ICU

MANAGEMENT & PRACTICE

INTENSIVE CARE - EMERGENCY MEDICINE - ANAESTHESIOLOGY

VOLUME 21 - ISSUE 1 - 2021

SPECIAL SUPPLEMENT Sedation in Critically-Ill COVID-19 Patients

20 Lessons from 2020

Twenty Lessons from 2020: With a Focus on the ICU Perspective, JL Vincent, N. Juffermans

Is Videolaryngoscopy the New Gold Standard for Intubation Following the COVID-19 Crisis? A. De Jong, Y. Aarab, S. Jaber

Prioritisation: A Physicians' Problem? A. Michalesen, K. Rusinová

How the Pandemic Changed Telemedicine, V. Herasevich, J. Clain, B. Pickering Rethinking Critical Care - Use and Challenges of Artificial Intelligence, L. Martin, A. Peine, G. Marx et al.

Prone Position in Awake, Non-Intubated Patients with ARDS: From Physiology to the Bedside, *O. Perez-Neito*, *E. Zamarron-Lopez*, *R. Soriano-Orozco et al.*

Cardiorespiratory Compromise in the Perioperative Environment - Prediction, Quality, Analytics and Al, A. Khanna, P. Mathur, J. Cywinski et al.

Mouth Care Challenges and the Use of the COVID-19 Oral Grading System, J. Allen, G. Rossano, J. McRae.





Andrej Michalsen

Consultant
Department of Anaesthesiology
Critical Care, Emergency Medicine and Pain Therapy
Konstanz Hospital
Konstanz, Germany

andrejmichalsen@hotmail.de



Kateřina Rusinová

Head, Department of Palliative Care First Faculty of Medicine Charles University in Prague Prague, Czech Republic

katerina.rusinova@lf1.cuni.cz

Introduction

In many parts of the world, the COVID-19 pandemic has led to pronounced regional, national and even supranational discrepancies between the need for medical care and the ability of the respective health care systems to provide it. Specifically, the strength and effectiveness of critical care teams have been hampered (1) by the lack of equipment, mostly during the first wave of the pandemic; (2) by the lasting uncertainty as to adequate and comprehensive treatment regimes for patients suffering from COVID-19 worldwide; and (3) by an increasing incidence and prevalence of infections amongst nurses and physicians as well as their facing considerable psychological sequelae, regarding the enormous occupational and private burdens (Ranney et al. 2020; Grasselli et al. 2020; Stasi et al. 2020; Azoulay et al. 2020). The often unmet demands for equipment and additional personnel apt to work in intensive care units (ICUs) have forced and still force treating teams to make prioritisation decisions as to the allocation of such scarce resources. There is remarkably uniform

Prioritisation: A Physicians' Problem?

An opinion

In light of harsh criticism regarding physicians' prioritising scarce resources during the COVID-19 pandemic, the question arises: is prioritising truly a physicians' problem?

- •The COVID-19 pandemic has led to pronounced discrepancies between the need for medical care and the ability of many health care systems to provide it.
- •Subsequently, treating teams needed and still need to take prioritisation decisions as to the allocation of scarce resources. Such decisions have to be based on the best medical knowledge and on ethical values and principles.
- •Specifically, one core ethical value, giving priority to patients with the best odds of success, has been harshly challenged by both medical ethicists and non-medical stakeholders due to misconceptions, naiveté or their own interests. Therefore, physicians might understandably, but inappropriately refrain from making prioritisation decisions altogether.

agreement within the medical community that such decisions must be based both on the best knowledge available regarding the respective medical aspects and on ethical values and principles (Marckmann et al. 2020; Jöbges and Biller-Andorno 2020; Emanuel et al. 2020). However, the process of prioritisation - and especially the criterion of "best odds of success of treatment" - has met considerable and sometimes hurtful criticism, amongst others from ethicists, authorities, interest groups and self-appointed experts. Therefore, the general question amongst physicians might understandably arise: "Is prioritisation really our problem?"

