



Ethics Consultation in Surgical Specialties

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Abstract

Multiple studies have been performed to identify the most common ethical dilemmas encountered by ethics consultation services. However, limited data exists comparing the content of ethics consultations requested by specific hospital specialties. It remains unclear whether the scope of ethical dilemmas prompting an ethics consultation differ between specialties and if there are types of ethics consultations that are more or less frequently called based on the specialty initiating the ethics consult. This study retrospectively assessed the incidence and content of ethics consultations called by surgical vs. non-surgical specialties between January 1, 2013 to December 31, 2018 using our RedCap Database and information collected through the EMR via our Clinical and Translational Science Center. 548 total ethics consultations were analyzed (surgical $n=135$, non-surgical $n=413$). Our results demonstrate that more surgical consults originated from the ICU, as opposed to lower acuity units (45.9% vs. 14.3%, $p \leq 0.001$), and surgical patients were more likely to have a DNR in place (37.5% vs. 22.2%, $p=0.002$). Surgical specialties were more likely to call about issues relating to withholding/withdrawing life-sustaining treatment ($p \leq 0.001$), while non-surgical specialties were more likely to call about issues related to discharge planning ($p=0.001$). There appear to be morally relevant differences between consults classified as the “same” that are not entirely captured by the usual ethics consultations classification system. In conclusion, this study highlights the unique ethical issues experienced by surgical vs. non-surgical specialties. Ultimately, our data can help ethics consultation services determine how best to educate various hospital specialties to approach ethical issues commonly experienced within their field.

Keywords Surgical ethics · Withholding/withdrawing life-sustaining treatment · Ethics consultation · Surgical buy-in

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Introduction

Surgeons face a multitude of unique ethical issues in their daily practice. They confront concerns about patients' lack of resources (Titan et al. 2018), about how to ensure a valid surgical informed consent (Suah and Angelos 2018; Angelos 2018; Skowron and Angelos 2017; Langerman et al. 2016), whether and how to disclose of errors (Angelos 2009; Adedeji et al. 2009) and how to manage various interpersonal conflicts (Sur and Angelos 2016). They also face difficulties approaching end-of-life conversations in the perioperative period and intensive care unit (Sur and Angelos 2016; Sumrall et al. 2016; Schwarze et al. 2012), including withholding and withdrawing life-sustaining treatment (Schwarze et al. 2010, 2012), and practicing shared decision-making (Skowron and Angelos 2017; Wancata and Hinshaw 2016; Brahams 1994; Jones and McCullough 2002) to approach treatment refusals.

Since the inception of clinical medical ethics as a field in the 1980s (Siegler 2019; Jonsen et al. 1982; Mark Siegler 1997) and the first report of formal ethics consultation (Purtilo 1984), the use of clinical ethics consultation services has proliferated and remains an important resource for health care professionals (Fox et al. 2007) to deal with ethical issues that arise in practice. Multiple studies have been performed to identify common ethical dilemmas encountered by ethics consultation services (Swetz et al. 2007; La Puma et al. 1988, 1992; Schenkenberg 1997; Nilson et al. 2008; Bruce et al. 2011; Au et al. 2018) and frequently include issues relating to end-of-life, shared decision-making, professionalism and privacy/confidentiality.

It is not clear whether, or how often, surgeons call ethics consultations about the ethical dilemmas they experience. Several studies have examined the ethical issues that rise to the level of an ethics consultation on specific hospital services (Corbett et al. 2018; Shuman et al. 2013a, b; Watt et al. 2018; McCarthy et al. 2019), however, limited data exists exploring the content or number of ethics consultations requested by specific hospital services (i.e. general surgery, general medicine, various intensive care units, etc.). Not all ethical issues that arise in clinical practice rise to the level of an ethics consultation (McCarthy et al. 2019), and it's possible that the scope of ethical dilemmas which prompt an ethics consultation may differ between surgical and non-surgical specialties.

It seems unlikely that surgeons experience fewer ethical issues than their medicine counterparts, but it is not clear whether the types of ethical issues they experience are similar or not. Historically, surgical culture is perhaps more hierarchal than other hospital specialties, and surgeons take on a great degree of personal responsibility for their patients (Bosk 2003), conceivably making surgeons less likely than other clinicians to call an ethics consultation. Studies by Johnson et al. (2012) and Shuman et al. (2013a) identified ethical issues that rose to the level of ethics consultations on surgical services and demonstrated that the majority of these consultations involved end-of-life considerations. Tapper et al. (2010) published one of the first series to detail the incidence of consultations by service, and noted that certain surgical specialties (i.e., obstetrics and general surgery) required the most time-intensive consultations. They speculated that this could be explained by certain specialties being more or less equipped to identify and handle ethical dilemmas,

which speaks to the need to develop more personalized ethical resources for various specialties.

