

Developing Guidelines On Code Status Conversations With Older Adults Upon Hospital Admission: Results From A Survey Of Experienced Healthcare Professionals

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Abstract

Background: Shared decision-making is the cornerstone of patient-physician communication on life-sustaining therapies, such as cardio-pulmonary resuscitation (CPR). Nevertheless, the application of these standards to everyday medical practice in hospitals is limited. Our objective was to establish clear and comprehensive recommendations for junior physicians in our hospital regarding code status conversations.

Methods: Provisional recommendations about CPR discussions between physicians and adult patients upon hospital admission were informed by a rapid review of the literature, and sent to 146 experienced healthcare professionals in French-speaking Switzerland, who were asked to evaluate each recommendation quantitatively and qualitatively, and to provide additional recommendations.

Results: Based on a review of 53 articles, we formulated 11 provisional recommendations, which were evaluated by a panel of 39 experienced healthcare professionals. Overall agreement with all submitted recommendations was high (85%). Recommendations pertaining to physicians clarifying patients' understanding of their medical state and prognosis at the start of the discussion, and approaching CPR in the context of goals of care, striving to clarify the patient's values, purposes, preferences and expectations, had the greatest approval rate and were considered most important. Disagreement mostly concerned the need to discuss CPR with all patients.

Conclusions: Our set of approved recommendations advocate a model of informed, shared decision making that reflect both the medical indication and patients' life plans. These recommendations will serve as basis for devising a training for resident physicians, and will be adapted for other health professionals.

1. Background

In theory, decisions about cardio-pulmonary resuscitation (CPR) made at the time of hospital admission should be based on a trade-off between the expected benefits and risks of the procedure, whilst reflecting both physicians' medical judgment and patients' preferences. Consequently, shared decision making is regarded as the gold standard in healthcare communication. It refers to patients and clinicians collaboratively engaging in decision making by exchanging information, options and preferences, leading to high-quality, goal-concordant care [1, 2].

However, studies report that in practice, CPR code discussions between patients and physicians fall short of these ethical standards [3]. First of all, essential information about CPR is not always passed on to patients, a problem compounded by limited health literacy on CPR in patients [4-6]. Secondly, patients' chances of survival, life goals and preferences are not systematically discussed [7-10]. Thirdly, some physicians may "nudge" patients towards a preferred option by way of depicting certain procedures in an overly negative or positive manner [8, 11, 12] or by way of formulating their questions [13]. Finally, in some instances, CPR is not discussed with patients who might not be considered ill enough or for whom

the discussion might be deemed overly upsetting [14]. Some studies further report that physicians may feel uncomfortable discussing CPR and may lack opportunities to initiate these conversations [3, 4, 15]. Against this backdrop, several studies report that shared decision making is not systematically implemented when discussing code status at the hospital [1, 16, 17]. As a result, patients' values, goals and wishes may not be adequately taken into account in life-and-death treatment decisions.

As in most countries, our tertiary university hospital in Western Switzerland disposes of an institutional directive on code status decision-making [18]. Nevertheless, physicians in our hospital are simply informed about this institutional directive during an induction day. Training on the ethical principles underpinning it exists, but is not mandatory. While the directive clarifies how physicians should position themselves towards CPR, it remains focused on CPR as a medical intervention. It lacks guidance on how to communicate about CPR and there are no instructions on how to involve patients in decision-making.

Several authors have published guidelines on CPR conversations. Some have offered full-fledged conversation models, tested by patients [19] or through peer evaluation [20]. Others have developed guidance as part of discussion papers [21-24], scientific studies [7-9, 11, 16] or in the context of communication training courses [25-27]. Against this backdrop, we aimed to establish clear, comprehensive recommendations for discussing code status at our hospital, intended as a basis on which to build a code status communication training course for physicians. To do so, we developed a set of normative statements which were validated by a panel of experienced healthcare professionals. This approach was inspired by Downar and Hawryluck [20].

2. Methods

We undertook a rapid literature review [28] on recommendations pertaining to CPR communication between physicians and adults with decision-making capacity. We reviewed articles published until December 31st 2019, identified from Pubmed (research equation in Appendix 1). We included original research and discussion papers that included recommendations about CPR discussions – whether in the form of normative statements, guidance or recommendations issued as conclusions stemming from research findings.

