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Medicine and Economics

Opinion of the Bioethics Commission

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Vienna, 2018

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Preamble

In 2015, the decision taken by the members of the Bioethics Commission to devote themselves to the topic of "medicine and economics" met with great approval. The decision was based on the increasingly difficult question of distributive justice in view of resource scarcity, demographic development and commercialization trends. The discussion started with the international public event "Medicine and Economics – A Taboo?" on 5 October 2015.

Our epoch is dominated by limited resources, and thus by discussions about avoiding waste and withholding desirable services, including e.g. treatments, medication and personal care. In the future, we will all be increasingly confronted with this limitation and face the economic challenges posed by everyday life in a medical context and the innovations taking place there. All health care providers will have to pay more attention to the costs of their decisions. In a community of solidarity, all actors have an obligation to use available resources responsibly. Ethical principles such as the principle of beneficence, the principle of non-maleficence, respect for patient autonomy and above all the principles of justice as well as solidarity and fairness must be taken into account in all decisions, including decisions involving health economics.

It is clear to everyone that not even the best health care system can finance and provide all medical treatments, including those which might potentially be marginally effective only, for everyone at any time, anywhere. However, medicine and economics are not opposites, they must both be brought to bear on decision-making. There can be no taboos for bioethics commissions: they must address the questions which society is facing as the life sciences evolve. In this context, too, "discussing everything" does not mean "allowing everything"; it means shedding light on issues, considering them with the support of experts, and achieving a good result for all.

Through such an ethically responsible debate, the Bioethics Commission aims to contribute to strengthening our public health care system based on solidarity through engaging with the issues of "economics and medicine". With this in mind, the Bioethics Commission has devoted itself to this topic since the discussion was launched in October 2015, beyond the appointment of members for a new term in July 2017, and is concluding the debate with the recommendations presented here dating from February 2018.

Propositions for the Public Debate

For many people it seems that economic considerations have gained in importance in the health care system in recent years. This is accompanied by arguments about notions of "justice", "fairness" or "solidarity", which are linked to fundamental ethical categories. Engagement with "medicine and economics" is essential both for persons affected individually and for social coexistence.

Since its beginnings, engagement with related issues has been an important part of modern bioethics. We expect ethics to give us normative guidance in respect of issues and interests; in this context, what is sometimes perceived as the power of (economic) facticity is to be counterweighed by something to be justified by ethics.

This document takes up some of the most important discussions in the field of "medicine and economics": the fundamental question of the relationship between health care and the economy; efforts to increase efficiency in the health care system and the problem of allocating limited resources. All three strands of the debate have ethical dimensions, which are identified and require ethical guidance for informed engagement.

The Bioethics Commission's mission is to contribute to a reflective and differentiated public debate that goes beyond common stereotypes and frontlines, offering decision-makers opportunities for a change of perspective. This dossier aims to clarify important concepts and points of departure which this opinion is based on.

1 Economy is an important principle in the responsible use of public resources

It too can and must serve the well-being of individual patients and society. Economic medicine is not identical with medicine in which excessive commercialization no longer serves the well-being of patients and society. Moreover, according to economic principles medicine does not mean rationing health care services according to the "purchasing power" of individual patients; this would contradict fundamental convictions of justice, which are characteristic of the developed Austrian welfare state. The socio-economic situation of a person must not determine whether and what support s/he receives for the maintenance or restoration of her/his health.

2 Removing taboos improves the quality of public debate

If economic considerations in connection with health and illness are seen as a threat to the welfare state based on solidarity, a common reaction is to treat the issue as a taboo in a more or less pronounced manner. A wish to discuss the alternative use of limited resources in health care can quickly be seen as a breach of taboo. However, this belies an implicit interaction of medicine and economics which has always existed anyway:

- Socio-economic status is an important factor influencing health. From this, we can deduce that people with weaker socio-economic power will need more, not less, support than those with a higher status.

- All those involved in the health care system – service providers and recipients – also have economic interests. These are legitimate but subordinate to the goal of high-quality health care based on solidarity.

3 The topic "Medicine and Economics" has ethical relevance

The ethical relevance of the topic is rooted in at least two ideas:

- Firstly, there are questions of valuation: What is the value of a particular health service? How can we assess "too little" or "too much" medicine? What do individual patients need?
- Secondly, there are questions of justice: How do we use our resources? How do we deal with the risk of discrimination?

The central economic challenge we face in all areas of life is: How do we deal with the fact that our resources are limited? There are basically three possible answers to this question, and they also apply to the health care system:

- We try to increase our resources.
- We try to use our resources more efficiently.
- We try to use our resources to a limited extent only.

4 Simple approaches do not provide a longer-term solution

Contrary to a simple either/or logic, responsible work with all three approaches must be in the focus:

- We will have to invest more resources in health. This does not automatically mean that the current structures and recipients of resources should receive more in the future.
- We will have to use resources much more efficiently. The most economical use of available resources is a question of responsibility for all those who need health care. Nevertheless, increases in efficiency must always be accompanied by quality assurance.
- We will have to discuss allocation decisions honestly. Even today, the public funding of some effective health care services has occasionally been undermined. An open social discourse can review instances of subtle rationing for their justification.

1 Methodical approach

No ethically founded engagement with issues of "medicine and economics" will be possible without reflection on some basic concepts, methods and points of reference. In this context, ethics must contribute to a *reflective* and *differentiated* public debate that goes beyond common stereotypes and frontlines, offering decision-makers opportunities for a change of perspective.

The ethical assessment of questions in the field of "medicine and economics" must avoid two fallacies:[1]

- The *normativistic fallacy* derives demands for action and decision-making directly from moral ideals without taking into account the situational and contextual factors, i.e., what is factually given in a situation. For example, many people tend to believe that "*if you only want to*, you can achieve a condition where there is more solidarity, one that is fairer than other conditions."[2] Such ideas run the risk of moralizing, i.e., taking moral norms to the level of research or shaping without taking sufficient account of the complex context of the related decision-making options. As a consequence, unjustified finger-pointing, infeasible or unreasonable demands, demands with counterintentional consequences, the erosion of institutions and morals, the emergence of unrealizable expectations and demands, blockades and animosities, as well as an aggravation of social conflicts may arise.[3]
- The *empiricist (economistic) fallacy*, on the other hand, derives demands on action and decision-making directly from the conditions given without looking at normative aspects of what is right (equitable) or good (values, ideals). In the context of economic conditions, figures in particular seem to be holding factual power. In view of key economic and business indicators and figures, many people tend to assume that *one cannot help* deciding in favor of a certain option. They do not reflect sufficiently that all decisions as to which key indicators should be relevant, how these key indicators should be defined and which targets are to be assumed for the key indicators developed, all come with normative, i.e., ethically relevant, aspects. It would, of course, again be a normative fallacy to assume complete arbitrariness in these questions. Conversely, however, it would also be an empiricist fallacy to simply conclude from given key indicators that there is no other way out.

Any ethical reflection on questions of "medicine and economics" must therefore be sufficiently context-sensitive, i.e., it must address the framework conditions for decisions in this field; ethical reflection must also contribute what can rightly be expected: knowledge for normative guidance. The conclusions which arise from the combination of demands (normative ideals, principles, values) and reality (economic contexts, medical conditions) should, from an ethical perspective, aim at the following demand: Judgments, claims and decisions are reasonably justified if they are based on consensual moral principles and take due account of the relevant empirical conditions.[4]

1 Suchanek (2007), *Ökonomische Ethik*, 30 f.
2 Suchanek (2014), *Ökonomische Ethik – Grundlagen und Empfehlungen*, 119.
3 Suchanek (2007), *Ökonomische Ethik*, 32 f.
4 Suchanek (2007), *Ökonomische Ethik*, 34.

2 The context of discussions

The context of the discussions in the field of "medicine and economics" is highly complex[5] and therefore particularly at risk of normativistic fallacies. If we want to remain capable of making judgements and decisions, however, we must reduce complexity.[6] This happens in medicine as well as in economics. Any reduction of complexity is based on knowing that not all aspects of a situation are covered and that aspects which could be relevant for a well-founded judgement might also have been ignored. It is an ethical question as to which aspects are considered relevant for judgement or decision-making because evaluations are made in this context.

2.1 Health

No ethical debate about the connection between medicine and economics can be conducted without a sufficient understanding of the terms "health, medicine, health care".

2.1.1 The existential significance of health

The existential significance of health is the point of departure in any ethical analysis in this field. Regardless of the question of what exactly "health" means (and does not mean)[7] – a question to which there is no final answer – it is generally assumed in ethics that health cannot be considered an absolute good of humankind whilst it is a fundamental enabling asset for many ways of life. We often only become aware of this existential aspect of health when health impairments arise.

Human health is fragile throughout life. Everyone is subject to this fundamental vulnerability. In some people, it becomes clear very early in life (e.g., in congenital diseases), in some people it suddenly disrupts life (e.g., due to an accident), others learn to deal with it consciously throughout their lives (e.g., in chronic diseases) while others notice as fragility slowly but unstoppably increases (e.g., due to age-related frailty).

From an ethical perspective, this general vulnerability of human beings can be identified as a common concern about the existential importance of health. In other words, health and disease are never phenomena that affect one person alone, in isolation, but phenomena which concern everyone. This common concern gives rises to a common, solidarity-based[8] responsibility for meeting the challenges connected with health.

5 Luhmann (1980), *Komplexität*.

6 Big data applications give rise to a novel form of complexity as these are also increasingly for the purpose of analysis and control in health economics; see Deutscher Ethikrat / German Ethics Council (2017), *Big Data und Gesundheit*, 68, 71, 108.

7 For example, the WHO definition, which has often been quoted and criticized alike, is "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." WHO (1948), *Concept of Health*; Schmidt (2010), *Gesundheit*.

8 Jennings & Dawson (2015), *Solidarity*; Prainsack & Buyx (2016), *Solidaritätsprinzip*.

2.1.2 The social significance of health

Common concern and responsibility for health consequently continues on the level of society. From an ethical perspective, a societally institutionalized health care system has been characterized as an expression of "well-orderedness"[9] or "decency",[10] in short, as a reflection of an equitable society.

