Institutional Culture and Policies' Influence on Do-Not-Resuscitate Decision-Making at the End of Life

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Abstract:

Importance: Controversy exists regarding whether the decision to pursue a Do-Not-Resuscitate (DNR) order should be grounded in an ethic of patient autonomy or in the obligation to act in the patient’s best interest (beneficence).

Objective: To explore how physicians’ approaches to DNR decision-making at the end of life are shaped by institutional cultures and policies surrounding patient autonomy.

Design: Semi-structured in-depth qualitative interviews

Setting: Three academic medical centers in the United States and one in the United Kingdom. Hospitals were selected based on expected differences in hospital culture and variations in hospital policies regarding prioritization of autonomy versus best interest.

Participants: 58 internal medicine physicians were sampled by years of experience and medical subspecialty.

Main Outcome and Measure: This study identified the key influences of institutional culture and policies on physicians' attitudes towards patient autonomy in DNR decision-making at the end of life.

Results: A hospital's prioritization of autonomy versus best interest as reflected in institutional culture and policy appeared to influence the way that physician trainees conceptualized patient autonomy. This may have influenced the degree of choice and recommendations they were willing to offer regarding DNR decision-making. Trainees at hospitals where policies and culture prioritized autonomy-focused approaches appeared to have an unreflective deference to autonomy and
felt compelled to offer the choice of resuscitation neutrally in all situations regardless of whether they believed resuscitation to be clinically appropriate. In contrast, trainees at hospitals where policies and culture prioritized best interest-focused approaches, appeared to feel more comfortable recommending against resuscitation in situations where survival was unlikely. Similarly, experienced physicians at all sites, did not exclusively allow their actions to be prescribed by policies and institutional culture, and were willing to make recommendations against resuscitation if they believed it would be futile.

*Conclusion and Relevance:* Institutional cultures and policies might influence how physician trainees develop their professional attitudes towards autonomy and their willingness to make recommendations regarding the decision to implement a DNR order. A blind focus on autonomy might inadvertently undermine patient care by depriving patients and surrogates of the professional guidance needed to make critical end of life decisions.
Background

Although beneficence, the obligation to act in the patient’s best interest, traditionally embodied the primary obligation of health care professionals, in recent decades, this has given way to the primacy of patient autonomy. Some worry that the pendulum has swung too far, replacing concerns of paternalism, where a person’s preferences are intentionally overridden, with simplistic understandings of autonomy that “abandon patients to their autonomy”. This is problematic in situations where patients are overwhelmed by, do not want to, or are not able to choose from the menu of different options. This may result in patients choosing treatments that are neither in their best interest nor consistent with their goals and values.

Some practitioners believe that in order to respect autonomy, they must present patients with all possible options and refrain from expressing recommendations. This stands in contrast to the guidance of the majority of professional organizations, which state that futile therapies should not be offered and recommendations consistent with the patient’s goals and values should be addressed in a resuscitation status discussion in order to honor patient autonomy. Futility is typically defined as an inability to regain consciousness or survive outside the ICU setting. Navigating the balance between beneficence and autonomy can be especially fraught at the end of life and in particular regarding resuscitation decisions.
Studies have shown that survival to discharge after CPR is highly unlikely in certain conditions such as sepsis or metastatic cancer, and is near zero when irreversible dying is imminent\textsuperscript{10,11}. Offering CPR when not clinically indicated can cause harm\textsuperscript{12,13}. On the other hand, leaving such decisions completely in the hands of physicians may lead to biased decision-making partially based on unconscious factors (i.e. patient race, age, socioeconomic status)\textsuperscript{14}. Some have argued that Do-Not-Resuscitate (DNR) decisions should be tailored to three distinct patient populations: 1) consider CPR as a plausible option, 2) recommend against CPR, or 3) do not offer CPR to those imminently dying or who have no chance of surviving to discharge\textsuperscript{15}. This framework embraces the notion that providing clear recommendations is a part of a physician’s duty to act with beneficence and empowers rather than hinders the patient’s ability to make an informed, autonomous decision.