Based on this review, we developed 11 normative statements on how to conduct a CPR discussion with older patients. We submitted these to a panel of 146 experienced healthcare professionals for evaluation and comments. Participants to the survey panel were recruited in two university hospitals, three large non-university hospitals, and six regional public hospitals across French-speaking Switzerland. We did not include patients or patient representatives, as we aimed to uncover professionals' perspective.

Data collection was initially planned in the form of a three-round Delphi consultation aiming to reach consensus on CPR communication. In the context of the Covid-19 crisis, we shortened and simplified the process by administering a one-round survey asking participants to evaluate each statement based on agreement (Y/N), justification, and importance (4-point Likert scale). Results were submitted for approval.

Quantitative data was analyzed using descriptive statistics. Qualitative data was systematically compared, summarized, and organized thematically.

This study did not require approval by the cantonal ethics committee. It was conducted in accordance with the hospital ethics committee's regulations.

3. Results

3.1 Guidelines

The rapid review search yielded 1677 results. We excluded 1492 articles based on their titles, and an additional 131 based on their abstracts or full texts. As a result, 53 original articles were included (Appendix 2). They are described in Table 1.

Table 1. Article description, n=53

	n(%)
Article type	
Research	29 (54.7)
Recommendations	17 (32.1)
Educational intervention	6 (11.3)
Literature review	1 (1.9)
Target patient population	
Adults	27 (50.9)
Adults with advanced illness	17 (32.1)
Older adults	8 (15.1)
Surgery patients	1 (1.9)
Target medical specialization	
Hospital physicians (all specialties)	16 (30.2)
Internal Medicine	6 (11.3)
General Medicine	4 (7.5)
Palliative Care	3 (5.6)
Emergency	1 (1.9)
Intensive Care	1 (1.9)
Oncology	1 (1.9)
OBGYN	1 (1.9)
Surgery	1 (1.9)
Physician (family and hospital)	16 (30.2)
Family physicians	3 (5.7)
Article main topic	
Code status	40 (75.5)
Life-sustaining treatments	4 (7.5)
Goals of care	3 (5.6)
Advance care planning	2 (3.8)
Advance directives	1 (1.9)

Treatment decisions	1 (1.9)
End of life decisions	1 (1.9)
General communication skills	1 (1.9)

We extracted all guidelines formulated in these articles, and categorised them by theme/category: (1) preparing the CPR discussion; (2) introducing the discussion; (3) explaining cardiac arrest; (4) explaining options of intervention; (5) sharing the medical indication; (6) discussing patients' wishes; (7) concluding the discussion; and (8) generic discussion style. Recommendations on generic discussion 'style' (e.g. to display of empathy) were not included in this study, as we looked for elements specific to the CPR discussion.

Guidelines pertaining to the first seven categories were sorted by specific topics and summarized to obtain one sentence per topic. This process led us to formulate 11 statements about CPR communication, which we submitted to our survey panel.

3.2 Results of the survey

On June 1st, 2020, we emailed 146 health professionals with information about the study and a questionnaire including the 11 statements to assess (Appendix 3). Thirty-nine people sent us a completed questionnaire, 7 responded that they lacked expertise or resources to take part in the survey, 99 did not respond and one sent back an empty questionnaire (27% positive response rate). Participation rate was 34% for nurses and physicians, 6% for spiritual caregivers and psychologists, and 5% for ethicists, jurists and mediation counselors. Demographic data for participants is provided in Table 2.