However, the fact that people are not left to their own devices with their health problems is not only connected to a common existential concern but also to collective interests in a functioning common health care system. Amongst other things, the social significance of a functioning health care system for all people results from an interest in social peace and social stability, and it is promoted by economic interests (minimization of the burden of disease on the population, as well as care for sick people). It should therefore be in the *self-interest* of each actor to maintain an effective and efficient health care system for the entire population.

2.1.3 The scope of the health concept

Although there are reasonable (i.e., generalizable) and rational (i.e., self-interest based) grounds for the fact that concern for the health of every member of society is a common task, the context of economic considerations causes serious challenges arising from the question for the scope of the health concept.

After all, equitable concern for health-related needs presupposes that there is a consensus on which health-related needs are considered to be justified, i.e., where they lead to demand. Apart from e.g. well-known diseases, the incidence of which is increasing as a result of demographic change (a larger number of older people), there are also situations in which the question arises as to whether a disease requiring treatment is present or as to when this starts. Moreover, the concept of disease has partly shifted forward in time: through the extended possibilities of predictive medicine, dispositions and conditions are now considered diseases, which was not the case in the past. In many cases, this is associated with a need for e.g. a more tight-meshed system of prevention, diagnostics and preventive treatment in order to compensate for differences in human beings' initial biological conditions ("genetic lottery").

In all these aspects, the fact that health not only depends on medically predictable, diagnosable and treatable factors is largely ignored; in fact, it is to a great extent linked with socio-economic factors ("social lottery") such as education, safety and security, work, income, housing conditions, etc.[11] In this respect, the contribution of medicine as we currently define it may come too late in many cases, but will be needed all the more then. Even approaches to individualized (personalized) medicine[12] will not be able to change this for as long as the socio-economic living conditions of people make it difficult to understand and make use of potential approaches of individualized medicine. The "Health in All Policies" strategy of WHO is an attempt to respond to this fact.[13]

With regard to our understanding we have of health and disease, we must, from an ethical perspective, also ultimately ask the question as to what extent health needs and the apparent

9 Rawls (1975), *Theorie der Gerechtigkeit*.
10 Margalit (1996), *The Decent Society*.
11 Marmot (2015), *Health Gap*.
12 Deutscher Ethikrat (2013), *Personalisierte Medizin*; Holgate, Palotie, et al. (2012), *Personalised Medicine for the European Citizen*.
13 Gesundheit Österreich GmbH (2012), *Health in All Policies*; Kickbusch & Buckett (2010), *Health in All Policies*.

demand for medical care are based on the false hope that *all* medical care is justified and necessary in order to eliminate diseases, infirmities and associated suffering *for once and for all*.[14] Such a view would negate the fundamental contingency of human life and increase the risk of a "health ideology" which all other aspects of a good life would be subordinate to.

2.1.4 Professional care for health needs

Professional care for health needs is often centered on the term "medicine". It must be borne in mind that this involves the interaction of a variety of professions and specialties, and that such increasing differentiation further increases complexity.

In order to be able to adequately answer questions about justice in medicine, it is necessary (but not sufficient) to discuss the goals of medicine.[15] The classical goals – promoting health; maintaining health; restoring health; alleviating suffering – are still valid. But even within these established goals, it becomes clear that, with regard to economic decisions, "restoring health" is of paramount importance, a fact which is sometimes criticized. Complexity increases when the limits of the classical goals of medicine are pushed. Medical services associated with catchwords such as "lifestyle medicine"[16] or "enhancement"[17] are usually not seen as something which has to do with shared social responsibility although it is not always easy to draw a line. Furthermore, the socio-economic status of people who use such services is to a great extent elevated, as others do not have the required resources. However, regardless of whether such medical services should be provided by a public health care system, they will have an impact on the self-image of health care professionals and their relations with patients and clients. With the change in the goals of medicine, the self-image of the health professions, the expectations of the public and the related decisions on shaping and financing of the health care system are also changing.

Medical ethos is a concept linked with the self-image of the health professions. Among other things, this includes a certain responsibility for the common good, giving priority to patient needs over one's own preferences and responsibility for minimizing harm and maximizing benefits for the specific patient.[18]

The question to what extent such an ethos of health care professionals is still relevant today, thus distinguishing the health care system from other systems, is a subject of controversial international discussions.[19] From an ethical perspective, any ethos which is presented emphatically must always be reviewed critically in terms of ideology. It is not uncommon that "protectors" of patients' interests are found to be primarily protecting their own interests. Nevertheless, even when viewed with a critical eye, the health care system is still largely dominated by members of the health professions distinguished by high social ethos.

For many actors in the health care sector, such an ethos seems to be incompatible with economic considerations. However, this would presuppose that health care professionals are not supposed to have *any* economic interests – which is neither the case nor can it be demanded.

14 Callahan (1998), *False Hopes*.
15 Callahan (1996), *Goals of Medicine*; Hanson & Callahan (1999), *Goals of Medicine*.
16 Radlingmayr (2009), *Grenzen des Krankenbehandlungsanspruchs*; Engelhart (2014), *Lifestyle-Medizin*.
17 Eberbach (2008), *Verbesserung des Menschen*.
18 See ABIM, American College of Physicians – American Society of Internal Medicine (ACP-ASIM), et al. (2002), *A Physician Charter*; Karsch (2015), *Zwischen Markt und Moral*, 79.
19 Freidson (1970), *Profession in Medicine*; Freidson (2001), *Professionalism*.

After all, the definition of a profession has always included the assumption that the services provided justify a fee.

2.1.5 Healthcare services

"Healthcare" is defined as a social system whose aim is to promote, maintain and restore the health of the population and to alleviate the suffering caused by illness, even if health cannot be restored.

The health care system is a social system including numerous actors with specific individual interests ("stakeholders"). In the eyes of the public, it is generally the patient who is regarded as a central stakeholder.[20] Ethical arguments can be used to corroborate this, especially those according to which the patient is in a particularly vulnerable position due to his or her disease, and that health and life, two goods highly valued in our society, could therefore be at stake. Thus, this could be an applicable ethical principle: Economic considerations in the health care system must focus on the central stakeholder – the patient.

In an ethically fair analysis, however, one must not deny that, apart the patient, there are other stakeholders with legitimate interests. These include among others: those working in the health care system (self-employed or employed), those supplying the health care system (e.g. the pharmaceutical industry, medical device manufacturers, consumer goods and food producers), those financing the health care system (social security, local authorities or contributors and taxpayers, private health insurance companies), those who maintain the health care system (public and private institutions), researchers in or looking into the health care system (universities and extramural institutions) and those who regulate the health care system (Federal Republic, *Länder*, EU, professional groups).

These stakeholders do not always have the same interests. However, *all* stakeholders *also* have (amongst other things) economic interests in the health care system, and this even goes for patients: Everyone is in a complex situation, with a multiplicity of interests. As a patient, one wants the most effective and efficient help available with one's health problems. As a family member, one wants to keep the potential financial burden of care as affordable as possible for the family. As a contributor and taxpayer, one wants the lowest possible rate of taxation on one's income.

Given this complex stakeholder environment in the health care system, the following should be noted from an ethical perspective: It would be dishonest to claim that there is a stakeholder *without* economic interest in the health care system. For this reason alone, the reference to economic implications in the health care system is not *un*ethical, but a prerequisite for a critical investigation of such implications. In terms of normative ethics, one may and should assume that the interests of the patient in her/his health must be in the focus of all economic considerations. However, this does not justify a view according to which economic considerations should have no place whenever the interests of the patient are concerned – not least because it is the interests of the patient themselves which are *also* at stake.

20 Deutscher Ethikrat (2016), *Patientenwohl*.

2.2 Economy

In parallel with the discussion about fundamental ideas regarding the concepts and notions of health, medicine and health care, we must also engage with economic concepts in order to arrive at ethical judgements.

2.2.1 Economy

The term "economy" is traditionally understood as a social system which focuses on guiding the actors involved in such a way that they are able to use the available resources as rationally as possible for the achievement of certain goals.

Hence the "viability" of human action is a central aspiration of economy, meaning the efficient allocation of resources. First and foremost, efficiency stands for fixed goals which should be attainable using the lowest amount of resources possible. Such avoidance of waste is a widely shared, ethically supportable point of reference in the health care system.[21] But again, looking at this issue in detail, we will find ethically relevant questions, in particular: What is included in "waste"? Efficiency may thus also have a second meaning, i.e. achieving the best possible result with existing resources. If economic considerations are based on this exclusively, the question as to which quality criteria must be satisfied remains unanswered. Therefore, this problem plays an ethically relevant role in the context of rationalization approaches in health care (see section 4.1 below).

In contrast to the classic definition of economy, which focuses on scarcity and the resulting economic requirements, there is an extended notion of economy which comes to bear in socially relevant institutions such as the health care system. In this context, economy is about "potentials and problems of societal cooperation for mutual benefits".[22] This approach does not consider the basic problem of economy as a technical question of efficiency, but a social issue of system design. There is no denial of scarcity in this view; rather, it is defined as a situation in which conflicts may arise among people over scarce goods, or people may choose to cooperate in order to mutually improve their situation.

For the European-style welfare state, this view of economy seems to be more appropriate than one that reduces economy to mere mathematical or technical aspects. Against this background, the health care system is an institution which aims to ensure social cooperation for the mutual benefit of stakeholders. Pitting stakeholder against each other, separating them from each other and excluding some, arguing that they have to reduce their demands so that others can get more, is not enough in this view of economy because this train of thought is based on a mere zero-sum game, not on added value through social cooperation.

