What Makes a Pharmaceutical a Commercial Success?

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ABSTRACT

The cost of developing new pharmaceuticals has increased, while the number of pharmaceuticals approved has declined. This highlights the importance for new pharmaceuticals to quickly become successful. The aim of this thesis is to explore the factors of importance when launching new pharmaceuticals. Initially a literature review has been conducted to explore general factors of importance for a pharmaceutical to become a commercial success. Furthermore, eleven in-depth interviews have been performed with stakeholders from the Swedish healthcare system to identify significant factors on a national and regional level in Sweden. A thematic analysis was used to categorize the data collected in the interviews.

The result of the literature review showed that the value creating process is of utmost importance for a pharmaceutical to become a success. This is affected by a customer oriented focus, the design of the pharmaceutical study and the outcome from the health economic analysis. Additionally, a number of challenges in the pharmaceutical supply chain were identified, which could cause a bottleneck during the launch of new pharmaceuticals.

In the empirical part a main theme ‘Trust’ with a total of seven subthemes was identified. The seven subthemes are factors that are essential to gain the trust and create the value, they are: ‘Guidelines and Regulations’, ‘Clinical Efficacy and Clinical Evidence’, ‘Marketing’, ‘Information’, ‘Adherence and Compliance’, ‘Health Economics’ and ‘Financial Aspect’. The subtheme ‘Guidelines and Regulations’ highlights the connection between guidelines and utilization of pharmaceuticals. The ‘Clinical Efficacy and Clinical Evidence’ was identified as the utmost important success factor. Furthermore the theme ‘Value of Money’, including the subthemes ‘Health Economics’ and ‘Financial Aspect’, highlights the importance of the budget aspect and the increasing use of health economics to evaluate health benefits and costs in healthcare. The subtheme ‘Adherence and Compliance’ stresses the importance of information to the end user, whereas the subtheme ‘Information’ highlights the information exchange among different stakeholders. The subtheme ‘Marketing’ describes the effect of personal relationship between industry and prescribers, and the effect on the pharmaceutical use it can have.
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<th>Abbreviation</th>
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<td>DFC</td>
<td>Drug Formulary Committee</td>
<td>Läkemedelskommitté</td>
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<td>EMA</td>
<td>European Medicines Agency</td>
<td>Europeiska Läkemedelsverket</td>
</tr>
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<td>FDA</td>
<td>Food and Drug Administration</td>
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<tr>
<td>LIF</td>
<td>The Swedish Association of the Pharmaceutical Industry</td>
<td>Läkemedelsföreningen</td>
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<td>MPA</td>
<td>Medical Product Agency</td>
<td>Läkemedelsverket</td>
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<td>NT</td>
<td>New Therapies</td>
<td>Nya Terapier</td>
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<td>SALAR</td>
<td>The Swedish Association of Local Authorities and Regions</td>
<td>Sveriges Kommuner och Landsting</td>
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<tr>
<td>SBU</td>
<td>The Swedish Agency for Health Technology Assessment and Assessment of Social Services</td>
<td>Statens Beredning för Medicinsk och Social Utvärdering</td>
</tr>
<tr>
<td>TLV</td>
<td>The Dental and Pharmaceutical Benefits Agency</td>
<td>Tandvårds- och Läkemedelsförmånsverket</td>
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<tr>
<td>TNF</td>
<td>Tumor Necrosis Factor</td>
<td>Tumörnekrosfaktor</td>
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1. INTRODUCTION

1.1 BACKGROUND
While the cost of developing new pharmaceuticals has increased [1], the number of pharmaceuticals approved has declined. The decline in approval can be explained by more demanding regulatory authorities, increased focus on complex diseases, and/or that an enhanced standard of care has increased the entering bar for new pharmaceuticals [2]. Once the pharmaceutical is launched on the market, only one third of those pharmaceuticals meet the sales expectations during their first year. If they do not reach these sales expectations, they tend to continue to deliver below expectation for the following two years [3]. This puts a high pressure on pharmaceutical companies to quickly gain a good market share when launching pharmaceuticals on the market [4].