To our knowledge, no other studies have compared the reasons for ethics consultation as characterized by service. The present study seeks to contribute to the literature by exploring whether there are differences in the frequency of ethics consultations between surgical and non-surgical specialties, and whether there are normative differences in the scope of ethical dilemmas that prompt ethics consultations for surgical services as compared to non-surgical services. This data is necessary to determine needs for service-specific ethics resources—including formal ethics educational programs, didactics, communication strategies, and relationship-building.

Methods

This was a single center, retrospective review of ethics consultations performed by our Ethics Consultation Service (ECS) between January 1, 2013 and December 31, 2018. Clinical ethics consultations at our institution may be requested by health care providers, patients and their families, or any provider involved in their clinical management. The ethics consultant(s) on call identify the ethical issues present in the consultation by reviewing the patient's medical record and interviewing the necessary stakeholders. Consultants then discuss cases as a group and provide the medical team with recommendations. A note is placed in the electronic medical record of the corresponding patient.

Demographic and clinical data for each consultation was obtained by extracting data from the electronic medical record (EMR) using TRAC (Translational Research Advisory Committee) via the Clinical and Translational Science Center at Weill Cornell Medicine. The TRAC system records all information by tracking patients who had a Medical Ethics Consultation Note placed in their chart. Our ECS uses this note template as documentation of the ethics consultations, making this a simple measure to track in the EMR. The ethics consultations tracked through this note template do not include policy-driven ethics consultations—that is, consultations mandated by a hospital policy, as opposed to those called based on clinician judgement. Policy-driven consultations do not require formal documentation with a Medical Ethics Consultation Note, thus these were not included in this study. The study was approved by our Institutional Review Board.

All adult patients (> 18-years-old) on a medical inpatient service for whom an ethics consultation was performed by the NYP-WCMC ECS were included. Because of the multidisciplinary nature of pediatric cases, the fact that OB/Gyn is a mixed surgical/non-surgical specialty and the unique nature of ethical issues in Psychiatry, consultations from those services were excluded.

Data extracted from the EMR via TRAC included demographic and clinical information and provided the dates and times of documentation by the ethics consultation service. One author (NM) reviewed all ethics consultation notes and identified up to two primary ethical issues and up to two contextual issues for each consult. 30 consults were crosschecked with previously recorded data in RedCap by another ethics

consultant to ensure inter-rater reliability (Nelson and Edwards 2015). Additionally, complex cases were reviewed with the other author (IdMM) to ensure consensus.

Data was then categorized by specialty, surgical¹ vs. non-surgical.² Statistics were performed by statisticians in the WCMC Clinical and Translational Science Center. Chi-square or Fisher's exact test was used to assess the associations between clinical categorical variables of interest and type of service (surgical vs. non-surgical). A t-test or ANOVA was used to assess the associations between numerical clinical categorical variables of interest and the type of service (surgical vs. non-surgical).

Results

During the 5-year period, approximately 1500 consultations were seen by the Ethics Consultation service. Consults that were policy-driven or procedural were excluded and records for 697 consultations with documentation in the medical record were obtained. After additional exclusions, 548 consultations were reviewed, with 413 consults being for non-surgical specialties and 135 for surgical specialties.

Patient Characteristics

The average age for the non-surgical and surgical groups was 73 and 70 years, respectively. The non-surgical group was comprised of 50.8% women, vs. 46.7% of the surgical group. A large proportion of both groups was Caucasian (35.8% of the non-surgical group and 32.6% of the surgical group), and the majority of both groups (> 82% for both) were English speaking. There were no statistically significant differences in demographic data between non-surgical vs. surgical groups when compared for patient age, sex, race, primary language, religion or marital status (Table 1).

