

# MEDICAL ETHICAL GUIDE- LINES

Intensive-care  
interventions



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Medical-ethical guidelines and recommendations

# Intensive-care interventions

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The German text is the authentic version.



These guidelines are an integral part of the Code of the Swiss Medical Association (FMH).



The Swiss Professional Association for Nurses (SBK/ASI) recommends that its members and all other nurses should abide by these guidelines.

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## I. PREAMBLE

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Since the SAMS guidelines on “Borderline questions in intensive-care medicine” were first published in 1999, medicine’s capacity to keep patients alive through technological and pharmacological interventions has been substantially enhanced. Public expectations concerning the prospects for successful medical treatment, even in the very elderly, have risen accordingly. In general, however, intensive-care interventions place heavy burdens both on patients and on their relatives and do not always restore health in the manner hoped for. The key question, therefore, is what goals can be attained with intensive care, in what clinical situations. In recent years, this question has been addressed in intensive-care outcomes research. In order to refine the definition of treatment goals, the focus of research has increasingly shifted away from studies of mortality to assess quality of life, long-term outcomes following intensive-care unit (ICU) and hospital discharge, and cost-effectiveness. It has been shown that, in many cases, former ICU patients discharged from hospital show increased mortality and health impairments. At the same time, the majority of surviving patients interviewed after discharge from an ICU say that, should the need arise, they would wish to undergo such treatment again.

The practice of intensive-care medicine is influenced not only by medical and social factors but also by legal and political developments. On 1 January 2013, the revised law on the protection of children and adults came into force.<sup>1</sup> This strengthens patient self-determination by facilitating personal arrangements for care and regulates the representation of patients who lack capacity in relation to medical decision-making. With the introduction of new financing systems, the application of intensive-care interventions has a major impact not only on a hospital’s costs but also on its earnings.

1 Swiss Civil Code, as amended by the Federal Act of 19 December 2008 (Adult Protection Law, Law of Persons and Law of Children): [www.admin.ch/ch/e/rs/2/210.en.pdf](http://www.admin.ch/ch/e/rs/2/210.en.pdf)

Today, intensive-care medicine is confronted with growing tensions between the demands of patients, relatives and referring physicians, ethical questions concerning the appropriateness of certain interventions, and the financial framework set by policymakers, insurers and administrators. In addition, intensive-care medicine is facing staff shortages, which are all the more significant as it is increasingly being called upon to take on responsibilities which are not part of its primary function – for example, caring for patients with no prospect of recovery who cannot be looked after in general wards because of a lack of resources. These additional – non-core – responsibilities increase the pressure on already short-staffed ICUs. If overburdened care team members are unable to work or decide to change jobs, the situation is further exacerbated for those who remain.

Given these tensions, there is a need for clearly defined criteria and recommendations for the application of intensive-care interventions. These guidelines<sup>2</sup>, based on the current state of knowledge, seek to offer specific guidance and to support decision-making in individual cases arising in the day-to-day practice of intensive-care medicine.

2 SAMS guidelines are addressed to medical professionals (physicians, nursing staff and therapists). On being incorporated into the Code of the Swiss Medical Association (FMH), the guidelines become binding for all members of the FMH.

## II. GUIDELINES

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### 1. Scope

In what follows, the term “intensive-care interventions” refers to measures employed in the diagnosis, prevention and treatment of all forms of failure of vital functions in critically ill patients. Such interventions are generally applied in an appropriately staffed and equipped ICU. However, intensive-care interventions can also be applied elsewhere, particularly in emergency medicine.

These guidelines are addressed to all physicians, nurses and other professionals who provide intensive care for patients in an ICU, but also before admission to or after discharge from an ICU.

### 2. Fundamental ethical principles

The fundamental ethical principles of beneficence, non-maleficence, respect for autonomy and equity serve as a guide for considered and reasoned decision-making.

What is true of medicine overall is also true of intensive-care medicine: the applicable ethical principles are not derived from an external source, but are inherent. This means that the responsibilities of intensive-care medicine cannot be defined without reference to these principles, and sound intensive-care practice has always – more or less consciously – been guided by them. The inherent ethical principles therefore need to be explicitly formulated so that in difficult situations and in conflicts they can serve as a basis for considered and justifiable actions and decisions.

In intensive-care medicine, the principle of beneficence takes the concrete form of saving and preserving human life. This principle is to be accorded priority particularly in emergencies. In such situations, the initial concern is to preserve life or manage life-threatening conditions so as to gain time for further investigations. However, the obligation to promote the patient’s welfare also entails that the preservation of life cannot be an absolute principle for intensive care; rather, it means that intensive-care practice is subject to the constraint of non-maleficence. Whether a life-sustaining intensive-care intervention serves or is detrimental to the patient’s welfare depends firstly on the prognosis with regard to the patient’s future health status and secondly on the patient’s own views as to the conditions under which he/she wishes to continue living or to be kept alive. This in turn means that intensive-care practice must be guided by respect for the

patient's autonomy. In particular cases, this principle may – in view of the difficulties of ascertaining the patient's wishes in relation to certain prognoses – give rise to considerable problems, often further aggravated by intense time and decision-making pressures. Lastly, like other branches of medicine, intensive-care medicine is subject to the requirements of equity given the scarcity of medical resources. If resources are inadequate or lacking, the patient triage process makes it necessary to answer questions not only about the appropriateness of existing ICU treatment but also about the justice of denying such treatment to other patients. To ease the pressure on scarce resources, it must primarily be ensured that patients who do not actually require intensive care are not treated in the ICU. In periods of resource scarcity, any patients for whom treatment in other wards does not involve disproportionate risks should not be treated in the ICU. In situations of extreme scarcity, as in disasters or pandemics, triage must take the form of rationing for the benefit of those patients who have a relatively good prognosis with, but a poor prognosis without, intensive care.

The focus of these four classical principles of medical ethics is on the treatment and care of individual patients. However, when one considers all the factors on which a patient's welfare depends, the social environment also needs to be taken into account.

Awareness of the general guiding principles mentioned above can help to promote considered and reasoned decision-making in particular cases. But it would be a misconception to believe that intensive-care decisions can be simply derived from these principles; they only assume their guiding force in the actual decision-making situation. Their application in practice thus calls for the knowledge and above all the experience of the intensive-care treatment team<sup>3</sup>.

In certain decision-making situations, tensions and conflicts may arise between the various principles. How these are to be resolved cannot be determined at the general-principle level but will depend on the individual case.

3 Here and hereafter, the term "intensive-care treatment team" is used to refer to the group of physicians, nurses and possibly other ICU staff directly involved in and responsible for day-to-day patient care.

### 3. Legal framework

The adult protection law specifies the legal requirements to be complied with in the medical treatment of patients who lack capacity.

Respecting the right to self-determination is central to medical treatment and care. Patients receiving intensive care frequently lack capacity. For such situations, provision is made in the adult protection law for two instruments designed to preserve self-determination. With a power of attorney<sup>4</sup>, individuals can specify how they are to be cared for or legally represented. In an advance directive<sup>5</sup>, they can indicate which medical interventions they consent to or reject in the event of their incapacity; in addition, they can appoint a person to represent them in medical decision-making. In situations where patients cannot themselves consent to treatment and no instructions have been given in an advance directive, consent to a medical intervention may be granted by the person entitled to act as a representative (Art. 377 Civil Code).

If a person lacking capacity has not given any instructions concerning medical treatment, the adult protection law specifies who is entitled to act as a representative and grant consent to a medical intervention on behalf of the person concerned (Art. 378 para. 1 Civil Code). The following persons are entitled, in the following order, to act as representatives:

- a person appointed in an advance directive or power of attorney;
- a deputy authorized to act as a representative in relation to medical interventions;
- any person who as a spouse or registered partner shares the same household with the person lacking capacity or who regularly provides personal support;
- any person who shares the same household with the person lacking capacity and who regularly provides personal support;
- offspring, if they regularly provide personal support to the person lacking capacity;
- the parents, if they regularly provide personal support to the person lacking capacity;
- siblings, if they regularly provide personal support to the person lacking capacity.

