

**CLINICAL ETHICS RECOMMENDATIONS
FOR ADMISSION TO INTENSIVE TREATMENTS AND FOR THEIR SUSPENSION,
IN EXCEPTIONAL CONDITIONS
OF IMBALANCE BETWEEN NEEDS
AND AVAILABLE RESOURCES (ITALY)**



The forecasts for the Coronavirus epidemic (Covid-19) currently underway in some Italian regions estimate an increase in cases of acute respiratory insufficiency (with the need for ICU admission) for the coming weeks in many centers. determine a huge imbalance between the real clinical needs of the population and the effective availability of intensive resources. It is a scenario in which criteria for access to intensive care (and discharge) may be necessary, not only strictly of clinical appropriateness and proportionality of care, but also inspired by a criterion as shared as possible of distributive justice and appropriate allocation of resources limited healthcare.

A scenario of this kind can be substantially assimilated to the field of "disaster medicine", for which ethical reflection has over time developed many concrete indications for doctors and nurses engaged in difficult choices.

As an extension of the principle of proportionality of care, the allocation in a context of serious shortage (shortage) of health resources must aim to ensure intensive treatments for patients with greater chances of therapeutic success: it is therefore a matter of privileging the "greatest life expectancy".

The need for intensive care must therefore be integrated with other elements of "clinical suitability" for intensive care, thus including: the type and severity of the disease, the presence of comorbidity, the compromise of other organs and systems and their reversibility.

This means that you do not necessarily have to follow a "first come, first served" approach to intensive care.

It is understandable that the carers, by culture and training, are not accustomed to reasoning with maxi-emergency triage criteria, since the current situation has exceptional characteristics. The availability of resources does not usually enter the decision-making process and the choices of the individual case, until the resources become so scarce that they do not allow to treat all patients who could hypothetically benefit from a specific clinical treatment.

It is implicit that the application of rationing criteria is justifiable only after all the possible efforts have been made to increase availability by all the parties involved (in particular the "Crisis Units" and the governing bodies of the hospital units) of resources that can be supplied (in this case, Intensive Care beds) and after any possibility of transferring patients to centers with greater availability of resources has been assessed.

It is important that a modification of the access criteria can be shared as much as possible between the operators involved.

Patients and their relatives concerned by the application of the criteria must be informed of the extraordinary nature of the measures in place, for a matter of duty of transparency and maintenance of trust in the public health service.

The purpose of the recommendations is also that:

(A) to relieve clinicians from a part of responsibility in choices, which can be emotionally burdensome, carried out in individual cases;

(B) to make explicit the allocation criteria of healthcare resources in a condition of their extraordinary scarcity.

From the information currently available, a substantial part of subjects diagnosed with Covid-19 infection require ventilatory support due to interstitial pneumonia characterized by severe hypoxemia. Interstitial disease is potentially reversible, but the acute phase can last many days. Unlike more familiar ARDS cadres, with the same hypoxemia, Covid-19 pneumonias seem to have slightly better lung compliance and respond better to recruitments, medium-high PEEP, pronation cycles, inhaled nitric oxide. As with the most well-known habitual ARDS cadres, these patients require protective ventilation with low driving pressure.

All this implies that the intensity of care can be high, as well as the use of human resources.

From the data referring to the first two weeks in Italy, about one tenth of infected patients require intensive treatment with assisted, invasive or non-invasive ventilation.

RECOMMENDATIONS

1. The extraordinary admission and discharge criteria are flexible and can be adapted locally to the availability of resources, to the actual possibility of transferring patients, to the number of accesses underway or planned. The criteria apply to all intensive patients, not only to patients infected with Covid-19 infection.

2. Allocation is a complex and very delicate choice, also due to the fact that an excessive increase in intensive beds would not guarantee adequate care for individual patients and would divert resources, attention and energy from the remaining patients admitted to Intensive Care. The foreseeable increase in mortality due to clinical conditions not linked to the ongoing epidemic, due to the reduction in surgical and outpatient elective activity and the scarcity of intensive resources, should also be considered.