The concept of “informed assent” operationalizes this best interest framework, where the clinician does not insist that the decision ultimately be made by the patient or family member, and explicitly recommends against CPR when clearly not indicated\textsuperscript{16}. National and local policies differ between and within the United States and United Kingdom. Whereas American institutions tend to prioritize autonomy and individual choice, British institutions promote best-interest decision-making guided primarily by the physician, who has the unilateral authority to withhold CPR where deemed appropriate\textsuperscript{17–19}.

Studies have shown that institutional cultures surrounding advanced care planning
contribute to variation in care provided by hospitals in end of life ICU care\textsuperscript{20–23}. Others have demonstrated considerable variation in use of DNR orders and withdrawal of life sustaining therapies, even after accounting for variations in patient characteristics \textsuperscript{22,24}. The aim of this qualitative study was to explore how institutional cultures and policies surrounding patient autonomy influence physicians’ clinical approaches to DNR decision-making at the end of life.

**Methods:**

**Design:**

Semi-structured in-depth interviews investigated physicians’ views regarding the influence of institutional culture and policies on physicians’ attitudes towards choice and autonomy in the DNR decision-making process. This qualitative study was exploratory in nature, intended to deepen conceptual understanding of underlying phenomena that drive physician attitudes and behavior. The theories developed emerged from initial interviews and analysis, and were refined and validated in subsequent interviews.

**Hospital Sample:**

We purposively sampled three large academic medical centers with well-established residency and fellowship teaching programs in urban cities in the US (Hospitals A, B, and C) and one in the UK (Hospital D) based on expected differences in hospital culture and variations in hospital policies (See Table 1). Hospitals A and B’s policies and culture reflect prioritization of patient autonomy, whereas Hospitals B and C’s
policies and culture prioritized best interest decision-making. The initial intention of the first two hospitals selected (B and D), was to explore differences between the US and UK and to contrast autonomy versus best interest focused policies.

Subsequently, two additional hospitals were added in the US to gain further insight into this evolving theoretical framework. These hospitals were chosen based on variations on end of life care\textsuperscript{25}. Additionally, the lead author’s prior experience working in Hospitals A and B, the observation of differing policies and cultures, and known differences in norms regarding the end of life, such as the Death with Dignity movement in the Pacific North West, informed the selection of hospitals\textsuperscript{26}.

**Physician Sample:**

Over a nine-month period, one investigator (ED) recruited and interviewed fifty-eight internal medicine physicians (including internal medicine subspecialties) in person, with the exception of two interviews that were conducted via Skype.

Participants were eligible if they were full time physicians at the selected institutions who were routinely involved in DNR conversations with patients at the end of life. They were purposively sampled by stage of training, years of experience, and medical subspecialty to provide a wide range of perspectives and contribute to understanding emerging patterns and themes. Physicians were excluded if they had not been practicing in the US or UK for the majority of their clinical career.

Recruitment occurred through group e-mail advertisements, individual solicitations, and personal referrals.
An interview guide used across all sites provided thematic continuity (See Appendix for sample interview guide questions). However, the interview format was open ended, encouraging participants to explore those aspects they considered most relevant. Interviews lasted between 45 and 120 minutes and were audiotaped and transcribed verbatim. Data collection concluded when we reached theoretical saturation, a point where no new themes arose from the interviews.

Analysis:
Our qualitative approach is grounded in a framework that acknowledges that multiple perspectives are intrinsic to the research process, and the particular importance of the perspective that the researchers bring to the fieldwork and analysis27–29. Throughout the analyses, the researchers drew upon their own clinical experiences in a reflexive manner, understanding how it would both inform and potentially bias their interpretation of the interview data. Data were analyzed and theories developed as more interviews were conducted and coded. Hypotheses and themes developed became the subject of questions in subsequent interviews to further confirm the trustworthiness of the data. Disconfirming cases were recognized and analyzed in light of their effect on the emerging theory.