Table 2. Demographic data of participants, n=39

Demographic data	n (%)
Years of professional experience	
<10	3 (7.7)
11 – 20	12 (30.8)
21 – 30	19 (48.7)
>30	5 (12.8)
Profession	
Physician	21 (53.8)
Nurse	17 (43.6)
Spiritual caregiver	1 (2.6)
Specialty certification	
Intensive care	10 (25.6)
Internal and general medicine	8 (20.5)
Geriatrics	6 (15.4)
Palliative care	6 (15.4)
Anesthesiology	6 (15.4)
Emergency	3 (7.7)
General medicine	1 (2.6)
Practice type	
University hospital (2 sites)	10 (25.6)
Cantonal / Non-university but large hospital (3 sites)	9 (23.1)
Regional hospital (6 sites)	20 (51.3)

General remarks

The aggregate agreement for all 11 recommendations was 85%. Overall, statements were deemed to be very to relatively important, with most important being statement 1 (clarification of what the patient understand from their own health state) and least statement 2 (not discussing CPR in the beginning of the interview) and 4 (explaining cardiac arrest and therapeutic options). Participants' comments, which help contextualize and explain agreement and disagreement with each statements, are summarized in Table 3.

Additional recommendations

We received 60 additional recommendations from 23 participants, which were grouped into 14 categories (Table 4).

Table 3 Submitted statements, participants' comments and perceived importance

Normative statement	Arguments in favor	Arguments against	Perceived Importance
1. <i>At the start of the discussion on cardio-pulmonary resuscitation, the physician should clarify what the patient knows about her/his medical state and, if needed, help her/him better understand the prognosis.</i>	38 (97%) agree Adequate information is the basis of informed decision making and allows the patient to better understand the medical indication. Accessing what patients understand of their situation facilitates mutual understanding and shared decision-making by lowering the chances of asymmetric information.	1 (3%) disagree The therapeutic alliance must be strong enough to ensure that the physician can cope with questions about life-and-death decisions.	Very important: 34 (94%) Relatively important: 2 (6%)
2. <i>The physician should not talk about cardio-pulmonary resuscitation during the first minutes of the admission interview.</i>	31 (84%) agree Clinicians need sufficient time to create a bond of trust with the patient to adapt the explanations and understand the patient's position. Discussing CPR too early might anguish the patient and generate a precipitated answer.	6 (16%) disagree Discussing CPR from the start of the interview is useful when the patient's life is in danger. CPR can be addressed in a general way at the beginning, and more thoroughly later.	Very important: 15 (53%) Relatively important: 12 (41%) Not very important: 1 (3%) Not important at all: 1 (3%)
3. <i>The physician should approach CPR in the context of the goals of care discussion, striving to clarify the patient's values, aims, preferences, and expectations.</i>	38 (100%) agree This approach enables physicians to understand patients' expectations and experiences, generate empathy, represents an opportunity to explain alternatives and share the medical indication, and allows for shared decision-making and informed consent. The statement highlights that adequate care should be based on consensual decisions and on patients' wishes.		Very important: 29 (81%) Relatively important: 7 (19%)
4. <i>The physician should explain to the patient what cardiac arrest is, and what the different options of intervention are.</i>	32 (84%) Patients need information about this because they lack accurate information and might not understand certain terms that physicians use. Patients are empowered as they can play a role in planning their care.	6 (16%) This explanation should be offered only if patients want it and if relevant to their situation, otherwise becoming a possible source of stress.	Very important: 15 (50%) Relatively important: 12 (40%)

	Participants also warned that the choice of words could influence patients' decisions.	Furthermore, information may be superfluous since many patients are reassured when hearing that all will be done for their care.	Not very important: 2 (7%) Not important: 1 (3%)
5. <i>When a patient wants to be resuscitated, the physician should explain the whole process: resuscitation, objectives, intensive care, risks, impact on the illness, chances of attaining goals of care and factors influencing the success of the process.</i>	32 (82%) Such detailed information will counterbalance false information about the success of CPR.	7 (18%) Too much information is complicated; this could be discussed later on; also, such information may cause distress, and risks causing patients to believe that anything is possible.	Very important: 17 (55%) Relatively important: 13 (42%) Not very important: 1 (3%)
6. <i>When a patient wants to be resuscitated, the physician should explain to what extent this would lead to meeting her/his expectations, reducing her/his worries, reaching her/his goals and respecting her/his values.</i>	35 (90%) Such explanations would prevent patients from developing false expectations and would ensure that adequate care is provided.	4 (10%) It should be up to the patient to address these issues and question the physician if needed.	Very important: 21 (64%) Relatively important: 12 (36%)
7. <i>The physician should share the medical indication about CPR with the patient, taking into account the clinical situation and the goals of care.</i>	30 (79%) This reflects the physician's duties of honesty and beneficence. This statement is a gateway for shared decision-making and patient autonomy, which would however reach its limits in case of futility.	8 (21%) The physician does not have to share the medical indication, especially in cases when CPR is medically futile.	Very important: 18 (64%) Relatively important: 7 (25%) Not very important: 3 (11%)
8. <i>The role of the physician is to engage the patient in a reflection about her/his prognosis and treatment options in order to guide her/him towards shared decision making.</i>	31 (84%) This would help in ensuring that patients' wishes determine the nature and level of their care.	6 (16%) Patients may lack knowledge or time for such reflection. The physician should make the decision without such a discussion.	Very important : 20 (69%) Relatively important: 8 (28%) Not very important: 1 (3%)