Average length of stay was longer for surgical vs. non-surgical patient groups (32.9 vs. 25.0 days, $p=0.026$). Additionally, the unit location of the patient at the time of ethics consultation was significantly different between the two groups, with 69.5% of consults from non-surgical specialties arising from the floor compared to 33.3% of surgical consults, and 45.9% of surgical consults arising from the ICU vs. only 14.3% of non-surgical consults doing so, representing the higher acuity status of patients in the surgical group. Comparing the non-surgical vs. surgical patient groups for time to ethics consultation (10.1 days vs. 11.0 days), duration of ethics involvement (median 0.92 vs. 0.00 days) and the average number of notes placed per patient (2.0 vs. 1.0)—as a surrogate for level of ethics consultant involvement—showed no statistically significant differences (Table 2).

¹ Surgical specialties included general surgery, endocrine surgery, bariatric surgery, acute care/trauma surgery, colorectal, burn, neurosurgery, cardiothoracic surgery, surgical ICUs (SICU, CTICU, Neuro-ICU) plastics, otolaryngology, urology, ophthalmology, and anesthesia.

² Non-surgical specialties included general medicine, cardiology, nephrology, neurology, oncology, MICU, and CCU.

Table 1 Patient's demographic characteristics (non-surgical n = 413, surgical n = 135)

Variable	Non-surgical	Surgical	P value
Age (years)	73.0 [59.0; 85.0]	70.0 [56.0; 85.0]	0.268
Sex			0.457
F	210 (50.8%)	63 (46.7%)	
M	203 (49.2%)	72 (53.3%)	
Race			0.737
Non-Caucasian	96 (23.2%)	31 (23.9%)	
Caucasian	148 (35.8%)	44 (32.6%)	
Not described	169 (40.9%)	60 (44.4%)	
Language			0.764
English	339 (84.3%)	113 (83.7%)	
Other	74 (17.9%)	22 (16.3%)	
Marital Status			0.101
Divorced/separated/widowed	73 (17.7%)	14 (10.4%)	
Married	86 (20.8%)	38 (28.1%)	
Single	246 (59.6%)	80 (59.3%)	
Other/unknown	8 (1.94%)	3 (2.22%)	
Religion			0.511
Christian	143 (34.6%)	54 (40.0%)	
Jewish	47 (11.4%)	18 (13.3%)	
Buddhist/Hindu/Islamic	26 (6.3%)	7 (5.19%)	
Not religious	79 (19.1%)	18 (13.3%)	
Unknown/declined	118 (28.6%)	38 (28.1%)	

Table 2 Hospitalization and consultation characteristics (non-surgical n = 413, surgical n = 135)

Variable	Non-surgical (n = 413)	Surgical	P value
Length of admission (days)	25.0 [12.7; 46.0]	32.9 [14.7; 56.9]	0.026
Unit location			<0.001
Floor	287 (69.5%)	45 (33.3%)	
ICU	59 (14.3%)	62 (45.9%)	
SDU	63 (15.3%)	26 (19.3%)	
Other	4 (0.97%)	2 (1.48%)	
Time to ethics consultation (days)	10.1 [4.78; 23.5]	11.0 [4.75; 24.0]	0.614
Duration of ethics involvement (days)	0.92 [0.00; 4.87]	0.00 [0.00; 4.04]	0.152
Number of ethics notes	2.00 [1.00; 3.00]	1.00 [1.00; 2.00]	0.077
DNR/DNI			0.002
No	258 (62.5%)	105 (77.8%)	
Yes	155 (37.5%)	30 (22.2%)	
Code status change after consultation	n = 68 (43.8%)	n = 6 (20.0%)	0.173

Table 3 Primary ethical issues for surgical vs. non-surgical ethics consultations (non-surgical n=413, surgical n=135)

Ethical issue	Non-surgical (n=413)	Surgical (n=135)	P value
Advance directives	36 (8.72%)	9 (6.67%)	0.567
Decision-making capacity	67 (16.2%)	18 (13.3%)	0.504
Discharge planning	70 (16.9%)	7 (5.19%)	0.001
Goals of care	144 (34.9%)	50 (37.0%)	0.723
Surrogate decision making	177 (42.9%)	53 (39.3%)	0.525
Informed consent	7 (1.69%)	6 (4.44%)	0.097
Patient without surrogate	41 (9.93%)	8 (5.93%)	0.215
Quality of life	7 (1.69%)	5 (3.70%)	0.18
Treatment over objection/treatment refusal	108 (26.2%)	38 (28.1%)	0.731
WH/WD life-sustaining treatment	21 (5.08%)	24 (17.8%)	<0.001
Futility	7 (5.19%)	8 (1.94%)	0.064 (5.19%)

Table 4 Primary contextual issues for surgical vs. non-surgical ethics consultations (non-surgical n=413, surgical n=135)

