

Summary

The Swedish National Council on Medical Ethics has, on its own initiative, prepared this report on the ethical aspects of robots and monitoring in the care of elderly people. The aim of the report is to encourage public debate and provide support ahead of decisions on the use of robots and monitoring in health and medical care, and care provided by social services, to elderly people. The report is limited to only cover such robots as specified in Chapter 2 and monitoring using cameras and GPS transmitters. Other types of robots and ethical issues than those considered here may be the object of analysis in future projects.

Background

The development of robots for use in care is moving ahead at a rapid pace. Politically, there is an interest in streamlining health and social care that concerns the elderly since demographic developments show that the proportion of older people in the population is increasing. Several initiatives have therefore been taken, both at national and EU level, to advance the use of new technological solutions in the care of elderly people.

There are various types of robots that can be considered for use in health and medical care, and social care. Examples of their use include communication with an individual, as an eating aid, for training and rehabilitation, as a substitute for missing limbs or for mobility assistance, as companionship or to avoid heavy lifting by health care staff. Although developments are moving swiftly, many robots are still in the developmental stage.

Regarding the use of monitoring in health and medical care and social services, camera monitoring can serve as an alternative or a complement to physical supervision of an individual. The goal of elderly policy has long been that elderly people should be able to live independently and lead independent lives in safe conditions. The care provided by social services focuses on elderly people being able to live in their own homes as long as possible with the support they need. This leads to more frail elderly people remaining in their home longer, with extensive supervisory needs as a result. Camera monitoring can be a way to increase security but also to make care more efficient. Furthermore, with a GPS transmitter it is possible to find out where a person is if it is suspected that they have got lost. This kind of technology can be useful when a person with a cognitive impairment, such as dementia, goes out on their own.

Ethical aspects

The Council's discussion on the use of health robots and monitoring in the health and social care of elderly people has been problem-based and has proceeded from a number of ethical issues.

The Council's discussion of the issue of robots has been on a general level in the sense that individual robots have not been analysed on a one-by-one basis. However, it has been pointed out that there are ethically relevant differences between, for example, robots that perform tasks previously carried out by health care staff and robots used to replace bodily functions that the individual lacks. Accordingly, all ethical problems that are presented are not relevant with regard

to the use of all health robots, since these can vary widely and have very different areas of use and functions. This means that each robot must be discussed and evaluated individually, taking account of the ethical issues identified.

The following are the ethical issues highlighted by the Council regarding health robots and monitoring:

- When is it ethically acceptable to use robots and monitoring technology in care of the elderly? Relevant issues here include what is meant by quality health and social care, and human needs such as social stimulation.
- How can it be ensured that resources are distributed fairly so that those who are in need of the new technology gain access to it?
- How is the right to self-determination ensured so that people with impaired decision-making abilities receive the care they need and that account is taken of their wishes?
- Can a balance be struck between the invasion of the individual's privacy and the benefit of the technology, and if so, how?
- How can it be ensured that research and development of new technologies is evaluated from an ethical perspective and that ethical assessments are made ahead of the introduction of robots in health and medical care, and care provided by social services?

Overview of arguments for and against health robots and monitoring using cameras and GPS:

Arguments that can be made in favour:

- Health robots and monitoring technology in care of the elderly can improve the individual's quality of life, privacy and self-determination.
- Health robots and monitoring technology can lead to improved care quality in health and medical care and care provided by social services.
- Health robots and monitoring technology can streamline health and medical care activities/care provided by social services so that better use can be made of resources.
- Health robots can improve work environment for staff in that duties that are strenuous and involve heavy lifting can be avoided.
- Monitoring using GPS can prevent elderly people from injuring themselves in situations where they get lost.
- Monitoring can help give relatives peace of mind.

Arguments that can be made against:

- Health robots and monitoring can entail a deterioration of an elderly person's quality of life and a disproportionate invasion of their privacy.
- Replacing health care staff by health robots or cameras/GPS transmitters can mean that an elderly person's social stimulation is reduced and that the need for security and human contact is not satisfied.

- Health robots and monitoring may mean that quality health and social care cannot be provided.
- Purchasing health robots for use at a facility can entail large financial costs, resulting in the discontinuation of other activities.

Reflections and viewpoints

Health robots

Research and knowledge gaps

Robots can have a decisive impact on the content of health and medical care, and care provided by social services. The Council considers that robotics has great potential to improve the quality of health and social care.

However, the Council considers that there is a need for more research on how different health robots affect people and important values in health and social care. Such research must be conducted in parallel with the technological development of a specific robot so that the development of the new technology is carried out in a responsible and ethically acceptable manner. Discussions on ethical issues must be given greater scope in the innovation process and be a clear part of the technical development. In this respect, both individual companies and relevant public authorities must take their responsibility.