4 With a power of attorney as defined in Art. 360 ff. Swiss Civil Code, individuals can appoint a natural or legal person to act on their behalf in the event of their incapacity. The power of attorney may cover personal care, management of assets and/or legal affairs. Personal care includes instructions concerning medical interventions. At the time when the power of attorney is established, the individual concerned must have capacity to act, i.e. be of legal age and have mental capacity.

5 Cf. "Advance directives" (medical-ethical guidelines and recommendations of the SAMS).

If two or more persons are entitled to act as representatives, the physician may assume, in good faith, that each acts with the agreement of the others (Art. 378 para. 2). If no representative is available, if it is not clear who is entitled to act as a representative, or if those entitled to act as representatives fail to agree or the interests of the person lacking capacity are endangered or no longer safeguarded, the adult protection authority is required to intervene (Art. 381 Civil Code).

As in all medical treatments, the provision of comprehensive and intelligible information to the patient or (in the event of incapacity) the patient's representative is a prerequisite for informed consent. Physicians treating patients who lack capacity are required to draw up, and regularly adapt, a treatment plan in consultation with the person entitled to act as a representative, so that the latter is in a position to grant informed consent to treatment (Art. 377 Civil Code). As far as possible, the patient lacking capacity should also be involved in the decision-making process. It is to be borne in mind that capacity may vary over time.

In making medical decisions, the person entitled to act as a representative must be guided by any wishes expressed in an advance directive; however, no treatments can be demanded which are not medically indicated. If no instructions relevant to the specific situation are included in the advance directive, or if no advance directive is available, decisions are to be made by the person entitled to act as a representative in accordance with the patient's presumed wishes and interests.

In urgent cases, physicians are to carry out medical interventions in accordance with the presumed wishes and interests of the person lacking capacity (Art. 379 Civil Code). Here too, whenever possible, the patient's views should be sought, and it should be ascertained whether or not an advance directive is available. The patient or the person entitled to act as a representative should subsequently be appropriately informed and involved in further decision-making.

#### **4. Goals of intensive care**

Intensive-care interventions are primarily intended to save and preserve life and should enable the patient to return to an appropriate living environment. In children, an additional aim is to maintain the child's potential for future development.

Intensive-care interventions are designed to help a patient survive an acutely life-threatening condition. The goal is to provide causal treatment of the underlying condition or permit spontaneous recovery, thus enabling the patient to return to an appropriate living environment. Life-sustaining treatments become senseless if this goal, according to medical judgement, turns out to be unattainable. In such situations, it is necessary to institute and intensify palliative care.

Intensive care can be considered worthwhile if there is a reasonable prospect of the patient being able, after a period of rehabilitation, to return to a living environment whose quality is compatible with his or her attitudes and preferences. The threshold of what is regarded as appropriate may thus vary considerably from one patient to another; the individual patient's (presumed) wishes are the decisive factor. Intensive care is, however, no longer medically indicated in cases where the patient is not expected to be able at least to leave the hospital and be integrated into an appropriate living environment.

In children, intensive-care interventions must not only seek to restore the patient to a previous state of health, but also to maintain the child's potential for development. If prolonged hospital stays are necessary, the child's development is to be actively promoted during ICU treatment – all the more so the younger the child is.

## 5. Key concepts

### 5.1. Prognosis

Key factors for the prognosis are the chances of survival, the extent of recovery from the illness and the quality of life to be expected over the longer term. In particular cases, however, the prognosis can only be assessed by integrating individual factors. In addition, prognostic assessments based on scoring systems are only valid for groups of patients, not for individuals. In children, prognostic assessment is of particular importance, while at the same time the prognosis is especially uncertain.

Assessment of the prognosis is one of the main – but most difficult – tasks in intensive-care medicine. Although scoring systems commonly used today (APACHE II and III, SAPS II and III, MPM etc.)<sup>6</sup> provide statistical information about a patient population, they do not allow precise conclusions to be drawn about individual cases. Decisions on the escalation, limitation or even withdrawal of treatment therefore have to be made on the basis of probabilities. Scoring systems relate almost exclusively to the probability of survival. They provide no information about quality of life, which can only be estimated on the basis of the literature and experience. Various parameters provide an indication of the probability of survival after ICU treatment.<sup>7</sup>

While survival to ICU discharge is an objective, measurable criterion, it can scarcely be a relevant parameter for the individual patient, since in-hospital mortality after ICU discharge and long-term mortality are markedly increased compared with a population of patients not receiving intensive care. Even more difficult to predict, however, is the individual probability of survival after ICU discharge. An additional factor to be taken into account are the prospects for rehabilitation and aftercare.

6 A description of various scoring systems used today is given in the Annex, which is available on the SAMS website in French and German.

7 For example, the following parameters are mentioned in the literature:

- scores (APACHE, SAPS and others);
- pneumonia or other risk factors (multimorbidity) in elderly patients (cf., for example, Sligl et al. 2010);
- concomitant diseases and chronic organ failure;
- number of organs with acute failure;
- initial serum lactate concentrations (cf., for example, Soliman and Vincent 2010);
- lactate clearance in the first 24 hours;
- response to treatment in the first 24–48 hours.

Besides ICU, in-hospital and 1- to 5-year mortality, reductions in quality of life after intensive care may be of considerable importance, depending on the particular condition, when the value of or justification for ICU treatment is to be assessed. On this topic, a wide variety of literature is also available.<sup>8</sup> According to these studies, formerly critically ill patients have a lower quality of life than an age- and gender-matched population, but it tends to improve over a period of years. The greatest reductions in quality of life are seen following severe acute respiratory distress syndrome, prolonged mechanical ventilation, severe trauma and severe sepsis.

Of primary importance for decisions on intensive care, however, is the prognosis regarding survival of the acute life-threatening condition and the quality of life to be expected subsequently, not medium- or longer-term life expectancy.

In summary, the prognosis as to survival and quality of life can only be estimated by integrating individual factors. Determination of the prognosis thus always involves uncertainty, and its reliability depends to a considerable extent on the knowledge and experience of the treatment team.

In children, prognostic assessment is particularly important, since the number of years of life made possible by a favourable outcome of intensive care may be very high. At the same time, the prognosis in childhood is especially uncertain. Given the plasticity of the developing brain, there is a good prospect of recovery even after severe damage; however, the chances of this potential for recovery being realized depend on numerous internal and external factors, and it is scarcely possible during the acute phase to estimate the future interaction of these factors. Special weight attaches to these considerations in decision-making.

8 Cf. Oeyen et al. (2010).

## 5.2. Quality of life

For the assessment of quality of life, what is relevant is not only the expected functional status but also the patient's subjective experience.

Assessment of quality of life is doubly difficult: not only is the prognosis of expected functional status in daily life uncertain, but the subjective evaluation of impairments and disabilities depends on highly personal, patient-specific factors. Expected functional status cannot simply be equated with quality of life; the decisive element is the patient's subjective experience and, in particular, satisfaction with his/her situation. Consideration needs to be given to the various dimensions of quality of life (physical, emotional, intellectual, spiritual, social and economic) and how they are weighted by the patient. As patients in the critical phase are not generally capable of discussing matters in detail and often no advance directive is available, discussions with those close to the patient (authorized representative, relatives, GP, caregivers) are frequently the only way of obtaining information on the patient's evaluations and preferences.

If impairments of functional status already exist prior to the critical illness, the associated quality of life should be ascertained if possible and it should be assessed how this could be affected by additional impairments.

## 5.3. Dependence on care

The extent of a patient's dependence on care is assessed on the basis of the need for care and supervision. As well as health-related factors, the patient's social environment is of crucial importance in this regard.

