mass General Brigham Institutional Review Board approved this study.

Results

There were 69 ethics consults ($n=31$ patients who were COVID-19 positive and $n=38$ patients who were COVID-19 negative) at MGH during the first surge of COVID-19 in Massachusetts. In this cohort, patients who were COVID-19 positive were older ($p<0.001$), more likely to be non-white ($p=0.03$), more likely to be born outside of the US ($p=0.005$) and were more likely to have insurance coverage ($p=0.03$) than patients who did not have COVID-19 (Table 1). There were no significant differences in clinical characteristics or consultation characteristics between patients with ethics consultations who were COVID-19 negative and positive (Table 2). Both groups were receiving similar numbers of life sustaining treatments (including mechanical ventilation) and were equally likely to have full code status and to have advance care planning documents at time of consultation. In addition, the services requesting consultations (the majority from Internal Medicine) and the roles of consultors (most commonly physicians and nurses) was also similar.

There was no significant difference in the median number of monthly consultation cases during the first COVID-19 surge compared to the same period the year prior (23 vs 19, $p=0.27$). Figure 1 shows the trends in ethics consults from March 2019 through October 2020. The characteristics of the ethics consults during the COVID-19 surge and same period the year prior were also similar (Figure 2) with the most common reasons for consultation relating to goals of care in setting of poor prognosis and disagreement about code status.

Through inductive thematic analysis, we identified four themes related to ethics consults during the first COVID-19 surge including (1) prognostic difficulty for COVID-19 positive patients, (2) challenges related to visitor restrictions, (3) end of life scenarios, and (4) family members who were also positive for COVID-19. Cases were complex and often aligned with multiple themes.

Table 1 Sociodemographic characteristics of patients with ethics consultation during initial COVID surge, 15 March 2020–15 June 2020

	All cases (n = 69)	COVID negative (n = 38)	COVID positive (n = 31)	p-value
Age—year ± SD	64.5 ± 16.1	58.85 ± 15.4	72.0 ± 13.9	< 0.001
Female—no. (%)	28 (40.6)	16 (42.1)	12 (38.7)	0.80
<i>Race—no. (%)</i>				0.03 ^a
White	39 (56.5)	26 (68.4)	13 (41.9)	
Black	15 (21.7)	4 (10.5)	11 (35.5)	
Hispanic	7 (10.1)	2 (5.3)	5 (16.1)	
Asian	4 (5.8)	3 (7.9)	1 (3.2)	
Other	2 (2.9)	1 (2.6)	1 (3.2)	
Unknown	2 (2.9)	2 (5.3)	0 (0.0)	
<i>Primary language—no. (%)</i>				0.07 ^b
English	46 (66.7)	29 (76.3)	17 (54.8)	
Haitian Creole	9 (13.0)	2 (5.3)	7 (22.6)	
Spanish	9 (13.0)	4 (10.5)	5 (16.1)	
Cantonese or Mandarin	1 (1.4)	1 (2.6)	0 (0.0)	
Other	4 (5.8)	2 (5.3)	2 (6.4)	
<i>Born outside the United States</i>				0.005
Yes	31 (44.9)	11 (28.9)	20 (64.5)	
Unknown	8 (11.6)	5 (13.2)	3 (9.7)	
Median household income by ZCTA—dollars ± SD	70,384 ± 21,371	73,538 ± 23,519	66,518 ± 18,029	0.17
<i>Insurance status—no. (%)</i>				0.03
Insured	48 (69.6)	22 (57.9)	26 (83.9)	
Underinsured	21 (30.4)	16 (42.1)	5 (16.1)	
<i>Functional status prior to admission—no. (%)</i>				0.80 ^c
Complete independence	31 (44.9)	18 (47.4)	13 (41.9)	
Modified independence	24 (34.8)	16 (42.1)	8 (25.8)	

Table 1 (continued)

	All cases (n = 69)	COVID negative (n = 38)	COVID positive (n = 31)	p-value
Complete dependence	14 (20.3)	4 (10.5)	10 (32.3)	
<i>Residence prior to admission—no. (%)</i>				0.11 ^d
Home	52 (75.4)	32 (84.2)	20 (64.5)	
Skilled nursing, assisted living, or rehabilitation facility	15 (21.7)	5 (13.2)	10 (32.3)	
Other	2 (2.9)	1 (2.6)	1 (3.2)	