Two independent readers (ED, a physician and sociologist, and AC, a medical student with experience in bioethics) identified initial key themes and words that occurred through a subset of the interviews and developed a codebook through an iterative process. They subsequently coded 20% of the interviews, meeting to
discuss emerging themes and patterns. There was rarely disagreement amongst coders. One researcher (ED) then analyzed and coded the remaining interviews using the codebook and added additional themes and adapting categories as needed.

Informed consent was obtained from all interviewees and interview data were anonymized during transcription. The study was approved by the Johns Hopkins University Institutional Review Board and the UK National Health Service (NHS) National Research Ethics Service.

**Results:**

Thirteen to sixteen physicians participated at each site, with approximately equal numbers of attendings, fellows and residents (or UK equivalent) at each site interviewed. Years of experience ranged from one to forty-five years of experience. (Table 2)

**Institutions prioritize patient autonomy or patients’ best interest**

At each hospital, physicians’ ethical attitudes towards DNR decision-making reflected its hospital’s policy position regarding its prioritization of autonomy versus best interest. In general, physicians at the two hospitals (A and B) whose policies prioritized autonomy, felt that patient autonomy rose above other ethical principles (see quotes in Table 3.1). In contrast, at hospitals whose policies emphasized best-interest decision-making (Hospitals C and D), physicians were more likely to feel that they had the ability to make clinical recommendations that
respected both autonomy and the patient’s best interest, or prioritized best interest as a whole. Most physicians at Hospital C felt comfortable using the informed assent approach when appropriate.

Notably, Hospital C’s DNR policy begins with a “determination of futility” prior to the section on eliciting “patient preferences.” In this section, the policy lists that likelihood of successful resuscitation is extremely low with pre-existing conditions such as metastatic cancer and sepsis, and emphasizes that “there is consensus that CPR would not be effective or even if successful would not be beneficial to the patient. There are some patients in whom CPR should not be attempted.” This language emphasizes the importance of the physician’s clinical judgment in determining DNR status.

**Experienced physicians at all sites were willing to recommend against CPR when resuscitation was unlikely to work**

Experienced physicians at all sites generally felt comfortable engaging in best interest decision-making and when clinically appropriate, either not offer or make explicit recommendations against offering resuscitation (i.e. see quotes in Table 3.2). Respondents stated that they would discuss with the patient or surrogate the situation from a goal of care perspective and either recommend against resuscitation, or focus on comfort care without explicitly mentioning resuscitation. Many of them expressed the belief that failure to give recommendations should be seen as a derogation of responsibility. As one attending at Hospital B stated:
“I would recommend the following and the patient decides. I think that's autonomy. I think to say, ‘you could be resuscitated or not, what would you like to do?’ seems to me to be an abdication of responsibility to the patient in the name of autonomy. As the patient reminds me often, 'You’re the doctor, how do I know?’”

Experienced physicians at hospitals that prioritized autonomy, recognized the primacy of autonomy at their institution, but believed that that did not mean that they should offer futile treatments that would not serve the best interest of their patients. They remained committed to what they believed was ethically the right thing to do, finding ways to balance autonomy and the law and making unilateral clinical decisions when they felt they were appropriate. This quote from a senior physician at Hospital A demonstrated this balance:

“I have to do it because I cannot break the law. You do your best and try to minimize the amount of ethical or moral compromise by limiting the attempted resuscitation as much as possible...When it comes to a procedure that I know far better than the patient or the family, to question whether it is appropriate for me not to exercise my judgement, I think would be wrong. It is just the opposite. I would call it being a responsible doctor and exercising good judgement... My primary responsibility is to the patient, and if a family is asking me to do something that clearly is harmful to the patient, I will explain to them patiently why I don’t think [it’s right.] I am not going to let somebody suffer because of it.”
Several respondents acknowledged a great degree of variation amongst physicians in terms of skill, attitudes, and practices, although many also expressed that their views were relatively mainstream.