Ethical assessment ahead of introduction

The Council wishes to emphasise the importance of always making an assessment of a health robot's impact on ethical values before beginning to use it in health and medical care, and social services. These assessments are generally made by decision-makers at an overarching level. In cases where such an assessment is not already required under the current Health and Medical Services Act and the Social Services Act, such provisions should be incorporated in the relevant legislation. Routines for this should be in place at every facility that provides health and medical care or social services. The Council assumes it will be ensured that a health robot meets the requirements of good health care, quality social services, safety, etc. before it is used in health and medical care or social services. The facility should be organised so that someone has a clear responsibility for this.

Follow-up and evaluation

The Council considers that follow-up and evaluation of each new health robot must be carried out to ensure that ethical values in health and medical care, and social services, are not threatened and that legal requirements are met. A competent authority should be instructed to conduct such assessments and evaluations.

When assessing an individual case

The assessment in an individual case as to whether a health robot should be used by an individual is usually made by staff at a clinic, a health centre or the municipality. The following should be particularly ensured:

- that an individual assessment, based on the individual's circumstances and needs, is made as to whether the action is necessary. Questions of importance are: what benefit does the individual gain from the robot? What are the risks involved? What is the individual's own opinion? It must be ensured that the individual's need for social stimulation is satisfied.
- that the individual's consent to an action is informed and voluntary.
- that complete information is given in an appropriate manner and that the person has understood the information.
- that the person is offered an equivalent alternative if they decline the action.
- that testing is carried out on the basis of the person's needs and that there is a trial period during which the person has the opportunity to test the health robot.
- that follow-up and evaluation is carried out by staff with the proper skills for the task, during which it is checked that the individual's health and social care needs are satisfied. If this is not the case, the action must be immediately terminated.
- that sensitive information about the individual that is registered by the health robot is protected, and that acquisition and management of information is limited as far as possible.

Particular considerations concerning people with impaired decision-making abilities

Regarding elderly people with impaired decision-making abilities, the Council wishes to emphasise that it is especially important that health care staff are careful about how information is given, that it is ensured the individual has understood the information, that extra sensitivity is shown and support given to facilitate a decision before a robot is introduced in the care provided. Otherwise, there is a risk that the person's wishes will not be respected and that the person will not receive necessary health and social care, which is contrary to both ethical principles and legislation.

Monitoring

Ethical assessment ahead of introduction

The Council considers that before monitoring measures are introduced in health and medical care, and social services, an assessment must be made of the impact monitoring may have on ethical values. It is therefore vital that careful assessments are made in each individual case so that the individual's right to self-determination, privacy and equal care on equal terms is respected and the requirement of quality health and social care is satisfied. An assessment of this kind must be made before beginning to use monitoring. There should be a person at the facility who is responsible for ensuring that this is carried out.

As supervision that can be carried out solely by means of a camera is limited, the Council sees a risk with using a camera as a substitute for personal visits unless the monitoring is supplemented by other supervision or additional technical solutions.

When assessing an individual case

When assessing an individual case on whether monitoring should be used, the following in particular should be ensured:

- that an individual assessment, based on the individual's circumstances and needs, is made as to whether the action is appropriate. Questions of importance are: what benefit does the

individual gain from the robot? What are the risks involved? What is the individual's own opinion? It must be ensured that the individual's need for social stimulation is satisfied.

- that the individual's consent to an action is informed and voluntary.
- that complete information is provided as to how monitoring is arranged, who is authorised to access the information that is registered, when information is registered, etc., and that information is provided in an appropriate manner. It must also be ensured that the person has understood the information.
- that the person is given an equivalent alternative if they decline the action.
- that testing is carried out on the basis of the person's needs and that there is a trial period during which the person has the opportunity to test the action.
- that follow-up and evaluation is carried out by staff with the proper skills for the task, when it is checked that the individual's health and social care needs are satisfied. If this is not the case, the monitoring must be immediately terminated.
- that sensitive information about the user that is registered is protected, and that acquisition and management of information is limited as far as possible.

Balance between benefit and invasion of privacy

The Council wishes to particularly emphasise the importance of striking a balance between the benefit and the invasion of the individual's privacy that monitoring entails. Measures should therefore be taken so that the invasion of privacy is as limited as possible.

Particular considerations concerning people with impaired decision-making abilities

Regarding elderly people with impaired decision-making abilities, the Council wishes to emphasise that it is especially important that health care staff are careful about how information is given, that it is ensured the individual has understood the information, that extra sensitivity is shown and that support is given to facilitate a decision before monitoring is introduced in the care provided. Otherwise there is a risk that the person's wishes will not be respected and that the person will not receive necessary health and social care, which is contrary to both ethical principles and legislation.