Prioritysetting in Denmark

The introduction of new drugs

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Based on two case-studies the underlying discourse for introducing and prioritizing hospital dispensed new drugs in Denmark is discussed. Focus in on the ongoing debate about the relative importance of clinical or economic arguments in the decision-making process. The two cases are Betainterferon for the secondary progressive stage of multiple sclerosis and Herceptin for breast cancer. The cases are of interest in their own right because they illustrate the dominance of documented clinical effects when making priority decisions, but they are also good examples of what can happen to the public decision-making agenda, when politicians not involved in the daily running of the health sector intervene. The importance of accumulating an empirical base for discussion of priority-setting is stressed.

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Introduction

Much of the debate on priority setting is conducted at a fairly abstract level as witnessed by official white papers in Denmark, Norway, and Sweden (Det etisk Råd 1996;Norges Offentlige Utredninger 1987a;Norges Offentlige Utredninger 1987b;SOU 1995). General principles like no discrimination in terms of age, gender, and race along with the importance of documented effects identified, and politically legitimate decisions makers are spelled out, and specific tools aiding decision making are investigated, e.g. cost-utility analysis or medical technology assessments. However, much less has been written about priority setting in practice. Are the general principles followed? What kind of rationality is at play etc.

In this article two recent drug cases are presented. The aim is to show which criteria that were actually used, to what extent political decision making follows professional advice as embodied in cost-effectiveness

analysis or medical technology assessment, and what the ramifications are for priority setting. By doing so, we hope that more focus on specific cases gradually will provide a firmer basis for knowledge about what actually governs priority setting in practice.

More specifically, the discussion will be illustrated by the introduction of Betainterferon for multiple sclerosis in the secondary progressive stage, and Herceptin treatment for a subset of breast cancer cases. This limits, however, the generalization to one class of decisions, namely the introduction of drugs dispensed by hospitals paid fully out of public funds. The other class of drugs not discussed here are drugs approved for partial reimbursement by the Danish Medicines Agency prescribed by general practitioners (Lægemiddelstyrelsen (the Medicines Agency) 2000;Sundhedsministeriet (Ministry of Health) 2000).

The history of priority setting

Priority setting is needed whenever there is a gap between on the one hand what is medically possible (treatment, diagnostic procedures etc) and on the other hand the available resources. In a tax funded system like the Danish, available resources are determined politically. Taxes and public expenditures, however, depend on the macroeconomic conditions and the state of the economy in general. Hence, the need for priority setting is always present, but the ease with which it is done varies with the economic cycles. However, it seems that the rate of growth of what is medically possible at any given time outgrows disposable resources. Hence, priority setting is an ever present process, a fact of life. At the general level priority setting is a political matter, e.g. tax rate and budgeting, and through budgeting choice of treatments to be introduced. On a day-to-day basis rationing, as opposed to the general priority setting, is carried out by clinicians. Priority setting need not always involve resources. It may also be for instance an ethical and political choice about what is permissible. For instance, the debate about in vitro fertilization and egg selection has been mostly a question about ethics.

The eighties in Denmark were characterized by a very tight economic situation. The Danish economy had to be rebuild in the after wake of the oil crisis in the early seventies and the rapid expansion of the publicly financed welfare state throughout the seventies. This meant that public budgets only grew marginally during the eighties - also the budget for health care. At the same time important new treatments became generally available. This gradually led to a debate about not only the need to prioritise but also about the criteria according to which priorities should be established.

In 1987 the Society for Medical Priority Setting was established by politicians, physicians, and public officials as a forum for discussion of the principles of prioritising. All parties agreed to the need for priority setting, but usually disagreed on the necessary and sufficient criteria for choosing and also had long discussions on who should be the decision maker in such matters.

In 1996 the Danish Council on Ethics published a report (Det etisk Råd 1996), that nicely summarized the situation and stressed, unopposed, the ever present need for priority setting, and spelt out a number of general principles that should guide decision makers when establishing priorities.