IQR interquartile range, *ZITCA* Zip Code Tabulation Area

^ap-value for White versus non-White patients

^bp-value for English versus non-English primary language

^cp-value for complete independence versus modified or complete dependence

^dp-value for home versus non-home residence prior to admission

Table 2 Clinical and ethics consult characteristics of patients with ethics consultation during initial COVID surge, 15 March 2020–15 June 2020

	All cases (n = 69)	COVID negative (n = 38)	COVID positive (n = 31)	p-value
Clinical characteristics				
<i>Number of major co-morbidities on admission—median (IQR)</i>	3 (2–5)	3 (2–5)	4 (3–5)	0.09
Cardiac	45 (65.2)	23 (60.5)	22 (71.0)	
Pulmonary	38 (55.1)	13 (34.2)	25 (80.6)	
Neurologic	19 (27.5)	10 (26.3)	9 (29.0)	
Renal	29 (42.0)	13 (34.2)	16 (51.6)	
Gastrointestinal	27 (39.1)	14 (36.8)	13 (41.9)	
Oncologic	13 (18.8)	8 (21.1)	5 (16.1)	
Psychiatric	20 (29.0)	12 (31.6)	8 (25.8)	
<i>Hospitalized in intensive care unit—no. (%)</i>	45 (65.2)	22 (57.9)	23 (74.2)	0.21
<i>Number of life-sustaining treatments—median (IQR)</i>	3 (1–4)	3 (1–4)	4 (2–4)	0.53
Mechanical ventilation	38 (55.1)	18 (47.4)	20 (64.5)	
Vasopressors	30 (43.5)	15 (39.5)	15 (48.5)	
Renal replacement therapy	17 (24.6)	9 (23.7)	8 (25.8)	
ECMO	9 (13.0)	8 (21.1)	1 (3.2)	
IABP/VAD	2 (2.9)	2 (5.3)	0 (0.0)	
Blood products	15 (21.7)	11 (28.9)	4 (12.9)	
Antibiotics	36 (52.2)	17 (44.7)	19 (61.3)	
<i>Full code status—no. (%)</i>	46 (66.7)	27 (71.0)	19 (61.3)	0.61
<i>Advance care planning—no. (%)</i>				
Formal health care proxy	45 (65.2)	26 (61.3)	19 (61.3)	
MOLST	9 (8.7)	3 (7.9)	6 (19.4)	
Living will	3 (4.3)	2 (5.3)	1 (3.2)	
<i>Disposition—no. (%)</i>				0.15 ^a
Death	35 (50.7)	16 (42.1)	19 (61.3)	

Table 2 (continued)

	All cases (n = 69)	COVID negative (n = 38)	COVID positive (n = 31)	p-value
Hospice	5 (7.2)	3 (7.9)	2 (6.4)	
Long-term acute care facility	7 (10.1)	1 (2.6)	6 (19.3)	
Skilled nursing/rehabilitation facility	9 (13.0)	6 (15.8)	3 (9.7)	
Home	13 (18.8)	11 (28.9)	1 (3.2)	
<i>Ethics consult characteristics</i>				
<i>Time to consultation—d, median (IQR)</i>	9 (2–20)	9 (2–20)	12 (2–19)	0.80
<i>Consulting service—no. (%)</i>				
Internal medicine	42 (60.9)	20 (52.6)	22 (71.0)	
Cardiac surgery	12 (17.4)	9 (23.6)	2 (6.4)	
Neurology or neurosurgery	8 (11.6)	3 (7.9)	5 (16.1)	
General surgery	7 (10.1)	6 (15.8)	2 (6.4)	
<i>Role of requestor—no. (%)</i>				
Attending physician	17 (24.6)	11 (28.9)	6 (20.0)	
Housestaff	16 (23.2)	7 (18.4)	9 (29.0)	
Clinical nurse specialist or unit nursing director	8 (11.6)	4 (10.5)	4 (12.9)	
Advanced practitioner	9 (13.0)	5 (13.2)	4 (12.9)	
Clinical/staff nurse	6 (8.7)	3 (7.9)	3 (9.7)	
Attending nurse	5 (7.2)	3 (7.9)	2 (6.4)	
Social work/case management	4 (5.8)	3 (7.9)	1 (3.2)	
Other	4 (5.9)	2 (5.3)	2 (6.4)	
<i>Consultation category—no. (%)^b</i>				
Goals of care in the setting of poor prognosis	32 (46.4)	16 (42.1)	16 (51.6)	
Disagreement about life-sustaining treatment other than code status	19 (27.5)	8 (21.1)	11 (35.5)	