2.2.2 Economization

When we speak of an "economization" of the health care system, we mean that the integrity of the "health care" sphere is changed by the inner logic of the "economy" sphere.[23] To put it simply, "economization"[24] describes the introduction of economic considerations into the health care system, assuming that such considerations had previously been alien to it. The

21 ZEK-BÄK (2013), *Berufsethos und Ökonomisierung*, A1753; Brody (2012), *Ethics of Waste Avoidance*.
22 Homann & Suchanek (2005), *Ökonomik*, 4.
23 Walzer (1983), *Spheres of Justice*.
24 Schimank & Volkmann (2008), *Ökonomisierung der Gesellschaft*.

range of "economization" identified may be broad. For example, the following phenomena are included under this heading:

- Wordings using "health *market*", "health *service*" etc.
- Formation of corporations to run health care facilities, with the associated expansions, takeovers, group structures, etc.
- Offers of privately available health care services (e.g. the elective physician system, over-the-counter drugs)
- Cost-cutting approaches in the public health care system (e.g. capped budgets)
- Cost-effectiveness calculations in respect of medical treatments (e.g. in the context of drug approvals)
- Performance-based incentive systems (e.g. bonus payments in medical employment contracts)
- Development of rational work processes (e.g. clinical treatment pathways)

Some of these phenomena are indeed relatively new to the traditional inner logic of the health care system; they originate from a different logic rooted in the economic system. For example, influencing behavior by means of performance-based incentive systems is a typical mechanism borne out of the "*homo oeconomicus*" image. However, other phenomena which are also included in "economization" cause a change within the inner logic of the health care system. For example, there have always been economic considerations and behaviors in the public health care system to use available resources rationally. However, the instruments currently used for this have changed as e.g. target agreements with corresponding local budget responsibility have been introduced.

The complexity of "economization" in health care can be explained by the fact that, although the two system logics of health care and economy are not congruent, there are indeed overlaps in which the health care system incorporates aspects of the inner logic of economics. This is not least due to the fact that modern health care is strongly influenced by science, and the natural sciences, similar to economics, follow a purpose-oriented rational paradigm that is relatively foreign to other areas of health care, which, to a much greater extent, follow the logic of *care*. In these contexts, it is helpful not to limit economy to technical purpose-oriented rationality but to consider it as an effort to create opportunities for cooperation.

Finally, "commercialization"[25] is a special facet of economization. In commercialization, the most important purpose of rational action is seen in monetary value. Any commercialization of the health care system would therefore aim to design it in such a way that resources used can be represented in terms of money (through "pricing") as much as possible and so that these monetary values can be maximized (profit maximization). However, in terms of ethics, this logic of commercialization seems to be particularly questionable for the health care system.[26] According to the criticism voiced here, many aspects of the health care system cannot be expressed in monetary values without losing their ethical and social value.[27] Commercialization brings other standards to the fore (e.g. measurability, equivalence of performance and consideration) than those decisive in less commercialized relationships (e.g. willingness to help, self-commitment), and these other standards shape the behavior of actors.[28]

25 Kettner & Loer (2011), *Ökonomisierungsprozesse*.
26 Karsch (2015), *Zwischen Markt und Moral*; Raspe (2016), *Indikationsstellung in der klinischen Medizin*, 248.
27 Sandel (2012), *Was man für Geld nicht kaufen kann*.
28 Gneezy & Rustichini (2000), *A Fine is a Price*.

Therefore, there is a differentiation which is relevant for the ethical assessment of money in health care: In principle, money has always played a role in health care, but it has gradually become more important because today, there are stakeholders in the system whose interests are *primarily* defined through participation in financial profits. Economically speaking, the formal goal (maximization of profits) is more important than the objective goal (health care) for these actors. This degree of commercialization is incompatible with the socio-ethical significance of health care.

2.2.3 Socio-economically relevant aspects of health care

For a basic understanding of the conditions for action in the health care system, it is necessary to consider the following socio-economically relevant aspects influencing developments in the health care system:[29]

- Medical technological developments (diagnostic and therapeutic possibilities)
- Social developments (demography, population preferences, lifestyle)
- General economic developments (contributions and tax revenues, purchasing power)
- Regulatory developments (quality assurance systems, guidelines, financing and incentive systems)

On thing is certain: there are no monocausal factors influencing the economic development of the health care system. In many cases, it is not even completely clear to what extent isolated causal relationships exist (e.g. with regard to supply-induced demand). Nevertheless, the following is clear: "With increasing prosperity, increasing individual freedom and more choice due to innovation, (relative) scarcity often also increases."[30]

More and more efficient individual options (e.g. with regard to treatment methods) often increase the systemic costs through increased application.

Against this background, decision-makers in the health sector face the challenge of having to meet several objectives that cannot be fully reconciled:[31] (1) medical possibilities, (2) their quality, (3) their financial viability and (4) their fair accessibility. Even objectives (1) and (2) may conflict with one another if the variety of medical possibilities available today is fulfill sufficient quality and safety standards. The higher the barriers due to objective (2), the more limited objective (1) will be. Objectives (1) and (2) may in turn conflict with objective (3) because not everything which is possible in terms of quality assurance can be financed easily. Finally, in a public health care system objective (4) means that access to medical services must be guaranteed without discrimination. This may sometimes cause a conflict with unequal access options, for example, depending on insurance status, social status, place of residence or socio-economic background.

29 Zerth (2015), *Ökonomische Rahmenbedingungen und medizinische Indikation*.
30 Suchanek (2014), *Ökonomische Ethik – Grundlagen und Empfehlungen*, 112.
31 Eiff (2014), *Ziele einer medizinischen, ökonomischen und ethischen Reflexion*, 7.

2.3 System logics

From the above considerations it becomes clear that ethical questions are inherent in both the health care system and the economy: On the one hand, these are *societal* systems, i.e. systems designed by people, thus coming with ethical responsibility. On the other hand, both systems decide on goods which are largely highly valued and for which there is also corresponding ethical responsibility. However, the health care system and the economy each follow their own system logics which are partly connectable (i.e. they fit together), partly work side by side, and partly lead to contrary judgments and decisions.

2.3.1 Economic peculiarities in health care

Some aspects of conventional economic logic, which for example seem plausible in the context of industrial goods, will lead to peculiarities in health care:[32]

- The assumption that consumers choose goods rationally on the basis of cost-benefit considerations cannot be transferred to what patients demand in terms of health care services because such demand is influenced by medical information, education and social habits.
- Disease changes people's preferences. Suddenly, previously neglected values become almost infinitely important. Economists are not able to model these changes in preferences; instead, given preferences are simply assumed.
- The model of consumer sovereignty[33] usually does not apply in health care because the relationship between patient and doctor is clearly asymmetrical as regards the assessment of the situation.
- Healthcare services are characterized by a particularly intensive application of the *uno actu* principle, i.e. the service only comes about when the doctor and the patient work together – and in many cases, the situation (the disease) is under the sway of pronounced uncertainty and complexity. As a rule, this requires far greater patient competence (health literacy)[34] than is necessary in conventional market situations.
- Other asymmetrical relationships exist between insured parties and insurers, as well as between payers and service providers; this may lead to market failure due to moral hazard[35] and adverse selection.[36]
- The health care system is confronted with socially relevant "external effects". In a positive sense, these externalities lead to health care system services (e.g. vaccinations) benefiting the common good without the health care system being able to "invoice" these positive external effects. In the negative sense, these externalities mean that the health care system has to cope with the societal burden of disease (e.g. due environmental pollution) which it can influence partially only. Such externalities usually lead to goods and services being publicly financed as they cannot be provided in an economically viable way

32 Schulenburg & Greiner (2007), *Gesundheitsökonomik*, 8, 108 f.

33 The model of consumer sovereignty i.a. assumes that customers have full overview of their preferences, that they have all the required information and take rational decisions on that basis.

34 Sørensen, Van den Broucke, et al. (2012), *Health literacy and public health*.

35 In the context of moral hazard, there is an incentive for players to act in a riskier way because they are insured or have obtained financing anyway. The insurer or financer does not have enough information to factor the moral hazard behavior into the price accordingly. This is why costs rise for all those involved, which may eventually lead to market failure.

36 In adverse selection, high-quality suppliers withdraw from the market partly or entirely because consumers are unable to distinguish differences in quality offered by better and poorer quality suppliers but merely orient themselves toward costs because they believe that all suppliers offer quality which is by and large the same, so they choose what is less expensive.

by the private sector.
- In some systemically relevant areas of the health care system, there is a monopolistic dominance among providers, with only one provider being available for certain goods or services (e.g. patented drugs or medical devices).

These and other peculiarities do not mean that economic links known from other areas of life are completely irrelevant. However, a much more differentiated health economic analysis is needed than one sometimes gets when economic ideas from other areas of life are transferred to the health care system in a simplifying approach.

2.3.2 Ambivalence instead of antagonism

Against the background of the complexity outlined above, economic ethics applied to health care issues should not be tempted to think in terms of simple antagonisms, i.e. medicine vs. economy on the one hand and ethics vs. economy on the other.[37] Firstly, not everything which may rightly be criticized in modern health care from an ethical standpoint is due to economic influences; it may well e.g. be rooted in traditional moral standards, in a forensically conditioned defensive medical approach or simply in a lack of medical expertise. Secondly, not everything which can actually be attributed to economic influence in the health care system is ethically objectionable; in many cases, economic approaches contribute to strengthening the well-being of patients, for example by ensuring sustainable financing or more efficient treatment processes.

Any ethical assessment of economic influence in the health care system must therefore address and adhere to an open-minded approach to the ambivalence which results from an increased orientation toward criteria transferred from economics into the health care system. Resolving the ambivalence one way or the other ("medicine *or* economics") would not do justice to individual and societal life because it would represent a normativistic or economistic fallacy and thus miss the point of ethical justification.

37 Kettner (2015), *Spannungen zwischen Medizin und Ökonomie*.

3 Ethical Principles

For normative guidance in the ethical assessment of questions regarding medicine and economics, one can fall back on the four classical principles of biomedical ethics,[38] which must be geared to the topic at hand more specifically.