Contextual issue	Non-surgical	Surgical	P value
Conflict intra-family	33 (7.99%)	15 (11.1%)	0.348
Conflict staff-family	71 (17.2%)	17 (12.6%)	0.259
Communication	137 (33.2%)	57 (42.2%)	0.071
Physician attitude/values/ beliefs toward treatment	89 (21.5%)	40 (29.6%)	0.071
Patient/family in denial	48 (11.6%)	9 (6.67%)	0.14
Socio-economic issue	9 (2.18%)	4 (2.96%)	0.533
Psychiatric diagnosis	58 (14.0%)	10 (7.41%)	0.060

Code status (i.e., presence of a DNR or DNI) was statistically significant between the non-surgical vs. surgical groups (37.5% vs. 22.2%, $p=0.002$). When assessing whether the DNR/DNI status changed after consultation, there was no significant difference between the groups (43.7% vs 20.0%, $p=0.173$).

Content of Ethics Consultations

With respect to ethical (Table 3) and contextual issues (Table 4), the most common ethical issues for both groups were surrogate decision-making, goals of care, and treatment over objection (Table 3). The surgical group was more likely to call for issues relating to withholding/withdrawing life-sustaining treatment (17.8% vs. 5.08%, $p\leq 0.001$), while non-surgical specialties were more likely to call for issues relating to discharge planning (16.9% vs. 5.19%, $p=0.004$). Though not statistically significant, the surgical group was more likely to call for issues relating to informed consent (4.4% vs. 1.69%, $p=0.097$) and futility (5.19% vs. 1.94%, $p=0.064$) than the non-surgical group. Additionally, there were more consultations for patients with psychiatric diagnoses in the non-surgical group than the surgical group, though this

Table 5 Ethical and Contextual Issues for which p values were not calculated (Non-surgical n = 413, Surgical n = 135)

Ethical or contextual issue	Non-surgical	Surgical
Brain death	8 (1.94%)	6 (4.44%)
Disruptive behavior	1 (0.24%)	0 (0.00%)
Pain management	9 (2.18%)	6 (4.44%)
Pediatric assent/parental permission	2 (0.48%)	0 (0.00%)
Resource allocation/utilization	1 (0.24%)	0 (0.00%)
Resuscitation status	63 (15.3%)	18 (13.3%)
Truth-telling/disclosure of information	5 (1.21%)	1 (0.74%)
Quality of care	9 (2.18%)	2 (1.48%)
Confidentiality	3 (0.73%)	2 (1.48%)
Conflict with guardian/guardianship	7 (1.69%)	1 (0.74%)
Discontinuity of care (contextual)	4 (0.97%)	1 (0.74%)
Ethnic/religious/cultural (contextual)	41 (9.93%)	20 (14.8%)
Conflict staff-patient (contextual)	45 (10.9%)	17 (12.6%)
Conflict intra-staff (contextual)	1 (0.24%)	1 (0.74%)

finding was not significant (14.0% vs. 7.41%, $p=0.060$) (Table 4). There were no statistically significant differences between the two groups for the rest of the ethical or the contextual issues recorded (Tables 3 and 4), including consults related to advance directives, decision-making capacity, goals of care, surrogate decision-making, patient without surrogate, quality of life and treatment over objection/treatment refusal cases. Some of the ethical issues/contextual issues, including issues about disruptive behavior, disclosure of errors, and discontinuity of care were not analyzed due to a low n-value (Table 5).

Discussion

Our review of ethics consultations categorized by surgical vs. non-surgical specialties is the first study, to our knowledge, to compare the types of ethical issues with which these services request assistance.

Our results demonstrate that there are some differences between the ethical issues that lead surgical vs. non-surgical specialties to call for an ethics consult. Notably, surgical specialties are more likely to call for conflicts or concerns involving withholding/withdrawal of life-sustaining treatment. Non-surgical specialties are more likely to call for issues pertaining to discharge planning. Differences between the culture of surgery and the culture of non-surgical specialties might explain these findings. As evidenced by Bosk in the 1970s, surgical culture has always been hierarchical. Furthermore, surgeons experience a great deal of culpability for outcomes and hold themselves—and are held by others—personally responsible for patient errors and death (Bosk 2003). It seems likely that these cultural differences may contribute to how surgeons and non-surgeons interact with the field of clinical ethics.