Distributive Justice: Allocating Scarce Resources During the Pandemic

During the COVID-19 pandemic, medical societies in several countries have published recommendations regarding the allocation of scarce critical care resources. Overall, they build on using the best medical evidence available and on adhering to distinct ethical

values (White and Lo 2020b; Marckmann et al. 2020; Jöbges and Biller-Andorno 2020; White and Lo 2020a; Truog et al. 2020; Emanuel et al. 2020; Beauchamp and Childress 2019).

With regards to the fair distribution of both treatments and vaccines, three core ethical values appear undisputed: treating patients equally; maximising the benefits achievable under the circumstances prevailing; and giving priority to patients with the best odds of success (White and Lo 2020b; Michalsen 2020; Jöbges and Andorno 2020).

Each patient deserves a fair chance of receiving medical care. However, the odds of success when applying a treatment – i.e. a scarce resource in this context – or the achievable benefit of a vaccine will not be distributed equally amongst all those in need. Therefore, those with higher odds of success – as defined by transparent and reasoned medical and ethical criteria in advance – will receive priority. Medical determinants with a negative impact on the prognosis need to be described and integrated into the decision-making

process as transparent as possible regarding the best medical evidence available at that time (Marckmann et al. 2020; White and Lo 2020a; Emanuel et al. 2020). Clearly, chronological age alone, social value, religion, disabilities, or wealth must not determine a person's chance to benefit from scarce resources. Especially, none of these characteristics should convey a disadvantage upon an individual or a sub-population — but no undue advantage either.

Watchfulness, Criticism and Professionalism

As to the allocation of scarce resources in clinical practice, there are two primary points in time for prioritisation decisions: (1) ex ante, i.e. before scarce resources must be allotted – that is the decision to start or withhold intensive care (life-sustaining) treatments, and

(2) ex post, i.e. once scarce resource allotment has already been implemented – that is the decision to continue or withdraw such treatments.

For the same patient, withholding and withdrawing are mostly assessed as equally justified, and they are based on indication, the individual's will - and availability of the resource needed. Furthermore, limiting life-sustaining treatments and changing the goal of therapy from cure to comfort care is common in ICUs worldwide, regardless the cause of the illness or injury (Sprung et al. 2019). Yet, the crucial question arose during the COVID-19 pandemic whether it is justified that one patient be removed from a specific critical care treatment modality for the sake of another patient who has a higher likelihood of successful through this treatment modality. As of yet, there is no concordance with regards to this difficult question (Dufner 2020; Marckmann et al. 2020; Jöbges and Biller-Andorno 2020; Peterson et al. 2020; White and Lo 2020a; Truog et al. 2020; Emanuel et al. 2020).

No matter at what point in the course of the pandemic prioritisation decisions need to be made, they are complex and challenging. They might bear grave consequences for individual patients and their families as well as for the health care teams caring for them (Azoulay et al. 2020; Michalsen 2020; Moss et al. 2016). Furthermore, such decisions might impact on health equity and social coherence. Undoubtedly, there has been inequity regarding health care systems and health care delivery worldwide - even in affluent countries. A pandemic appears to mirror and epitomise this, as it is, quoting Rudolf Virchow, "a social phenomenon that has some medical aspects". Forseeably so, prioritisation has become a concerning socio-political issue, raising fears about unfair treatment

■ the crucial question arose during the COVID-19 pandemic whether it is justified that one patient be removed from a specific critical care treatment modality for the sake of another patient who has a higher likelihood of successful through this treatment modality ■

of patients, discrimination against certain subpopulations, for instance people with disabilities, unlawful medical conduct, and even conspiracies (Lopez et al. 2021; White and Lo 2020b; Dufner 2020; Ferrara et al. 2020). Not only the populations at large worldwide, but also scientists, physicians and nurses, elected officials, and authorities — to name but a few stakeholders — are vastly challenged by the complexity, perpetuation, and continuously massive impact of the crisis as to many realms of what used to be "the normal life". Crises often lead to seclusion, angst, and zest for simple solutions amongst those affected

(U.S. Department of Health and Human Services 2019; Webster and Kruglanski 1994).

