

Franz Gerstenbrand 1), Christine Hess 2)

1) Ludwig Boltzmann Institute for Restorative Neurology
and Neuromodulation, Vienna

2) Johann Wolfgang Goethe Universität, Frankfurt/Main
Fachbereich Rechtswissenschaft

ETHICAL DEMANDS IN MODERN NEUROLOGY

Introduction:

In the third millennium everyone in the Western industrial society demands that all possibilities of modern medicine have to be available to him. Everybody expects to be relieved of his physical or mental illness as fast as possible and simultaneously wants to be certain that all advances in research are being applied immediately to grant him a longer life. The modern human claims his right to be treated everywhere and any time, even in advanced age and with incurable diseases as well as for mental decline. The modern human appeals to progress in diagnosis and therapy, which are reported nearly ubiquitously and constantly. He demands his presumed right to have access to all resources he assumes being intended for him as a member in a social welfare system. The phrase freedom of the human individual is used as important pawn. This feeling of freedom is equalized with the presumed right on personal well being, but unconnected with the well being of the community.

From a historical point of view the origin of this misunderstanding of individual rights goes back to the French Revolution. The freedom of human individuals was transferred to the whole mankind by the revolutionary ideas, the well being of the individual was separated from the community's well being. The concept of Human Rights defined in 20th century serves as a regulator in concepts of a modern Western community and is taken as an integral part of democracy. The basic principles of "modern Western society" were initiated with the onset of the Judeo-Christian tradition based on the 10 Commandments of Moses by establishing special ethical and moral rules.

Various civilizations developed in the temperate regions of the earth with different religious systems and special ethical and moral rules. Based on Greco-Roman culture a life form predominated by Christianity evolved in Europe refined by the philosophical work of Saint Augustinus and his construct of the state of God, critical analyzed by Thomas Aquinas, the student of Albertus Magnus, the initiator of the Gothic period. The basis was found, with all its errors, fights and attempts to find a harmonization lasting to the recent days.

In China Confucianism directing all areas of life and as the ruling law until now, getting

an adapted renaissance in the Neo-Confucianism of modern China after Mao Tse Tung. Buddhism was established as a moral institution which in its basic rules developed as a concurrence to the Western materialistic ideologies and their demand for a missionary democracy. The Islamic religion and culture was formed by the help of assimilation of Judeo-Christian thoughts. Its fundamentalistic movements claim the right to built up a special ideology for the whole world.

As a main message of the recent time it has to be accepted that ethical rules of the western world in their present form cannot be transferred, neither to be used as a demand for ethical rules in the Islamic world nor to a Neo-Confucianism with the basis of the Marxist – Leninist ideology or to Hinduism and Buddhism.

At the present stage modern medicine tries to establish basic ethical laws, which can be generally used in harmonisation with the ethical rules of different ethnic, historical, geographical and climatic regions, accepting social and biological validity.

Ethical rules in medicine as universal principles have to be based on the human rights declared 1948. The recent declaration of Paris (24.6.2005) as a step to the harmonization takes into account social, legal and environmental dimensions, requiring autonomy, individual responsibility and informed consent, but does not touch the upcoming tendencies of religious and ethnical based ethical principles, only in article 12 respect for cultural diversity and pluralism is regarded.

Bound by the Hippocratic oath every physician is obliged to heal. He has to treat the diseases of his patients, but has to interrupt the treatment of patients who suffer from incurable illnesses or from advanced age or mental disabilities. To prolong life over hours and days in such untreatable conditions by special therapeutic measures is according to the oath neither morally nor ethically justifiable. In accordance with the content of the Hippocratic oath, the physician has the obligation to heal but as well to reduce suffering. The ancient maxim never to hurt and to always help has until nowadays a great normative weight, when it comes to matters such as aiding suicide.

Euthanasia, End of Life Decision, Maximal Therapy

The death as the physical end of a human being is accompanied with the fear of a painful death. This opens the way to ask for a less painful form to die, "a soft death". This is the origin of the wish for medical help with medication while dying.