"Dependence on care" refers to a condition in which a person (as a result of illness or injury) is dependent for a prolonged period, and sometimes permanently, on assistance in performing daily activities. Needs for care and assistance are documented and operationalized using, for example, the ADL (activities of daily living) criteria.<sup>9</sup> These describe the deficits, or the resources available, in the various activities of daily life.

<sup>9</sup> Deficits or a lack of resources in basic ADL (BADL, dependence on care in the narrow sense) necessitate care measures (e.g. assistance with personal hygiene, toileting, mobility or feeding); if deficits lie in instrumental ADL (IADL, need for assistance), the patient requires help with domestic tasks (shopping, cooking, etc.) or support in managing financial affairs (tax returns, book-keeping, etc). Deficits in advanced ADL (AADL) call for support in the management of personal activities and social skills (participation in social life, hobbies, etc.).

Requirements for professional care and supervision are extremely diverse and highly individual. They depend not only on the patient's individual health impairments, but also on the existing environment (infrastructure, family network, etc.). In the intensive-care decision-making process, expected long-term care needs (operationalized with ADL criteria) are a parameter to be taken into account. Especially in the acute phase of illness or injury, however, prognoses in this regard involve numerous uncertainties and should be compared at this point in particular with the patient's expressed or presumed wishes, life history, and previous and expected quality of life.

#### 5.4. Ineffectiveness versus little or no likelihood of benefit<sup>10</sup>

Ineffectiveness of treatment is to be distinguished from little or no likelihood of benefit. Ineffectiveness is marked by a deterioration in the condition of a patient receiving full intensive care. Treatment offers little or no likelihood of benefit in cases where there is no reasonable prospect of the patient being able to return to an appropriate living environment.

Treatment is ineffective if the defined goal is not attained, even if a short-term improvement in certain physiological parameters can be achieved. This is typically followed by stagnation or deterioration in the condition of the patient receiving full intensive care, without any potentially remediable cause being identified.<sup>11</sup> Treatments should be discontinued if they are determined to be ineffective.

Treatment is described as offering little or no likelihood of benefit in cases where it must be concluded, either from the outset or in the course of therapy, that the patient will no longer be able to return to an appropriate living environment. What is meant by an appropriate living environment will depend on the patient's wishes and preferences, but it must at least involve sustained provision of care outside the ICU (cf. Section 4.). While ineffective treatments always entail a low likelihood of benefit, an intensive-care intervention may be effective but still offer no likelihood of benefit – an extreme case being, for example, the maintenance of vital functions after brain death.

10 Situations of this kind are sometimes described under the heading of "futility": However, as this term is used in the literature in different senses and its definition is a matter of controversy, it is avoided in these guidelines.

11 Such a situation is characterized, for example, by a continuously increasing need for pharmacological circulatory support and a progressive deterioration in gas exchange despite maximum ventilation therapy; by signs of inflammation/infection, increasing in spite of appropriate antibiotic therapy; or by refractory heart failure (low cardiac output). A persistent catabolic state associated with protein losses, anergy with recurrent infectious complications and absence of wound healing, and failure of resistance-adapted antibiotic therapy ultimately lead to a "point-of-no-return" situation in which the prospects of recovery are extremely low.

This may be due to the following reasons:

- The cause of the life-threatening condition cannot be determined, rendering causal treatment impossible; spontaneous improvement is not observed.
- The cause of the life-threatening condition can be determined, but causal treatment is not possible (e.g. terminal organ failure with no meaningful treatment options).

In situations of these kinds, intensive care may be effective in terms of sustaining life for a period of days or weeks, without enabling the patient to recover. Here, treatment may be protracted to such an extent that – owing to the spontaneous course of the underlying condition or the loss of rehabilitation potential (e.g. in cancer patients or geriatric patients with multimorbidity) – the goal initially defined is no longer attainable.

Treatments offering little likelihood of benefit place considerable burdens on the patient, relatives and the treatment team, without there being any reasonable prospect of attainment of a worthwhile goal; mere survival under sustained intensive care cannot be deemed to be a worthwhile goal. For this reason, treatments offering little likelihood of benefit cannot legitimately be demanded by a patient or authorized representative.

Whether treatment that is in principle indicated can attain its goal can only be determined when it has actually been initiated and appropriately carried out for a given period (to be defined according to the circumstances). The results of such an experiment are not always unequivocal, and ineffectiveness or a low likelihood of benefit may only be recognized gradually or intermittently after some time. Absolute certainty is, however, not attainable.

## **6. Level of intensive care**

Before a decision can be taken on the level of intensive care that is appropriate for a patient, the goals of treatment must be defined.

Goals should be defined in a dialogue between the patient or authorized representative and the treatment team, with the patient indicating his/her values and preferences, and the team contributing its assessment of treatment options. Responsibility for decisions as to whether – and what level of – intensive care is appropriate for attaining the goals thus defined rests with the intensive-care specialist. The decision on consent to treatment, however, rests with the patient or authorized representative.

Ideally, decision-making should proceed in accordance with a defined scheme, with all available points being taken into account (cf. Section 9.). In the case of decisions of particular significance, it must be borne in mind that ill-considered application of intensive-care interventions can produce unwanted results (e.g. severe impairment with no prospect of return to an appropriate living environment, persistent suffering).

### **6.1. Full intensive care**

Full intensive care involves the application of all life-saving and life-sustaining intensive-care interventions considered effective.

The success of intensive care depends on the consistent pursuit of an approach in which treatable causes are addressed with the aim of restoring long-term integrity and quality of life. This requires repeated analysis of aetiological factors and of the favourable – and adverse – effects of current treatment; it also calls for assessment of the patient’s available reserves, resources and rehabilitation potential.

### **6.2. Intensive care of limited duration**

Intensive care of limited duration is applied in cases where the long-term prognosis is poor or unclear; the level of intensive care is not, however, restricted.

In cases where the prognosis is essentially favourable in the short term (hospital discharge) but poor in the longer term (e.g. advanced age, especially with comorbidity, underlying malignancy, surgical intervention of a palliative nature), intensive care of limited duration may be indicated to tide the patient through temporary organ dysfunction or failure. To increase the chances of a successful outcome, all necessary treatment modalities must be fully instituted as early as possible. If a substantial improvement is observed under these conditions, treatment can be continued, provided that no relevant organ damage occurs, or further recovery of organ function indicates that there is a prospect of the patient being able to leave the ICU within a previously defined period, and subsequently also the hospital. If prolonged support is required or new organ dysfunction supervenes, the indication for treatment must be re-evaluated within a previously defined period and, if appropriate, there should be a shift to limited intensive care and intensification of palliative care. Intensive care of limited duration may also be appropriate in situations where more time is required for decision-making.

In the case of neonates, decisions on intensive care often have to be made in the delivery room under considerable time pressure and on the basis of incomplete information if adaptation to extrauterine life is seriously compromised as a result of extreme prematurity<sup>12</sup>, pre- or perinatal hypoxia, or congenital malformations. Here, a decision is frequently made to institute full intensive care so that the situation can be analysed and discussed in more detail after one or two days and a decision can then be taken on the continuation or withdrawal of intensive care. This also applies to older children who suddenly find themselves in a life-threatening situation as a result of an accident or illness. In such cases, full intensive care will always be instituted; the longer-term prospects should, however, be reviewed after an initial stabilization phase.

### 6.3. Limited intensive care

Limited intensive care is only to be administered in special cases, e.g. if the medium- and long-term prognosis must be assumed to be poor.

Serious comorbidities, age-related health impairments and other factors indicative of a poor medium- and long-term prognosis can justify the limitation of intensive care from the outset (e.g. withholding of CPR, ventilation, renal replacement therapy, etc.). It is, however, important that – if time permits – this should be discussed, agreed and documented in advance. The agreed level of treatment is only to be exceeded in the light of important facts which were not known at the outset.

Limited intensive care is also indicated if the patient (e.g. in an advance directive) or authorized representative does not consent to full intensive care, provided that the treatment is not thereby rendered ineffective.