3.1 Respect for autonomy

Respect for the patient's personal autonomy also plays a central role in considerations of "medicine and economics".[39] Economic decisions in the context of health should therefore be assessed by the extent to which they protect and promote the options and abilities of patients with a view to personal autonomy, especially if they run an increased risk of losing these as a result of growing frailty and increasing dependency on care provided by structures of the health and social system.

3.1.1 Example 1: Investment in communication

Successful communication between the actors is indispensable for both individual treatment situation and systemic relationships in the health care system. There is a lack of respect for autonomy where questions, concerns and hopes are not addressed. Calls for "listening in medicine" and "relationship medicine" are therefore rightly raised.[40] After all, much is wanting in this context, especially time as a resource, and barrier-free communication.

The shortcomings in communication between patients and doctors or within the treatment team or between partners in the health care system are often attributed to the tight economic framework conditions. However, monocausal explanations or blaming is not enough. Rather, economic considerations could show that investing in good communication will also pay off financially. Moreover, economically conditioned approaches to organizational management can help to establish communication structures which have so far been alien to the health care system, which is traditionally characterized by highly individualized decision-making processes.

3.1.2 Example 2: Investment in health literacy – Communication needs literacy

Personal autonomy will remain no more than a formal right as long as those concerned are not empowered to exercise it adequately. In health care, this is essentially related to health literacy,[41] which is not a natural ability but must be built up and supported. The capability of health literacy will make it possible to bring respect for autonomy to full fruition.

Strengthened health competence will also have a positive effect on economic aspects of the health care system. In given treatment situations, it is a prerequisite for achieving the greatest possible convergence of patient behavior and the treatment concept agreed with the doctor, nurse or therapist (compliance). Lack of compliance usually results in increased treatment costs. Furthermore, highly developed health literacy has positive effects on the use of individual health care services. In order to find the right place in the complex health care system, the patient will at least need basic health literacy. Otherwise, s/he will run the risk of ending up in health care settings which are medically unnecessary and disproportionately expensive from

38 Beauchamp & Childress (2013), *Principle7th*.
39 Deutscher Ethikrat (2016), *Patientenwohl*, 38 ff.
40 Maio (2014), *Geschäftsmodell Gesundheit*.
41 "Health literacy" is the motivation and capability to obtain health-related information, understand and assess it and to act accordingly; see Sørensen, Van den Broucke, et al. (2012), *Health literacy and public health*.

an economic perspective. Moreover, a high level of health literacy is conducive to a lifestyle which identifies avoidable disease risks and responds adequately. In this sense, measures of health education / health promotion in childhood and adolescence are important contributions to health literacy investments.

Health literacy is also a core element of informed consent and shared decision-making[42] within the framework of patient-centered, participatory medicine.[43]

3.2 Non-maleficence

The principle of non-maleficence is one of the oldest ethical landmarks in medicine. It says that risks, burdens and damage which may be associated with medical treatment must be minimized. Economic decisions related to health should therefore be assessed by the extent to which they increase or reduce risks, burdens or damage to patients.

3.2.1 Example 1: Costs of safety

In many areas of life one typical consideration is about the relation between safety and the costs associated with it. In the health care sector, too, the question regularly arises as to what extent the use of a more cost-effective medical device associated with risks in handling is justifiable in view of the principle of non-maleficence.

The methodology associated with the ethics of principles supports an approach of weighing all factors, i.e. it assumes that there can be no absolute title to "zero risk" and that the legitimate principle of non-maleficence must be weighed against other legitimate interests.[44] This consideration results in borderline areas where it would be irresponsible to waive risk-minimizing features of a treatment or technique, but also areas where more risk-minimizing features would be disproportionate because this would lead to restrictions in other aspects of care. Thus, economic considerations in the context of health which strike a balance between safety and costs are not ethically objectionable per se.

3.2.2 Example 2: Avoiding non-indicated measures

Since every medical treatment involves risks and burdens, it is necessary to refrain from treatments in which damage would be greater than the benefit for the specific patient. This principle of medical ethics also applies to economic considerations in the context of health.

Measures which are not medically indicated result in costs which cannot be justified in general. Such measures are regularly taken in various areas of the health care system.[45] The causes are manifold: a defensive medical approach due to forensic considerations, therapeutic over-zealousness or financial interests, demands of patients and their relatives. From an economic

42 Godolphin (2009), *Shared Decision-Making*; Barry & Edgman-Levitan (2012), *Shared Decision Making*.
43 BEK-BKA (2015), *Partizipative Medizin und Internet*.
44 Eiff (2014), *Ziele einer medizinischen, ökonomischen und ethischen Reflexion*, 29; Eiff (2011), *Risikogewichtete Prozesskostenanalyse*.
45 Huynh, Kleerup, et al. (2014), *The Opportunity Cost of Futile Treatment in the ICU*.

perspective, however, one should in particular take a closer look at the question as to whether financial incentive systems fuel excessive diagnosis and therapy.[46]

3.2.3 Example 3: Undersupply

Whilst oversupply with medically non-indicated measures is a problem, the same is true of situations where system-related undersupply, which conflicts with the principle of non-maleficence, arises in the health care system.

An example of this is early discharge from hospital due to an incentive to shorten the length of stay. Such a reduction in hospitalization times may be justified and necessary for several ethically relevant reasons, especially if it serves to maintain patient independence to the greatest possible extent (e.g. by returning a cognitively impaired person to his or her accustomed environment as quickly as possible), or because it makes hospital resources available more quickly to other patients who urgently need them (e.g. if a tumor operation has to be performed as quickly as possible). In other cases, however, early discharge from hospital may lead to patient undersupply because the healing and rehabilitation process which began at the hospital cannot be continued sustainably enough due to interface problems (e.g. because the housing and care situation is insufficient or follow-up therapy is financed to a limited extent only), so further hospitalization may result from this.

Another example is found in an undersupply of meaningful, indicated medication or therapeutic measures – both overprescribing and underprescribing can be disadvantageous for the patient and generate avoidable costs. Lack of information, ignorance and therapeutic nihilism may be regarded as causal.[47]

3.3 Beneficence

The beneficence principle requires that a specific patient should benefit from medical treatment, that something good happens, that his or her well-being is supported. Economic decisions in a health context should therefore be assessed by the extent to which they ensure or increase patient benefit. As regards the question of how patient benefit or patient well-being can be measured, there are a number of different approaches which include both objective and subjective criteria. In recent years, greater orientation toward "subjective" criteria has been observed; these are based on how patients themselves describe the outcome of an intervention or therapy (e.g. so-called *patient-reported outcome measures*, PROM, and *patient-reported experience measures*, PREM).[48]

46 ZEK-BÄK (2013), *Berufsethos und Ökonomisierung*; Eiff (2014), *Zielvereinbarungen und Bonizahlungen*; Raspe (2016), *Indikationsstellung in der klinischen Medizin*, 248.

47 Mann, Böhmdorfer, et al. (2012), *Potentially inappropriate medication in geriatric patients*; O'Mahony, O'Sullivan, et al. (2014), *STOPP / START version 2*.

48 In the United States, heightened orientation toward patient-centered, "subjective" criteria was also driven by the changes in the system of fees for medical care under the *Affordable Care Act* ("Obamacare"): instead of a fee per patient contact or healthcare service rendered, there was a switch toward fees for certain results; see Blumenthal, Abrams, et al. (2015), *Affordable Care Act*; as for PROMs and PREMs in general, see Kohlmann (2012), *Patientenberichtete Studienendpunkte*; Kingsley & Patel (2017), *PROM & PREM*; Weldring & Smith (2013), *PROs & PROMs*.

3.3.1 Example 1: Treatment quality

A widely shared yardstick for assessing the benefits of medical treatment is its quality. High-quality treatments promise greater benefits than those whose quality is questionable. However, how can the quality of treatment be determined? It is not easy to answer this question. Out of the many indicators usually applied to establish the "quality" of medical treatment, many are not really concerned with the quality of results relevant to the patient, but with structural and procedural aspects of care and the subjective satisfaction of patients.[49] The financial incentives in the Austrian health care system continue to be designed in such a way that income is generated above all from the number of treatments, not from the (added) value patients get from treatment.[50]

Although it is often regarded and criticized as an expression of the "economization" of medicine,[51] quality management, in this context, is an ethically well-founded control mechanism of medical activity. This also includes an engagement with medical treatment standards, which are "a prerequisite for high-quality treatment".[52] From an economic point of view, such standardization is tantamount to process optimization. This does not per se contradict an orientation toward patient well-being. Standardization will only become ethically problematic where it leads to unequal treatment because a specific patient's benefit is no longer be at the heart of decision-making.

3.3.2 Example 2: Cost effectiveness

Assessing the cost-effectiveness of medical measures is a genuinely economic approach. What is of interest from an economic perspective are the costs of a treatment in proportion to its efficacy (its benefits). In this context, two ethically relevant questions arise:

- How can the efficacy of a treatment be assessed and how can benefit be measured? This is connected with fundamental evaluating judgments about what is regarded as "good" and "desirable" in medicine.
- What should the maximum additional cost be if a marginal added benefit can be achieved by a medical treatment? This question is aimed at the financial evaluation of health and life.

Both questions regarding the assessment of cost-effectiveness cannot be answered solely on the basis of economic or medical criteria, or else the answers would be empiricistic or economicistic fallacies. Nevertheless, the issue of cost-effectiveness is an ethically valid question in economic terms because health cannot be justified as an absolute good and will therefore always be linked with questions based on the balancing of interests.

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49 Porter, Larsson, et al. (2016), *Standardizing Patient Outcomes Measurement*.

50 Swensen, Meyer, et al. (2010), *Cottage Industry to Postindustrial Care*. For example, even in Austria a situation may arise where the health insurance institution will only fund a gastric tube for parenteral nutrition but not food supplements with higher calorie content and nutritional value which would help aged patients with swallowing problems to continue on oral nutrition, which would be much more valuable for the patients.