Eu Thanatos, the soft dying, has got a certain ambiguity in the concept of euthanasia. Euthanasia as a demand for the physician and as a legal consequence has to be differentiated in the active euthanasia as a planned intervention to terminate the patient's life earlier and the passive euthanasia, which means no medical intervention while dying but with renunciation for any help of a physician. During the Nazi-Regime this reached a negative climax in the "ordered euthanasia" (Zwangseuthanasie) as an instrument of a highly twisted moral.

Active euthanasia is prohibited in most of the civilized countries except for the Netherlands, Belgium and Switzerland which have issued certain regulations allowing it under certain circumstances. In Austria and Germany euthanasia is legally prosecuted, active euthanasia according to Section 75 of the Austrian Criminal Code equals murder and is consequently sentenced with 10 to 20 years or even lifelong prison. Helping to commit suicide as well as killing on demand is condemned as a criminal act and likewise

prosecuted and heavily sentenced.

For patients in a stable vital state, but whose illness will neither improve nor have a chance of healing, the discussion about continuation of their treatment corresponds to an end of life decision. From neurological point of view these are mostly patients in an Apallic syndrome, the vegetative state in the Anglo-American literature. An Apallic syndrome can be the consequence of a severe acute cerebral damage like traumatic brain injury, encephalitis, hypoxia etc. but with the possibility to recover partly or totally. A second group caused by a diffuse progredient cerebral disease like Creutzfeldt-Jakob disease, Morbus Alzheimer etc. A well as a progredient multilocular disease like Encephalomyelitis disseminata etc. with continuous deterioration to the end stage of an Apallic Syndrome. A third form of an Apallic syndrome can develop due to a chronic internal or external intoxication as an end stage or with a more or less severe defect. Apallic patients without continuation of an early remission state or in an end stage need full care in special nursing homes after the finishing of the actual rehabilitation program. The economic expenses are enormous. The objective for continuation of care is often doubted by the family and even by the responsible physician. In the USA as well as in Great Britain trials argue for interrupting care for these patients. In certain cases, this has even been allowed with legal resolution. Trials like these have been rejected in Central, Southern and Eastern Europe so far. The method to let these patients die of thirst and starvation by interrupting supply of nutrition and liquid is a method against the basis of human rights, which demands nursing care for everybody at every time. Withdrawal of nutrition and liquid can be compared with active euthanasia.

The method of withdrawal of nutrition and liquid was used during the Nazi-Regime as a method of the "ordered euthanasia". It is shocking that withdrawal of liquid and nutrition for patients in Apallic syndrome is still used to annihilate patients by starvation and dying from thirst. The situation of some of these patients like Mrs. Terry Schiavo is especially dramatic. This patient was not in coma. After all the information the patient was in a "minimally conscious state", in an early remission state of an Apallic Syndrome of hypoxic ethiology using the European classification. This patient suffered from pain and was fully feeling thirst and starvation after the withdrawal.

Patients in an Apallic syndrome in full stage or in a early remission phase without any possibility of further remission or in cases with an advanced amyotrophic lateral sclerosis, in occurrence of complications like pneumonia, sepsis, severe gastro-intestinal bleeding etc. can be dispensed from special therapy, using all modern therapeutic methods, the "maximal therapy" which would be started in other circumstances immediately. The deciding factors for waiving a special therapeutic intervention are prognosis of the basic diseases, the omission of possibilities for recovery as well as the "putative will" of the patient not to be released in this unacceptable state. It is necessary that relatives and/or the solicitor are informed. For the decision to dispense the patient to every kind of a maximal therapy the treating physician is responsible. Such a decision is compatible with the Hippocratic Principles.

Brain death

An essential ethical problem of modern neurology is the diagnosis of brain death. Brain death is a neurological state, corresponding to the total breakdown of all brain functions

including the brain stem functions. The responsibility for a correct diagnosis belongs solemnly to the neurologist. Only in geographical areas lacking neurological care new guidelines of the World Federation of Neurology are in preparation to allow a specialist from a closely related field like a neurosurgeon and an anaesthetist or a special trained general practitioner the decision for the diagnosis brain death. In the UK and in some other literary dependant countries, brain stem death instead of brain death is used as diagnosis, but is equal in the criteria. In the UK the diagnoses of brain stem death is performed by an anaesthetist. The proposal of the Research Committees on Neuroethics of the World Federation for Neurology was sharply rejected by the British Society for Anaesthesiology (2002). The before announced recommendation of WFN was only meant as minimal standard for developing countries with a lack of qualified neurologists.