The following two cases changed the general consensus and seemed to establish a case for not setting priorities in the sense of saying yes or no to a new treatment. Instead it seems that a new principle was introdu-

ced, namely that if (randomised) evidence of a positive treatment effect was available, the drug should be made available.

To clarify the terms used in the present paper, we by clinical and economic evidence mean randomised clinical trials, cost-effectiveness studies, and economic impact studies (Drummond MF et al. 1997;Gold MR et al. 1996). By severity of disease we mean the health status e.g. as measured in QALYs or other health summary measure (Nord Erik 1999). Finally, by addressing the importance of a given group of patients with a high severity of disease level, an important issue in the equity literature is also discussed (Williams & Cookson 2000).

Methods

As mentioned in the introduction, Betainterferon and Herceptin were chosen as the two cases for our analysis. More specifically Betainterferon and Herceptin were identified as relevant cases, as they caused considerably public debate and also because by scanning the database of the Danish Parliament it was apparent that these two drugs had attracted considerable political attention. Most importantly, however, was that they for a period changed the priority setting discourse in Denmark.

To identify relevant literature on Betainterferon and Herceptin, literature searches were performed in a range of different sources: Econlit and Medline in order to cover the relevant academic literature and Metropol and Polinfo in order to cover articles in Danish newspapers and journals. Finally, the databases of the Danish Medicines Agency and the Danish Parliament were searched for documents referring to the discussion on Betainterferon and Herceptin.

The Betainterferon and Herceptin studies by (Iversen 2003;Pedersen 1990;Pedersen 2003), are separate studies that are presented together here for the first time. In relation to Betainterferon the investigation was mainly carried out based on the public debate in the media and parliament. For Herceptin, a list of relevant institutions and persons were identified via the literature search outlined above. To ensure that all relevant persons were identified, all persons interviewed were presented with a list persons to be interviewed, and asked if they had any additional persons to add – a method also known as 'snowballing'. The interviews in relation to the introduction of Herceptin were carried out as semi-structured interviews to ensure that broader themes rather than yes/no question were discussed.

The case of Betainterferon

In February 1999 the Danish Institute for Medical Assessment released an assessment of the drug Betainterferon for treatment of multiple sclerosis (Institut for Medicinsk Teknologivurdering 1999). It had earlier been approved for treatment of the attack wise stage of the same disease. It was the secondary progressive stage that was up for investigation. The best, but scant, available evidence was used within the format of Danish health technology assessments: (clinical) effects, ethical issues/the patient perspective, economics, and organizational issues. As such it constituted a broad decision foundation based on the best available evidence. The intended decision makers were the county politicians who are responsible for setting budgets for the hospitals that were supposed to dispense this fairly expensive drug to patients. An annual expenditure per patient of about Dkr. 80,000 was estimated, meaning that no citizen should/could pay this herself. Instead it should be administered and dispensed from the neurology departments of

Table 1 Chronology for the decision about Betainterferon

Evidence or event	Time
Article in the Lancet, the only randomised study	November 1998
First cost-utility analysis - high costs per QALY	April 1998
Release of the Danish Health Technology Assessment Report	February 1999
Decision/recommendation by the Danish Counties	March 1999
Decision by the Prime Minister/minister of health	March 1999
Health economist creates doubt about the results in the Lancet article	April 1999
Meeting of the author group of the Health Technology Assessment and press release	May 1999
Hearing organized by the Standing Health Committee in the Danish Parliament	September 1999

Danish hospitals (table 1).

The report's recommendations were vague and not univocal. Some points for and against introduction, i.e funding by the counties, were noted. Against counted a cost-effectiveness ratio of 8.5 million Dkr per quality-adjusted life year gained. As a rule of thumb, however not scientifically based, many say that funding for ratios larger than Dkr. 250,000-300,000 should not be undertaken. The annual expenditures were expected to be close to a hundred million Dkr. For counted that the drug was effective in the sense that it postponed progression of the disease by about nine months.

The decision by the counties was to 'wait and see', or rather to wait for additional evidence on clinical effect because only one randomised study was available at the time for secondary progressive multiple sclerosis. In a sense this decision was basically in line with both the thinking behind cost-effectiveness analysis as a decision aid, and the ideas behind Danish technology assessments.