51 Maio (2014), *Vom Verlust des Ärztlichen in einer ökonomisierten Medizin*, 422 f.

52 Deutscher Ethikrat (2016), *Patientenwohl*, 49.

3.4 Justice

The principle of justice is at the center of ethical debates on "medicine and economics". However, the content of a basic call for a "fair" health care system is notoriously controversial in ethics.[53] In the ethical debate, one can safely assume that at least following formal notions and concepts apply:

- "Formal justice" conveys some minimal standards for human action, for example: equals should be treated equally, unequals unequally. Those concerned should have a right to be heard and to unbiased judgment. Decisions should be made according to comprehensible rules. Such universal standards are thought to be indispensable for any idea of justice, but at the same time they remain detached from specific issues of justice.
- "Transactional justice" is based on an equivalence of goods exchanged, putting freedom before equality. In particular, this is the notion of justice forming the basis of market economy; it is also the idea underlying the intergenerational contract. It is often questioned to what extent the central criterion of equivalence in transactional justice applies to the health care system as it also contradicts the principle of solidarity. In particular, the asymmetry between patient and doctor is cited as an argument speaking against equivalence in the transactional relationship.
- "Distributive justice" is based on the inequalities between those who have goods at their disposal and those who need them. The question of distributive justice is therefore about the inequalities to be compensated and how this should be done. This approach is in particular at the roots of the welfare state – a system of solidarity. In this paradigm, the health care system is seen as an important contribution to balancing inequalities in access to health care services.

Although there are convincing ethical arguments for the fact that the health care system must primarily be judged from the point of view of distributive justice, this does not yet justify which inequalities should be compensated for and how. Thus, the previously dominant focus on balancing the "genetic lottery" (i.e. the biological factors underlying diseases) can critically be called into question; one might ask whether this relegates the idea of balancing the "social lottery" (i.e. the socio-economic factors underlying diseases) to the background too much. When the ways and means of achieving a balance are chosen, ethically relevant questions will arise, such as the principle of solidarity[54] and its relation to control and competition mechanisms in health insurance.[55]

Ethical standards of justice are required for a detailed assessment of these problems of distributive justice. In the search for such standards, a widely respected concept has been proposed in ethics, one which determines justice above all from the point of view of fairness toward all those concerned.[56] A societal system such as the health care system can be considered as fair if it satisfies two principles:

a. Everyone has the same indispensable entitlement to a fully adequate system of equal fundamental freedoms compatible with the same system of freedoms for all.

53 See Höffe (2002), *Medizin ohne Ethik?*, 202 ff; Kersting (2005), *Kritik der Gleichheit*, 143 ff; Daniels (1985), *Just Health Care*; Callahan (1995), *Setting Limits*.
54 Prainsack & Buyx (2016), *Solidaritätsprinzip*.
55 Bohrmann (2002), *Solidarität und Wettbewerb*.
56 Rawls (1975), *Theorie der Gerechtigkeit*.

b. Social and economic inequalities must meet two conditions: firstly, they must be linked to posts and positions open to all under the principle of fair and equal opportunities, and secondly, they must bring the greatest benefit to the least favored members of society (principle of difference).[57]

This theory of justice, which has been concretized for the health care system,[58] places questions involving transactional and distributive justice in the provision of medical services in a broader social context, thus also including the idea of equal fundamental rights. Two examples will illustrate the importance of such an approach.

3.4.1 Example 1: Fair access to health care services

It should be assumed that in our society, there is still broad consensus that "everyone should have a fair chance to develop their own personality within the social framework and to participate in social life."[59] In order for this opportunity to be truly "fair", social systems such as the health care system must not only guarantee formal equality, but also consider people's special features in an impartial manner (equity).

For example, when designing health promotion programs, one must also take into account that people on the edge of poverty must first rise from their precarious socio-economic situation in order to have a real chance of taking advantage of health promotion.

Health inequalities must also be considered for fair access to health care services. For example, people with cognitive impairments are naturally entitled to use the services of the health care system just like anyone else. However, these services are usually very much designed for people without cognitive limitations. Fair access to these services would require that the special needs of people with cognitive impairments be taken into account in the provision and financing of the services. The extent to which such a requirement of fairness is implemented also has an impact on other ethical principles such as respect for autonomy and non-maleficence.

3.4.2 Example 2: Health justice

"Health justice" refers to equity in the health of population groups and societies.[60] Since the "social lottery" distributes living conditions such as education, eating habits, leisure and recreational behavior, working and living conditions as well as social networks unequally, even in societies tending to be egalitarian, and since these factors also impact health, serious inequalities in respect of health may arise between population groups. From the point of view of distributive justice and its principles of justice (above all embodied in equal opportunities), this cannot simply be accepted. However, it is not enough to tackle the problem by seeking change in the provision of medical care. Instead, "health in all policy areas" is key.[61]

In this context, it is remarkable that inequalities in medical care are usually tolerated to a much lesser extent than in social health determinants. A possible explanation (which is not an ethical justification) can be seen in the fact that medicine has to do with specific identifiable people, whereas social prevention programs generally focus on anonymous and statistically defined groups of people.[62] A second reason for prioritizing medical care can be found in its symbolic

57 Rawls (2003), *Gerechtigkeit als Fairness*, 78.
58 Daniels (1985), *Just Health Care*.
59 Deutscher Ethikrat (2016), *Patientenwohl*, 54.
60 Rauprich (2014), *Gesundheitsgerechtigkeit*, 363.
61 Gesundheit Österreich GmbH (2012), *Health in All Policies*.
62 Rauprich (2014), *Gesundheitsgerechtigkeit*, 371 f.

function: if we were to limit the medical, nursing and therapeutic care of a sick person, this would be conflicting with our moral concepts to a greater extent than if we were to refrain from preventive measures.

Hence, there are reasons why *relative* priority is given to medical care for the sick, which can be summarized in the term "rescue bonus": It represents a situation in which "human misery has a name".[63] If society provided unlimited resources for medical care for this reason, regardless of how cost-effective the medical measure are, it would quickly fall into a "Samaritan trap":[64] the (ethically justified) provision of help notoriously lags behind the systemic problem (the impact of socio-economic inequality on a person's health). Therefore, one must consider that the burden of diseases, especially chronic diseases (e.g. diabetes), can only be reduced sustainably by appropriate preventive/health-promoting measures, which contributes to reducing costs.

63 Eiff (2014), *Ziele einer medizinischen, ökonomischen und ethischen Reflexion*, 27.
64 Rauprich (2014), *Gesundheitsgerechtigkeit*, 374.

4 Two strands of discussion

In the ethical discussion on "medicine and economics", two major strands can be identified: one deals with "rationalization", the other with "rationing". The following sections are dedicated to these two strands of discussion. Both focus the discussion about the question of the (just) use of resources. Both assume that the resources available are basically limited, i.e. they cannot be expanded at will without costs for other areas of life.

Furthermore, it is generally assumed in the economic, political and ethical discussion that there must be a hierarchy between rationalization and rationing: Since the rationing of medical services is regarded as far more problematic and must therefore be avoided as far as possible, rationalization must be implemented first because it promises the same (or even more or better) results (outcomes) of medical services using the same, if not fewer resources.[65]

This approach may sound convincing in theory but in actual fact, it requires a clear distinction between rationalization and rationing. However, this is not always possible, as the following examples will show. For this reason, it is to be expected that the prioritization of rationalization efforts may lead to concurrent rationing phenomena.

4.1 Rationalization (efficiency, economy)

"Rationalization" is generally understood as the exploitation of reserves existing in terms of efficiency and economic viability. This approach is paid much attention in all highly developed health care systems because it is surmised that medical services could be provided more efficiently if certain control measures were to take effect. Although the rationalization approach has the potential to support the ethical principles of justice and non-maleficence, which are central to medical care, there is also a need for ethical reflection in implementation. The following considerations should serve this purpose.

4.1.1 Definition of terms

4.1.1.1 Efficiency

The term "efficiency" generally describes a yardstick for the relation between the objective and resources use to achieve it. This relation can be determined in different contexts, which is why the term "efficiency" is sometimes used ambiguously:[66]

- A given medical service (objective) can be performed with different treatment steps (use of funds). The smaller the quantity of funds used, the more efficient the rendering of the service (minimum principle).
- With a given treatment package (use of resources), it is possible to render different medical services (objectives). The better performance, the more efficient rendering of the service (maximum principle).

From an ethical perspective (i.e. in terms of the principles of beneficence and non-maleficence), efficiency assessments in health care are based on a preference grounded in the first definition stated above. Only by referring to *qualitatively* specified services can it be guaranteed that

65 See Deutscher Ethikrat (2011), *Nutzen und Kosten im Gesundheitswesen*, 18.
66 Clewer & Perkins (1998), *Economics for Health Care Management*, 25 ff.

efficiency efforts do not lead to a deterioration in performance. This is particularly important in the event of any privatization of health care services.

Another ethically relevant aspect of efficiency concerns the question of objectives and resources to be included in the assessment of efficiency. As a result of external effects, efficiency gains on the part of one actor may happen at the expense of other actors. In a highly fragmented system such as health care,[67] efficiency gains in one segment (e.g. hospitals) are thus not tantamount to efficiency gains in other segments (e.g. GPs) or the health care system on the whole.

Let us consider examples of general efficiency indicators regarding the operating theater of a hospital: utilization of capacity (ratio of surgery time actually used to the surgery time available); turnover times (the periods between the end of one surgical intervention and the start of the next). The following additional efficiency indicators may be of interest from the patient's perspective: waiting time to allotted surgery slot; rate of readmission to hospital. While most efficiency indicators incorporate structural and process criteria of service, it is still difficult to include criteria for outcomes in the assessment although this would probably be the most important point for patients; in some cases, this is done – in the negative – via the consideration of indicators for undesirable effects (e.g. complication rates, decubitus rates, mortality rates).[68]

4.1.1.2 Economic viability

The term "economic viability" gives efficiency a concrete shape through economic means. It represents the relation between revenue (objective) and expenditure (use of funds). Revenue is defined as the increase in value, measured in monetary terms, gained from a service; expenditure is the value of all goods used for providing the service, again measured in monetary terms.

