

Glossary

Advance directive – defined in the Code of Health and Disability Services Consumers Rights as:

a written or oral directive –

- (a) By which a consumer makes a choice about a possible future health care procedure; and
- (b) That is intended to be effective only when he or she is not competent.

An advance directive is simply the consumer's advance use of his or her right to make a health care choice, and any unreasonable interference with the consumer's valid advance refusal of treatment will be a breach of the Code. A signed surgical consent form, an agreement between the doctor and the expectant mother as to what drugs are to be used in an emergency, or even the explicit instructions of a patient to their doctor are all examples of advance directives.

Advance directives that refuse life-saving treatment raise the most difficult issues. Such decisions involve the fundamental right of consumers to refuse medical treatment under the Bill of Rights Act 1990 (section 11) and the statutory obligations on doctors to provide the necessities of life.

The validity of an advance directive will depend on four key issues:

1. whether the consumer was competent to make the particular decision when the decision was made; and
2. whether the consumer made the decision free from undue influence; and
3. whether the consumer was sufficiently informed to make the decision; and
4. whether the consumer intended his or her directive or choice to apply to the present circumstances when the advance directive was made.

A doctor should not provide services in contradiction to an advance directive unless there are reasonable grounds to doubt the validity of the advance directive.

Advance directives can be set up with a doctor or lawyer, who will either design a directive specifically for the consumer's needs, or use forms that have been developed by the National Policy Council and the New Zealand General Practitioner Association. Although these forms have not been tested in a New Zealand court, they are designed to prevent problems such as a legal challenge based on the competency of the person signing, or allegations of undue influence. These forms are available from the New Zealand Medical Association.

Under the Code, an advance directive can be written or oral, and does not need to be witnessed by a doctor or lawyer.

Autologous – involving one individual as both donor and recipient (as opposed to non-autologous use when the donor and recipient are different people).

Biotechnology – any technological application that uses biological systems, living organisms or derivatives thereof (whether genetically modified or not) to make or modify products or processes for general use.

Cells – the individual units from which tissues of the body are formed. All living organisms are composed of one or more cells.

Dead tissue – tissue that is structurally or mechanically functional but is no longer physiologically or metabolically functional. Without intervention, tissue will cease to be functional two to three hours after removal from a living body or two to three hours after the death of a person.

DNA (deoxyribonucleic acid) – the biochemical substance that genetic material is made of. DNA controls the structure and function of each cell and carries genetic information during reproduction.

Embryo – the early human form from fertilisation to its eighth week of development (ie until it is considered a foetus).

Foetus – the early human form from week eight until birth.

Gamete – the male sperm or the female egg.

Gene – an ordered sequence of nucleotides located in a particular position on a particular chromosome that encodes a specific functional product.

Gene therapy – treatment of a disease caused by malfunction of a gene, by transferring the cells of an organism with the normal gene.

Genome – the total set of genes carried by an individual or cell.

Homologous – corresponding in structure, position or origin (eg, the feathers of a bird and the scales of a fish).

In-vitro – occurring outside the living organism; typically an experiment performed in a test tube or other artificially designed environment.

Plastination or plastinated tissue – the process of plastination results in the fluids of the body or tissue sample being replaced by reactive plastics, such as silicone rubber, epoxy resin or polyester resin. This process preserves the cell structure of the tissue. The specimens are dry and odourless, and hence can be handled with ease.

Post-mortem – the after-death examination of a body. A post-mortem examination involves the visual inspection, careful dissection, weighing and measuring of the body, organs and tissue. A post-mortem is also likely to involve the microscopic, biochemical and genetic examination of tissue taken from organs. A post-mortem examination is undertaken by a pathologist (a doctor who specialises in the diagnosis of disease and the identification of the cause of death).

Prosections – slices of tissue samples.

Somatic cell – any cell other than a sperm or egg cell.

Stem cell – a cell that is able to give rise to a range of specialised cells.

Tissue banks – services storing human tissue intended to be used for therapeutic purposes.

Tissue collections – collections of dead tissue intended to be used for clinical, quality assurance, research and educational purposes. This does not cover living or dead tissue intended for therapeutic purposes.

Tissue samples or blocks (also called paraffin blocks) – during a post-mortem, small pieces of organs may be cut out for more detailed inspection under a microscope. The samples are treated with chemicals and fixed into a paraffin wax block so that they can be handled without getting damaged.

Xenotransplantation – the transplantation of live cells, tissues or organs from another species (eg, pigs) into humans. Xenotransplantation includes any procedure where human fluids are exposed through a perfusion system to living non-human cells, tissues or organs. The actual tissue transplanted is called a xenograft.