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Resuscitation, yes or no ? the criteria for transferring patients with hematological malignancies to intensive care. A qualitative study

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Abstract

Background Having a hematological malignancy increases the risk of a poor-quality end of life and of dying in intensive care. There is no prognostic score to predict survival on admission to intensive care, but many patients die there. To identify the criteria used in deciding to transfer patients with hematological malignancies to intensive care.

Methods It is a qualitative study. For each patient with a hematological malignancy who died in intensive care, the resuscitator and hematologist involved in the decision to transfer the patient to intensive care were contacted. The study ran at Lyon Sud Hospital Center, between 1 November 2018 and 30 April 2019. Semi-structured interviews were conducted with data triangulation. Seventeen doctors were contacted, and 17 interviews were conducted.

Results When transferring a patient with a hematological malignancy to intensive care, we identified (i) patient-specific decision criteria for the transfer, namely prognosis of the disease and treatments received, and (ii) decision criteria specific to hematologists and resuscitators, namely difficulty confronting management failure, convenience of transfer to the ICU for hematologists, and attachment of hematologists to their patients.

Conclusion Organizational convenience of transfer to intensive care was the main criterion for hematologists, but emotional attachment favored futile obstinacy, doing everything possible to the detriment of the patient's comfort. It would be useful to make an upstream appraisal of the impact that an early evaluation of the level of care of patients with hematological malignancies could have on reducing deaths in intensive care.

Keywords Palliative care, Critical care, Hematological malignancy, Decision making, End of life

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Background

Recent therapeutic advances have extended the life span of cancer patients [1]. However, cancer remains the leading cause of death in France [1]. Progress made in intensive care has led to a better understanding of the complications arising during cancer and their possible reversibility [2]. However, 10–33% of cancer patients still die in intensive care [3, 4]. The American Society of Clinical Oncology (ASCO) recommends avoiding intensive care admissions at end of life [5] owing to a risk of poor-quality end-of-life care in such patients [5, 6].

The transfer of a patient to intensive care in response to a life-threatening situation is justified [7]. However, the purpose of transferring a cancer patient to intensive care is to optimize the patient's recovery [7], and reduce mortality by early management [8], without yielding to futile obstinacy [7]. There is no reliable individual prognostic score for survival of a cancer patient in intensive care at the time of admission [8–11]. The factors influencing resuscitators in the admission of a patient to their department are the prognosis of the underlying disease and that of the acute disease [12], as recommended by the French Association of Supportive Cancer Care (AFSOS) for cancer patients [7]. When a decision is made to transfer to intensive care, cooperation between resuscitators and onco-hematologists is necessary [13, 14].

The physicians responsible for transferring patients to the ICU make their decisions through a process of individual appraisal [15]. The rationales underlying these decisions are multiple and depend on the physicians' skills [15, 16], the representations they have of their profession [15], the patient's medical situation [12, 16], the wishes of patients and their relatives [15], and the general organization of the hospital [15].

Some 20–30% of patients with onco-hematological diseases die in intensive care [3, 4]. Patients with hematological malignancies die more often in intensive care than those with solid cancers [4, 17]. This is due to specific features of hematological malignancies that make it more difficult for hematologists to discuss end-of-life issues than for oncologists [18, 19]. These specific features include the chronicity of the pathology, which modifies the carer-patient relationship, intercurrent complications, which can lead to spectacular improvements in patients, strengthening the therapeutic optimism of carers [14, 18, 19], the high technical level of the care provided in the hematopoietic transplant department, which devalues a patient's transfer to intensive care [14, 18, 19], and a state of consciousness maintained until close to death [20].

Doctoral research at the Lyon Sud Hospital Center (CHLS) found that 33% of deaths among patients with hematological malignancies in 2015 occurred in intensive care [21].

We conducted a single-center qualitative study in 2019 among physicians involved in deciding to transfer patients with hematological malignancies from a hematology department to the intensive care unit who subsequently died there. Our main objective was to identify the criteria used in deciding to transfer patients with hematological malignancies to the ICU.