In health care, however, it is difficult to measure the effect of medical treatment in monetary terms when central areas where services rendered are concerned. Therefore, the economic viability of a service as determined by revenue will usually only factor in the financial revenues which the service provider (physician, hospital) receives from the insurance provider (health insurance institution, government). The service provider has two options when it comes to ensuring or improving cost effectiveness: Depending on the financing system, they can try to provide revenue-enhancing services, and depending on the management, they can try to provide these services whilst minimizing expenditure.

In analogy to the external effects of efforts to increase efficiency in general, efforts to achieve better economic viability in a fragmented system must also ensure that these are not made at the expense of third parties. This would be the case if service providers optimized their earnings and expenditure situation by outsourcing to other service providers "uneconomical" patients, i.e. patients who require a comparatively large amount of treatment and care but generate low revenues only (a process also known as "cherry-picking"[69]).

In order to avoid ethical distortions in this context, it is essential (as is also the case with the idea of efficiency in general) to pre-define the quality and scope of service and to look at economic viability in connection with other target parameters of medical services (above all patient well-being, employee orientation).

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67 Swensen, Meyer, et al. (2010), *Cottage Industry to Postindustrial Care*.
68 Porter, Larsson, et al. (2016), *Standardizing Patient Outcomes Measurement*.
69 Clewer & Perkins (1998), *Economics for Health Care Management*, 131.

As for examples of economic indicators from the area of hospital management, these are: cost per DRG point (in procedure-oriented hospital financing); contribution margin per diagnosis.

4.1.1.3 Rationalization

"Rationalization" refers to measures aimed at increasing efficiency and economic viability. These efforts are based on the assumption that there are efficiency and profitability reserves in the system, in other words that there is "waste".[70]

From an economic perspective, everything that does not contribute to added value in the provision of services is waste. Added value may be defined in a narrow commercial sense, but also in a broader sense, whereby it includes medical treatment as an ethically relevant value for the patient. Some service-related elements may not add value, but they cannot be omitted without negative consequences for the outcome (e.g. pre-operative assessments); this is unavoidable or necessary waste. However, other elements may actually be done without, shortened or arranged differently without causing negative consequences for the patient (multiple examinations).

In this respect, rationalization is firstly an ethically justified demand for justice: In view of limited resources, it would be unfair to waste resources which can be used for other patients. Secondly, rationalization is also a justified demand from the point of view of beneficence and non-maleficence: By focusing on added value, service providers are encouraged to account for how their services promote the well-being of patients. And by dispensing with non-value-adding treatment steps, the non-maleficence principle is taken into account.

Ethically, the argument used in favor of cost containment required in the health care system has thus been the principle of justice – limited resources should not be distributed unequally according to irrelevant criteria (e.g. the social situation). It would even be justifiable to ration such limited resources. However, the ethical debate should shift from rationing to waste avoidance before rationing actually has to happen.

One has to consider the order of precedence "rationalization over rationing" against this background. However, rationalization can also lead to ethically questionable effects if the boundaries between necessary/expedient (i.e. value-adding), non-value-adding, but indispensable, and non-value-adding, superfluous services are not drawn with sufficient clarity in view of ethical principles.

4.1.2 Example 1: The medical approach to oversupply (Choosing Wisely & Co.)

Efforts to make health care systems more efficient are not only due to economic causes (which may relate to the principle of justice), they may also be driven by the doctor-patient relationship itself (which may relate to the principle of non-maleficence or beneficence). For several years, numerous programs have been in place to identify medical treatments (diagnostics, interventions, medications etc.) which are useless for certain patient groups or diseases. The evidence available for medical measures is checked to see whether it actually applies to the intended target population – in particular, this has to do with pharmacotherapy in old age, since most approval studies still more or less explicitly exclude geriatric patients. If such treatments are nevertheless offered and carried out, this is referred to as "medical oversupply".[71] If one refrains

70 Brody (2012), *Ethics of Waste Avoidance*.
71 Sachverständigenrat für die Konzertierte Aktion im Gesundheitswesen (2001), *Gutachten 2000/2001 Bd. III*, 19.

from such treatments, this would not only conform to the idea of efficiency, but also to the non-maleficence principle in medicine.

The two most important ethical arguments for avoiding waste in the context of oversupply are that:

- no patient should be deprived of sensible medical measures (e.g. by rationing) for as long as funds are wasted on pointless measures;
- pointless diagnostic tests and therapies may have a negative impact on health so they could also do direct damage.

"Choosing Wisely"[72] is probably the best-known among these programs; several other initiatives in various countries have joined this movement.[73]. An initiative similar to "Choosing Wisely" emerging in Austria is called "*Gemeinsam gut entscheiden*" ("Taking good decisions jointly").[74] Some of the proponents are known to be pronounced critics of commercialization in health care.[75] For them, a critical and evidence-based reflection on the actual benefit of treatment and refraining from treatment if such a benefit does not appear plausible, is not only a measure for managing resources responsibly, but also a way for the health care system to return to a focus on patients instead of an alignment with the interests of pharmaceuticals companies and medical device manufacturers.

4.1.3 Example 2: Economic management of oversupply ("Lean Health Care")

If health care services are provided in an inefficient manner, we call this (economic) oversupply. Possible causes for an inefficient provision of services may include:[76]

- Insufficient implementation (e.g. non-compliance with process standards);
- Inadequate coordination (e.g. a "runaround" from one health care facility to the other);
- Administrative complexity (e.g. documentation requirements);
- Medical oversupply (see section 4.1.2 above);
- Corruption (e.g. manipulated waiting time regime).

Minimizing such sources of inefficiency is now seen as a priority – not only by economists, but also by many health care professionals and ethicists.[77] The associated approach to change is known as "Lean Health Care".[78] This involves the identification and reduction of waste through overproduction, reworking, warehousing, waiting times, travelling time, transport costs, oversized processes, untapped employee potential.[79]

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72 Brody (2010), *Top Five List*; Cassel & Guest (2012), *Choosing Wisely*; Frühwald (2013), *Choosing Wisely für Österreich*; Casarett (2016), *Choosing Wisely*; Gogol & Siebenhofer (2016), *Choosing Wisely*.

73 Wild & Mayer (2016), *Überversorgung*.

74 Glechner & Horvath (2017), *Zu viel oder zu wenig?*.

75 Himmelstein, Agretelis, et al. (1997), *For Our Patients, Not for Profits*; Lown (1999), *Lost Art of Healing*.

76 Berwick & Hackbarth (2012), *Eliminating Waste*.

77 Swensen, Meyer, et al. (2010), *Cottage Industry to Postindustrial Care*; Brody (2012), *Ethics of Waste Avoidance*.

78 Scholz (2016), *Lean-Methode im Krankenhaus*; Kraft (2016), *Lean Management im Krankenhaus*; Pöhls (2012), *Lean Management in Krankenhäusern*.

79 Scholz (2016), *Lean-Methode im Krankenhaus*, 21.

As a rule, such waste in systems based on the division of labor can be reduced by means of jointly agreed standards of procedure (clinical treatment paths,[80] disease management programs[81]); sometimes resistance will arise against this in an organizational culture which is characterized by marked personal freedom of decision-making and action (the buzzword being "freedom of therapy").[82] There are fears of an "industrialization" of medicine (involving division of labor, automation, timing, "Taylorism", etc.) likening the medical setting to a production plant ("assembly line medicine").[83] In order to counteract these prejudices and risks, rationalization approaches such as "Lean Health Care" must ultimately always be able to demonstrate the extent to which they can serve the well-being of patients. More of the same, i.e. a mere condensation of work without any change to previous patterns, will not suffice for this, it will rather lead to a dilution of quality. In this respect, Lean Health Care and similar initiatives also require different attitudes in professional ethics (e.g. interaction beyond professional and specialist boundaries) and in management (e.g. subsidiarity in management instead of attempts at centralized micro-control).

Finally, one thing to be noted in the context of Lean Health Care is that, from an ethical perspective, one cannot determine the value added, which is to be maintained and increased in health care from the patient's point of view, in physical terms (e.g. aphasia recovery after a stroke), let alone in monetary terms; it also includes value-adding actions which take place in the psychosocial, and sometimes even the spiritual-existential dimension of patient life. In this respect, it would be short-sighted to eliminate elements from the supply process which at first sight do not seem to create added value in terms of "reparative medicine". In such a view, the definition of medicine as a repair trade and disproportionate commercialization are ethically questionable.

4.2 Rationing (allocation, prioritization)

4.2.1 Definition of terms

4.2.1.1 Rationing

"Rationing" can be described as follows: a treatment which the patient believes to be appropriate is not provided at all or in a timely manner for reasons of cost, or it is possibly substituted by a less appropriate but cheaper treatment.[84] This definition of the term is focused on withholding treatment. The concept of rationing may even be differentiated further:[85]

- "Hard" rationing, i.e. the service is invariably limited.
- "Soft" rationing, i.e. the service is basically limited but may be expanded if the patient contributes.
- "Explicit/open" rationing, i.e. clearly agreed criteria apply to withholding the service.
- "Implicit/concealed" rationing, i.e. there are only general conditions for limiting services

80 Greiling & Muszynski (2008), *Pfade zu effizienten Prozessen*; Lohfert & Peukert (2013), *Einführung von Behandlungspfaden/SOPs*.
81 Von der Heidt, Ammenwerth, et al. (2004), *HerzMobil Tirol network*.
82 Hartzband & Groopman (2016), *Medical Taylorism*.
83 Möllmann (2014), *Industrialisierung in der Medizin*.
84 See SAMW (2007), *Rationierung*, 9.
85 See Eiff (2014), *Ziele einer medizinischen, ökonomischen und ethischen Reflexion*, 21 f; Gutmann & Schmidt (2002), *Rationierung und Allokation im Gesundheitswesen*.

(e.g. capped budgets), without specifying the criteria for which services may be withheld in certain cases due to the limitation.