Withholding and withdrawing life-sustaining treatment is a common reason for ethics consultation in general (Swetz et al. 2007; La Puma et al. 1988) and a

common discussion that physicians have with critically-ill patients and/or their surrogate decision-makers. Explaining differences between the surgical and non-surgical specialties required a more detailed assessment of the content of the ethics consultations. The evaluation showed that many of these ethics consults in surgery are prompted when patients and/or surrogates request to withdraw LST in the immediate post-operative period and the operating surgeon believes that this request is premature because of prognostic uncertainty both in terms of survival and quality of life. For instance, one such case involved a patient who had undergone life-prolonging cardiothoracic surgery. When the patient remained intubated through post-operative day two, the patient's surrogate decision-maker requested to withdraw the ventilator—informing the physicians that the patient never would have wanted to remain intubated for this long. The surgeon considered this request premature.

Value conflicts between patients, surrogates and surgeons surrounding withholding/withdrawing LST have been described in the literature. Studies suggest that surgeons, more often than non-surgical intensivists or other providers, hesitate to withdraw life-sustaining therapies on their post-operative patients, even when either patients or their surrogates request to do so (Schwarze et al. 2010). Schwarze et al. described this in detail in a qualitative study that explored the idea of surgical “buy-in,” or the contractual relationship (either assumed or negotiated) that surgeons have with their patients in the pre-and post-operative setting. The fact that surgical patients in the surgical group had fewer DNR/DNI orders on their charts speaks further to this relationship and surgeon/patient understanding regarding the perioperative considerations to undergo anesthesia and the immediate post-operative care setting. Ethical issues pertaining to DNR/DNI orders in the perioperative period have also been well explored in the literature (Sumrall et al. 2016; Chandrakantan and Saunders 2016; Shapiro and Singer 2019).

Another study recorded preoperative conversations between surgeons and patients for a high-risk operation and showed that discussions regarding prolonged use of life-sustaining therapies were rarely part of these conversations. Additionally, these conversations seemed to demonstrate that surgeon's felt “buy-in” was achieved, though this was rarely explicitly indicated (Pecanac et al. 2014). It seems reasonable to believe that if the surgeon feels “buy-in” is achieved, including the possibility of remaining on LST for a relatively prolonged period in the post-operative setting, a conflict may ensue if the patient or surrogate communicates the desire to withdraw LST—thus prompting an ethics consultation. Though not statistically significant in our study, when considering the above, it is unsurprising that over 40% of consultations called by surgical specialties involved the contextual issue of communication (Table 4).

Other studies have explored contributing factors to surgeon comfort in pursuing withdrawal of LST in the post-operative setting. The duration the surgeon has known the patient and how accountable the surgeon feels for the outcome and/or a failure to rescue appear to be contributing factors (Buchman et al. 2002). It is unsurprising that feeling responsible for an unexpected or suboptimal surgical outcome would result in distress on the part of the operating surgeon. Indeed, there is evidence to suggest that in the setting of an error the surgeon is more hesitant to withdraw LST (Schwarze et al. 2012).

Also of relevance when explaining the greater number of withholding/withdrawing LST ethics consultation cases by surgeons is the fact that early withdrawal of LST may negatively impact a surgeon's reportable post-operative outcomes data (i.e., 30-day mortality). This consideration may either consciously or unconsciously affect surgeon's hesitancy to withdraw LST prior to 30 days. Public reporting of these statistics may contribute to this behavior (Schwarze et al. 2014) and may also be another reason surgeons request assistance from ethics as they navigate these conflicts.

Non-surgical specialties were more likely than surgical ones to call consults pertaining to discharge planning. This might be explained in part by the acuity level of the patients that prompted an ethics consultation. As we indicated earlier, surgical specialties were more likely to call consults for patients in the ICU, whereas non-surgical specialties called the majority of their ethics consults for patients on the floor. It seems likely that consults pertaining to discharge planning are more common in patients healthy enough to be considering discharge (i.e., those on the floor), which likely explains why the non-surgical services consulted for more of these issues.

Previous studies have outlined some of the major issues and ethical conflicts that arise in the setting of discharge planning (Milliken et al. 2018; Swidler et al. 2007; Yates 2007) for patients on lower acuity units. Issues pertaining to lack of insurance or accepting facility, patient or surrogate refusal of safe discharge plan, and disruptive patient behavior preventing facility acceptance were some of the most frequently observed consultations in our study, which appears similar to other reports in the literature.