Table 2 (continued)

	All cases (n = 69)	COVID negative (n = 38)	COVID positive (n = 31)	p-value
Disagreement about code status	15 (21.7)	7 (18.4)	8 (25.8)	
Complex discharge planning	7 (10.1)	5 (13.2)	2 (6.4)	
Interpretation of ACP/MOLST documents	5 (7.2)	5 (16.1)	0 (0.0)	
Difficulty identifying appropriate surrogate	5 (7.2)	3 (7.9)	2 (6.4)	
Patient/surrogate wants to limit care medical team believes appropriate	3 (4.3)	2 (5.3)	1 (3.2)	
Question whether surrogate is acting in best interest of patient	2 (2.9)	2 (5.3)	0 (0.0)	
Inter-team conflict	2 (2.9)	1 (2.6)	1 (3.2)	
Intra-family conflict	2 (2.9)	1 (2.6)	1 (3.2)	
Question about decision-making capacity	2 (2.9)	1 (2.6)	1 (3.2)	
Other	7 (10.1)	5 (13.1)	2 (6.4)	
<i>Number of meetings attended—no. (%)</i>				0.39 ^c
0	31 (44.9)	18 (47.4)	13 (41.9)	
1	22 (31.9)	13 (34.2)	9 (29.0)	
2–4	16 (23.2)	7 (18.4)	9 (29.0)	

ACP advance care planning, ECMO extracorporeal membrane oxygenation, IABP intra-aortic balloon pump, IQR interquartile range, MOLST medical orders for life-sustaining treatment, VAD ventricular assist device