Methods

The interviews were conducted by a female practicioner, who worked in the Mobile Palliative Care Team of the Lyon Sud Hospital Center (CHLS). It was her fisrt research experience. She knew participants through her work with the Mobile Palliative Care Team by giving advices for patients' management. This study was initially performed for a student's medical practice thesis. The interview guide used in the study was developed by two practioners, one of them had extensive experience as a palliative care researcher and had worked in palliative care for a long time and a psychologist. The study has never been published elsewhere (supplementary file). The participants were physicians and they were informed that the interviews were being conducted as part of a research project. This was a qualitative study underpinned by grounded theory with phenomenologic interpretative analysis orientation. We can explain this choice because we studied the feelings of practitioners who had to do decision-making process. We needed to clarify some of their answers by using reformulations and it would not have been possible with closed questions or standardized questionnaires.

For each patient from the CHLS hematology department who died in the ICU at the CHLS, the hematologist and the resuscitator who managed the patient and were involved in the decisions were contacted.

Contact was made by e-mail and, if necessary, by professional telephone. Physicians were contacted in the order of the patient deaths, from most to least recent, between 1 November 2018 and 30 April 2019.

The interviews were conducted individually with the investigator in a quiet room at the workplace. Some interviews were repeated when the same physician had been involved in several clinical situations.

The study was registered with the French data protection agency (CNIL) at Hospices Civils de Lyon (HCL) under No. 19–062. All experimental protocols were approved by a licensing committee : the Hospices Civils de Lyon (HCL) Ethics Committee who waived the need of informed consent because the participants were physicians and the study concerned situations involving deceased patients. All methods were carried out in accordance with Declaration of Helsinki.

We contacted all the hematologists and resuscitators involved in deciding to transfer a patient with a

hematological disease from a hematology department to the ICU at the CHLS who subsequently died there. Some physicians were eligible to be potentially included and when approached they refused participation.

The interviews were conducted according to an interview guide drawn up by the steering committee, which was modified after two test interviews. They were recorded with a Dictaphone, transcribed in full and anonymized to facilitate analysis. No fields note was written during the interviews. The questions in the interview guide were open-ended, allowing free expression of representations. Follow-up questions were included to allow the completion of a sentence or idea. Once transcribed, the interviews were not returned to the participants.

The interviews were pursued until data saturation was reached. Data saturation is defined as when two successive interviews yield no new data, and so collecting further information provides little additional knowledge. Data saturation was achieved by the 17th interview.

Analysis

The results were analyzed and the analysis report was drafted with the help of two associate investigators who were two palliative practioners and a psychologist.

They first independently carried out open coding on each interview, reviewing the transcripts multiple times to identify and categorize data. The second step divided up the interview into 'units of meaning', to highlight what the participants wanted to express. We than completed this open coding using axial coding to make connections between the interviews. In this last step, all items were categorized into major themes. We didn't use a software to code. One of the authors transcribed the quotes verbatim. Participant's didn't provide feedbacks on the findings.

The interviews underwent qualitative analysis. Quotes from the participants are included to support our conclusions, and editing was kept to a minimum to preserve authenticity. Ellipses (…) indicate that the quote is cut and irrelevant information deleted. When contextual clarification is necessary, information is added in square brackets […].

This article meets the Consolidated Criteria for Reporting Qualitative Research guidelines.

Results

The interviews were held from May to July 2019. They lasted 17.5 min on average [10–22].

Our sample, drawn from 10 clinical situations, consisted of 17 physicians: eight resuscitators and nine hematologists. Of these, three were not included : one hematologist refused to take part, one hematologist could not be reached, and one resuscitator could not remember the relevant patient. We conducted 17 interviews until