**Inexperienced physicians at autonomy focused hospitals felt obligated to offer choice of CPR without explicit recommendations even if success was unlikely**

Although hospital policies primarily dictated whether patient preferences should be honored, and none of the hospitals required physicians to offer the choice of resuscitation if it was unlikely to work, trainees at hospitals where policies reflected autonomy focused approaches often interpreted policies to mean that they were obligated to offer a choice of resuscitation in all cases regardless of likelihood of survival, and that they should not provide clinical recommendations (see quotes in Table 3.3).

Trainees did not feel comfortable recommending that resuscitation be withheld even if the chance of successful resuscitation were negligible. One resident at Hospital A felt it was inappropriate to, “inject your own personal opinions of life and death.” To another resident, respecting autonomy meant providing information without biasing the patient with a recommendation and that “it’s my responsibility...to do everything as they say (Hospital B).” Less experienced physicians at autonomy-focused hospitals expressed to a degree their responsibility for decision-making, but they appeared to be more hesitant to take on that responsibility.
In contrast, trainees at hospitals that had policies that encouraged a best interest decision-making approach (Hospitals C and D) felt more comfortable expressing clinical judgment against resuscitation when appropriate. Many of the trainees at Hospital C were willing to utilize informed assent and strongly recommend against or not offer resuscitation if it was very unlikely not to work. One resident said:

“I can think of a few times per rotation where informed assent was done. I did it at least a few times in the ICU, where if things head towards CPR then I’d say, ’It wouldn’t be something that we think would be appropriate for you and here is why.’”

Discussion

A hospital’s culture and policies’ prioritization of autonomy versus best interest appears to influence the way that physician trainees conceptualize patient autonomy. This may subsequently influence the degree of choice and recommendations they are willing to offer regarding DNR decision-making. There is a complex interplay between institutional cultures and policies; the ability to parse out the exact interaction is beyond the scope of this paper. Policies and cultures complement and drive each other.

While experienced physicians in this study acknowledge institutional culture and policies, it appears they do not exclusively allow their actions to be
prescribed by policies, and were willing to make recommendations against resuscitation if they believed it would be futile. While variation existed amongst respondents, in general, experienced doctors at all sites understood and acted upon their ethical obligations to recommend and offer treatments responsibly.

Although hospital policies, even at the most patient autonomy-focused institutions, do not require doctors to offer futile resuscitation nor to withhold recommendations, we found that less experienced doctors at autonomy-focused hospitals tend to over-interpret hospital policies and embrace a reductionist, limited understanding of autonomy. Ethics and communications at the end of life are generally present in the medical school and residency didactic curricula, but lack of time and space on the wards for reflection might promote an excessive, un-reflexive deference to patient autonomy that risks placing unwanted and unreasonable responsibility for medical decision making onto the patient or surrogate.6,31,32.”

Unlike more senior physicians, they have not yet developed the experience or professional confidence to advocate for their patient’s best interest by making explicit recommendations regardless of their institution’s policy or cultural constraints. Trainees at autonomy-focused hospitals appear compelled to offer the choice of resuscitation neutrally without a specific recommendation in all situations regardless of whether they believed it to be clinically appropriate. Their attitudes might reflect perceived constraints due to policies and expectations, which focus on patient autonomy. It suggests that the ethical principles embraced by experienced
physicians were not transmitted to learners at autonomy-focused institutions.

The culture and policies at Hospital C and D actively encourage best interest decision-making. Although some of the physicians at Hospital C had never heard the term informed assent, the cultural norm at that institution, similar to the hospital in the UK, was not only that it was appropriate to discourage ineffective CPR, but also that it would be ethically suspect to offer CPR in futile situations. These trainees appeared to have the time and space within their workflow and culture to develop similar attitudes to experienced physicians. Interns and residents come from medical schools across the country, and yet seemed to adapt similar attitudes to their peers in residency training.