The ethical problem of brain death concerns the organ receiver in an indirect form. The transplantation of non transplantable suited organs is ethically unacceptable. The diagnosis of brain death has to be done on time and precisely.

In this connection a sensitive point the possibility of organ selling including implants of unclear origin. These crimes should not be ignored, not even in Europe with all the criminal circumstances. Infected organs can bring a disaster like organs from a donor infected by rabies. A moral conflict can arise for the transplantation team as well as the receiver by accepting organs from "black market of organ trade".

Obligation of modern neurology in the practise

Especially in neurology including the whole field of neuroscience the development of diagnosis and therapy created new dimensions in medical care and in the responsibility of the acting physician. The possibilities of modern intensive medicine replaced the fear of dying too early by the worry of dying too late. But this kind of fear to come in a medical oversupply with the result of prolonged suffering is recently confronted with the reverted trend of the differently discussed health-economical measures (Plöner). The restriction in treating old people with expensive operations and costly medications or the renunciation of medical treatment for cancer patients with uncertain outcome creates a certain fear of shortage in medical supply. In the U.K. and in Belgium for example, the treatment of patients over 70 years old with serious acute neurological diseases will not be continued in some cases. If such a patient falls in an acute coma, his transfer into a British hospital from abroad can be rejected (Hackl). To refuse a treatment is beside the Hippocratic Principles, especially contradicting to the Jewish rule of fighting for the human life until the end.

The fear of suffering as the fear of pain can be pampered to the fear of losing the integrity of the own body as a severe threat for every human being. In the last years the number of institutions and centers specialising in pain treatment increased significantly. The methods of pain therapy in some of these modern pain centers are meant to minimize the pain, only sometimes to get rid of the pain, but without the fundamental intention to clear up the origin of a pain syndrome. The recent intentions are the "pain free patient" and "the pain free hospital". Neurology was pushed aside from the pain centers or was at least manoeuvred to a corner. This happened due to minor efforts in neurologically based on pain medication and an insufficient knowledge of neuropathophysiologically based methods of pain therapy as well as the too intense tendencies to move pain problems towards a psychiatric explanation. Last but not least the methods of anaesthesiology are more

successful in the in pain treatment. The knowledge that pain is a signal for a somatic danger in modern pain management mostly becomes a secondary position. The moral aspect of pain as a spiritual sign is lost totally.

Various other fields like gapless creation of stroke units, supply in neurorehabilitation, forceful efforts in neuroorthopaedics and paediatric neurology as well as the improved cooperation with neurosurgery are not regarded enough. It is an ethical duty in neurology to have all modern treatments and diagnostic methods available, even when this means rearranging existing medical structures.

In the practical politics of the neurological organisation, the World Federation of Neurology and the World Federation of Neurorehabilitation special obligations are

demands to build up a worldwide working neurological system. Nearly no neurology is existing in Africa south of the Sahara and only a weak neurological network can be found in some other low resource countries, partly in semi low resource regions as well. The responsible group of guiding officers in the international organisations in neurology have to work for a basic neurological network using teaching and training courses and to help building up special neurological centers as focal points beside other programs.

Clinical trials in neurological research, evidenced based medicine

In the Helsinki Declaration of the World Medical Association published in 1964 with some amendments, experiments including human beings are regulated in all details beside the statement, that for the treatment of the patient all methods available can be demanded, nothing should be neglected, which could cease suffering. The research in the functions of the human body, especially those of the brain, is one of the bioethical main demands of the Helsinki Declaration. The development of new medicaments as well as the reliability of new diagnostic methods and new instruments is declared as a binding obligation. Research including experiments involved human beings is one of the crucial demands of the Helsinki Declaration.

Research on humans have to follow the rules of the ICH-GCP (International Conference of Harmonisation of Good Clinical Practice). An independent ethical commission (IEC) is necessary for acceptance of a research project for a clinical trial. The risk/benefit ratio has to be weighed out, the benefit of the treatment for the individual patient and the patient's collective as well as the risk for the individual of a test group has to be judged. At a clinical trial for a new therapy there is the risk that besides the ambition of the researcher and his competition mercantile factors could gain influence. Having an exact ethical commission, well trained investigators, continuous monitoring during the trial and the obligation to report serious adverse events, informed consent of the patient and an insurance for every patient are far reaching security measures for the patients during the experiment inalienable.