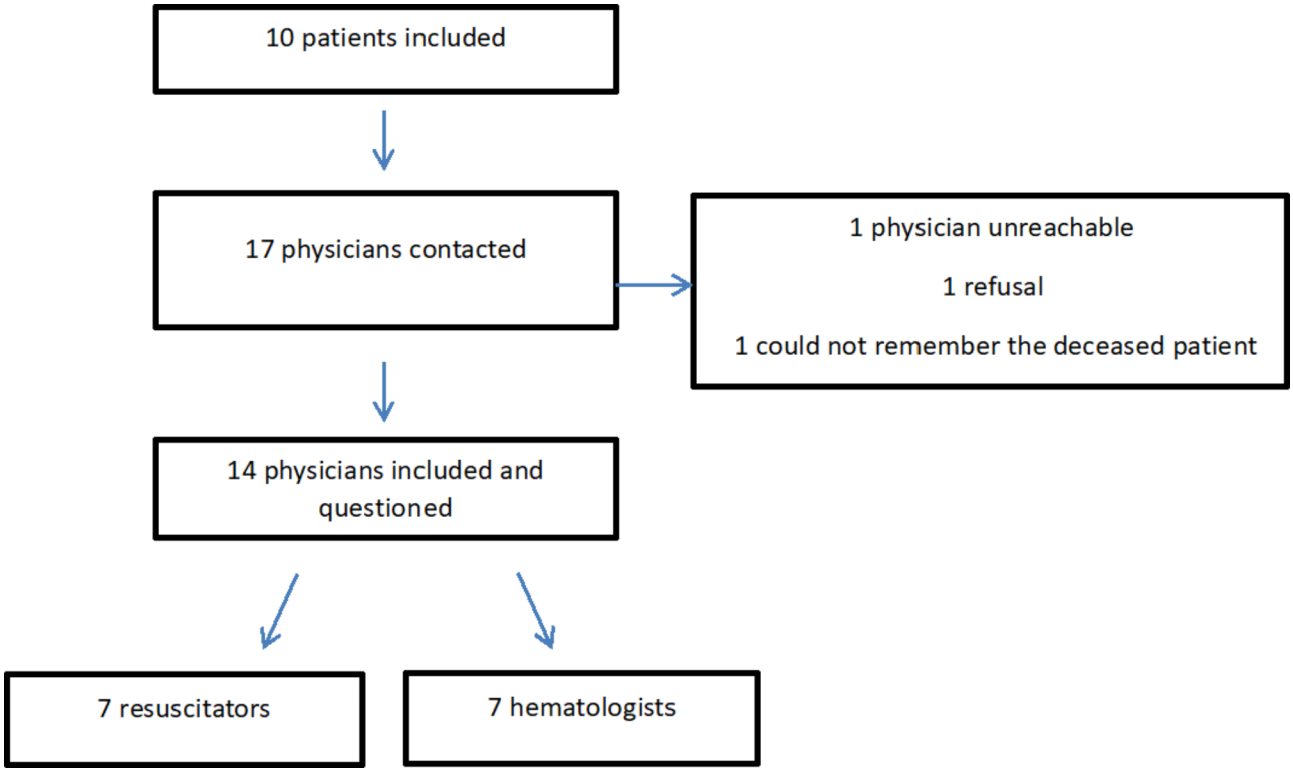

Fig. 1 Flow chart of the study

the data were saturated. Two doctors had several interviews. Figure 1.

Of the physicians surveyed, 100% of the hematologists and 72% of the resuscitators were female. Median age was 39 years [33–47] for hematologists and 33 years [33–37] for resuscitators. The hematologists had a median of 6 years [2–13] of professional experience, and the resuscitators 5 years [2–6]. None had training in palliative care. Table 1.

In the interviews conducted, most of the physicians endorsed the transfer of the patients to intensive care, and the care decisions made.

Patient-specific criteria for decisions to transfer to the ICU for hematologists and resuscitators were as follows:

- The patient's age, "*quite a big criterion. (…) I think it's harder to let go when* [the patient is young]" *H7.*
- The patient's general state before transfer to the ICU. Although this influenced the decision to transfer to the ICU, a poor general condition was not a criterion for non-admission. One hematologist stated that "[the patient's] *condition was relatively stable – poor, but stable." H2.*
- The patient's wishes were not always taken as a reason for transfer to intensive care. In the interviews, some physicians emphasized taking account of "*advance directives, or knowing what the patient wanted. (…) This is really the central point (…) of medicine and for the doctor generally, to know how to respect the patient's wishes." R3*. For others, because the patient was not fully informed of the seriousness of their situation, their wishes could not be taken into account: *"We didn't tell him everything we told the family." H8*.

