



## Independent Cryonics Educators Program

### 2.9: Non-ideal cases

Why should we consider non-ideal cases? Depending on your standard of “ideal”, most, or even no, cryonics cases will be ideal today. A cryopreservation is not like the production of a car or a laptop computer. The latter have standard parts and are produced in large numbers using a repeatable formula. A cryopreservation is not even like surgery to place a stent in an artery. Such surgeries are frequent and well-practiced and take place in relatively controlled and scheduled conditions.

Each cryopreservation is unique. The quality of the outcome is affected by numerous factors. Just a few of them include:

- the cause of legal death
- the condition of the patient
- the extent of cooperation of the hospital or hospice
- the extent of cooperation of the family, if involved
- possible involvement of a coroner or Medical Examiner
- length of time before the person is found after clinical death
- availability of personnel and travel time of the team to the patient
- availability of transport by ground or air and the time required
- whether or not funding is available for a charter flight
- the skill and experience of the SST team
- the reliability or failure of equipment
- the quality of the cryoprotectant used
- factors affecting ease of surgical access and ability to perfuse

**Ideal cryonics** would mean that every factor and variable was optimal – or any sub-optimal factor made no real difference to the outcome. (For instance, transport time might be longer but that wouldn't much matter if the perfusion went just as well.) In simpler terms, a genuinely ideal cryonics case might be one where a terminally ill patient is placed into reversible suspended animation until treatment is possible. Since no existing cryopreservation is yet reversible, by definition all cases to date have been non-ideal.

There is a slightly different sense in which a cryopreservation could be considered ideal. That would be when the survival status of the patient is not in doubt at the time cryopreservation begins. This could be achieved by connecting an anesthetized living patient to a heart-lung machine to maintain blood circulation as temperature was

lowered. While this can be achieved for companion animals, it is not possible for humans because cryonics is not an approved medical procedure. We can get closer to this kind of ideal by using “death with dignity” or “right to die” laws. In jurisdictions with these laws, it is possible to schedule a cryopreservation, ensuring that the team is ready and that logistics have been fully worked out in advance.

This comes at least part-way to the goal of maintaining the same biological viability in a cryonics patient as would exist if cryonics were an elective medical procedure, not a post-mortem intervention.

A **non-ideal cryonics case** occurs when cryonics stabilization procedures, such as cooling, are begun long after resuscitation by contemporary medicine is impossible and thus biological viability is believed to have ceased. Such cases, which account for about half of all cryonics cases, are often the result of unexpected legal death. Non-ideal cases may involve hours, or even a day or more, of clinical death without intervention.

One might ask: Why proceed with non-ideal cases? Two main reasons stand out. First of all, Alcor has a contract with the member. Members often specify that they want Alcor to proceed with cryopreserving them no matter how bad the circumstances and their condition. While Alcor may not accept as a patient someone who was not already a member if conditions are far from ideal (two days at room temperature, for instance), the contractual agreement with members overrides biological considerations.

The second reason – and the reason why Alcor allows members to specify “under any and all circumstances” – is that no one knows for sure where to draw the line between potentially recoverable and impossible to recover. Damage to cellular structure is not binary. The further we go from ideal conditions, the lower the odds of eventually being able to repair and revive an individual intact. But there is no line past which we can confidently declare: “*This is the point beyond which we will not try.*” If a person is incinerated and all that remains are ashes, they are not going to be revivable with any future technology. Short of that, opinions vary due to different views of which structures are essential to the person and how much structure can be inferred from what remains.

Sometimes, you may hear references to “last minute” cases, with these being considered as part of the “non-ideal” category. This terminology is confusing. A last-minute case could be a situation with a member where there is no advance warning of legal death. But more often it is used to mean an inquiry from a third party about signing up and cryopreserving someone who is about to be – or already has been – declared legally dead. Third-party inquiries are considered by the Alcor Board according to five main criteria:

- No long ischemic time. (days must not elapse before the inquiry)
- Some past interest in cryonics on the part of the person for whom cryopreservation is sought.
- Support for the cryonics arrangement from all parties empowered by the UAGA.
- Finances in place without undue hardship.
- Informed consent of persons making the arrangement.

It is preferred that all these criteria be met. Occasionally, one of these conditions might

be waived, especially if we know the person seeking to make the arrangement or if they are an Alcor member themselves.

Alcor's goal is to come as close to possible to ideal. It is true that cryonics must rely on more advanced technological capabilities of the future to repair and revive patients. However, Alcor's approach is to minimize damage on our end and to minimize reliance on the future to fix damage. We cannot be certain of the extent of future repair capabilities. We don't know how bad the condition of a patient may be. For these reasons, Alcor seeks to minimize damage in the present.

## References

"The Ethics of Non-Ideal Cases", by Brian Wowk. From *Cryonics*, Fall 2006: Volume 27:4.

<https://www.alcor.org/library/ethics-of-non-ideal-cryonics-cases/>

**Next: 2.10: Whole body and neuro cryopreservation**

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