Subsequently, watchful ethicists have brought forth alternative prioritisation models that seek to adjust for factors that would structurally decrease the odds of successful treatment in "vulnerable populations".

Moreover, though, individuals, subpopulations, and institutions have criticised the often burdensome decision-making process regarding prioritisation and sought to overtrump it by pure authorative power, media alert, or legal action.

For example, in some countries experts' advice was openly dismissed and social distancing rules were implemented very hesitantly, if at all. In other countries, the governments were very reluctant to acknowledge any need for prioritisation despite high SARS-CoV-2-related infection and hospital occupancy rates. Both positions raised considerable concerns as to the authorities' transparency of decision-making as well as their acting in the best interest of the public at large.

The press and social media worldwide sometimes elaborated thoroughly and compendiously on prioritisation, but sometimes appeared to be very critical, if not specious about it (National Health Service 2020; Arbuthnott et al. 2020; Pergande 2020; Spanke 2020; Ferrara et al. 2020; Baker and Fink 2020). At least in democratic societies, scientists and political decision-makers have to stand scrutiny regarding their findings, assessments and rulings. General mistrust and misguided angst, however, that an "uncontrollable elite" would attack the people's civil rights using pandemic-related public health measures has rather spurred conspiracy theories and led to unfounded counterattacks (Ferrara et al. 2020).

Finally, advocates of persons with disabilities have brought the German prioritisation recommendations (Marckmann et al. 2020) to the attention of the German Supreme Court on the grounds of discrimination against this subpopulation (Wortmann 2020). The ruling is pending. The twin

public health-oriented responsibility of physicians, to care both for their individual patients and the population at large, is clearly acknowledged (White and Bo 2020b; Dufner 2020). The overarching question, though, is whether in a crisis scenario health care teams should be compelled to integrate long-standing structural health inequities into urgent prioritisation decisions. This would convert alleged or true discrimination against members of distinct subpopulations into their unfair advantage – compared to non-members of these subpopulations – in an individual prioritisation situation.

Despite thoughtful deliberations by ethicists on one side and scheming by self-proclaimed experts on the other, the patients' needs can remain quite limitless during the pandemic. As resources were and are limited, though, they still needed and need to be allocated fairly, consistently, and reliably. Weighing patients' individual prognoses and assessing their odds of success

with the aim to determine who will likely benefit from the scarce resource(s) if applied, does require expertise, reasoning and time of medical professionals. Yet, they are the only ones able to fulfil this task on a factual level.

Conclusion

During the COVID-19 pandemic, many critical care resources have become or may still become scarce. Subsequently, the treating teams needed and need to selectively allot the resources available by making prioritisation decisions based on the odds of success. It is of utmost importance these inevitable decisions not be taken as discretionary decisions, but taken thoroughly, consistently, proportionately, and transparently as to rules based on medical assessment and ethical values.

Watchful clinical ethicists have drawn attention to the twin responsibility of physicians to care both for their individual patients and for heath equity within the population at large. Whether the latter is truly a mission to be accomplished during acute prioritisation challenges remains to be debated.

There have also been and will be criticism and fraudious attempts to circumvent medically reasoned decisions, often spurred by ignorance, presumptuousness, and scouting for personal advantages. Additionally, legal stipulations may direct the allocation of resources and may even overrule medical judgement for each and every prioritisation decision.

Nevertheless, physicians still have to make prioritisation decisions and decide according to their knowledge, skill and expertise. To refrain from prioritising appears unprofessional – if not unethical.

Conflict of interest

None.

References

Arbuthnott G, Calvert J, Das S, Gregory A, Greenwood G (2020) Revealed: how elderly paid price of protecting NHS form COVID 19. The Sunday Times, October 25.

Azoulay E, Cariou A, Bruneel F et al. (2020). Symptoms of anxiety, depression, and peritraumatic dissocation in critical care clinicians managing patients with COVID-19. Am J Resp Crit Care Med, 10:1388-98.