<p>9. <i>When the patient expresses a preference, the physician should explore the reasons behind it by asking what these preferences mean for her/him.</i></p>	<p>29 (76%)</p> <p>This strategy helps physicians ensure that patients' underlying knowledge is correct, that they understand patients' wishes and values, and can address their concerns. This allows for patient empowerment and shared decision-making, and helps patients feel respected and understood.</p>	<p>9 (24%)</p> <p>Patients don't need to justify themselves and their interests if they retain decisional capacity, if they seem to have understood the situation, and if their wishes are realistic.</p>	<p>Very important: 16 (59%)</p> <p>Relatively important: 11 (41%)</p>
<p>10. <i>If the patient wants to be resuscitated but such a procedure is not medically indicated, the physician should ask her/him about the reasons behind this choice and explain why CPR will not be performed, in the patient's best interests.</i></p>	<p>32 (82%)</p> <p>It is important to explain medical futility to patients and to offer alternatives that make them understand that care will continue, in accordance with their goals.</p>	<p>7 (18%)</p> <p>Telling patients that their choices will not be respected may undermine the relation of trust.</p>	<p>Very important: 22 (71%)</p> <p>Relatively important: 8 (26%)</p> <p>Not very important: 1 (3%)</p>
<p>11. <i>If the patient is undecided, the physician should summarize what she/he has said until then, propose a recommendation in a direct manner (for example, "from what you tell me..."), and, if needed, continue the discussion later on.</i></p>	<p>31 (82%)</p> <p>It is important to give patients time to reflect and to discuss with their relatives. Reformulation is important for physicians to clarify and synthesize a decision.</p>	<p>7 (18%)</p> <p>It might be more helpful to reassure patients that everything will be done in their best interest and that they will not be abandoned.</p>	<p>Very important: 19 (63%)</p> <p>Relatively important: 9 (30%)</p> <p>Not very important: 2 (7%)</p>

Table 4. Themes in additional recommendations

	Theme	Interpretation
1	Relatives' involvement (11 comments)	Relatives could/should be invited to the discussion if the patient agrees. Their presence might, however, influence the discussion positively or negatively.
2	Interprofessional approach (8 comments)	Discussions should be led by interprofessional teams (physician + nurse). The family physician should discuss code status before hospitalization.
3	Honesty (6 comments)	Physicians should be clear, inform and guide patients, and avoid giving false hopes.
4	Building a therapeutic alliance (4 comments)	Discussions about CPR should occur after a therapeutic alliance has been built, and should integrate the patient's beliefs.
5	When not to discuss CPR and what not to discuss (4 comments)	When CPR is obviously not medically indicated, it should not be addressed, unless the patient wants to discuss it. The physician should not focus on technical gestures.
6	Patients' cognitive ability (4 comments)	In case of doubt, cognitive ability should be evaluated before the discussion.
7	Advance directives (3 comments)	The physician should ask the patient about the existence of advance directives and encourage their use.
8	Timing & setting (3 comments)	There is a need to ensure that the timing and setting are right.
9	CPR communication training (3 comments)	A change of practice should go hand in hand with training and teaching, but this is currently ignored or left aside.
10	Dealing with patient anxiety (2 comments)	Physicians should competently manage patient anxiety regarding end of life in code status discussions.
11	Quality of life (2 comments)	Physicians should discuss life trajectories and quality of life when discussing CPR.