^ap-value for in-hospital death versus discharged alive

^bMore than one reason allowed for each consult

^cp-value for 0 or 1 versus 2–4 meetings

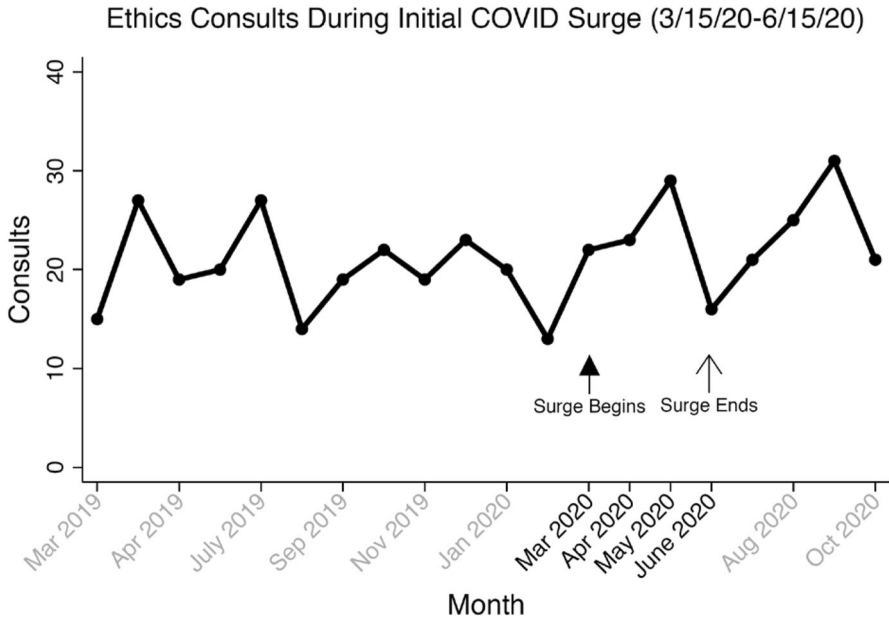


Fig. 1 Trends in ethics consults from March 2019 through October 2020

Changes in Common Ethics Consult Characteristics

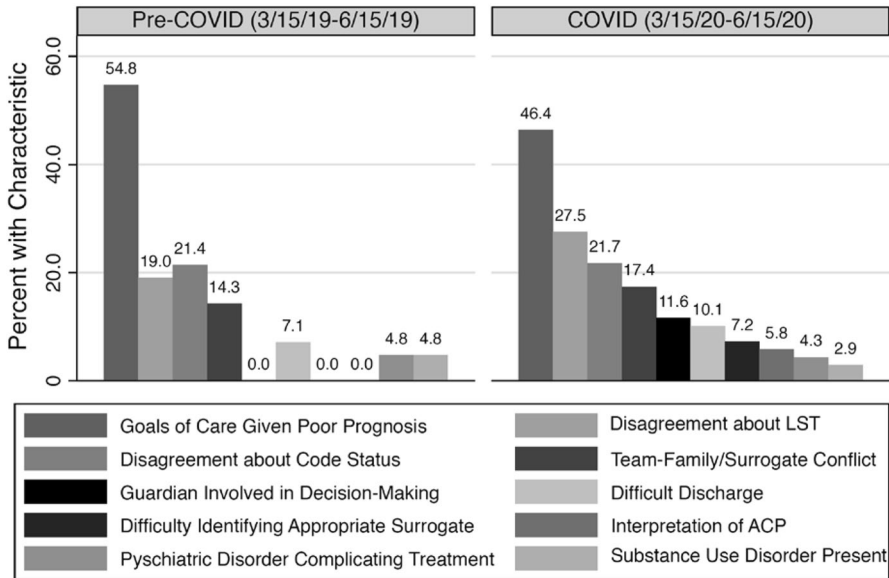


Fig. 2 Characteristics of the ethics consults during the COVID-19 surge and same period the year

Prognostic Difficulty

The lack of data regarding COVID-19 treatment and outcomes contributed to prognostic complexity for COVID-19 patients during the first surge. This, in turn, fed into ethical concerns around advanced life support, an additional theme in our cases. Prognostic difficulty ranged from when to initiate or terminate an intervention such as mechanical ventilation, to the potential ineffectiveness of interventions, to uncertain likelihood of survival. Because of the emerging nature of the clinical guidelines given the novel virus, questions arose about whether enough time had passed before making a decision to focus on comfort versus to forge ahead with aggressive treatment, and who should make these decisions. The clinical guidelines were being developed in real time during this first surge of COVID-19, and thus decisions at the bedside were based on the best available data.

Distress among clinicians emerged related to the lack of clarity regarding what constituted a reasonable therapeutic trial, particularly when it was becoming evident that cohorts of COVID-19 patients receiving prolonged mechanical ventilation actually could recover (Tornari et al., 2021). Furthermore, it was our experience that the availability, uncertainty, and politicization of potential therapeutics created space for more disagreements over life-sustaining treatments. In one case, an ethics consult was requested for a patient who was COVID-19 positive with progressive high flow oxygen needs. He refused intubation and mechanical ventilation despite urging from the team to accept these interventions. At the same time, however, he requested experimental medications that he had read about in the media. Ethics consultants assisted in building a bridge of shared communication between the team and the patient in hopes of achieving shared understanding of both perspectives. The patient was ultimately managed without intubation and eventually recovered. In another case, of a 79-year-old patient, the team recommended a tracheostomy or moving toward comfort care for a patient who was critically ill with COVID-19, who they stated would not be able to tolerate extubation without a tracheostomy. The patient had left hemiplegia from a stroke six years prior, was wheelchair dependent, and resided in a nursing home. He had advanced coronary artery disease, was on 2 L of oxygen at baseline and had a poor mental status. He had been hospitalized several times over past years with pneumonia, received surgery one year prior for invasive colon cancer, and even with the new COVID-19 diagnosis, his family desired aggressive life sustaining treatment. The patient's family struggled with the decision but eventually chose against tracheostomy; yet, they were also not ready to transition care to comfort. A few days later he was ready for extubation and successfully transitioned to breathing without any supplemental oxygen, underscoring the uncertainty of prognostication related to the new virus. As the patient's mental status remained poor, the ethics consultation recommendation for DNR and DNI was finally accepted, and the patient died peacefully a few days later on a medical unit. While a level of prognostic uncertainty in acute care often exists, in this case, physicians including physical medicine and rehabilitation and palliative care believed that comfort measures was the most optimum plan. However, conveying this prognosis in a way that the family might appreciate it was challenging given their history of requesting full, aggressive life sustaining treatment.