1.2 PROBLEM FORMULATION AND RESEARCH QUESTIONS
The key element in a commercial success is that the pharmaceutical is profitable. A market approval of the pharmaceutical is required by either the European Medicines Agency (EMA) in Europe or the Food and Drug Administration (FDA) in the USA. However, the regulatory approval only entails that the documentation requirements for safety and efficacy are fulfilled. Furthermore applications regarding reimbursement need to be submitted on a national level. In Sweden they are submitted to the Dental and Pharmaceutical Benefits Agency (TLV). Additional decisions affecting the utilization of the pharmaceutical are made on national, regional, and local levels. In Sweden the decisions can include recommendations/guidelines from the New Therapies Council (NT-Council), Drug Formulary Committees (DFCs), and professional networks, which in turn will influence the number of prescriptions by physicians.

In this thesis, the different factors contributing to a pharmaceutical’s success in Sweden will be investigated. The work is divided into two parts. The first part encompasses a literature review to gain a general understanding of which factors are important for a pharmaceutical to become a commercial success, and which factors that are important when launching pharmaceuticals. That is presented in Chapter 2. The second part is an empirical study, and is conducted through a number of in-depth interviews with some of the representatives of the stakeholders on the Swedish pharmaceutical market. That part will investigate which factors are important when introducing new pharmaceutical on the Swedish market and which factors are important for the utilization of a pharmaceutical. The empirical result is presented in Chapter 4.

Furthermore, Humira has been used as a case study through this thesis, with the aim to investigate what has made Humira is the most profitable drug in the world today. This is presented in Chapter 2, and further discussed in Chapter 5.

1.3 LIMITATIONS
Only the Swedish market is considered within the empirical part of this thesis. However, the pharmaceutical industry is an international market and an international perspective could arguably result in a more accurate result.

The interviews were all conducted in Swedish and translated to English afterwards, and information might be lost due to misunderstandings or linguistic nuances.
The literature review covers a large field, and a number of these subjects would have benefited by being explored more in-depth. However, due to limited time that was not possible.

Lastly, there are some references that have been used that are considered grey literature, i.e. not scientific research papers. These references have been clearly marked throughout the thesis.

1.4 OUTLINE OF THE THESIS
The following chapter, Chapter 2, presents the literature review of the field. Chapter 3 explains the method used for the empirical part of this thesis. Chapter 4 is the empirical result from the interviews. Chapter 5 is an analysis of the empirical result from the interviews and the literature result. The final chapter includes the conclusion from the research and suggestions on further research.
2. BACKGROUND
Through the literature review a number of different segments were identified to be of great importance for a pharmaceutical to become a commercial success. These are described in the following chapter, and include: Marketing in the Pharmaceutical Industry, Health Authorities and Regulations, Health Economics, and The Pharmaceutical Supply Chain.

2.1 WHAT MAKES A COMMERCIAL SUCCESS
Marketing in the Pharmaceutical Industry
According to Kotler and Keller [5] a company’s task is to deliver a customer value while being profitable. In markets where the customers are well informed, having different perception, preference, and buying criteria the traditional marketing process, which take place in the selling process, will likely not be useful. Instead the marketing is used to create a customer value, and this value creation needs to start already in the early process. This can be seen as a value delivering process that need to evolve along the pharmaceutical development. The creation and delivery of the value can be divided into three phases: (1) choosing the value, (2) providing the value, and (3) communicating the value [5].

The first one implies selecting an appropriate target. The second one is determining the specific product features, price and distribution, and the third one includes the sales force [5]. Pharmaceutical development runs over a long time, hence leading to an increased cost and therefore also a high risk. To ensure a long-term success is critical and therefore it is important to be aware of the core competencies within the company [6]. The characteristics of the core competencies are: a source for competitive advantage, applications in a number of markets, and complicated for competitors to imitate [5]. In a study done by Schuh et al. [6] customer orientation, by them described as ‘customer focus’, was considered to be the most important core competence for a company within the pharmaceutical industry, before staff and social responsibility.