12	Mandatory discussion (2 comments)	The discussion should be mandatory in certain circumstances (e.g. in nursing homes).
13	Impact of code status on healthcare (2 comments)	Physicians should clearly state that patients who will not receive CPR will still benefit from optimal care.
14	Miscellaneous (6 comments)	<p>14a Not attempting resuscitating doesn't mean that the patient "chooses suicide".</p> <p>14b Physicians should openly discuss CPR as most patients deal well with the subject.</p> <p>14c The discussion should be carried out with benevolence.</p> <p>14d The patient's choice should be respected, including requests for assisted suicide (which is legal in Switzerland).</p> <p>14e Patients may change their minds after the discussion.</p> <p>14f Both medical paternalism and sole patients autonomy should be avoided in CPR decision-making.</p>

Comments in themes 3, 4, 10, 11 and 13 are already addressed by our normative statements. Themes 1 and 2 would require fundamental changes that go beyond the purposes of our project. Theme 12 is not relevant to the hospital context. The remaining themes (5-9, 14) do not require a modification of our statements, but will be integrated into the training.

Table 4. Themes in additional recommendations

4. Discussion

Through this study, we developed 11 recommendations on how to discuss code status with older patients upon hospital admission. In the first phase of the study, we identified existing guidelines on CPR communication in the medical literature. The variety and number of articles highlight the importance of this topic for clinicians.

The moderate response rate to the survey (27%) is fairly consistent with similar studies [29]. Nurses and physicians have by far the highest positive response rate, which probably reflects their experience with CPR discussions and awareness of its implications and challenges. This also indicates that CPR discussions are understood as an essentially medical task, which non-medical professionals might not feel knowledgeable in.

Overall, the 11 normative statements yielded a high rate of agreement, with a mean rate of 85%. Statements 1 and 3 had the greatest rates of approval and were considered as "very important". They both reflect a participatory approach to CPR communication, requiring the physician to engage the

patient in sharing their understanding of their medical state (statement 1) and their values and expectations (statement 3).

The statements yielding the lowest approval rates concern physicians asking their patients to justify their wishes (statement 9 and 10) and sharing the medical indication (statement 7, 10 and 11). Participants were concerned that patients may experience requests to explain or justify themselves as intrusive. A main challenge physicians face is discussing code status in a sensitive way, encouraging patients to express underlying values while feeling safe and comfortable.

Most disagreement concerned situations when CPR is discussed with patients for whom it is not medically indicated. Indeed, such discussion risks leading patients to wrongly believe that CPR is a valid medical option. Still, by informing patients about the reasons of non-indication, respecting their values and addressing their concerns, physicians fulfill their role of supporting patients in recalibrating their expectations and wishes towards medically-relevant options. Moreover, viewed through an ethical lens of non-maleficence and justice, excluding some patients from the CPR discussion may be harmful if it lets patients believe that they would benefit from a procedure that is not indicated [12]. Patients who would not benefit from CPR still have a right to be informed of the medical procedures that could be envisaged or not, and why this is in their best interest. Furthermore, research shows that informed patients tend to forego CPR if not medically indicated [30].

Additional recommendations formulated by participants also provided useful material. Many pointed to the need to involve family members and other health practitioners in this discussion (theme 1 and 2). In this sense, encouraging patients to discuss CPR decisions at length is all the more relevant. One opportunity for fostering more comprehensive dialogue is during advance care planning, which enables individuals to make plans about their future health care based on a prior reflection of their goals and values, with the support of a health professional [31].

Communication training helps building up physicians' confidence and skills in discussing CPR. It is also associated with patients' greater understanding of CPR, and with patients' decisions to withhold CPR [30]. While inherently instructional, education is also socialization process. The hidden curriculum (lessons learnt without being openly intended to, through unofficial channels) influences a certain "culture of medicine", which may generate behaviors that are inconsistent with institutional norms [32]. This is also true for standards of ethical conduct with patients. Medical students and newly employed physicians are "morally socialized" on how to integrate ethics in their communication, through formal teaching and through the broader institutional environment in which teaching takes place. This includes societal culture, interaction with peers, and mentoring [33]. For example, a study in hospitals that openly prioritize patient autonomy found that less experienced physicians offer CPR to all patients, regardless of whether it is medically indicated or not [34]. In so doing, they may unwillingly endorse a reductionist view of patient autonomy, leaving little room for formulating a sound medical indication. Concerted institutional action on the integration of ethical issues into everyday work offers a way to tackle such issues [33]. In

this sense, we aimed to clarify the ethical foundations underlying our vision for CPR communication at our hospital.