It should however be ensured that the escalation of treatment is not limited, or the intensity of individual therapies restricted, as a result of doubts as to the efficacy or success of intensive care. Here, there is a risk that, through inadequate treatment, the patient will be denied the possibility of recovery. In such cases, full intensive care should be administered for a limited period and it should only be limited – or palliative care intensified – when it can be assumed with sufficient certainty that the treatment offers no likelihood of benefit.

<sup>12</sup> Cf. the recommendations in Berger et al. (2011).

In certain cases, it is possible that a patient will recover after a reduction in treatment intensity (“spontaneous cure”). This may indicate that intensive care was itself implicated in the unfavourable course. It is prudent to reduce the intensity of intensive-care interventions all the more slowly the less clear it is why treatment is unsuccessful, since abrupt withdrawal of interventions (e.g. circulatory support or ventilation) can also lead to death in patients who would have survived a gradual reduction.

#### 6.4. Withholding and withdrawal of intensive care and intensification of palliative care<sup>13</sup>

If, after a detailed analysis, it is clear that intensive care offers little or no likelihood of benefit, intensive-care interventions are to be withheld or withdrawn. In such situations, palliative care needs to be intensified.

Decisions to withhold or withdraw life-sustaining therapeutic interventions are based on a detailed analysis of the patient’s current situation. In cases of serious illness with no prospect of recovery, withholding or withdrawal of interventions is indicated if they offer little or no likelihood of benefit (cf. Section 5.4.). This involves a conscious decision to allow death to occur.

Patients’ wishes are important in assessing what expected outcomes of intensive care are compatible with their preferences. These wishes are either expressed directly by (competent) patients or are to be ascertained from an advance directive or via an authorized representative (cf. Section 3.). However, the final decision as to whether or not the desired treatment goal is attainable with intensive-care interventions rests with the intensive-care specialist.

As soon as a decision to withdraw life-sustaining interventions has been taken, it should be implemented, since the continuation of intensive care which has been determined to offer no likelihood of benefit contravenes the ethical principle of non-maleficence. A delay can only be justified on special grounds. This would be the case if the relatives need more time to accept that the patient is going to die, or if close relatives wishing to say goodbye have some distance to travel. However, a limited time frame also needs to be defined and communicated in these situations. Another reason for a delay may be the need to prepare for organ removal under a non-heart-beating donor programme. The withdrawal of life-sustaining interventions must be carried out by the attending physician. The practical procedure should be chosen in such a way as to ensure optimum pain and

13 Cf. “Palliative care” (medical-ethical guidelines and recommendations of the SAMS).

symptom control, if possible within the framework of comprehensive palliative care. The dosage of analgesic and sedative drugs is to be determined on the basis of symptoms detectable in the patient. Muscle relaxants make symptoms more difficult to detect, and the administration of these agents in connection with the withdrawal of ventilation can be interpreted as an act of active euthanasia.

## **7. Intensive care in particular circumstances**

### **7.1. In prehospital emergencies**

In prehospital emergencies, there is a general obligation to initiate life-sustaining interventions as rapidly as possible unless there are clear grounds for doubting that such interventions are desired or appropriate.

The majority of prehospital emergencies occurring in Switzerland are dealt with by laypeople, first aiders, paramedics and nurse anaesthetists. In a much smaller proportion of cases, the patient's GP or an A&E or emergency physician is involved. Accordingly, decisions on prehospital interventions often have to be taken without consulting a physician. These interventions are based on internal emergency-service guidelines, evidence-based algorithms and international standards.

In emergency medicine, decisions are generally difficult if – as is frequently the case – they have to be taken in the absence of (adequate) information about the patient, under time pressure and under sometimes difficult conditions. Decision-making is further complicated by the fact that prehospital interventions may have implications for further treatment (e.g. intubation leading to subsequent ventilation). The medical decision-making powers of non-medical emergency-service personnel are, however, limited and, from a legal viewpoint, more restricted than for emergency physicians. For these reasons, treatment of symptoms is generally initiated in out-of-hospital emergencies, and the task of determining the indication for intensive care is left to the hospital physicians subsequently responsible for the case.

This means that there is a general obligation to initiate life-sustaining interventions as rapidly as possible. At the same time, however, account is to be taken of any evidence giving reason to doubt that such interventions are desired or appropriate.<sup>14</sup> On the basis of such evidence, a decision to withhold intensive-care interventions – in particular, invasive or drug treatments – or not to transfer the patient to hospital may possibly already be taken in the prehospital emergency situation. Interventions are not to be carried out if this would be contrary to the patient's wishes or if the prognosis is so poor that the patient can only be harmed thereby. The patient's wishes can be determined from an advance directive, if available. But the views expressed by relatives can also be instructive, especially if it turns out that an emergency call was more of a request for support in attending to the dying patient than a request to prevent the patient's death. If time permits, the authorized representative must also be consulted.

## 7.2. In the Accident & Emergency department

In an emergency, physicians act in accordance with the presumed wishes and the interests of a patient who lacks capacity. Their primary duty is to preserve life. However, interventions instituted in the A&E department must not be perceived as prejudging subsequent decisions.

A large number of patients admitted to the A&E department have limited capacity as a result of their injury or illness (e.g. head injury, shock, intoxication) or a pre-existing chronic condition (e.g. dementia). In addition, in many emergency situations, impaired vital functions and the threat of organ damage call for urgent action, and the attending physician has to make a decision on the use of drugs, apparatus and invasive monitoring within a short time.

Often it is not possible to provide the patient or the authorized representative with comprehensive information about planned interventions in advance and to obtain consent. In this situation, the physician acts in accordance with the presumed wishes and the interests of the patient lacking capacity. However, as far as the condition and available time permit, the patient should be involved in the decision-making process, and it should be ascertained whether an advance directive is available. Once the patient's condition has been stabilized, the patient or the authorized representative must always be appropriately informed, and consent to treatment must be obtained.

<sup>14</sup> Cf. "Decisions on cardiopulmonary resuscitation" (medical-ethical guidelines and recommendations of the SAMS), Section 3: Procedure in the event of cardiac arrest.

Precise characterization and treatment of the life-threatening condition remains the primary responsibility of the physician in the A&E department. But as well as treating the symptoms, the attending physician – even under time pressure – should investigate the causes or at least establish whether the illness or injury can be assumed to be potentially reversible. The physician must weigh up the principles of beneficence and non-maleficence and seek to ensure that treatment instituted in the A&E department is not perceived as prejudging subsequent decisions. The goal of life-sustaining treatment must be a return to an appropriate living environment (cf. Section 4.). If this appears unattainable or if life-sustaining interventions are rejected by the patient or the authorized representative, palliative care is to be intensified.

If the situation is unclear, intensive care of limited duration can be initiated and, if appropriate, subsequently discontinued as soon as better information becomes available on the prognosis and the patient's wishes (cf. Section 6.2.). While the fact that it is more difficult to discontinue intensive care once initiated than not to initiate it at all does pose a psychological obstacle, this approach is clearly preferable, from an ethical viewpoint, to withholding life-sustaining interventions on an inadequate basis.

Intensive-care interventions can be continued even though they offer no likelihood of benefit for the patient concerned if investigations are underway with a view to possible organ donation.

### 7.3. After elective surgery

If, in elective surgery, a complication occurs which threatens or impairs vital functions, all appropriate intensive-care interventions are to be applied. However, in a situation where there is no likelihood of benefit, the fact that it was of iatrogenic origin cannot justify intensive-care interventions.

In the case of elective surgery, sufficient time is available for the attending physician to discuss the indication with the patient and to explain the procedure. Such discussions will also address risks and possible complications, and the options available should these occur. Complications can occur with any procedure and are thus among the risks inherent in all interventions. If vital functions are threatened or impaired as a result of a complication, all appropriate intensive-care interventions are to be applied (cf. Section 4.).