A strong customer focus is important in a market-based strategy. That includes understanding customer needs and the problems customers may encounter. Companies with a strong customer focus work closely with the customers to deliver a strong customer satisfaction and develop customer loyalty. Customer satisfaction and retention has clearly a positive impact on the company’s profitability. Customer relationship marketing includes attracting the right customers, which includes managing the different types of customers to gain high levels of loyalty. Customer loyalty is characterized by customer satisfaction, retention, and recommendation. Furthermore, ensuring customer satisfaction is often less costly than attracting new customers [7].

Another factor contributing to a successful product launch is customer acceptance, which can be attained through relationship orientation. Relationship orientation aims to give stronger customer relationship, which in turn can result in lowered barriers for innovation diffusion. Lowered barriers of innovation diffusion has a positive effect on the market access at product launch [8]. Furthermore, the timing of the product launch is of importance to gain customer acceptance, both in gaining Key Opinion Leaders’ (KOLs’) (early phase of innovation) and prescribers’ (late phase of innovation) acceptance. A key success factor is that the KOLs find the pharmaceutical superior to the competitors’ products. Therefore it is important to gain the KOLs acceptance early in the innovation process, which is done through a product advantage and relationship
marketing activities. That enhances the market penetration of a new pharmaceutical, hence lowering the barriers of market entry. In the later innovation phase where the other customers are targeted (not KOLs), the accumulated market-based assets have a larger impact on the customer acceptance. The market-based assets include the company brand, loyalty to the company and strong prior relationships [9].

**Health Authorities and Regulations**

In the past years, the focus of the pharmaceutical industry has moved away from blockbusters to pharmaceuticals for smaller patient groups. These are often premium priced pharmaceuticals, and are likely to increase as the number of biologic pharmaceuticals grows. It is important for the health authorities to manage entries of such new pharmaceuticals on the market to ensure that these treatments reach the patients. Suggestions of activities that need to be performed pre-launch are horizon scanning and budget planning. In addition, at the launch it is important to have prescribing indicators, as well as registries where the efficiency and safety can be followed in larger populations after the launch [10]. For a new pharmaceutical to be launched in a pharmaceutical group it is likely a need to have a comparable price (reference price) on the pharmaceutical to gain a market share. However, by having clinical data showing substantial improvement, i.e. safety, quality of life and efficacy, that risk can be diminished and a higher price can be achieved. Additionally, it is important that the regulatory within the countries attract the companies to develop alternative pharmaceuticals within pharmaceutical groups to cover for the inter-patient variations [11].

According to Rees [12], the pharmaceutical industry sees the regulatory approval as the goal, i.e. the regulatory is the key to success rather than looking at customer satisfaction and long-term competitive positioning. The author argues that the customer is not the main focus during the pharmaceutical development, e.g. it is not uncommon that there is a shift in target population when developing new pharmaceuticals. Hence, the approval of a new pharmaceutical is the primary goal, rather than the patient in need for a certain treatment. However, the approval (in Europe the marketing authorization application) is still essential for whether the pharmaceutical will have a chance to succeed on the market or not [12].

Pharmaceutical guidelines are a tool to work for a rational prescribing. When considering guidelines, one aspect of the likelihood for a pharmaceutical to be included in guidelines depends on how the studies are accomplished. Studies that are non-inferiority or placebo controlled are not considered as valuable as superiority studies with an active treatment in the comparable arm. Furthermore data on budget impact (cost-effectiveness) and environmental impact is of great importance too [11]. A key aspect why pharmaceuticals not are included in guidelines or why recommendations are restricted is due to issues concerning the clinical design. Therefore it is important that the company, already in the early process incorporates the payer’s expectations to gain strong health economic evidence [13].