5. Limits And Ways Forward

This study suffer from several limitations. Our initial aim was to reach expert consensus through a Delphi panel. However, we had to adapt the study to the context of Covid-19 to render the process less time-consuming for health professionals. This inevitably modifies the nature and possibly the quality of our findings.

Furthermore, our respondents were mostly hospital medical professionals. As such, these guidelines lack the interdisciplinary perspective and may need to be adapted if implemented for other professionals or in contexts offering more time for building a therapeutic bond, such as advance care planning [31] or discussions with family physicians [35]. Another limit is the fact that the review was not specific to older patients – although when administering the survey, we clarified that the guidelines were to be understood in the context of discussions with older adults. Consequently, the specific needs of older adults are not directly discussed.

We also acknowledge that more research is needed to understand the role that relatives play in this discussion [36] and that recommendations for (oral) communication may not be sufficient to change practices. Physician-led communication may be complemented by patient information pamphlets [37] and informational videos [38]. Indeed, information given by physicians may not be sufficient for inspiring patients to choose treatments that are medically relevant. Choice-making behaviors are not exclusively guided by rational approaches to risk assessment but are also tributary to emotion, hope, belief or avoidance [39], which are personal-level characteristics that can only be assessed on a case basis and when physicians have sufficient experience.

Establishing clear guidelines on CPR discussion is crucial in the current pandemic context. Interim guidance advise against the exclusion of patients from CPR on the basis of being infected with Covid-19 [40]. However, the scarcity of resources require interventions to target patients who can benefit from the procedure [41]. This heightens the need to establish in advance what procedures are relevant. Paradoxically, the situation has led many health professionals to realize the importance and usefulness of advance care planning [42].

6. Conclusion

Our survey results highlight that the 11 recommendations we developed through this study are adapted and responsive to the ethical pre-requisites of the patient-physician CPR communication upon hospital admission. These recommendations reflect a model of informed decision-making for patients, and underline the importance of taking into account both the medical indication and patients' plans for future life in CPR decisions.

These recommendations will serve as the basis for developing a training for physicians on CPR communication with older patients at our university hospital. This study equally represented an opportunity to clarify the position of our hospital on CPR communication, from the standpoint of nurses and physicians in Western Switzerland, to gather comments from experienced professionals on the set of proposed guidelines, and to elaborate guidance for future training. The rate of participation to the survey shows that there is a sincere interest in research and developing training on the topic from those who are regularly confronted with the discussion (physicians and nurses), and perhaps less from others, including ethicists.

7. List Of Abbreviations

CPR: cardiopulmonary resuscitation

8. Declarations

Ethics approval and consent to participate

The survey was conducted in accordance with guidance of the ethics board of the Lausanne University Hospital; given that patients weren't involved, we didn't need to obtain approval from an ethics committee. Given the small number of personnel in certain teams (for example, in the Palliative care services), we opted not to request gender or age in order to guarantee confidentiality. Responses were sent directly from participants to Author 2 via e-mail and facsimile. All identifying information was removed from responses by Author 2 prior to coding.

Consent for publication

Not applicable

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests

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Authors' contributions (initials)

AS did the literature review and the comprehensive list of statements resulting from literature. EP designed and led the survey with feedback from AS, ERT, RJ and KM. Analysis of results from survey was done by AS and EP. All authors read and approved the final manuscript.

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Availability of data and materials

The dataset supporting the conclusions of this article can be made available upon reasonable request by the first author.