Challenges Related to Visitor Restrictions

Hospital visitor restrictions were initiated early in the COVID-19 pandemic. On adult units, no visitors were allowed unless the patient was at end of life, at which time two persons, with documentation of COVID-19 negative status, were allowed in. Thus, communication between the care team and surrogates most often occurred via phone or video conferencing. This limited the opportunity to build trust and therapeutic rapport during the most challenging time that healthcare systems, families and society has known in most of our lifetimes. Some surrogate decision makers were unable to see how sick their loved ones were and could not visualize their suffering, or conversely, could see through video, yet not be present with their loved ones. In one case, the team had multiple remote meetings with the many adult children of an elder male COVID-19 patient. This family was having great difficulty accepting that their father was at the end of his life. After more than 6 weeks of hospitalization, much of it in the ICU, the patient's son came into hospital to meet with the team and to see his father. There had been a long history of this family requesting full life support over the years, even in the setting of the patient's nursing home residence of many years. During his visit, the patient's son was tearful and commented that it was sad to see his father in his current condition. Shortly after this in-person visit, the patient's family accepted the physician's recommendation, supported by the ethics consultation, that the patient was at the end of his life and care should be focused on comfort. Seeing his father and interacting with the team allowed for a deeper understanding of the situation and created the opportunity for acceptance that his father was dying despite the medical team's best efforts.

There were also multiple instances in which families, when permitted to come in to see their loved ones at end of life, declined because of fear of contracting COVID-19 themselves. For example, early on in the surge, the ethics service was consulted for a patient in her late 80's who was dying from progressive hypoxemic respiratory failure in the setting of COVID-19. The patient's family struggled to accept the severity of the patient's illness and the relationship with the medical team was strained. The family's grief manifested in anger toward the team, and they often demanded specific treatments that they had seen in the media, including remdesivir and hydroxychloroquine. The science during this time was rapidly evolving and while remdesivir was in time shown to be an effective treatment, hydroxychloroquine was not (Beigel et al., 2020; Reis et al., 2021). Although the patient did not meet official visitor policy requirements, the team, in efforts to repair the relationship with the family, offered the opportunity for them to come in-person to see the patient and meet with the team. Despite previously demanding the right to visitation, when offered, the family declined citing the risk of infection. Surrogates are essential members of the care team whose role was complicated by the inability to be present at the bedside.

End-of-Life Scenarios

Another common theme among ethics consults during the first COVID-19 surge was the complex end-of-life scenarios that the circumstances of the pandemic created. The impact of the surge on the continuum of care led to patients remaining in the

hospital for end-of-life care rather than transitioning to an inpatient or home hospice setting. For example, a 71-year-old man who resided in a nursing home for several years was hospitalized for three weeks with COVID-19 and died a week after comfort measures were instituted. The patient had several strokes in the past, had severe cognitive impairment and was contracted, along with multiple medical problems. Over the years physicians had attempted goals of care discussions with his daughter; however, she continued to advocate for life-sustaining treatment, and this persisted through his severe COVID illness. The medical team, palliative care clinicians and ethics consultants, upon arriving at a comfort-oriented plan with the daughter for her father, offered that the patient remain hospitalized until death. This served a practical purpose—preventing an additional COVID exposure at his nursing home—and enhanced the daughter’s trust in the team. The patient’s long-term care facility could not take him back given the status of such facilities during this pandemic and his daughter was unable to take her father home given the family’s fear of having him in the home with a pregnant family member. Typically, in cases of complex discharge, the case management team works diligently to identify another realistic discharge option. During this first surge of COVID-19, circumstances along the continuum of care were evolving so quickly with different rules emerging each day for post-acute placement. In this case, the daughter was unsure of where her father would be discharged which further complicated end of life decision making. We have found anecdotally in the past that some families believe end of life conversations are financially motivated or with the goal of freeing a bed for another patient. In this case, as in other past cases, the assurance of care until death allayed family concerns within these domains.