However, as something unusual, the prime minister subsequently intervened in person. Formally the minister of health fronted the discussion, but there is no doubt that the prime minister basically made the decision. For details, for instance the role of the pharmaceutical company, leading physicians, the media etc., see e.g. chapter 8 in (Pedersen 1999). Apart from a personal involvement (a sclerosis patient in his close family) the prime minister put forward two reasons that dramatically changed the principles behind Danish priority setting.

The first reason was that of seriousness of illness as an independent criterion coupled with the fact that for the first time an effective treatment now was available. The second reason was related to first, namely that if a treatment with documented clinical effect was available then public funding should be available without discussion.

Basically this meant that the resource con-

straint for the introduction of new treatments by a stroke had been suspended. It also suspended any serious debate about priority setting, because priorities established themselves depending on documented clinical effect. Taken at face value apparently regardless of size of effect or relative increase in effect compared to best previously available alternative or consideration of side effects.

It led to a heated public debate, not only about the fact that the usual decisions makers, the county politicians, had been pushed aside, but also about the consequences of the new criteria for setting priorities. The pharmaceutical industry understandably was thrilled as were many physicians, who all by a sudden saw years of spending restraint being suspended. The standing committee in the Danish parliament some months later had a hearing that to a certain extents normalized the situation without directly renouncing the principles set down by the prime minister (Teknologirådet 1999). The simple fact was that the public coffers simply could afford this. Furthermore, there had been no discussion about the size of the documented effect.

In many ways this example shows not only the natural political nature of priority setting, but also how the normal logic – for instance 'value for health' as embodied in the principles of cost-effectiveness analysis – were suspended. However, the effect was not lasting – but did last as long as the prime minister was in power (till November 2001) – explicit political backtracking has always been difficult, even when decisions made at the spur of the moment on closer consideration probably should be reconsidered. In the history of priority setting, the Betainterferon case may be an isolated, but still illustrative example.

The case of Herceptin

Via the literature review and the interviews outlined above, a number of results in relation to the discussion on the introduction of Herceptin was found. As can be seen in table 2, it was possible to outline the chronological steps in relation to the introduction of Herceptin. As can also be seen in table 2, the decision making process dates back to November 1998, where Herceptin was accepted for sale in the USA. In October 2000 Herceptin was accepted for use in Denmark, but the use of the drug was initially rejected by the cancer physicians, as they deemed the drug to expensive compared to its therapeutic effect. Finally, in late December 2000 the drug was accepted for sale in Denmark, with a 100% funding by the hospitals that dispense the drug. It was estimated the drug would benefit less than 100 women and cost about 18 million DKr (table 2).

The introduction of Herceptin was part of the larger political discussion between the ruling government and the opposition in the parliament. The discussion was spearheaded by an opposition MP (general practitioner by vocation) who used Herceptin skilfully to question the authority of the government by posing a number of §20 question in the parliament[1].

For the present purpose it is interesting that the MP did not possess much 'power', but used his limited resources in a skilful manner and to great effect, showing the importance of dedicated and single minded political efforts. Thereby he placed himself centrally in the political decision-making process that eventually lead to the introduction of Herceptin. Instead of using technical arguments, e.g. results from clinical trials or cost-effectiveness analysis, he used more emotional wiles, 'how can you refuse cancer patients the hope that this new drug...', ques-

Table 2 Chronology in the process of introduction of Herceptin

Evidence or event	Time
The Food and Drug Administration in the USA accepts Herceptin for sale	November 1998
The Danish national cancer plan	Spring 2000
The Danish Medicines Agency informs relevant parties after receiving an application from Roche to market Herceptin in Denmark. Herceptin is accepted for sale in Europe by the European Medicines Agency (EMEA) on August 28th, 2000.	August 2000
DBCG produces a brief report which essentially formed the basis for the later acceptance of the introduction of Herceptin in Denmark	October 2000
• The counties accept to offer treatment with Herceptin • Public discussion on Herceptin involving the counties, the minister of health, and other political agents even after the drug has been accepted	November 2000
• Discussion in the Danish parliament on the introduction of Herceptin • New Minister of Health, 21 December 2000 • Herceptin is introduced on the Danish market, 27 December 2000 • The Danish cancer physicians are commanded to use Herceptin as a treatment	December 2000