9. References

1. Elwyn, G., et al., *Shared decision making: a model for clinical practice*. Journal of general internal medicine, 2012. **27**(10): p. 1361-1367.
2. Elwyn, G., et al., *Collaborative deliberation: a model for patient care*. Patient education and counseling, 2014. **97**(2): p. 158-164.
3. Becker, C., et al., *Code status discussions in medical inpatients: results of a survey of patients and physicians*. Swiss Medical Weekly, 2020. **150**(1314).
4. Frank, C., et al., *Determining resuscitation preferences of elderly inpatients: a review of the literature*. Cmaj, 2003. **169**(8): p. 795-799.
5. Portanova, J., et al., *It isn't like this on TV: Revisiting CPR survival rates depicted on popular TV shows*. Resuscitation, 2015. **96**: p. 148-150.
6. Zijlstra, T.J., et al., *Knowledge and preferences regarding cardiopulmonary resuscitation: A survey among older patients*. Patient education and counseling, 2016. **99**(1): p. 160-163.
7. Anderson, W.G., et al., *Code status discussions between attending hospitalist physicians and medical patients at hospital admission*. Journal of general internal medicine, 2011. **26**(4): p. 359-366.
8. Deep, K.S., C.H. Griffith, and J.F. Wilson, *Communication and decision making about life-sustaining treatment: examining the experiences of resident physicians and seriously-ill hospitalized patients*. Journal of general internal medicine, 2008. **23**(11): p. 1877-1882.

9. Tulskey, J.A., M.A. Chesney, and B. Lo, *How do medical residents discuss resuscitation with patients?* J Gen Intern Med, 1995. **10**(8): p. 436-42.
10. Shah, K., M. Swinton, and J.J. You, *Barriers and facilitators for goals of care discussions between residents and hospitalised patients.* Postgraduate medical journal, 2017. **93**(1097): p. 127-132.
11. Dzung, E., *Habermasian communication pathologies in do-not-resuscitate discussions at the end of life: manipulation as an unintended consequence of an ideology of patient autonomy.* Sociology of health & illness, 2019. **41**(2): p. 325-342.
12. Sterie, A.C., et al., *'It's not magic': A qualitative analysis of geriatric physicians' explanations of cardio-pulmonary resuscitation in hospital admissions.* 2021.
13. Sterie, A.-C., et al., *"Do you want us to try to resuscitate?": Conversational practices generating patient decisions regarding cardiopulmonary resuscitation.* Patient Education and Counseling, 2021.
14. Hurst, S.A., et al., *Including patients in resuscitation decisions in Switzerland: from doing more to doing better.* 2013. **39**(3): p. 158-165.
15. Calam, B., S. Far, and R. Andrew, *Discussions of "code status" on a family practice teaching ward: what barriers do family physicians face?* Cmaj, 2000. **163**(10): p. 1255-1259.
16. Sharma, R.K., et al., *Unpacking resident-led code status discussions: results from a mixed methods study.* J Gen Intern Med, 2014. **29**(5): p. 750-7.
17. Hall, C.C., et al., *CPR decision-making conversations in the UK: an integrative review.* BMJ supportive & palliative care, 2019. **9**(1): p. 1-11.
18. Direction, M., *Directive institutionnelle concernant l'attribution du code réanimation chez les patients adultes et attitude en cas d'arrêt cardio-respiratoire,* L.U. Hospital, Editor. 2012: Lausanne, Vaud.
19. Anderson, W.G., J.W. Cimino, and B. Lo, *Seriously ill hospitalized patients' perspectives on the benefits and harms of two models of hospital CPR discussions.* Patient education and counseling, 2013. **93**(3): p. 633-640.
20. Downar, J. and L. Hawryluck, *What should we say when discussing "code status" and life support with a patient? A Delphi analysis.* J Palliat Med, 2010. **13**(2): p. 185-95.
21. Loertscher, L., et al., *Cardiopulmonary resuscitation and do-not-resuscitate orders: a guide for clinicians.* The American journal of medicine, 2010. **123**(1): p. 4-9.
22. von Gunten, C.F. and D.E. Weissman, *Discussing do-not-resuscitate orders in the hospital setting: part 1.* Journal of palliative medicine, 2002. **5**(3): p. 415-417.