Family Members Positive for COVID-19

Prior to the emergence of COVID-19, it was rare for a critically ill patient for whom an ethics consult was placed to also have family members who had complex or life-threatening medical conditions. During the first surge of COVID-19, another common theme of the ethics consultations for patients who were admitted with a diagnosis of COVID-19 was the parallel COVID-19 diagnosis among their family members. In some cases, ill family members were unable to fulfill their role as surrogate decision maker. For example, a man was admitted to our center for acute hypoxic respiratory failure after having COVID-19 symptoms for two weeks. The patient was unable to speak for himself but his significant other who was his health-care agent was hospitalized elsewhere, also diagnosed with COVID-19, and thus was unavailable to participate in decision-making with the team. The health care agent’s daughter stepped in, however, and she and the social worker located a MOLST form that had been signed by the patient a few years earlier, which was used to guide decision making on behalf of the patient. Another consequence of concurrently ill family members was that surrogate decision makers were coping with multiple critically ill loved ones at the same time. In one case, the ethics service was consulted for a patient with hypoxemic respiratory failure secondary to COVID-19 pneumonia whose wife was also admitted and intubated for COVID-19. The patient’s daughter

was the decision maker for both of her parents, who were critically ill at the same time. The patient's daughter and her husband were also eventually admitted for COVID-19 during her parent's hospitalization but stabilized and were discharged home. Families were overwhelmed with sickness and fear, challenging their ability to support the ill patient. As healthcare teams cared for a specific patient, the realities of sick families affected by COVID-19 was evident.

Discussion

The main findings our retrospective review of ethics consultations at MGH during the first COVID-19 pandemic surge in Massachusetts adds patient-family-clinician case specificity to broader ethical problems that were articulated in the pandemic. Early in the pandemic, it was clear that there was not enough PPE to meet the demand, specifically N95 masks, causing institutions to establish strict usage and reuse policies. There was also early fear that crisis standards of care would need to determine which patients would be placed on a ventilator. Leaders in clinical ethics published recommendations and guidance to promote the ethical distribution of these scarce resources (Emanuel et al., 2020; Peterson, Largent, & Karlawish, 2020; Ranney et al., 2020). Intense discourse and debate ensued regarding how to consider centuries of systemic racism built into the US healthcare system in the context of crisis standard of care guidelines that triage patients with certain comorbidities (Schmidt, Roberts, & Eneanya, 2021) and even ageism related to lockdowns (Lawrence & Harris, 2021). Interpreting ethics consultation themes during this period against the backdrop of systemic issues relating to scarce resources, inability of healthcare facilities to maintain pre-pandemic infection control policies regarding use of PPE, and the stark impact of COVID-19 on racial and ethnic minorities allows for a better appreciation of the distress and need for healthcare ethics consultation.

Our study on ethics consultation in the COVID-19 pandemic revealed: (1) there was not a significant increase in consultation volume compared to the same time the year prior, (2) there were no differences in clinical or consultation characteristics for patients with ethics consultations between those who were COVID-19 positive and negative, (3) there were demographic differences with COVID-19 positive patients more likely to be older, non-white, born outside of the US, and have insurance. Four themes of ethics consultations during the first surge of COVID-19 emerged including prognostic difficulty for COVID-19 positive patients, challenges related to visitor restrictions, end of life scenarios, and family members concurrently ill with COVID-19. Taken together, these findings suggest that, while the ethical issues requiring ethics consultation during an unprecedented global pandemic were like prior cases, there were a number of added significant ethical complexities during the pandemic.