There is a danger in clinical trials in the export of risky experiments into so called low price countries. Financially weak research centers can widen their research programme with financial contributions from outside. Personal allowances are possible. The danger is that risky experiments are run by inexperienced researchers and that superficially working ethical commissions are accepting the project.

The evidence based medicine (EBM) is not yet a predictable danger for a monopolization by the pharmaceutical industry and for the medication field as well as for

new treatment methods. Biased research programs can lead to manipulation. The evidence based medicine also means extinction of the "experience based medicine" and consequently of centuries old empirically established figures from different medical schools in Europe, China and Africa. A pharmaceutical Neo-Colonisation by big ventures is more often critically mentioned.

The upcoming institution of the "internet library" like the Cochrane Library can be a great help in the daily work for the physician, in a great way for the neurologist. But young neurologists have the possibility to ask the internet and not the senior assistant or their personal teacher. The young neurologist is trained by the summarized knowledge of a "library" with all possible wrong information.

Summary

Neurology depends like no other speciality in medicine on progress of basic research and the transfer of the results into the clinical practice. This concerns development of new medications, application of implantation methods using embryonic tissues and stem cells and on the development of new stimulation methods. On the other side neurology has a great tradition based on the experience of leading clinical centers, many of them in Europe.

The ethical demands in the modern neurology are far reaching. The practical neurologist has to know his ethical duties as well as the attitude of his entrusted patients. The Hippocratic maxime should be understood as the basis of medicine all over the world and is still valid, but the exact wording is nearly not present in the daily work. The Hippocratic maxime has gained a new relevance due to the scientific advances, which have reached the borders of ethics in the recent accepted laws. Confronted with his patient, the physician increasingly has to ask himself if he is allowed to do everything medically possible.

A modern version of the basis of medical work is written down in the Helsinki Declaration of the World Medical Association based on the Proclamation of the Human Rights. The patient has a demanding attitude towards the physician, who is more filled with doubt towards the modern medicine as in previous times. The patient's basic understanding is that modern medicine has to be available to the individual, while the well being of the whole human community is neglected. The duty of a medical board is to take ethical responsibility for certain medical questions. The rules for interrupting a treatment as well as for beginning a treatment program in a hopeless state also concerns decisions like euthanasia, end of life decision and brain death.

Basic ethical norms are of significant importance in human experiments. Research programs including humans are necessary for the development of new therapies and new diagnostic methods. Revised regulations are binding and written down in the guidance of the Good Clinical Practice (GCP). In the commandments of the GCP were settled worldwide by international harmonization. In the rules of the ICH-GCP, a huge remarkable difference between the humanistic thoughts of the ancients and the mercantile attitude in the age of globalisation is shown. Despite detailed ethical guidelines for treatment of ill human beings and all judicial preventions for the safety of the patient, but until these days a tendency to make profit out of disease and suffering can be seen.

It is not acceptable that ethical regulations of the Western world hidden behind the aliases democracy are used as a binding globalisation present for other cultures and

religions. The evidence based medicine is developing to be a carrier of such a way. From the scientific side, a demand rises for religious institutions all over the world to confront the materialistic research ideology with a transcendental thinking.

More than 2000 years ago Aristoteles found a new form of philosophy based on the thoughts of Plato and the natural sciences of his time. In his philosophy Aristoteles brought a spiritual element, "the pure spirit", into the biomechanical and materialistic thoughts. It was the overruling principle, however without a concept of God. The fundamental idea of the later developed ethics is presented in the higher order of guiding principles based on Christian philosophy. Saint Augustinus and Thomas Aquinas founded the Christian ethics as the basis of the recent ethical rules.

Reflecting the philosophy of Aristoteles Immanuel Kant laid down the basis of moral definition for the human community in the principle of the Categorical Imperative: "Every human activity shall take place in a way to fit into general moral and ethical norms." The philosophy of Aristoteles is reflected in Kant's eternal phrase: "I deeply admire two things, the eternity of the stars above me and the greatness of the moral laws inside me".

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Stavros J. Baloyannis
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