Studies have shown that in practice, physicians and residents do not provide adequate information during conversations regarding resuscitation\textsuperscript{33,34}. The majority omit critical information on prognosis, goals of care, or explanations of the processes involved in various interventions. Although medical residents generally have a great respect for autonomy, omission of these critical elements may deprive patients of the very autonomy that physicians seek to respect\textsuperscript{31,32}.

Interventions to improve end of life communication skills have focused on formal curricula and increasing opportunities for house staff to practice these skills\textsuperscript{35}. Few studies have explored the effects of a hidden curriculum on the development of medical trainees and its effect on their ethical beliefs and communication
strategies\textsuperscript{36–39}. This hidden curriculum describes the inadvertent transmission of attitudes and behaviors to trainees through everyday interactions during their training that are in conflict with the normative ideals and official policies of the medical profession\textsuperscript{40}. Because so much of residency training involves an apprenticeship-based peer learning, the influence of the cultural milieu cannot be overemphasized.

It is often perceived that the US and the UK are on opposite ends of the autonomy-best interest spectrum, where the focus in the US is more on individual choice and patient rights, and the culture in the UK reflecting a greater acceptance of more paternalistic practices\textsuperscript{41}. This study suggests that there may be important differences in approaches not only between the US and UK, but within the US itself. Trainees at the American hospital that encouraged best interest decision-making had attitudes and beliefs about DNR decision-making that appeared more similar to British doctors than doctors at the other American sites. In contrast to trainees at the autonomy-focused hospitals, they seemed more willing to not offer resuscitation if they did not think that it was indicated.

This study has several limitations. Interviews with physicians do not reflect actual practices but instead reflect physician’s opinions, attitudes, and their perceptions of clinical practice. Social desirability bias may have influenced answers. There are many internal and external factors that influence physician attitudes and communication practices regarding end of life decision-making. For example, it is
possible that the backgrounds of patients and the cultural milieu around which these hospitals are located influence aggressiveness of care, attitudes towards death, and degree of deference to authority. These issues emerged in the interviews and will be explored in future papers. Although the difference between more and less experienced physicians’ willingness to offer clinical recommendation could reflect more traditional paternalistic attitudes among older respondents, our study suggests a different explanation as trainees at the best interest focused hospital had similar attitudes to experienced physicians in those hospitals.

There are inadequacies in physician communication at the end of life, especially amongst medical trainees\textsuperscript{42}. Prior studies have shown that advanced care norms impact end of life ICU use, but to our knowledge, this is the first study that explores the influence of a hospital’s policy or culture on physicians’ understanding of autonomy and willingness to recommend resuscitation decisions\textsuperscript{20,21}. This study hypothesizes that culture and policies oriented towards autonomy may have unintended consequences of constraining a physician’s willingness to make recommendations, especially that of trainees.

It is ironic that the very policies that seek to empower patients might inadvertently deprive them of their autonomy through an overemphasis on a reductionist, checklist approach to autonomy. Perhaps policies more oriented towards best interest decision-making, might allow physicians the space to shift their focus from a discourse of choice to that of care, and in doing so, allow physicians to care for
their patients in the way that the profession was originally intended.
Article Information

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Author Contributions: Dr. Dzeng had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: Dzeng, Levine, Roland, Barclay

Acquisition, analysis, or interpretation of data: Dzeng, Colaianni

Drafting of the manuscript: Dzeng

Critical revision of the manuscript for important intellectual content: Dzeng, Chander, Smith, Levine, Roland, Kelly, Barclay

Obtained funding: Dzeng

Study supervision: Levine, Chander, Smith, Roland, Barclay, Kelly

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## Tables

Table 1: Hospital Characteristics and Do-Not-Resuscitate Policies

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Geographic Location</th>
<th>Ethical basis of decision-making</th>
<th>Policy</th>
</tr>
</thead>
</table>
| A        | Mid-Atlantic, USA   | Autonomy-focused                 | "Consistent with the Hospital's mission, "We Put Patient’s First, [Hospital A] protects patients’ rights, and the rights of those authorized to make health care decisions on behalf of the patients, to be fully informed about their health care in order to make treatment decisions. New York Public Health Law Article 29-CC, the Family Health Care Decisions Act (FHCDA), protect patients...who are unable to make their own decisions by granting medical decision-making authority to the patient’s family members or designated surrogate. (Hospital policy)