In general, it is important to seek agreement between all parties involved in treating the patient. In the case of complex procedures and/or if complications or a poor outcome are likely, the indication for the procedure and the level of any subsequent intensive care should be discussed in advance with all the physicians involved (surgeons, anaesthetists, other invasive practitioners and intensive-care specialists) and with the patient. The patient should be advised to draw up an advance directive or to appoint a representative. The relatives are to be involved if possible, unless this is rejected by the (competent) patient.

Since treatment focuses exclusively on the patient's welfare and wishes, the relevant question in the event of a complication is not what caused it but only whether or not it is in principle remediable. Even though an iatrogenic complication represents a burden for the physician who performed the procedure, this does not in itself influence the goal of treatment, and it cannot justify any interventions which would not also be applied if the same complication were to occur without an iatrogenic origin.

#### 7.4. In children and adolescents

In principle, full intensive care is always to be administered to children and adolescents in life-threatening situations. Special considerations apply in the case of neonates with adaptation problems and children with chronic disorders or multiple disabilities.

Children have a right to receive medical care in institutions which offer an appropriate environment and whose staff are skilled in dealing with their specific physical, emotional and social needs. Three main categories of paediatric intensive-care patients can be distinguished:

- neonates with impaired postnatal adaptation due to prematurity<sup>15</sup>, birth-related complications (hypoxia, injuries, infections) or congenital malformations or disorders;
- otherwise healthy children with an acutely life-threatening condition due to an accident or illness;
- children with chronic disorders and/or disabilities whose life is threatened by a complication of their underlying condition.

15 Cf. the recommendations in Berger et al. (2011).

In principle, intensive care is always indicated for children in a life-threatening situation, at least in the sense of full treatment of limited duration (cf. Section 6.2.). However, in the case of neonates for whom adaptation problems are foreseeable some time before birth, the prognostic situation must be evaluated in good time by an interdisciplinary team; the postnatal treatment options are to be discussed with the parents and, if possible, a plan is to be defined. The same applies to children with chronic disorders and multiple disabilities in whom life-threatening complications can be anticipated. Often an initial experience of intensive care will prompt the planning of life-sustaining interventions and palliative care for future episodes.

### 7.5. Likelihood of a high level of dependence on care (newly arising or due to chronic, progressive disease)

For patients who are already dependent on care as a result of a pre-existing chronic condition, the situation should be discussed if possible before the institution of intensive care and, if appropriate, the limitation of life-sustaining interventions should be specified.

If in the course of ICU treatment it transpires that the patient is at high risk of becoming highly dependent on care and is thus unlikely to be able to return to his/her former living environment, further intensive care should be contingent on the patient's expressed or presumed wishes, life history and previous quality of life. In cases where a persistent, high level of dependence on care is expected, withdrawal of life-sustaining interventions may be indicated if there is clear evidence that continuing to live with the foreseeable level of dependence on care would be contrary to the patient's (expressed or presumed) wishes. If there is no hope of the patient ever being able to leave the ICU and, after a period of rehabilitation, be transferred to a form of long-term care that can be provided for an unlimited period, then intensive care offers no likelihood of benefit and its withdrawal is medically indicated (cf. Sections 5.4. and 6.4.).

The situation is different in the case of patients requiring ICU treatment who are already dependent on care as a result of a chronic illness.<sup>16</sup> Experience has shown that, after intensive care, these patients are restored – at best – to their previous condition. Whenever possible, it should therefore be established before the institution of intensive care whether the patient has a good chance of being restored to his/her previous condition. Before intensive care is initiated, it should

16 For example, patients with chronic obstructive pulmonary disease (COPD), amyotrophic lateral sclerosis, severe coronary disease or newly diagnosed dementia, or patients dependent on care following a stroke, etc.

also be ascertained whether, given these prospects, the patient is prepared to accept the burdens of ICU treatment. In such cases, the options of limited and/or limited-duration intensive care should also be discussed and – if possible together with the patient – a treatment plan should be defined. Under no circumstances are patients to be excluded from ICU treatment solely on the grounds of existing dependence on care, with no knowledge of their expressed or presumed wishes. Patients diagnosed with a progressive, chronic disease which will raise the question of intensive care in the foreseeable future should have their attention drawn to the possibility of preparing an advance directive, or of advance care planning, before a deterioration in their condition makes such discussions more difficult or even impossible.

## 7.6. In elderly patients

Whether age in itself is a prognostic factor remains controversial, but there is certainly a high likelihood of comorbidities influencing the prognosis in elderly patients. This must be taken into account in the risk/benefit analysis and discussed with the patient.

Studies have shown that age in itself is not a predictor of peri-interventional mortality, and that a majority of the patients who are discharged from hospital can return to an environment comparable to the previous situation.<sup>17</sup> In contrast, other studies indicate that mortality in elderly patients surviving ICU treatment is increased, particularly in the post-discharge period.<sup>18</sup> It is, however, clear that from the age of 30 a gradual loss of tissue mass and function occurs in all organs where the capacity for cell division is limited or lacking (brain, heart, lung, kidney). Under normal conditions, adequate reserves exist to ensure age-appropriate organ function well into old age. Organs' capacity for compensation may, however, be considerably reduced in the event of disease and major or complex interventions, so that even a procedure which is primarily successful may have a fatal outcome as a result of organ decompensation in a patient who appeared healthy prior to the intervention. In addition, in well over 50% of cases, elderly patients have relevant comorbidities which adversely affect the prognosis. This must be taken into account in the risk/benefit analysis and discussed with the patient.

17 Cf. Minne et al. (2011).

18 Cf. Wunsch et al. (2010).

Of particular importance is the subjective evaluation of the prognosis. Elderly patients' assessments of their quality of life vary considerably and not merely according to their objective health status. A return to the previous living environment is not desired by all patients. It should be ensured not only that patients with a will to live do not suffer discrimination on the grounds of age but also that those who are weary of life are not prevented from dying.

It is particularly difficult to determine the wishes of patients who do not have any relatives, who lack capacity on account of their illness, and who have not drawn up an advance directive. This applies in particular to socially isolated elderly patients and to members of marginalized groups. A GP or neighbours, caregivers, etc., may possibly be able to provide information on the patient's preferences. If no person entitled to act as a representative is available, the adult protection authority must be called in.

### **7.7. In patients with mental or multiple disabilities<sup>19</sup>**

The presence of a disability does not justify any exceptions to the principles applicable for all patients. In particular, conclusions concerning quality of life are not to be based on first impressions.

In the case of patients with mental or multiple disabilities, conclusions concerning quality of life are not to be drawn on the basis of the impression created by the patient; rather, presumed wishes must be determined by consulting relatives and others close to the patient.

In patients with complex or multiple disabilities, there are often individual factors related to the pre-existing condition which in themselves complicate or rule out certain interventions. The application of intensive-care interventions must be assessed in particular from the viewpoint of avoiding any foreseeable additional damage.

<sup>19</sup> Cf. "Medical treatment and care of people with disabilities" (medical-ethical guidelines and recommendations of the SAMMS).

## 7.8. Following attempted suicide

In the case of patients who have attempted suicide, it must be established whether the suicide attempt is a manifestation of a mental disorder or of an acute personal crisis. If there have been repeated attempts or if permanent impairments are expected as a result of this attempt, this must be taken into account in the prognostic assessment.

Attempted suicide may necessitate ICU treatment and care (e.g. post-fall trauma or effects of drug poisoning). From an ethical and legal perspective, it is important to establish whether suicidality is symptomatic of a mental disorder or of an acute personal crisis, or whether there is a carefully considered, sustained wish for suicide. In most cases, the causes are of a temporary nature and the suicide attempt is to be understood as a cry for help or a symptom of a treatable mental disorder. In other cases, suffering is persistent and of such magnitude that the person concerned has permanently lost the will to live. In patients with a psychiatric diagnosis, attempted suicide may be both a manifestation of the disorder itself and a calculated act prompted by the patient's suffering.