The criteria for ICU transfer decisions for hematologists and resuscitators specific to the tumor pathology and the acute event were as follows:

- The reversibility of the acute event did not always influence the decision to transfer to intensive care. One hematologist stated that "*In reality, we knew that* [the patient] *wasn't going to recover." H7.*
- The fact that the acute event was secondary to the oncological treatment was an argument for transferring to the ICU. For hematologists, *"It's always difficult to let patients die from serious toxicities. This is where I think we're perhaps a little over-eager about indications for resuscitation*. (…) *We try to take on the toxicities of the treatment right through to the end." H7*. Similarly, for resuscitators, if the acute event is linked to specific cancer treatments, then this was an argument for doing *"full ICU (…) since it was clearly secondary to the treatment." R9.*
- The prognosis of the tumor pathology was one criterion in decisions to transfer to the ICU, with the objective of transferring *"people for whom we have hope that the treatment we've just initiated (…) may be effective (…). Although it could have been discussed because we were dealing with a disease that was refractory to a new line of chemotherapy with a very fragile man." H5*.

Table 1 Population characteristics

	Hematologists (*N* = 7)	Resuscitators (*N* = 7)
Female, *n*	7 (100%)	5 (72%)
Age (range), years	39 (32–62)	33 (31–40)
Professional experience		
> 10 years, *n*	2 (29%)	1 (14%)
5–10 years, *n*	2 (29%)	2 (29%)
< 5 years, *n*	3 (42%)	4 (58%)
Training in palliative care, *n*	0	0

In our study, we found criteria for decisions to transfer to intensive care that were more specific to hematologists and resuscitators. For both hematologists and resuscitators, there was a difficulty confronting failure in their disciplines, because "*it's always infuriating to lose patients like that. Even if we know that we can lose some in those first weeks, it's still infuriating* (…). *But there you have it, it immediately brings me back to my failures." H1.*

"[The resuscitator] *didn't want to accept* [the patient's death], *because in a way it meant abandoning him." R3.*

The attachment of hematologists to patients influences the decision to transfer them to the ICU because *"when you know them, when you've been following them for a very long time, when there's a therapeutic alliance (…) it's sometimes difficult not to go to intensive care even if it's probably not of much use and perhaps you should stop sooner."* H7. A hematologist thought that *"sometimes we transfer patients as a kind of release, sometimes because of intense emotion and the intensity of (…) what we are experiencing."* H1.

Transfer to intensive care facilitates organization and management for hematologists: *"it's also sometimes so easy just to transfer (…) – we'll transfer him, they'll put him to sleep, they'll intubate him, the family will have the impression we're doing everything we can – and that's it (…)."* "[Transferring to intensive care] *saves us having to hold ethical meetings beforehand (…). There's no discussion, we transfer him (…). If we decide not to transfer her, it means that everyone has to be briefed beforehand. It demands a lot of time and effort from us."*

Discussion

This study identifies the decision criteria for the transfer of a patient with a hematological malignancy to an ICU by hematologists and resuscitators. Some of the criteria for deciding whether to transfer are specific to the patient – life prognosis and treatments received, and some are specific to hematologists and resuscitators – difficulties facing up to a management failure, convenience of transfer to the ICU and emotional attachment to the patient.

Hematologists find it hard to make decisions to forgo life-sustaining therapy (DFLSTs).

Among the physicians interviewed, the vast majority did not dispute the indication for transfer to the ICU or the maintenance of the level of care of patients hospitalized in the ICU. The only cases that were discussed after the fact were when the death was unexpected. The teams were keen to scrutinize how they had dealt with a clinical situation with a good prognosis.

When patients had a less favorable prognosis, the situations were not further discussed. This medical optimism could not be challenged by the resuscitators owing to their lack of knowledge in hematology.

In the population interviewed, death was experienced as a failure. However, in the palliative approach, death is defined as a natural process [22].

There is a conflict between the healing objectives inherent in resuscitation and hematology, and death as a possible outcome in certain situations within these specialties. Repositioning death as a natural process thus seems essential in all situations where the disease is at an advanced stage. This implies assessing the stage of the disease early enough.