Of notice, although there is evidence that surgeons frequently encounter conflicts with patients and their surrogates regarding treatment refusals (Brahams 1994; Jones and McCullough 2002; Rothman et al. 2007; Suah and Angelos 2018), the number of consultations for treatment refusals was not found to be significantly different between the two groups. This was surprising because, although all medical decisions have a bearing on patients' care, treatment refusals in surgical specialties are often higher stakes refusals than in their non-surgical counterparts (i.e., refusing a lifesaving operation). Under the classification system used in our study, these various treatment refusals were classified similarly. However, the characteristics of the conflicts presented relevantly different ethical concerns in both groups. As an example, one treatment refusal consult from a non-surgical service was for a middle-aged, psychiatrically-ill patient on the floor in no imminent risk of decompensation who was refusing a routine blood draw. A treatment refusal consult from a surgical service, on the other hand, involved a middle-aged psychiatrically-ill patient who was refusing a potentially life-saving surgery for wet gangrene of the lower extremity.

Similarly, although there was no quantitative difference between the number of consults involving issues pertaining to informed consent between the surgical and non-surgical groups, there were notable qualitative differences. A review of the chart note content revealed nuances of the particular consults when called by a surgical vs. non-surgical specialty. As an example, the case of a patient who asked the team to not discuss his diagnosis with him or tell him about his treatment (which involved chemotherapy) due to cultural reasons was understood

by the primary team and the ethics consultation service as a refusal to participate in the informed consent process. On the other hand, the issues pertaining to informed consent on a surgical service almost always involved high stakes operations where the surgical team felt that the patient or surrogate were unable to entirely grasp the requirements necessary for the consent or refusal to be truly informed.

Given evidence that surgeons frequently encounter conflicts amongst themselves and other specialties (Bazin et al. 2014; Heslin et al. 2019; Jones et al. 2018; Cooper et al. 2019), one might have expected to see increased numbers of consults from surgical specialties with contextual issues related to intra-staff conflicts. This was not seen in this study. This is likely because various aspects of the surgical culture discourage surgeons from initiating a consult for these issues rather than because these conflicts are not occurring on the wards. Surgical hierarchy, surgeon behavior, and relationships between residents and attendings are well described in the literature (Hu et al. 2019; Veazey Brooks and Bosk 2012; Bosk 2003). There are norms of decorum, and these dynamics likely contribute to a culture of silence that prevents the triggering of an ethics consultation for assistance.

The ethically relevant differences noted throughout this study call attention to the need to evaluate the particular content of ethics consultations that might be presented under the same broad ethical category. A more detailed analysis of the ethical issues involved can more adequately capture the “story” of the consult and the ethical issues at stake. Future studies exploring these differences in more detail can provide more insight into ethically relevant differences regarding consultations that are classified under the same rubric. They can also provide a better understanding of the cultural differences that contribute to these specialty’s interactions with clinical ethics consultation services.

Additional future studies could prospectively examine the ethical issues that are known to arise on inpatient surgical services but that do not prompt an ethics consultation. Such studies could provide a more nuanced and complete picture of the frequency and unique characteristics of the ethical issues that arise in surgical specialties (McCarthy et al. 2019).

Though the cultural differences of surgical specialties are well known, more specialized surgical and medical specialties should also be investigated. Psychiatry, for instance, may also interact differently or less frequently with an ethics consultation service due to overlapping expertise in interpersonal communication and conflict resolution.

Our study presents several limitations. The data here is from a single center at an urban academic institution. Institutions with relevant differences, such as community hospitals or those in rural settings, might encounter different ethical issues and at a different frequency. Nonetheless, our data presents important information that might be of relevance to at least similarly situated institutions.

Moreover, the broad differentiation into surgical and non-surgical groups prevented exploration regarding differences between specific services (i.e., neurology vs. general medicine or neurosurgery vs. cardiothoracic surgery) which are likely to experience unique ethical issues. Future studies should also be performed to explore differences between these more specialized services. However, our results are still

valuable insofar as they provide data that can be relevant to consultation services dealing with surgical and non-surgical specialties.

Conclusions

Our study calls attention to relevant differences between surgical and non-surgical specialties as well as to the importance of evaluating the content of ethics consultations when analyzing ethical concerns. As ethics consultations become routine in hospitals, it seems important to determine whether different specialties face distinct ethical issues. Such knowledge can ground educational initiatives aimed at the specific needs of the various medical teams.

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Data Availability Our data is available for review.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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