Rationing can be achieved through various measures, such as explicit refusal to perform, systematic delay in providing the service, reducing services, disincentives (e.g. through financial, bureaucratic or physical hurdles, so-called "hassle factors"[86]). Depending on the measure, the act of withholding the service will be perceived as hard, soft, explicit or implicit rationing.

4.2.1.2 Allocation

"Allocation" means the use of resources to a specific use (a specific medical service). In a sense, this is the positive counterpart of rationing (as focuses on granting rather than withholding). Nevertheless, the logic of allocation is based on the same scarcity paradigm as rationing. When related decisions are made, the alternatives to a certain allocation of resources are therefore deliberately weighed. The costs of a decision to allocate resources are thus composed of the expenses incurred for the service, the resources made available, and the costs of the alternative which cannot be used due to limited resources ("opportunity costs").

Through the notion of allocation, ethically relevant preferences for various goods are expressed: A decision for one medical treatment is "at the expense" of other options which the patient cannot use. This may, for example, play a role in the context of a disease with an unfavorable prognosis for the patient. At the systemic level of the health care system, the decision to allocate resources to certain areas of care (e.g. acute care for inpatients) is often made "at the expense" of an option to provide the same resources to other settings (e.g. mobile services).

4.2.1.3 Prioritization

The logic of allocation thus makes it clear to us that priorities are set when decisions are made about limited resources. "Prioritization" refers to the act of "expressly giving priority to certain indications, patient groups or procedures over others."[87] "The underlying logic is that, as needs grow, existing resources must be concentrated in what is essential, i.e. precisely what has been identified as a priority."[88]

In the meantime, a number of international attempts have been made for allocation decisions in the health care system to be taken on the basis of prioritization.[89] In this context, a distinction can be drawn between those approaches to prioritization which determine the services provided and those which are geared to controlling.[90] In the former, the view underlying the setting of priorities is more technical-scientific in nature, defining in advance which services are to be financed as a priority. The latter are rooted in the general framework conditions, such as clinical guidelines, which leave a margin of discretion for setting priorities in specific situations. Both approaches have their benefits and drawbacks: When prioritizing services in the former sense, a social consensus on very specific preferences must be established and this may at times cause much complexity.[91] In return, this type of prioritization offers a more predictable framework based on social consensus for all stakeholders, more so than does controlling-oriented

86 Loewy (2002), *Health Care Systems and Ethics*, 10.
87 Bullinger (2009), *Leistungsbegrenzung im Gesundheitswesen*, 2.
88 Bullinger (2009), *Leistungsbegrenzung im Gesundheitswesen*, 2.
89 Preusker (2014), *Priorisierung im Medizinbetrieb*; Schmitz-Luhn (2015), *Priorisierung in der Medizin*; Sabik & Lie (2008), *Priority stetting in health care*.
90 Schmitz-Luhn (2015), *Priorisierung in der Medizin*, 196.
91 ZEK-BÄK (2000), *Prioritäten in der medizinischen Versorgung*, A1018.

prioritization based on decisions on a case-by-case basis.[92] In this context, specific prioritization within the framework of technical guidelines is left to the local decision-makers whilst it also turns service providers into "functionaries of distributive justice".[93]

4.2.2 Allocation criteria

In prioritizing health care services, the following allocation criteria are discussed in particular:

- Cost effectiveness[94]
- Urgency[95]
- Personal responsibility[96]
- Age[97]

Each criterion is controversial, either because of the methodological complexity involved in its definition or because of conflicts in respect of fundamental ethical beliefs (or both); however, none of these criteria can be considered to be completely without ethical relevance for prioritization.

4.2.3 Levels of allocation

Allocation decisions at the interface of medicine and economics are made at different levels: at the social level, at the systemic level and at the patient's bedside. In ethics, this differentiation corresponds to the distinction between social, organizational and individual ethics, each giving rise to its own questions.

4.2.3.1 The macro level: society

At the highest level (the macro level), decisions are made as to which resources should be used for the health care system as a whole from a societal point of view. Ethically speaking, this is about the question of the value we, as a society, attach to health care. Such decisions are always made in relation to something, i.e. in comparison with other areas of life in our society (e.g. education, security, infrastructure). From an ethical perspective, the following observations emerge at the macro level:

Contrary to bold statements that a person's health should not have a price, health care does not seem to be given the highest priority in societal valuation; accordingly, it is not provided with unlimited resources. However, if resources are limited at the macro level, it is only logical that they cannot be unlimited at the lower allocation levels (i.e. in individual medical specialties, in individual health care facilities, in specific treatment cases).

However, the limited allocation of resources does not necessarily have to thwart the objective of health care systems. After all, at least one objective – the preservation of health – depends on many living conditions that are not directly related to health care (which is currently geared

92 Raspe (2016), *Indikationsstellung in der klinischen Medizin*, 249.
93 Katzenmeier (2013), *Kriterien der Priorisierung medizinischer Leistungen*, 7.
94 Marckmann (2015), *Kostensensible Leitlinien*, 28 ff; Kamm (2015), *Cost Effectiveness Analysis and Fairness*; Deutscher Ethikrat (2011), *Nutzen und Kosten im Gesundheitswesen*.
95 Schöne-Seifert & Friedrich (2013), *Priorisierung nach Dringlichkeit*; McKie & Richardson (2003), *Rule of Rescue*; Bohmeier & Schmitz-Luhn (2013), *Dringlichkeit*.
96 Rubrech (2015), *Individueller Lebensstil*; Schwettmann (2013), *Wird alles, was Spaß macht, besteuert*; Dörries & Arnold (2013), *Kurzzeitiger Spaß? Langfristige Zufriedenheit*; Alber & Bayerl (2013), *Eigenverantwortung*; Buyx (2005), *Eigenverantwortung*; Buyx & Prainsack (2012), *Lifestyle-related diseases*.
97 Fleck (2010), *Just Caring*; Zitter (2001), *Rationierung in der Altersmedizin*; Huster (2013), *Alter als Priorisierungskriterium*.

to the treatment of diseases). Therefore, if funds allocated are for example invested in social security and the education of the population, this may serve health-related objectives which would not, or at least not as efficiently, be achieved through conventional health care.

There is an ethically relevant question in connection with allocations at the macro level which must be addressed societally: health objectives. Only if the health objectives we as a society consider important are sufficiently clear, only if we know how to prioritize them and which determinants enable us to achieve them, only then will rational allocation decisions at the macro level be possible. In the absence of such societal health objectives, it will basically be impossible to assess the rationality of allocation decisions; without objectives as reference points, all allocation decisions are equally rational or irrational.

4.2.3.2 The meso level: the health care system

At the middle level (meso level), decisions are made on how to use the resources available to the health care system in that system. This includes questions as to which resources should be provided to the various medical specialties (disease symptoms) and care services (private practices, mobile services, day-care facilities, hospitals, etc.).

In this context, we find a certain paradox in our society. Although the socio-economic factors impacting health as described in the section about the macro level are known and corresponding allocation decisions would be rational, we often behave irrationally. Allocation decisions tend to be more favorable when they deal with high-profile issues and care services which promise to restore health in acute cases. This preference for resource allocation to "reparative medicine" is emotionally understandable, and it is rational from the angle of the patients concerned, but it is questionable from a systemic point of view because the allocation may be made in the wrong place or come too late. Instead, seen from the systemic angle at the meso level, a greater extent of preventive approaches and low-threshold services would be much more rational.

Allocation decisions at meso-level are accompanied by economic mechanisms designed to ensure that the intended objectives of allocation are achieved (e.g. that diseases assessed to be important are given priority or that services are provided in certain care settings). The fee scales for physicians in private practice and the system of procedure-oriented hospital financing (DRG system) in the hospital sector are examples of such mechanisms. Each mechanism has ethical implications arising from the specific incentives associated with it. For example, the DRG system provides incentives for shortening the length of hospital stays; there are many good arguments in favor of this (e.g. a lower risk of nosocomial infections), but it can also lead to undesirable side effects such as the "revolving door effect."[98]

Regardless of whether allocation decisions at the meso level are made in a deliberate act (e.g. budget negotiations) or through a institutional mechanism (e.g. fee structures), the more the interests of those involved diverge, the more irrational the resource allocation will be. For example, hospital operators may want to shift patients from outpatient departments to private practices (because this is not at the costs of hospital operators) while social security would prefer to see the same patients in outpatient departments (because costs for the health insurance institutions are lower this way). This is why many countries make efforts to establish financing and control "from a single source," which should make allocation decisions at meso level

98 The "revolving door effect" describes the phenomenon whereby patients are discharged from hospital faster due to incentives for shorter hospitalization but are re-admitted after a short period of time because they cannot cope with their state of health outside the hospital and/or because relapses occur.

more rational. From an ethical perspective, the following arguments support such an approach: Firstly, patients currently only seem to play a subordinate role in the allocation decisions being made by diverging actors. This is not consistent with the fundamental commitment that the stakeholder role of the patient ought to be the central yardstick for allocation decisions. Secondly, insufficiently coordinated financing and control systems favor the fragmentation of responsibility,[99] so each actor regards the other as responsible, whilst cooperation efforts fail in settings reminiscent of the prisoner's dilemma.[100]

If these and other arguments foster a rational view of the need for more integrated supply, it can be assumed that maintaining the current situation cannot easily be justified in ethical terms as this primarily follows the power of fact.

4.2.3.3 The micro level: the sickbed

At the lower level (micro level), decisions are made as to how resources in various areas of health care should be used for specific patients. In this context, it is not least a question of how far certain cost-intensive therapies are justifiable for a patient (or a defined group of patients). Debates about particularly expensive pharmaceuticals or medical devices seem to open up an ethical minefield.

However, day-to-day allocation decisions which have to be made at the micro level are generally less spectacular and not so much tied to material goods such as "tremendously expensive drugs"; they primarily concern the allocation of health care professionals' personal resources – their time and energy. Like other resources, these are limited, and from an ethical perspective, this has an even more fundamental impact than the limitation of material goods: the limitation of personal resources results from human nature ("the human condition").