In most situations, however, it is difficult to tell whether the patient had capacity at the time of the attempted suicide and the wish to die is carefully considered and sustained, or whether the act proceeded from a mental disorder or an emotional crisis. A suicide note can only be interpreted as an advance directive if there is clear and convincing evidence that it was written in a state of capacity. If there have been repeated attempts or if permanent impairments are expected as a result of this attempt, these points must be taken into account in the prognostic assessment. However, they do not in themselves justify the withholding of life-sustaining interventions. In assessing such situations, the advice of a psychiatrist should be sought; this also applies for patients with a known or suspected psychiatric diagnosis. If possible, the psychiatrists responsible for previous treatment should also be contacted.

### 7.9. In agitated patients

Interventions designed to prevent a patient from harming him/herself or others may be applied, even if this is opposed verbally or physically by a patient who lacks capacity.

Interventions which are verbally or physically opposed by an agitated patient, but which are medically indicated and are urgently required to prevent the patient from harming him/herself and/or others may be applied if there is no alternative. Further requirements are that such patients lack capacity in relation to this specific decision and that it has not been possible to convince them of the need for the intervention or to secure their passive acquiescence. The application of the intervention and the reasons for it must be noted in the patient's records. The person entitled to act as a representative should subsequently be informed about the intervention as soon as possible.

### 7.10. Terminal care in the ICU

Although the ICU is not the most suitable setting, the provision of terminal care is now commonplace in ICUs. The focus is on alleviating pain and suffering and supporting the patient and relatives through the terminal phase and the process of leave-taking.

Given its curative approach, the provision of care for dying patients is not one of the fundamental tasks of intensive-care medicine; however, it is now commonplace in many ICUs. If there is a progressive deterioration in the patient's condition in spite of all the intensive-care interventions applied, if intensive-care interventions are withheld, or if they are withdrawn, the death of the patient becomes foreseeable. In this situation, palliative care<sup>20</sup> is to be intensified so as to achieve optimal alleviation of pain and suffering. As well as the physical symptoms, attention is to be paid in particular to psychological, social and spiritual aspects. To ensure that treatment is optimally adapted, pain and discomfort must be assessed at regular intervals. Burdensome interventions are to be avoided. Drug doses are only to be increased if there are clinical or paraclinical signs of pain, respiratory distress or discomfort. The provision of fluids and oxygen calls for careful weighing-up of the expected benefits and adverse effects/burdens for the patient. In the final phase, it is generally not indicated. Distressing, treatment-resistant symptoms may necessitate continuous sedation.<sup>21</sup> Special attention should also be paid to the relatives; here, provision of psychological or pastoral support may be helpful. After the patient's death, relatives should also have an opportunity to talk about the deceased with the treatment and care team.

20 Cf. "Palliative care" (medical-ethical guidelines and recommendations of the SAMS).

21 Cf. "Palliative care" (medical-ethical guidelines and recommendations of the SAMS), Section 9.1.: Sedation.

Throughout the terminal phase, a peaceful, sensitive atmosphere should prevail, and the patient should have as much privacy as possible. Given the design of ICU facilities, this is not always easy to achieve. If possible, a single room should be made available. The option of transferring the patient to a different ward should always be considered.

### 7.11. Provision of care for potential organ donors

Providing care for potential organ donors is one of the tasks of intensive-care medicine.

In patients with a grave prognosis, the possibility of organ removal may be a reason for initiating or continuing intensive-care interventions. In such cases, the relevant legal requirements and the applicable SAMS guidelines are to be complied with.<sup>22</sup> Decisions to withdraw life-sustaining treatment must not be influenced by the possibility of organ donation.

In cases where human and material resources are limited, tensions may arise between the admission of potential organ donors to the ICU, or their continued treatment there, and the claims of patients who could also benefit from intensive care. In view of the long waiting lists for transplants, potential donors should not be lost. If beds become scarce, the possibility of transferring the potential donor or another ICU patient must be explored.

22 Cf. Federal Act of 8 October 2004 on the Transplantation of Organs, Tissues and Cells (SR 810.21) and "The determination of death in the context of organ transplantation" (medical-ethical guidelines of the SAMS).

## 8. Dealing with patients and relatives

### 8.1. Provision of information

Discussions with patients, authorized representatives and relatives are among the key responsibilities of intensive-care specialists. They call for sufficient time, listening skills and open communication of information in a comprehensible form. It is important that, as far as possible, the same contact persons should be available for repeated discussions.

In ICU patients, the disease process and the effects of medication often lead to substantial impairment of cognitive functions (e.g. short-term memory loss with benzodiazepines, etc.), disorders of perception and anxiety. However, the ability to understand what is discussed is often compromised in relatives as well, leading not infrequently to complaints about inadequate information. It is recommended that information should be provided sensitively, comprehensibly and as far as possible without the use of medical terminology; sufficient time should be allowed for queries and support should be offered. According to the literature, family members' satisfaction with clinicians' communication is associated with the amount of time during which they themselves have the opportunity to speak.<sup>23</sup> At the end of a difficult discussion, it may be useful to ask for a brief summary of what has been understood. References to medical parameters (monitoring data, laboratory values, etc.) should be avoided as far as possible, since there is a risk that relatives will focus on these snapshots and take them as surrogates for the clinical course. In addition, it is highly advisable to document discussions in writing and even to have the records signed if the subject matter is particularly delicate.

Discussions should be held in a quiet environment, out of earshot of other people. A realistic amount of time should be scheduled. They should be conducted openly, without glossing anything over, and any statements made about the prognosis must be well-founded. However, aspects about which nothing conclusive can be said should also be openly communicated. It is important that, whenever possible, the same contact persons should be placed at the disposal of the patient and relatives for queries and further discussions.<sup>24</sup>

23 Cf. McDonagh et al. (2004), Dullenkopf et al. (2009).

24 Specific training is available for discussions of this kind, e.g. the Competency Based Training programme in Intensive Care medicine for Europe (CoBaTrICE): [www.cobatrace.org/en/index.asp](http://www.cobatrace.org/en/index.asp)

## 8.2. Involvement of relatives

Relatives of an ICU patient frequently find it difficult to cope with the extremely stressful situation. As far as possible, they should be involved in the decision-making process.

The relatives of an ICU patient are also profoundly affected by the life-threatening situation. In many cases, they have a fundamentally important role to play – in formulating the patient’s wishes or legally representing the patient, in providing support during the period of intensive care and not least as future caregivers. For this reason – in addition to the authorized representatives, who have to be involved – other persons close to the patient should if possible also be involved in the decision-making process, provided that this does not run counter to the patient’s express wishes.

## 8.3. Special points relating to children and adolescents<sup>25</sup>

In decision-making where parents act as representatives, it must be taken into account that older children and adolescents have a right to express their views as they become increasingly capable of forming their own judgements. Parents’ latitude for decision-making is greatest in situations where intensive care is neither clearly in nor clearly contrary to the child’s best interests.

For children and adolescents under 18, the parents act as joint legal representatives. However, the ethical and psychological implications of the “treatment team – patient – parents” triangle vary considerably, depending on how old the child is. In the case of neonates, nothing can be ascertained about the patient’s presumed wishes or preferences, and the parents do not yet know the child well. But in the case of children who have yet to attain capacity, the parents’ intimate knowledge means that they can be regarded as the experts on their children’s welfare and interests. With a growing ability to form their own judgements, however, the wishes and preferences of older children and adolescents assume greater weight. Although from a legal perspective the wishes of an adolescent who has capacity to decide on medical treatment clearly take precedence over the parents’ wishes, it can in practice be very difficult to identify and manage conflicts of this kind involving chronically ill adolescents and their families.

<sup>25</sup> For neonates, cf. Berger et al. (2011).

As well as child-related factors, the personal circumstances of the parents are important in the shared decision-making process. Firstly, cultural background plays a major role: while for some parents it is perfectly natural that they should be closely involved in deciding on their child's treatment, for others participation in decisions on matters of life and death appears inconceivable. Secondly, hopes and fears are important, and they must be taken seriously and addressed. Ideas about the child's future life can lead to desperate requests for treatments offering no likelihood of benefit; conversely, parents' fear of having to cope with a disabled child may lead them to oppose ICU treatment which has a good chance of success from a medical viewpoint.