DBCG: Danish Breast Cancer Group

tioned the integrity of the Minister of Health, and kept on using partial misleading arguments. Due to this approach, the discussion got somewhat personal and separated from scientific evidence and professional opinion. The strategy made it possible for the MP to move the discussion away from the technical into the political arena, and thereby to an arena where he could use his acquired skills and learning from, among other cases, the Betainterferon case.

Despite the other interested parties, including the Minister of Health, the Prime Minister, and the chairman of the counties' standing health committee possessed many resources and much negotiation power, they had great difficulties in fighting back. The problem for them was that the media went along with the MP, in part due to emotional appeal of his arguments. So despite the fact that these parties initially were powerful, they did not have the skills to use these resources in an efficient manner to control the public agenda. This is an important point: priority setting is also about controlling the agenda for discussion, and hence also the

inclusion of the role of the media in such matters.

The effect was that the technical arguments on low cost-effectiveness, side-effects, and resource impact were side-lined. In stead the argument that anybody in need should be treated – this irrespectively of the costs, were accepted. Thereby the prime-minister who had already burned himself on the Betainterferon case, once again made it clear that cost-effectiveness and budget impact were minor concerns. Rather, any treatment should be provided if any documented clinical effect could be proved.

Discussion

The introduction of Betainterferon and Herceptin may on the one hand confirm a growing acceptance of treating all once clinical effects have been demonstrated, irrespectively of the costs. Before the Betainterferon and the Herceptin cases, the common understanding had been that priority setting was necessary due to budget constraints (Pedersen 1990). On the other hand, however, it may also be two special cases – however, with important ramifications for the Danish debate about priority setting.

When interviewing a leading cancer physician one year after the discussion on Herceptin, it was interesting that she explicitly noted that after the Betainterferon and Herceptin cases, it was hard to reject new treatments if they were seen as needed by politicians and had a documented clinical effect, despite professional opinion to the contrary. In the early stages of the discussion she had opposed the introduction of Herceptin based on a classical priority setting argument, namely cost-effectiveness, including that additional funds (targeted at Herceptin) could be put to better use elsewhere in cancer treatment. A similar change in the understanding for how priorities should be set, can be found in the speeches of the Prime Minister (Iversen 2003), and in the interview with the chairman of the counties' standing health committee, who explicitly stated that budget rationality (limitations due to budgetary impact) did no longer apply.

The introduction of Herceptin and Betainterferon has been two cases that for a period changed the discourse concerning how decisions on new hospital dispensed drugs takes place. Where the emphasis previously had been on cost effectiveness, budget impact, clinical effectiveness etc., the arguments after the introduction of Betainterferon and Herceptin, to a considerable extent has been that an intervention should be introduced if it had a documented clinical effect, irrespective of the costs. This may be a short-term solution to priority setting, as an increasing pressure on the health care budgets is expected over the coming years. The alternative cost argument fundamental to economics, i.e. benefits foregone by using resources in a specific way, and basically paraphrased by the senior cancer physician above, undoubtedly is supposed to win in the long run.

The cases of Betainterferon and Herceptin are also interesting from another perspective, as the decision making process was moved from the decentral county level to the national level – a move that can also be seen in other areas of health care, see e.g. (Sundhedsministeriet 2003). In that respect the question is whether national politicians, i.e. MPs, are better able to make decisions (based on economic and clinical evidence), than county politicians who are closer to the running of the health care sector, or the health policy debate will be politicised in the sense of being more separated from the evidence base. In that respect the outcome of

the Betainterferon and Herceptin cases can be seen as examples of what may happen when politicians without responsibility for the daily handling of the health sector are setting the health agenda.

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Footnote

[1] §20 questions is the right of any parliamentarian to ask any question he may like to the sitting government.