As allocation decisions at the micro level affect specific people (and not merely structures as is the case at the macro and meso levels), this is where ethical responsibility consolidates. This may for example cause resources to be made available for a *specific* patient although this allocation seems questionable and disproportionate in view of its low medical benefit. For good cause, the allocation decision might not have happened at the macro or meso levels, where there is more anonymity. Obviously, allocation decisions at the various levels which contradict each other may well seem irrational; however, from an ethical perspective, it is understandable that ethical judgement is not solely formed on the basis of rational considerations (the perspective of justice), but also on the basis of personal solidarity (the perspective of care).

The conflict between rational justice and comprehensive care cannot be completely resolved. For this reason, approaches according to which "clear-cut" and "hard" allocation decision would only have to take place at the macro and meso levels in order to release the actors at the micro level from the duty of taking difficult allocation decisions are not comprehensive enough. There is no doubt that we need these rational considerations at the macro and meso levels, and this includes the assessment of efficiency and cost-effectiveness in the health care sector. However, actors at the micro level will not be able to avoid making allocation decisions

99 Swensen, Meyer, et al. (2010), *Cottage Industry to Postindustrial Care*.

100 In the "prisoner's dilemma", cooperation would be the most rational approach but it is thwarted by the framework conditions.

in specific situations. We owe them the acknowledgement that such decisions are unavoidable[101] and that the actors need to have assessment criteria which society considers justified.

4.2.4 Example 1: Allocation using cost-effectiveness valuations

Allocation decisions in respect of certain forms of therapy which take costs and benefits into account can be made in various ways:[102]

- Cost of illness study: This is a cost estimate (covering the direct and indirect costs of a disease) if only one therapy is available.
- Cost-comparison analysis: If there are two or more treatment alternatives with equivalent treatment benefit, the costs of these options are compared with each other.
- Cost-efficacy analysis: The efficacy of a treatment is assessed by measuring surrogate parameters (e.g. laboratory values).
- Cost-effectiveness analysis (CEA): CEA compares the costs of treatment with its benefit for the patient. Effectiveness, i.e. the therapeutic result, should be represented by patient-relevant parameters.[103]

Today, QALY is the concept primarily used to assess the effectiveness of medical treatment. QALY ("Quality-Adjusted Life Year") is the attempt to relate lifetime to quality of life.[104] The ethically relevant basic idea can be summarized as follows: the person concerned may give a variety of ratings to a numerical year in his/her life. Ideally, s/he rates it as "excellent" in relation to her/his state of health, in that case the numerical year of life is given a "1". The poorer the quality of life, the lower the number will be.[105]

In the context of oncological therapy this would, for example, mean that a treatment resulting in a very good quality of life of the patients, leading to three years without the recurrence of a tumor, comes with 3 QALYs (3 numerical years of life in which the quality of life was rated "1"). However, if the patient only gives the first year after treatment a rating of "1" whilst the two following years only score "0.7" or "0.5" due to recurring problems and times spent in treatment with side effects, this will add up to 2.2 QALYs ($1 \times 1 + 1 \times 0.7 + 1 \times 0.5$) – i.e. three numerical years of life with decreasing quality of life. In the cost effectiveness analysis, this benefit (2.2 QALYs) is now related to the cost of treatment. Given a treatment cost of € 20,000, the cost per QALY amounts to € 9,090 (20,000 divided by 2.2).[106]

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101 At times, the argument used against the unavoidability of allocation decisions is that resources in the healthcare system are "artificially" kept scarce and that it would be possible to increase them. This may be true in many cases where resources are pecuniary only. However, at the end of the day, the unavoidability of allocation decisions arises from the fact that the resources of every healthcare professional are a scarce commodity as a matter of course. This is why everyone has to deal with his/her own personal resources, i.e. how to allocate these, from an ethical perspective.

102 Czypionka, Kraus, et al. (2008), *Gesundheitsökonomische Evaluation*.

103 Marckmann (2015), *Kostensensible Leitlinien*.

104 Tunder & Martschinke (2014), *QALY-Ansatz*; Zeckhauser & Shepard (1976), *Where now for saving lives?*

105 A construct related to the QALY concept – DALY (Disability-Adjusted Life Years) – considers the burden of illness (years of life lost due to premature death and years of life spent with a disability) to reflect the term "quality of life" even more extensively; see Sassi (2006), *Calculating QALYs*.

106 It is obvious that the (basically legitimate) attempt at considering quality of life in a mathematical model leads to methodological difficulties and reaches practical limits; see Nord (1992), *Methods of Quality Adjustment of Life Years*. This is also why the QALY approach is regularly subject to criticism.

Cost-effectiveness analysis is the attempt to relate the costs of medical treatment to its benefits in terms of quality of life.[107] This appears to be particularly appropriate for so-called highly innovative treatments since these sometimes only bring marginal added benefit for the patient but come with high expenses.

For example, the incidence of cancer[108] has increased by about 30 % over the last 30 years (i.e. one person in three will develop cancer in their lifetime), but the total number of people dying of cancer has remained roughly the same, which is partly due to ever new, optimized therapies. In the United States, 39 new pharmaceuticals were approved by the Food and Drug Administration (FDA) in 2012, including twelve in oncology. A similar development can be observed in Europe: from 2009 to 2015, the EMA (European Medicines Agency) approved 70 new active substances. However, about a quarter of these therapeutics lack information about the associated increase in life expectancy. The benefit analysis of the German Innovation Report[109] showed that, upon assessment, the majority of the new active substances showed little or no added benefit compared to alternatives, with oncological products performing better than other drug groups. One can conclude from this that a new active principle in medication is not necessarily a guarantee for added therapeutic benefit relevant for the patient. Cost-effectiveness analyses can identify these relationships and thus define an objective starting point for allocation decisions.[110]

In infection therapy, e.g. in the treatment of hepatitis C, pharmaceuticals launched on the market were likewise very expensive; however, they enable long-term response to therapy. This is particularly advantageous for patients whose response to conventional therapies is limited due to a certain pathogen genotype. In order to achieve optimum patient benefit, the approach in Austria is such that these drugs are only available in centers which also document their patients in a special compulsory register. The aim is to ensure optimum therapy conditions for the patients and to avoid cost increases due to undifferentiated administration of the pharmaceutical drug. Patients with the highest risk of progression, who thus benefit most from the therapy, are currently prioritized (the indicator being "degree of fibrosis"). By contrast, patients without progression are currently not being treated with the innovative drugs. Prioritization is therefore based on cost-effectiveness considerations.

In the United Kingdom, the QALY approach has been used by default for years for decisions on the allocation of public funds in health care.[111] According to the National Institute for Health and Care Excellence (NICE), treatment is not considered sufficiently cost-effective if it costs more than £ 20,000 to 30,000 per QALY.[112] Such treatment must be specifically justified. From an ethical perspective, this is a kind of corrective action in respect of justice since, in certain constellations, some treatments which are not cost-effective are nonetheless considered desirable by society and may therefore be publicly financed.

107 With this in mind, the approach is based on the same idea as palliative care, i.e. "to add more life to years not just years to life".
108 Ludwig & Schott (2013), *Neue Arzneimittel in der Onkologie*.
109 Windt, Boeschen, et al. (2013), *Innovationsreport 2013*.
110 Ludwig, Fetscher, et al. (2009), *Teure Innovationen in der Onkologie*.
111 In Austria, the Ludwig Boltzmann Institute for Health Technology Assessment has researched the assessment of medical treatment benefits since 2006; see http://hta.lbg.ac.at
112 NICE (2013), *Value for money*.

However, from the ethical perspective, it would be problematic to establish an automatic linkage with QALY maximization that is beyond debate as this would represent an empirical fallacy.[113] In this respect, prioritization attempts across pathologies after cost effectiveness analyses have to be seen with a critical eye in terms of ethics as this could for example lead to a situation in which rare diseases or diseases causing the inability of the affected person to sufficiently communicate their own quality of life would automatically be given a lower rating.[114]

4.2.5 Example 2: Allocation using waiting times

Resource allocation via waiting lists may on the one hand happen due to the fact that goods (e.g. time slots for an examination) are in limited supply, on the other hand, the goods themselves may be scarce (e.g. organs available for transplants).

In Austria, for example, the contractual situation of radiologists led to bottlenecks in some examinations (MRIs). Since payment for these services was subject to an overall budget limit, examinations of persons insured with the regional health insurance funds were scheduled on the basis of a waiting list which partly caused prolonged waiting periods. However, it was possible for a timeslot to be available at short notice if the patient was prepared to pay the fee for it out of his/her own pocket. The reason for this approach was that the additional capacities were appropriately financed, i.e. they were not subject to the overall budget cap but generated additional fees. This is a case of an implicit rationing as the limitation of the service came through a mechanism which was not transparent to the population.

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113 See section 1 above.

114 Deutscher Ethikrat (2011), *Nutzen und Kosten im Gesundheitswesen*, 61–70.

Recommendations

1 Medicine and economics should serve both the individual and society.

2 Economy (e.g., increasing efficiency) is necessary so limited resources are used as responsibly as possible, which contributes to maintaining a social health care system. Commercialization in the sense of mere profit maximization must be rejected.

3 In order to strengthen the rationality of health policy decisions, a systematic integration of health economics research and health care research should be sought.

4 Transparency of service provision and costs across systemic boundaries is a prerequisite for not shifting responsibility to the other partners in the system ("external effects").

5 The value of listening and talking to patients should be given more weight in the financial incentive system.

6 Results of treatment systematically reported by patients ("Patient-Reported Outcomes") should increasingly be used to assess the value and quality of treatments.

7 Prevention programs which also consider socio-economic factors of health should be given more weight in resource allocation than mere "reparative medicine".

8 Oversupply and undersupply, ineffective services (diagnostics and therapy) must be avoided by medical quality assurance, disproportionate services by joint decision-making with the patient.

9 We recommend that transparent procedures for resource allocation and prioritization be established at the political level and at the level of health care institutions, instead of shifting such decision-making to the sickbed on a case-by-case basis.

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