Physicians must obtain consent from patient or surrogate before entering a DNR order “even if the physician concludes that administration of cardiopulmonary resuscitation would be 'medically futile.’” (New York State policy) 43 |

| B        | North-East, USA     | Autonomy-focused                 | DNR orders are implemented with consent of the patient or surrogate. "It is the attending’s responsibility to advise the patient or family that considerations can be given to withholding resuscitation. The patient or surrogate shall be assured that the choice to provide, limit, or withhold resuscitation is free from coercion. When a DNR order is in effect and the patient or surrogate raises new concerns about the existing DNR order, it shall be rescinded by the attending physician until steps can be taken to resolve the problem. Physicians are not obligated to provide treatment that is considered medically ineffective or futile” but an ethics consult must be called...(Hospital policy)

Note: A new policy requiring Medical Orders of Life Sustaining Therapy (MOLST) was implemented at this hospital for a subset of patients in 201344. These changes were actively in discussion during the time of this study. |

| C        | Pacific North-West, USA | Best Interest-focused | "A DNAR order may be written for a patient when the patient has expressed her preference that resuscitation not be attempted, or the attending physician has made a determination of futility according to the procedures described below...The attending physician bears ultimate responsibility for a DNAR Order, although in most cases the decision represents a consensus of all those involved in the patient’s care” (Hospital policy) |

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“A DNACPR decision should only be made after appropriate consultation and consideration of all aspects of the patient’s condition. Decisions must be taken in the best interests of the patient, following assessment that should include likely clinical outcome and the patient’s known or ascertainable wishes...The overall decision for a patient’s resuscitation status rests with the consultant in charge of the patient (Hospital policy).”

“If the...doctor considers that the treatment would not be clinically appropriate to the patient, they do not have to provide the treatment” (UK national policy)\textsuperscript{45}

\textit{Note: There are currently changes occurring in resuscitation policies and practices at both Hospital D and nationally. These changes were actively in discussion during the time of this study}\textsuperscript{46-48}.