**Health Economics**

Health economics is used to evaluate health benefits and costs in healthcare. It is used to explore how cost efficient a treatment is for the society, i.e. the amount of money spent in proportion to the health benefits gained. A common method used in these evaluations is Cost Utility Analysis (CUA). Examples of other evaluation methods are Cost Effectiveness Analysis (CEA) and Cost Benefit Analysis (CBA). The main outcome
measure used within CUA is the Quality Adjusted Life Years (QALYs). QALY is a measure of the estimated time left in life and the quality of life during that time. The quality of the measurement is dependent on the data used for the calculation. An abundance of the data used are from studies from other countries, and the transferability depends on how comparable the data is with the conditions in Sweden. In all the health economic evaluations there will be faults, which it is important to be aware of. Therefore the evaluations are ranked low, mean, or high quality [14].

It is important to emphasize that this method in itself does not say anything about the cost-effectiveness or how resources in healthcare should be divided. It makes it possible to compare different therapies to each other, or compare a therapy to no therapy (e.g. a disease that before did not have a treatment) [14].

Box 1. Calculation of QALY.

QALY is a weighting system, and is usually summed over a group of people and time. The quality of life is measured on a scale from 0 to 1, where 0 is death and 1 is perfect health, for each year. The result, the cost per QALY can be used when comparing the alternative treatments [15].

The costs involved in the evaluation can be divided into three groups: direct healthcare costs, direct other costs, and indirect costs. Loss of productivity due to morbidity is the most important factor among the indirect costs. This will result in a difference between people that are not able to work (due to age, early retirement pension etc.), which is why the result of QALY is presented with and without the loss of workforce [14].

The Pharmaceutical Supply Chain

The timing in relation to the competitors with similar pharmaceuticals is of importance in gaining a commercial success according to Schulze and Ringel [16]. By quantifying the relationship between ‘timing of market entry’, ‘therapeutic advantage’, and ‘commercial success’ among fifteen different groups of pharmaceuticals, it could be seen that it was slightly more beneficial for the pharmaceutical to be first in the class, rather than to be the one with best therapeutic advantage. However, if the second pharmaceutical in the class is launched within two years, and considered having a greater therapeutic value, it will score a higher value of success [16].

Not only timing, the time-to-market is also important due to the prolonged Research and Development (R&D) [17]. The generic pharmaceuticals result in a shortening of the product life cycle for the innovators and patent owners of branded pharmaceuticals [12]. Therefore it is crucial to limit the pharmaceuticals time-to-market to exploit the patent protection, i.e. optimizing the launch of the product [17]. To secure the quality and the delivery of the product to the end user, supply chain management is of importance. The supply chain consists of a network of organizations involved in the upstream and downstream processes until the product reaches the final customer [18]. The pharmaceutical supply chain includes: manufacturing, supplier, distributor, and service provider. There are five key areas that need to be managed for optimizing the supply chain. The first area, known as the production and inventory control, includes managing the inventory levels and the supply and demand to meet the customer requests. Second is strategic procurement, used to acquire goods and services from third parties. Third is the storage, transportation, and distribution. Forth is information system to manage the flow of information across all the previous mentioned stages. The fifth and final area entails looking for ways to improve the different processes from an end-user perspective. Due to cost-efficiency many companies outsource steps in the supply chain, e.g. development
and production. The outsourcing makes the company dependent on third parties, which can make it harder to control cost and time frames in the supply chain [12].

There is a number of uncertainties that can cause problems in planning the market launch connected to the supply chain. These include uncertainties of the authorization process, uncertainties in reimbursement levels leading to variations in demand, and packaging [17]. During the development the packaging is likely to have a simple design compared to the commercial phase. At the commercial phase the packing requires more controls to ensure that the labeling on the product is identical with the approved license. One example of this complexity is if the pharmaceutical is sold in different countries, as that will require different language packaging. The packing can be divided into primary (the encasement of the pharmaceutical in a suitable material) and secondary packing (labeling and packing into suitable packages) [12]. As repacking is not allowed, all packing before authorization will be useless if any changes are required. Packing before authorization is therefore referred to as risk packing [17]. The majority of the product recalls are due to packing issues or mislabeling, whereas in the primary phase there is a risk of cross contamination during batch changes [12].