In these complex situations, the most effective strategy is one of shared decision-making. The treatment options should be openly and candidly discussed within the treatment team, with the parents and, if appropriate, with the competent adolescent. The parents' decision-making authority assumes particular importance in borderline situations where intensive care is neither clearly in nor clearly contrary to the child's best interests.

## **9. Decision-making processes in the ICU**

Indications for intensive care should be established through continuous dialogue between all parties. Final responsibility for decisions on the medical indication for treatment rests with the attending physician.

Decisions on the goals and level of intensive care should be supported by the ICU treatment team (physicians, nurses and physiotherapists). In the case of major decisions, especially the medical decision to withhold or to withdraw life-sustaining interventions, the physicians responsible for previous treatment – and also, depending on the situation, those responsible for subsequent treatment – should be involved in the decision-making process. Ultimate responsibility for establishing the indication rests with the attending physician, who is also legally accountable. In the ICU, this will be an intensive-care specialist.<sup>26</sup> If the situation is unclear, it is advisable to undertake an ethical assessment at defined intervals. Here, the treatment team should ideally be supported by an appropriately trained person or group not directly involved in the provision of treatment or care.<sup>27</sup> Depending on the particular questions arising, it may also be valuable to consult a legal expert.

26 In ICUs providing care exclusively for neonates, it will be a paediatrician specializing in neonatology.

27 There are various types and models of ethics support; cf. "Ethics support in medicine" (recommendations of the SAMS).

In decision-making, the following points in particular should be discussed:

- Benefits: What chances does the application of intensive-care interventions offer the patient? Is there a prospect of, at least, the patient being able to be cared for outside the hospital setting over the longer term?
- Harms: How burdensome and painful are the intensive-care interventions for the patient? What types of irreversible, long-term damage can be expected?
- Prognosis: What is the goal of treatment? Is this attainable? When will the patient no longer be dependent on medical interventions? To what extent does the patient have the potential for rehabilitation? Is there any hope of the patient being able to return to an appropriate living environment? If the patient will survive with chronic health problems, what resources does the patient, the family and society have to mitigate the consequences of these problems?
- Patient's wishes: Is an advance directive available? What are the patient's presumed wishes? What views are taken by the authorized representative and the relatives?

The decision should be recorded in writing and signed by the physician responsible. If no consensus can be reached, a second opinion may be sought (cf. Section 10.).

### 9.1. Criteria for admission

In ICU admissions, the intensive-care specialist responsible assumes the role of gatekeeper. Dying patients and those who have no real prospect of ever being weaned off intensive-care interventions should only be admitted to the ICU in justified exceptional cases. For patients with mental disorders, severe chronic alcoholism or polysubstance dependence who pose an acute danger to themselves or others but whose condition is not life-threatening, the ICU is not an appropriate care setting. Admission to the ICU may lead to additional traumatization.

Patients should be admitted to the ICU if their condition is life-threatening or if they are at risk of developing such a condition. The latter category includes in particular patients who have undergone a surgical or other invasive procedure which could prove life-threatening because of the extent of the intervention or because of existing comorbidities. However, intensive care is only indicated in these patients if there is a prospect of them being able to return to an appropriate living environment. Accordingly, dying patients and those with no prospect of ever being weaned off intensive-care interventions should not normally be admitted to the ICU. Exceptions can be made in situations where a patient cannot be offered appropriate palliative care on any other ward and the ICU has the necessary resources. In all decisions on admissions, the intensive-care specialist responsible assumes the role of gatekeeper and also bears responsibility for medical decision-making.

The same issues arise in the case of patients posing a danger to themselves who are transferred to the ICU for monitoring because no psychiatric emergency ward is available. Similar situations also arise with patients suffering from severe chronic alcoholism or polysubstance dependence who pose an acute danger to themselves or others. So long as there are no somatic grounds for treatment and these patients do not have a life-threatening condition, but require hospitalization because of their behaviour, the ICU is not an appropriate care setting. In the hectic environment of an ICU – oriented towards rapidly effective interventions – coercive measures such as sedation and restraint are much more likely to be necessary than in a psychiatric ward with suitable isolation rooms and appropriately trained staff. Admission of such patients to the ICU can not only lead to additional traumatization, but also place excessive demands on intensive-care resources, and it should therefore be avoided whenever possible.

## 9.2. Criteria for transfer and readmission

Patient transfer is indicated when the criteria for admission are no longer met, or appropriate care can be provided elsewhere. For readmission, the same criteria apply as for admission.

The criteria for transferring a patient from the ICU are essentially met when the criteria for admission (cf. Section 9.1.) are no longer met. A degree of judgement is involved in establishing that this is the case.

If a high-dependency unit<sup>28</sup> is available, even a patient still in a critical condition can be transferred as long as low-threshold readmission to the ICU remains possible. In cases of resource scarcity, it is also justifiable to transfer a patient whose condition now poses only a potential threat, provided that the other ward can provide the required level of monitoring (e.g. telemetry, higher levels of staffing and skills).

<sup>28</sup> Known in German-speaking countries as an Intermediate Care (IMC) unit.

For the readmission of patients from the high-dependency unit, other wards or the A&E department, the same criteria apply as for primary ICU admission. The fact that a patient has already been treated in the ICU does not provide an automatic entitlement to readmission.

In cases where it can be assumed that a patient transferred from the ICU to a general ward will not benefit from renewed ICU treatment (e.g. patients with severe COPD, severe irreversible organ failure, severe multimorbidity, severe neurological impairment, advanced dementia, etc.), it is advisable to rule out readmission to the ICU at the time of the transfer. If essentially new aspects emerge, this decision should be reviewed and readmission discussed.

### 9.3. Resource scarcity and triage

If available resources are no longer sufficient to optimize the chances of all individuals concerned, decisions on rationing become unavoidable. These must be based on ethical principles, and the criteria applied must be justified and made transparent. In cases of absolute resource scarcity, such as may arise during a pandemic, highest priority is to be accorded to patients whose prognosis is good with, but poor without, ICU treatment.

Complications and mortality in an ICU decrease as the number of patients treated (number of cases) rises and increase as average bed occupancy rises. If average bed occupancy exceeds 80% of maximum capacity, it is no longer possible to guarantee emergency ICU admissions or safe transfer of patients from the ICU, which leads in turn to higher readmission rates and higher mortality.<sup>29</sup> Given that occupancy rates in many ICUs are usually relatively high, it is therefore necessary in the event of resource scarcity to consider all options (postponement of elective procedures, transfer to another ICU or early transfer to another ward). Early transfer may involve complications for the patient if the necessary support (staff and equipment) cannot be adequately provided outside the ICU. To avoid these risks for patients, efforts should primarily be made to obtain additional staff, so that at least all the available beds can be used. In addition, a bed should be sought in other/external ICUs. In such cases, primarily patients with good chances of a favourable outcome should be transferred, and at the same time an offer should be made to readmit them in the event of a protracted course. If these measures prove unsuccessful and the resource scarcity becomes more acute, rationing of life-sustaining treatments becomes unavoidable. Initially, efforts should be made

29 Cf. Bagust et al. (1999), Iapichino et al. (2004).

to reduce levels of staffing and material resources to the minimum acceptable quality standard for all patients. Only when these measures also prove inadequate does it become necessary to ration intensive care as such. This calls for an equitable triage<sup>30</sup> procedure.

If in a large-scale emergency, such as a pandemic, it is no longer possible to provide intensive care for all patients, it must be ensured that triage is conducted according to ethical principles.<sup>31</sup> The criteria applied must be objectively justified and transparent. They are to be applied without discrimination (e.g. on the grounds of age, sex, canton of residence, nationality, religious affiliation, social and insurance status or existing chronic disability) in an equitable procedure. This is to be managed by trustworthy and experienced persons, who are legally accountable and who adapt the triage procedure to changing requirements.