Baker M, Fink S (2020) At the top of the COVID-19 curve how do hospitals decide who gets treatment? New York Times. March 31.

Beauchamp TL, Childress JF (2019) Principles of biomedical ethics (8th ed.). New York, Oxford University

Dufner A (2020) Withdrawal of intensive care during times of severe scarcity: triage during a pandemic only upon arrival or with the inclusion of patients who are already under treatment? Bioethics, DOI: 10.1111/bioe.12837 [e-pub ahead of print]

Emanuel EJ, Persad G, Upshur R et al. (2020) Fair allocation of scarce medical resources in the time of Covid-19. N Engl J Med, 382:2049-55.

Ferrara E, Cresci S, Luceri L (2020) Misinformation, manipulation, and abuse on social media in the era of COVID-19. JCSS, 3:271-277.

Grasselli G, Pesenti A, Cecconi M (2020) Critical care utilization for the COVID-19 outbreak in Lombardy, Italy: early experience and forecast during an emergency response. JAMA, 323:1545-46.

Jöbges S, Biller-Andorno N (2020) Ethics guidelines on COVID-19 triage – an emerging international consensus. Crit Care 24:201

Lopez L, Hart LH, Katz MH (2021) Racial and ethnic health disparities related to COVID-19. JAMA. DOI: 10.1001/jama.2020.26443 [e-pub ahead of print]

Marckmann G, Neitzke G, Schildmann J et al. (2020) Decisions on the allocation of intensive care resources in the context of the COVID-19 pandemic. Med Klin Intensivmed Notfmed 115(Suppl3):115-22.

Michalsen A. (2020) Predicament prevention for pandemics. ICU Management & Practice, 20(3):164-66

Moss M, Good VS, Gozal D, et al. (2016) An official critical care societies collaborative statement: burnout syndrome in critical care healthcare professionals: a call for action. Crit Care Med, 44:1414-21.

National Health Service. NHS and other professional bodies' response to the Sunday Times, 25 October 2020. Available from www.england.nhs.uk/2020/10/nhs-and-other-professional-bodies-response-to-sunday-times/.

Pergande F. (2020) Triage braucht ein Gesetz. Frankfurter Allgemeine Zeitung.

Peterson A, Largent EA, Karlawish J (2020) Ethics of reallocating ventilators in the covid-19 pandemic. BMJ, 369:m1828.

Ranney ML, Griffeth V, Jha AK (2020) Critical supply shortages – the need for ventilators and personal protective equipment during the Covid-19 pandemic. N Engl J Med, 382:e41.

Spanke K. Töten und sterben lassen. Frankfurter Allgemeine Zeitung, 10.10.2020.

Sprung CL, Ricou B, Hartog CS et al. [2019] Changes in end-of-life practices in European intensive care units from 1999 to 2016. JAMA 322:1-12.

Stasi C, Fallani S, Voller F, Silvestri C (2020) Treatment for COVID-19: an overview. Eur J Pharmacol 889:173664

Truog RD, Mitchell C, Daley GQ (2020) The toughest triage – allocating ventilators in a pandemic. N Engl J Med, 382:1973-75.

U.S. Department of Health and Human Services (2019. Crisis and emergency risk communication. Available from https://emergency.cdc.gov/cerc/ppt/CERC_ Psychology_of_a_Crisis.pdf.

Webster DM, Kruglanski AW (1994) Individual differences in need for cognitive closure. J Pers Soc Psychol, 67:1049–62.

White DB, Lo B (2020b) Mitigating inequities and saving lives with ICU triage during the COVID-19 pandemic. Am J Resp Crit Care Med. DOI:10.1164/rccm.202010-3809CP [e-pub ahead of print]

White DB, Lo B (2020a) A framework for rationing ventilators and critical care beds during the COVID-19 pandemic. JAMA, 323:1773-74.

Wortmann M. Verfassungsrichter wollen Triage bei COVID-19 eingehend prüfen. ÄrzteZeitung.