Another uncertainty that is of great importance for the supply chain is the demand. During the process, from the development to small and later large-scale production, the requirements change. For example the demand is one factor that alters a lot when the production moves from clinical trial phase to the commercial phase. In the development phase the amount needed can be calculated from the clinical trial protocols. In the commercial phase the demand is more complex as it depends on the customer demand, which is unknown [12].

During the production process, intermediates and pharmaceutical substances can be shipped between sites and countries. These involve a number of critical factors: pharmaceutical product quality (e.g. vaccine can be temperature sensitive and require special containers for transportation), safety (the pharmaceutical component can be hazardous), special transportation (e.g. biopharmaceutical are inherent fragile and often the components require water solutions and therefore need to be transported in a deep-frozen state), and regulatory liabilities. The latter is critical when designing the supply-chain, as any changes done to the production of pharmaceuticals post-approval need to be processed according to regulations, the Current Good Manufacturing Practice (CGMP). Hence, making changes in the production is easier and less expensive before approval, and the further upstream the problem occurs the more time consuming and costly it is. Coordination of these factors improve the chance of a faster market access for the pharmaceutical. However, the coordination becomes more problematic when an increased number of suppliers are used [12].

2.2 THE WORLD'S TOP-SELLING DRUG - HUMIRA
Humira was launched as number three in its class of Tumor Necrosis factors (TNF)-alfa-inhibitors, and is since 2012 the highest revenue pharmaceutical in the world [19], and in Sweden [20]. Remicade was the first TNF-alfa inhibitor and it got approved by EMA in 1999, and the year after Enbrel got approved by EMA too [21]. When Humira was launched in 2003 it had one indication, rheumatoid arthritis, but since then it has been approved for a number of new indications, e.g. Crohn’s disease, psoriasis as some examples [22]. An increased number of approved indications results in a larger consumption of the pharmaceutical. Even though Humira is increasing more than its
competitors Enbrel and Remicade, they are both increasing too. Indicating that Humira's increase is not dependent on customers from Enbrel and Remicade, instead it shows that the market of TNF-alfa-inhibitors is growing [21].
3. METHOD
An inductive qualitative method was selected for this thesis. A qualitative method is suitable when an issue is to be explored, and the inductive process allows information to be organized and constructed in a ‘bottom-up’ manner to create themes [23].

Initially a literature review was concluded to explore the research on the topic ‘which factors are important to gain a pharmaceutical success’. The following databases were searched; PubMed, Embase, Scopus, MEDLINE – web of science, and Nature.com. Keywords used were e.g. ‘drug’, ‘launching’, ‘success factors’, and a matrix over the search facet can be found in Appendix A. An additional internet search was performed, and grey literature included is found in Appendix A. A set of qualitative in-depth interviews were conducted to explore the utilization and launches of pharmaceuticals on the Swedish market.

3.1 DATA COLLECTION
A total of eleven interviews were conducted. The interviews were held in person or over the phone, and all interviews took place between November 4th, 2015 and January 8th, 2016. The interviews were audio recorded and transcribed afterwards.

Sample selection
A purposeful sampling strategy was used, hence allowing the researcher to select individuals to interview based on who would have knowledge and understandings of the field [23]. The people chosen for interviews were based on their expertise within the field of launching and utilization of pharmaceuticals. A total of sixteen people were contacted for interviews. Contacts were made either through email or phone, and the same information was given to all sixteen individuals who were contacted. In the case where the contacted person either did not want to participate or was not the correct person to answer the questions, they did recommend whom to contact instead. Eleven individuals agreed to be interviewed, however one chose to only participate via email. In Table 1 the interviewees are listed, and additional information about them are found in the section under.

Table 1. Summary of interviewed experts.