In a large-scale emergency, highest priority is to be accorded to those patients whose prognosis is good with, but poor without, ICU treatment. In the event of rationing, patients who would normally be monitored in the ICU but who can also be cared for in another ward without their prognosis being seriously compromised are not to be admitted. Patients with a poor prognosis for whom ICU treatment of limited duration would be indicated under normal circumstances are to be cared for outside the ICU in a large-scale emergency. The decisive factors for prognostic assessment in this context are the probability of short-term survival of ICU treatment as such and the presence of any comorbidity with a poor short-term prognosis, but not medium- or longer-term life expectancy.

30 In the context of modern emergency medicine, "triage" primarily refers simply to the assignment of new patients to those treatment pathways which offer the best possible treatment chances for individuals and at the same time permit optimum utilization of all available resources. If these resources are no longer sufficient to optimize the chances of all the individuals concerned, triage is used to manage rationing. Triage decisions can then directly affect life and death, as in the original battlefield medicine sense.

31 Cf. Frey et al. (2010).

In situations of extreme resource scarcity, decisions on the withdrawal of intensive care are particularly difficult. Even during a large-scale emergency, general resource scarcity must not be used as a justification for the withdrawal of life-sustaining interventions.

During and following such periods of extreme stress, it is of particular importance that the treatment team receives appropriate clinical supervision and care (cf. Section 11.).

## **10. Conflict situations**

In situations of conflict with a patient's relatives, repeated discussions are advisable; if appropriate, their attention should be drawn to the options of seeking a second opinion or having the patient transferred to another hospital. If disagreements arise within the treatment and care team or with referring physicians concerning the indication for an intensive-care intervention, ultimate responsibility for the decision rests with the intensive-care specialist; ethics support may promote acceptance of the decision by all parties.

Situations in which relatives – or physicians – request intensive-care interventions which are not compatible with the goals of intensive care (cf. Section 4.) represent a major challenge for the treatment and care team. Treatments which are not medically indicated because they are ineffective or offer no likelihood of benefit (cf. Section 5.4.) cannot be claimed as a right.

If it is not possible to convince authorized representatives or relatives that the goal of a return to an appropriate living environment cannot be attained with the intensive-care intervention requested, they should be given time to reflect. The reasons for the decision should be explained in repeated discussions. It can also be helpful to draw attention to the possibility of obtaining a second opinion and to offer to transfer the patient to another hospital. If religious convictions make it difficult for the authorized representative or relatives to accept the medical decision, it may be helpful to enlist the support of a religious official from the community concerned.

If a conflict arises because authorized representatives disagree among themselves, the adult protection authority is to be called in. This also applies to situations in which there is evidence that the patient's interests are endangered or no longer safeguarded – e.g. if a physician fails to comply with an advance directive, or if the authorized representative pursues his/her own interests and disregards the wishes of the patient who lacks capacity.

In the event of a disagreement between the referring physician and the intensive-care specialist concerning the indication for an intensive-care intervention, resolution should be sought through direct contacts. If agreement cannot be reached, the intensive-care specialist must act as a gatekeeper and assume responsibility.

If the treatment and care team cannot agree on the indication for intensive-care interventions, every effort should be made to ensure that the decision enjoys the support of all concerned. The persons directly responsible for caring for the patient should be involved and consulted in this process. It may be advisable to seek ethics support<sup>32</sup>. It is also important that the parties to the conflict should not air their differences in the presence of the relatives.

## **11. Support for the treatment and care team**

The treatment and care team should have the opportunity to reflect on stressful situations in retrospective case reviews.

ICU nurses and physicians are exposed to emotionally stressful situations in their daily work. These include, in particular, the withdrawal of life-sustaining interventions in cases where there is no prospect of benefit and the provision of care for potential organ donors. How these situations are perceived, managed and coped with varies from one individual to another. Studies show that symptoms of burnout are not uncommon in ICU physicians and nurses.<sup>33</sup> Stress is further exacerbated by the shortage of qualified staff. For these reasons, support programmes should be available – e.g. for retrospective case reviews, clinical supervision or stress management.

32 Cf. "Ethics support in medicine" (recommendations of the SAMS).

33 Cf. Merlani et al. (2011).

### III. RECOMMENDATIONS

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The following recommendations, addressed to various parties, are designed to support the implementation of these guidelines.

#### For physicians treating frail patients with multimorbidity and patients about to undergo an intervention involving significant risks

- The procedure to be adopted in the event of future acute deterioration in the patient’s condition should be discussed in advance and recorded in a treatment plan and/or in an advance directive, which should cover not only the patient’s wishes concerning cardiopulmonary resuscitation (CPR) but also the level of any intensive care.
- When the patient is informed about planned surgical procedures or interventional/drug treatments involving significant risks, the chances, risks and burdens associated with (possible) subsequent intensive care should also be discussed, so that the desired level of intensive care can be specified at this point, should the patient so wish.

#### For ICU managers

- Ensure provision of care for staff – in particular, a clinical supervision programme – in and following especially stressful situations.
- Promote basic and specialist training and continuing education in medical ethics and communication skills.
- Establish local ICU networks to facilitate the transfer of ICU patients (including potential organ donors) in the event of bed shortages.
- Develop a scenario for boosting and thinning out resources for situations involving extreme bed shortages. The scenario should also describe the procedure to be followed should triage become necessary to manage rationing.

#### For hospital managers

- Establish adequate palliative care programmes in accordance with national standards, so that the admission of dying patients to the ICU is not necessary.
- Establish sufficient capacity to ensure that patients requiring intensive care can be treated in accordance with standards and that an appropriate response is possible even in large-scale emergencies.
- Guarantee medically appropriate intensive care irrespective of tariff-related incentives.

### For emergency services

- Develop cooperation with GPs or GP emergency services, in particular the involvement of the GP or GP emergency service in cases where relatives require support because the patient has already died, CPR is not likely to be appropriate, or palliative care is indicated since the process of dying has already begun.
- Provide training for non-medical emergency staff in heeding evidence that CPR might not be in accordance with the patient's wishes or interests.

### For cantonal public health directors

- Ensure adequate provision of inpatient psychiatric treatment facilities with capacity for emergency admissions, so that patients posing a danger to themselves or others but not requiring somatic treatment do not have to be monitored in the ICU.
- Take measures to relieve the increasingly severe staff shortages in the intensive care sector – provision of attractive employment and working conditions, sufficient numbers of positions for trainees and qualified staff.
- Develop and expand outpatient palliative care services, with the involvement of the system for responding to emergency calls.

### For research-funding institutions

- Provide support for health services and outcomes research in intensive-care medicine.

### Scoring systems

In the Annex on scoring systems, various scores widely used in adult medicine and paediatrics are presented by way of example. This Annex is available online in German [www.samw.ch](http://www.samw.ch) → Ethik and French [www.samw.ch/fr](http://www.samw.ch/fr) → Ethique.

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## Information on the preparation of these guidelines

### Mandate

On 12 February 2010, the Central Ethics Committee (CEC) of the SAMS appointed a sub-committee to revise the 1999 guidelines on "Borderline questions in intensive-care medicine."

### Responsible sub-committee

Professor Reto Stocker, Zurich (Chair)  
Professor Michel Berner, Geneva  
Dr Isabelle Binet, St. Gallen  
Dr Ulrich Bürgi, Aarau  
Professor Johannes Fischer, Zurich  
Valérie Gardaz, Geneva  
Dr Daniel Grob, Zurich  
Ursula Hager, MAE, Zurich  
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Professor Christian Kind, St. Gallen (CEC President)  
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### Experts consulted

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Professor Daniel Scheidegger, Basel  
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### Consultation procedure

On 29 November 2012, the Senate of the SAMS approved a draft version of these guidelines to be submitted for consultation.

### Approval

The final version of these guidelines was approved by the Senate of the SAMS on 28 May 2013.