23. von Gunten, C.F. and D.E. Weissman, *Discussing do-not-resuscitate orders in the hospital setting: Part 2*. Journal of palliative medicine, 2002. **5**(3): p. 417-418.
24. Balaban, R.B., *A physician's guide to talking about end-of-life care*. J Gen Intern Med, 2000. **15**(3): p. 195-200.
25. Palathra, B.C., et al., *To Code or Not To Code: Teaching Multidisciplinary Clinicians to Conduct Code Status Discussions*. J Palliat Med, 2019. **22**(5): p. 566-571.
26. Margolis, B., et al., *Educational Intervention to Improve Code Status Discussion Proficiency Among Obstetrics and Gynecology Residents*. Am J Hosp Palliat Care, 2018. **35**(4): p. 724-730.
27. Cheng, Y.H., et al., *The training in SHARE communication course by physicians increases the signing of do-not-resuscitate orders for critical patients in the emergency room (cross-sectional study)*. Int J Surg, 2019. **68**: p. 20-26.
28. Hamel, C., et al., *Defining Rapid Reviews: a systematic scoping review and thematic analysis of definitions and defining characteristics of rapid reviews*. 2020.
29. Brtnikova, M., et al., *A method for achieving high response rates in national surveys of US primary care physicians*. PLoS One, 2018. **13**(8): p. e0202755.
30. Becker, C., et al., *Association of Communication Interventions to Discuss Code Status With Patient Decisions for Do-Not-Resuscitate Orders: A Systematic Review and Meta-analysis*. JAMA network open, 2019. **2**(6): p. e195033-e195033.
31. Rietjens, J.A., et al., *Definition and recommendations for advance care planning: an international consensus supported by the European Association for Palliative Care*. The Lancet Oncology, 2017. **18**(9): p. e543-e551.
32. Lehmann, L.S., L.S. Sulmasy, and S. Desai, *Hidden curricula, ethics, and professionalism: optimizing clinical learning environments in becoming and being a physician: a position paper of the American College of Physicians*. Annals of internal medicine, 2018. **168**(7): p. 506-508.
33. Hafferty, F.W. and R. Franks, *The hidden curriculum, ethics teaching, and the structure of medical education*. Academic medicine, 1994.
34. Dzung, E., et al., *Influence of institutional culture and policies on do-not-resuscitate decision making at the end of life*. JAMA internal medicine, 2015. **175**(5): p. 812-819.
35. Seamark, D., et al., *Is hospitalisation for COPD an opportunity for advance care planning? A qualitative study*. Primary Care Respiratory Journal, 2012. **21**(3): p. 261-266.

36. Laidsaar-Powell, R.C., et al., *Physician–patient–companion communication and decision-making: a systematic review of triadic medical consultations*. Patient education and counseling, 2013. **91**(1): p. 3-13.
37. Sivakumar, R., et al., *Communicating information on cardiopulmonary resuscitation to hospitalised patients*. J Med Ethics, 2004. **30**(3): p. 311-2.
38. Taubert, M., et al., *Talk CPR - a technology project to improve communication in do not attempt cardiopulmonary resuscitation decisions in palliative illness*. BMC Palliat Care, 2018. **17**(1): p. 118.
39. Zinn, J.O., *Heading into the unknown: Everyday strategies for managing risk and uncertainty*. Health, risk & society, 2008. **10**(5): p. 439-450.
40. Edelson, D.P., et al., *Interim guidance for basic and advanced life support in adults, children, and neonates with suspected or confirmed COVID-19: From the emergency cardiovascular care committee and get with the guidelines®-Resuscitation adult and pediatric task forces of the American Heart Association in Collaboration with the American Academy of Pediatrics, American Association for Respiratory Care, American College of Emergency Physicians, The Society of Critical Care Anesthesiologists, and American Society of Anesthesiologists: Supporting Organizations: American Association of Critical Care Nurses and National EMS Physicians*. Circulation, 2020.
41. Kramer, D.B., B. Lo, and N.W. Dickert, *CPR in the Covid-19 Era—An Ethical Framework*. New England Journal of Medicine, 2020.
42. DeFilippis, E.M., L.S. Ranard, and D.D. Berg, *Cardiopulmonary Resuscitation During the COVID-19 Pandemic: A View From Trainees on the Front Line*. Circulation, 2020. **141**(23): p. 1833-1835.

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