This study shows that the transfer to the ICU allows hematologists to distance themselves physically from the patient, thus buffering their experience of failure and the attachment they have to their patients.

The transfer of patients to the intensive care unit is also organizationally easy and time-saving for hematologists. It lets them avoid discussions about the worsening of the disease and having to announce a decision to stop specific treatments.

The iatrogenicity of oncological treatment was stated in interviews as an argument for transfer to the ICU. The initiation of a treatment implies anticipating complications and side effects. There is an escalation of commitment in the management of unfavorable developments in the ICU [23].

In our study, the patient's wishes had little influence in the treatment decisions. Discussing the patient's wishes or poor prognosis with the patient was difficult for the medical teams in the ICU and hematology. The patient's state of consciousness did not always allow it, but this was not the sole reason. The optimism of the hematology and resuscitation teams regarding the potential effectiveness of their treatments and difficulties dealing with death were also a real brake on these discussions.

In intensive care, the ability to act and react quickly is necessary. This ability is a quality that must be maintained to provide optimal patient care.

In the population of physicians interviewed, the desire to "take the right action" and to "do everything possible for the patient" is strongly present. This entails a risk of misguided obstinacy.

Regular collaboration with palliative care physicians, who have a different vision and medical practice, is thus essential from the start of the palliative phase or after several days of hospitalization in the ICU [24, 25].

This study shows that a patient's wishes have little impact on the decision process for transfer to the ICU, and that patients are not questioned before the transfer.

This study also shows that the transfer to the ICU can enable hematologists to distance themselves physically from their patient, thus buffering their experience of failure and the attachment they have to their patients.

The transfer of patients to the ICU is organizationally easy and time-saving for hematologists. It enables them to avoid discussing the patient's level of care beforehand with the team, and having to explain to the families the worsening of the pathology and announce the cessation of specific treatments.

Limitations anx strenghts of the study

Few studies of this type have been conducted to date.

Most of the physicians taking part in the study knew the physician conducting the interviews, which may have introduced a selection bias in the responses recorded.

Initially, this study was performed for a student's medical practice thesis. Time constraints limited us to a single site. It is a limit. It would have been better to make a multicentric study.

The number of interviews conducted was low although data saturation was achieved.

Conclusion

Our study shows that the criteria used to decide whether to transfer patients with a hemopathy to intensive care are multiple. There are criteria specific to the patient and the disease, such as age, prognosis of the tumor pathology, the reversibility of the acute event, the iatrogenicity of the oncological treatment as a cause of the acute event, and the patient's wishes. There are also criteria specific to hematologists and resuscitators such as their experience of failure in their discipline, the attachment of hematologists to their patients, and the convenience of transfer to intensive care for hematologists.

Greater cooperation between hematologists, resuscitators and palliative care physicians is needed for more beneficent decision-making at end of life. Training of

resuscitators and hematologists in palliative care is necessary to improve the overall management of patients with hematological malignancies and improve the quality of their end of life.

Abbreviations

ICU	Intensive care units
ASCO	American society of clinical oncology
AFSOS	Association française de soins de supports oncologiques
CHLS	Centre hospitalier lyon sud
HCL	Hospices civils de lyon
DFLSTs	Decisions to forgo life-sustaining therapy

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12904-024-01624-y.

Supplementary Material 1

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Author contributions
VB, MF and CS were responsible for the conception and original study design. VB was responsible for the data collection. VB, MF, and CS worked on the analysis and interpretation of the data. BP was responsible of statistic analysis. VB wrote the first draft and MF, VG, and CT contributed to reviewing and editing the final draft.

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Data availability
The data that support the findings of this study are available from the corresponding author upon reasonable request.

Declarations

Ethical approval and consent to participate
The HCL Ethics Committee was consulted. The study was registered with the French data protection agency (CNIL) at Hospices Civils de Lyon (HCL) under No. 19–062. The Hospices Civiles de Lyon (HCL) Ethics Committee did not feel that its approval was necessary and waived the need of informed consent because the participants were physicians and the study concerned situations involving deceased patients. All methods were carried out in accordance with relevant guidelines and regulations in ethics approval and consent to participate section. All methods were carried out in accordance with Declaration of Helsinki.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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