The Norwegian College of General Practice
THE NORWEGIAN MEDICAL ASSOCIATION

Position Paper

Overdiagnosis and related medical excess

Confidence in the medical profession depends on doctors safeguarding the fundamental ethical commitment to not harm. However, some parts of medical practice are now expanding in ways that do not promote health, leading to unnecessary use of resources and, at worst, causing harm. Leading medical journals and medical colleges have placed this excess on the agenda: '*Too much medicine*' in the British Medical Journal, '*Less is more*' in the Journal of the American Medical Association and the campaign '*Choosing Wisely*' held in, amongst other countries, the USA, Canada and the United Kingdom.

Health anxiety is widespread, and patients' rights are currently being strengthened. Methods of investigation and treatment available within specialist care are increasing. In this situation the GP's generalist competence is crucial for good healthcare. Therefore, NCGP wants to strengthen GPs' ability to exercise professional judgement within their own practice when confronted with knowledge providers and stakeholders.

NCGP wishes to place overdiagnosis on the agenda among their own members, other doctors, health authorities, media and the general population in order to stimulate public debate and contribute to a better use of health services.

The key messages of the college are:

- Overdiagnosis endangers patients and public health.
- Overdiagnosis is driven by the notion that physicians should always be able to detect or prevent serious disease at an early stage, by an excessive reliance on technology, individualised prevention, and by commercial interests.
- It is important that GPs contribute to reducing overdiagnosis; as GPs are both gatekeepers and coordinators for many health services.
- Physicians and authorities should acknowledge and support the view that even an excellent health care system cannot always detect disease at an early stage.

DEFINITIONS AND EXAMPLES

A narrow definition of the term "overdiagnosis" is that a person, preferably without symptoms, receives a diagnosis which does not reflect a real disease and therefore does not lead to treatment that averts health problems or death. This definition of overdiagnosis is in line with international literature (BMJ 2015;350:h869).

However, the term "overdiagnosis" is often used in Norwegian in a broader meaning to describe different forms of medical *excess* or *too much medicine*. This includes overtreatment and *overinvestigation*, i.e. investigations and tests which are unlikely to provide useful information and can be assumed to be unnecessary even in the presence of symptoms. Overinvestigation increases the danger of

unnecessary or incorrect diagnoses and can therefore also lead to unnecessary or potentially harmful treatment.

A particular form of medical excess is related to changing diagnostic criteria to include a larger part of the population. This may lead to disease labelling of healthy people. In this context, social problems may be obscured when their consequences are defined as disease.

The following examples illustrate different types of medical excess and the driving forces behind these. We do not pretend to give precise definitions. The limits between overactivity and useful medical activity may often be unclear, and the causes of overactivity are often complex.

1. Avoidable overdiagnosis occurs in situations when it is possible to avoid by following current knowledge and guidelines. In practice, guidelines are not always followed. This is sometimes referred to as "bad medicine" in international literature. Image diagnostics performed without professional indications is one example of avoidable overdiagnosis, and sometimes concurrent '*random findings*' can lead to confusion, concerns and overtreatment.

2. Un-avoidable overdiagnosis is difficult to detect because it does not violate the current guidelines. It occurs because the guidelines are defensive or because the disease definitions are so comprehensive that they include conditions that never will lead to loss of health if undetected. Random screening for cancer may be an example. Sometimes "cancer tumours" are detected and treated without a positive health effect because the tumour in reality is innocuous.

3. Profit-driven overdiagnosis is often based on commercially influenced scientific research. Private health insurance programs may generate demands for unnecessary investigations. Moreover, with negative or false positive findings, patients and others may be lead to think that the investigation in question is useful. Investigations of self-limiting symptoms in private health insurance and pharmacies' screening campaigns to find '*vulnerable*' individuals are examples of this type of overdiagnosis.

4. Disease mongering is a variant of commercial overdiagnosis. There is a tendency of health and pharmaceutical industries to exaggerate the seriousness of minor health issues or normal life processes. Disease mongering may define normal and non-harmful phenomenae such as baldness to be a medical problem. Mild symptoms related to irritable bowel may be made into a medical problem. Biological explanations may be given to symptoms linked to phenomenae such as social phobia and depression.

5. Overdiagnosis driven by fear is probably quite common. Disease anxiety is widespread among doctors, patients and health authorities. We observe more fear of omission errors than errors of excess. An example of overdiagnosis driven by fear may be the exaggerated use of blood samples or other investigations in situations where the information already at hand and the physician's clinical judgement should be sufficient to manage the health problem.

6. In obscuring overdiagnosis, social problems are translated into individual disease. This happens when agents in health and welfare services demand disease diagnoses to legitimize social and welfare benefits. As a result people who have experienced existential difficulties or trauma may receive diagnoses, welfare benefits and sometimes biomedical interventions. Sometimes this can have the unfortunate effect of further undermining the patient's coping ability.

THE POSSIBLE IS NOT ALWAYS PREFERABLE - NOT EVERYTHING THAT WORKS, IS USEFUL

Overdiagnosis is related to the idea that doctors should always be able to discover or prevent serious disease at an early stage. With regard to prevention of disease among people without symptoms regarding early detection of disease, this is a costly perception.

Screening and preventive treatment is useful in some cases. However, in other cases it can lead to a number of people receiving an unnecessary diagnosis and treatment, with the possibility of doing harm.

GPs have to perform targeted diagnostics and treatment in a population where mild symptoms are most often transient and innocent. The GP's task is to identify serious disease. However, at an early stage of serious disease, it is often impossible to predict an aggravation. GP's therefore have to perform stepwise investigations whilst seeking to limit the extent of errors of excess, as well as errors of omission.

When the patient's concerns have social and existential causes, a trusting relationship between the patient and the GP enhances the patient's ability to cope. On the other hand, an attempt to handle problems related to e.g. loneliness, lack of coping and meaning with biomedical intervention, the possibility of providing support for the patient may be squandered and the patients may be exposed to harmful overdiagnosis.

OVERDIAGNOSIS AND PRIORITIZING

The most important reason to avoid overdiagnosis is that it can be harmful. However, even unnecessary actions that are not directly harmful should be avoided, because this will increase the cost of care. Due to limited resources, overdiagnosis may indirectly contribute to maldistribution of resources and to underdiagnosis. While some people go through excessive investigations and are labelled sick, other groups receive too little help. Good priority work includes detecting futile and harmful activity, in order to free resources for useful care.

MEDICAL PRACTICE AND RESEARCH

- Physicians' professional knowledge and authority to avoid investigations and treatment beyond medical indications must be strengthened.
- General practice competence must be included when decisions are made about clinical limits and criteria to be used in the area of primary healthcare.
- Physicians' use of language about risks and prevention should be moderate. Care should be taken when describing conditions that are uncertain to develop into disease, even if they seem to be pathological or even malignant.
- Within research and dissemination of knowledge we need to pay attention to possible harmful effects and the usefulness of medical actions.

NATIONAL HEALTH MANAGEMENT

- Authorities should discourage the myth that early diagnostics and prevention are an unconditional good, and acknowledge that attempts to avoid all cases of false negative findings lead to the increase of false positives.
- All guidelines for health services should include a description of potential harm

Authorities should develop indicators of overdiagnosis and overtreatment. Authorities should include errors of excess as a topic for governmental supervision, in addition to errors of omission.

THE PUBLIC

- Information about health and health services, including screening and other methods of prevention, should include the stance that life is unpredictable and that all medical activity has side effects and limitations.
- Physicians and authorities should actively stimulate debate on the consequences of commercializing healthcare.
- The connections between medical diagnosis, welfare services and benefits should be debated.

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