While there are limited published reports on ethics consultation during COVID-19, our findings align with the experiences of other large academic medical centers that were caring for large numbers of COVID-19 patients early in the pandemic in New York City (Fins & Prager, 2020; Fischkoff et al., 2020; Friedman et al., 2020; Huberman et al., 2020). Our service did not, however, experience a significant increase in consult volume. In contrast, New York Presbyterian Columbia had

a 400% increase in consults compared to the same time period the year prior when they had 25 ethics consults (Fins & Prager, 2020; Fischkoff et al., 2020). New York Presbyterian-Weill Cornell Medicine Hospitals reported a total of 93 ethics consults from March 16th to May 10, 2020 but did not report the number or percent increase from the year prior. Notably, the MGH ethics service receives a higher volume of consults at baseline.

As with other studies, the most common reasons for ethics consults during the initial surge related to goals of care in setting of poor prognosis and disagreement about code status. Furthermore, our findings that patients who were COVID-19 positive were more likely be non-white and born outside of the US than patients who were COVID-19 negative add to the existing literature highlighting the disproportionate impact of COVID-19 on racial and ethnic minorities (Andrasfay & Goldman, 2021; Bassett, Chen, & Krieger, 2020). Patients in this study who were COVID-19 positive were also found to be more likely to have insurance than patients who were COVID-19 negative. This finding may be explained by COVID-19 positive patients being older and having Medicare coverage or potentially underinsured individuals delaying seeking care. The themes that emerged from the qualitative analysis of cases during the initial surge at MGH provide rich context for interpreting the numbers that alone incompletely capture the ethical complexities during the initial surge. The four themes of ethics consults including challenges related to prognostic difficulty for COVID-19 positive patients, visitor restrictions, end of life scenarios, and sick family members speak to the lived experience and distress of those patients and staff who were in the hospital during this surge.

As more than half of the US adult population is now fully vaccinated against COVID-19, there is space to reflect on the role the healthcare ethics consultations played during the initial surge (Centers for Disease Control and Prevention, 2022). Although our findings show no increase in cases during the surge, the experience of the consultation was different. Healthcare ethics consultants learned the benefits and burdens of teleconferencing with families of patients and the influence of in person visitors on care plans. In the beginning of the first surge in Massachusetts, little was known about the spread of infection and while the visitor policy and restrictions changed the way care was delivered, there was not significant criticism amongst healthcare providers as it was perceived to be a way of protecting them and patients. Our ethics consultation service supported the ethical decision-making around the flexibility of the policy that was required in each situation. Furthermore, our ethics service was prepared to respond to patient specific cases, support bedside clinicians, and participate in the development of emergent policies, including statewide *Crisis Standards of Care* (The Commonwealth of Massachusetts Crisis Standards of Care Advisory Working Group, 2020). Our institution has a Hospital Incident Command System (HICS) that led the management of all personal protective equipment (PPE). While the ethics service was represented on our HICS and supported ethical decision-making, the ethics consultation service did not manage supply. We did however support frontline clinicians who were fearful of PPE shortages and personal safety and managing distress around perceived PPE rationing.

Although frontline clinicians were experiencing unprecedented distress, including moral distress, they continued to recognize ethical challenges and sought out

ethics consultation to optimize patient care (Cadge et al., 2021; Morley et al., 2020). Additionally, throughout the first surge of the COVID-19 pandemic, our ethics consultation service remained onsite responding to consults in person with the bedside clinicians and supporting “listening rounds” during which we met with clinicians to process their experience in real time. The resulting persistent burnout amongst all health professionals did not become fully evident until the end of this first surge. As healthcare institutions and the entire world resets and moves on to a post pandemic world (Baines et al., 2020), it is imperative that healthcare ethics consultants recognize the shared trauma that healthcare workers experienced (Blackler et al., 2021) and consider how to build resilience and ongoing ethical decision making capacity (Resnick & Fins, 2021).

Conclusion

The experience of ethics consultation at our institution during the initial surge of COVID-19 as depicted in this analysis included challenges related to prognostic difficulty for COVID-19 positive patients, visitor restrictions, end of life scenarios, and sick family members. These patient case-related sources of ethical issues were managed against the backdrop of intense systemic ethical issues and a near lockdown of daily life. Healthcare ethics consultants were prepared to respond in a time of crisis and can learn from this experience to enhance training to be ready for future disasters.

Declarations

Conflict of interest The authors have no conflicts of interest to declare that are relevant to the content of this article.

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