<table>
<thead>
<tr>
<th></th>
<th>Hospital A (n=13)</th>
<th>Hospital B (n=16)</th>
<th>Hospital C (n=13)</th>
<th>Hospital D (n=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Experience</td>
<td>2-45 12.85</td>
<td>1-42 15.5</td>
<td>2-40 12.85</td>
<td>2-34 14.75</td>
</tr>
<tr>
<td>Male:Female</td>
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<td>11:5</td>
<td>6:7</td>
<td>11:5</td>
</tr>
<tr>
<td>Professional Status</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Attending or Consultant</td>
<td>6 (46%)</td>
<td>9 (56%)</td>
<td>5 (38%)</td>
<td>9 (56%)</td>
</tr>
<tr>
<td>Fellow or SpR</td>
<td>3 (23%)</td>
<td>3 (19%)</td>
<td>4 (31%)</td>
<td>4 (25%)</td>
</tr>
<tr>
<td>Resident or FY/CMT</td>
<td>4 (31%)</td>
<td>4 (25%)</td>
<td>4 (31%)</td>
<td>3 (19%)</td>
</tr>
<tr>
<td>Internal Medicine Subspecialty</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>General Internal Medicine</td>
<td>5 (38%)</td>
<td>10 (62%)</td>
<td>5 (38%)</td>
<td>4 (25%)</td>
</tr>
<tr>
<td>Pulmonary/Critical Care</td>
<td>6 (46%)</td>
<td>2 (12%)</td>
<td>6 (46%)</td>
<td>4 (25%)</td>
</tr>
<tr>
<td>Palliative Care</td>
<td>1 (8%)</td>
<td>2 (12%)</td>
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<td>1 (6%)</td>
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<tr>
<td>Geriatrics</td>
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<td>Oncology</td>
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<tr>
<td>Cardiology</td>
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<tr>
<td>Neurology</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (8%)</td>
<td>0 (0%)</td>
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Table 3: Selected Illustrative Quotes
<table>
<thead>
<tr>
<th>Institution prioritization of autonomy or best interest</th>
<th>Hospital A – Autonomy focused approach</th>
<th>Hospital B - Autonomy focused approach</th>
<th>Hospital C – Best Interest focused approach</th>
<th>Hospital D – Best Interest focused approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Institution prioritization of autonomy or best interest</td>
<td>&quot;I think we face [futile CPR] a lot. I think if that’s what they want, that’s what they want. I think it’s a fair thing...if they want it after understanding all of those things, then that’s what they want. I think to some extent, that it’s not our job to dictate what exactly you should do...it’s their decision. It’s their life, their body, they should choose whatever they want to be done with it. (Resident)&quot;</td>
<td>&quot;I’m afraid autonomy pretty much drives the system, whether or not we think it should or not. Hospital policy says the patient is in the driver’s seat. Autonomy is the principle that rises to the top. (Senior Attending)&quot;</td>
<td>&quot;Ideally I like for patient best interest and patient autonomy to line up. To get to a place where if the patient understands that what we’re recommending is probably best interest...same with intubation sometimes. It’s not in the patient’s best interest, we shouldn’t be offering it. I think it’s a fine line trying to table out which way to go. (Fellow)”</td>
<td>&quot;I feel a personal, clinical, legal responsibility to do the best for my patients so to offer them the best possible care but not to offer them treatments for which they’re, they are unlikely to benefit. (D-Senior Attending)&quot;</td>
</tr>
<tr>
<td>2. Experienced Physicians willingness to make recommendations</td>
<td>&quot;If the patient gets worse, you’re going to hear me recommend DNR because I’m not too sure that doing chest compressions will actually save this person’s life. (Attending)&quot;</td>
<td>&quot;I will tell the family that there is nothing more to offer and when they die we’re not going to do CPR to bring them back to a condition that is worse than they were moments ago. (Attending)&quot;</td>
<td>&quot;I tend to be a bit more directive and I say that in my experience the chance of your loved one being able to leave the hospital...if they’ve come to the point of requiring resuscitation is very small. (Attending)&quot;</td>
<td>&quot;I will say, our plan is that we wouldn’t be active at that stage to try and re-start your heart and many of them say, well thank goodness for that. (Attending)&quot;</td>
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<td>3. Inexperienced Physicians’ willingness to make recommendations</td>
<td>&quot;I feel it’s more of a moral burden for me, to say this person needs to be a DNR and I’m going to make then a DNR. I don’t necessarily know if I have the right, to make that decision for that patient. Again, I’m torn. I know that these decisions often mean, that yes, &quot;The idea is not transfer of the right to make medical decisions to me, it’s to their loved one. And the reason for that is because they presumably know them better than I do, so you know. I try to give you as much information to make an informed decision, but it’s still</td>
<td>&quot;I feel strongly about our responsibilities for a recommendation and I think I do that more now than before. (Resident)&quot;</td>
<td>&quot;And so if it’s one of those</td>
<td>&quot;And then explaining why we would feel that resuscitation wasn’t going to be in their best interests and why we thought it wasn’t going to be successful. That’s usually what I would say. (Resident/SpR)&quot;</td>
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<td>&quot;We don’t necessarily need them to pick from a list of options. It’s within the bounds of our responsibility to offer what our expert opinion is. (Resident)&quot;</td>
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<td>&quot;So I don’t pose it as a kind of [choice], it would be unusual for me to say, I don’t know what to do what do you think? It would be this is what I think tell me what</td>
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We’re going to spend x, y, and z time doing a potentially useless thing on this person and causing pain. I just don’t know. With my level of training and where I am, I don’t think I’ll feel comfortable doing that. (Fellow)