3. It may be necessary to place an age limit on entry into TI. It is not a question of making merely valuable choices, but of reserving resources that could be very scarce to those who have the greatest chance of survival first and secondly to those who may have more years of life saved, with a view to maximizing the benefits for the most Number of person.

In a scenario of total saturation of intensive resources, deciding to maintain a "first come, first served" criterion would still amount to choosing not to treat any subsequent patients who would remain excluded from the Intensive Care Unit.

4. The presence of comorbidities and functional status must be carefully assessed, in addition to the registry age. It is conceivable that a relatively short course in healthy people will potentially become longer and therefore more resource consuming on the health service in the case of elderly, frail or severely comorbid patients.

The specific and general clinical criteria present in the 2013 multi-company SIAARTI Document on major end-stage organ failure (<https://bit.ly/2Ifkphd>) can be particularly useful for this purpose.

It is also appropriate to refer also to the SIAARTI document relating to the criteria for admission to Intensive Care (Minerva Anestesiol 2003; 69 (3): 101–118)

5. The presence of wishes previously expressed by patients through any DAT (advance treatment provisions) and, in particular, what has been defined (and together with the carers) by people who are already going through time must be carefully considered chronic disease through shared treatment planning.

6. For patients for whom access to an intensive course is deemed "inappropriate", the decision to place a limitation on care ("ceiling of care") should still be motivated, communicated and documented. The ceiling of care placed before mechanical ventilation must not preclude lower cure intensities.

7. Any judgment of inappropriateness in accessing intensive care based solely on distributive justice criteria (extreme imbalance between request and availability) is justified by the extraordinary nature of the situation.

8. In the decision-making process, if situations of particular difficulty and uncertainty arise, it may be useful to have a "second opinion" (possibly even by telephone) from interlocutors of particular experience (for example, through the Regional Coordination Center).

9. The criteria for access to Intensive Care should be discussed and defined for each patient as early as possible, ideally creating in time a list of patients who will be considered deserving of Intensive Care when the clinical deterioration occurs, provided that the availability at that time allow it.

Any "do not intubate" instruction should be present in the medical record, ready to be used as a guide if the clinical deterioration occurs precipitously and in the presence of carers who have

not participated in the planning and who do not know the patient.

10. Palliative sedation in hypoxic patients with disease progression is to be considered necessary as an expression of good clinical practice and must follow existing recommendations. If a not short agonic period should be foreseen, a transfer in a non-intensive environment must be provided.

11. All accesses to intensive care must in any case be considered and communicated as an "ICU trial" and therefore subject to daily reassessment of the appropriateness, objectives of treatment and proportionality of the treatments. If it is considered that a patient, hospitalized perhaps with borderline criteria, does not respond to an initial prolonged treatment or is severely complicated, a decision of "therapeutic desistance" and a remodulation of intensive to palliative care - in an exceptionally influx scenario high patient count - should not be postponed.

12. The decision to limit intensive care must be discussed and shared as much as possible collectively by the treating team and - as far as possible - in dialogue with the patient (and family members), but it must be possible to be timely. It is foreseeable that the need to repeatedly make choices of this type will make the decision-making process more solid and more adaptable to the availability of resources in each Intensive Care Unit.

13. ECMO support, as resource consuming compared to an ordinary ICU admission, in conditions of extraordinary influx, should be reserved for extremely selected cases and with relatively rapid weaning forecast. It should ideally be reserved for high-volume hub centers, for which the ECMO patient absorbs proportionately fewer resources than he would absorb in a center with less expertise.

14. It is important to "network" through the aggregation and exchange of information between centers and individual professionals. When the working conditions allow, at the end of the emergency, it will be important to devote time and resources to moments of debriefing and monitoring of any professional burnout and moral distress of the operators.

15. Relapses on family members hospitalized in IC Covid-19 should also be considered, especially in cases where the patient dies at the end of a period of total visit restriction.