“These two attendings were wonderful... They don’t ask the patients and families, they sort of tell them. “You’re 90 years old, this would not be good for you. We would not do that. It would be a horrible experience, we would not want to do that to you.” Usually, in that format that they say it, the family members are like, “Okay, yeah, of course.” It was a completely different experience. It was really nice to see that. I remember having a discussion with my co-residents after that. We were thinking, we were just saying that we don’t know if we could get away with doing that. (Resident)”

[their decision]. So I do still subscribe to autonomy, I think more than perhaps [even if] I really don’t think this is in the patient’s best interests. (Fellow)

“There was family discord... that wanted to do everything and it doesn’t seem like the patient’s wishes but I think in those circumstances that I wish I could just say, you know: I think it’s not really medically indicated and we’ll make sure that she’s comfortable. (Resident)”

Scenarios and we’ve already sort of decided that the patient wouldn’t benefit from a resuscitation... we will try and give as much information as we can before we finally say this is from our perspective what’s going on, and this is why we think your family member would not benefit from a resuscitation. (Resident)"

“I came in to residency with the mind-set that it’s just two options and you just choose one. You know you present them very equally and you leave it completely up to the family and you kind of leave your own opinion on the back burner...[some of the attendings taught me that] through greater medical understanding your opinion can kind of creep into the room and be helpful adjunct. You should come in with a mind-set like what you think is your recommendation from a medical standpoint. So that’s definitely changed. (Resident)”

“I feel like I have embraced the idea of a physician as somebody who makes recommendations and offers alternatives based on assessment of best interest, that if I’m going to make an informed assent, it’s with the understanding of what the patient or their loved ones framework of best interest is and trying to match those goals. (Resident)”

You’re thinking, I’ll then think about it, we’ll discuss it I would recommend I would say I think this is best. (Fellow/SpR)"

“I’d probably give it as a recommendation. I think if you tell a patient that’s what we’re going to do and it’s not open for discussion it results in agitation and annoyance. If you give it to them as a choice they’ll very rarely make a decision because they haven’t got the knowledge, the resources and it’s a very difficult decision to make. If you make a recommendation and say this is what I think, would you like to have some input, what are your ideas? You know do my recommendations align with your thoughts? That’s often a better way to approach the discussion. (Resident/SpR)"
* The Mental Capacity Act of 2005 is a law that mandates best interest decision making in patients who lack capacity.

Appendix: Sample interview guide questions

**Institutional Policies and Culture**

What is your understanding of this hospital’s official policy regarding DNR decisions that end in conflict?

Can you describe your hospital’s culture when it comes to DNR decisions, i.e. what do people usually do?

Have you noticed variations in approaches within your institutions in the way that attendings and residents approach conversations surrounding DNR?

Have you noticed differences in approaches and culture regarding end of life decision-making between your current institution and previous institutions you’ve been at? (If the respondent has been at previous institutions in the past)

Are you aware of the concept of informed assent? Have you ever seen it used or used it yourself? (At Hospital C only)

**Attitudes and Beliefs**

How do you feel about the current approach that you take to DNR orders? How satisfied are you with the way decisions are reached?

Do you believe that the decision to resuscitate is a clinical decision or one that might involve other factors?

Would you feel comfortable implementing a DNR decisions unilaterally (for US respondents, if legally permitted)?

Do you think that patients and/or surrogates have the understanding and information needed to make an informed decision about resuscitation?

Do you think the current system of DNR practice serves the best interest of the patient?

Thinking about the balance between autonomy and acting in the best interest of the patient, how do you think these principles should be balanced or prioritized? How are best interest and autonomy balanced or prioritized in your current institution? Do you think this is the appropriate prioritization based on your moral belief system?

Has your approach to end of life decision-making changed over the course of your professional career?

What role models or experiences have informed your understanding and approach to the end of life decision-making process?