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<th>Informant</th>
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<td>1</td>
<td>Member of a DFC in one of the six healthcare regions.</td>
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<tr>
<td>2</td>
<td>Member of a DFC in one of the six healthcare regions.</td>
</tr>
<tr>
<td>3</td>
<td>Member of a DFC in one of the six healthcare regions.</td>
</tr>
<tr>
<td>4</td>
<td>Member of an expert group in a DFC.</td>
</tr>
<tr>
<td>5</td>
<td>Member of LIF.</td>
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<tr>
<td>6</td>
<td>Member of the patient organization for rheumatism.</td>
</tr>
<tr>
<td>7</td>
<td>Specialist physicians in rheumatology.</td>
</tr>
<tr>
<td>8</td>
<td>Specialist physicians in dermatology.</td>
</tr>
<tr>
<td>9</td>
<td>Member of the NT-Council.</td>
</tr>
<tr>
<td>10</td>
<td>Public procurement official of pharmaceuticals in a County Council.</td>
</tr>
<tr>
<td>11</td>
<td>Health economist at TLV.</td>
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Information about the informants
The Drug Formulary Committees (DFCs) in the County Councils issues pharmaceutical guidelines within the primary care. In Sweden every County Council is obligated by law (SFS 1996:1157) to have a DFC. Within the DFC, there should be individuals with excellent knowledge in pharmaceutics and medicine. The purpose is to work for a
reliable and rational use of pharmaceuticals by issuing these guidelines [24]. One limitation was to only contact the committees within the six County Councils with university hospitals. Hence, a total of six DFCs were contacted, and three agreed to participate. Additionally, two expert groups (working for a DFC) were contacted, and one of them agreed to participate.

The Dental and Pharmaceutical Benefits Agency (TLV) decide about reimbursement on a national level in Sweden, and companies that want their pharmaceuticals to be included in the pharmaceutical benefits scheme have to apply to TLV [25]. TLV could not participate in an interview due to time limitations, but agreed to answer questions over email. The New Therapy Council (NT-Council) was contacted and agreed to participate. One of the tasks the NT-Council has is to give directive recommendations and policies to the County Councils, regarding pharmaceuticals for inpatient care and for pharmaceuticals not included in the pharmaceutical benefits scheme for outpatient care [26].

Two specialist physicians were contacted, one within rheumatism and one within atopic dermatitis. The interviewees were found through the professional networks of both fields; the Swedish Society for Rheumatology and the Swedish Association for Dermatology and Venereology. Additionally, the Swedish Rheumatism Association, which is a non-profit organization working for people with rheumatic disorders, was contacted and agreed to participate.

The Swedish Association of the Pharmaceutical Industry (LIF) agreed to participate in an interview. LIF is a member association for the research-based pharmaceutical industry in Sweden. They work with issues regarding the pharmaceutical industry to support their members [27]. The Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU) was contacted, however they suggested that contact should be made with a DFC that was already participating.

After all interviews were performed an additional interview was scheduled with the department of procurement within one County Council to clarify questions that have been discovered regarding the procurement of pharmaceuticals during the previous interviews.

**Interview guide**

Semi-structured open-ended questions were used for the interviews, which allows specific information to be reached, and makes it possible to compare information attained from different interviews [28]. When explorative topics are examined in interviews, the research can benefit from not following a specific structure, and instead follow interesting topics in the individual interviews to explore them in depth [29]. Three different interview guides were used, with various questions depending on the interviewee’s expertise. The same questions were asked to every interviewee within the same field, however the questions were open-ended leaving it flexible for the interviewee to expand on the topic. The questions were formed after the literature review was finalized. During the development of the interview guides they were discussed with the supervisor. The interview guides are found in Appendix B.

**Informed consent**

Informed consent was used both to inform all participants about the research as well as to ensure them about the confidentiality and the purpose of the interviews [29]. All
participants signed an informed consent form before the interview was held, and the form can be found in Appendix C.

3.2 DATA ANALYSIS
Thematic analysis was used to categorize the data. It is important that each unit identified can stand on its own, and not need any additional explanation to make sense. A unit can consist of a word, a sentence, or entire paragraphs. The units are categorized into larger entities to explain the main focus areas. The entities will group into larger themes that can describe the data. The categorization process is done by reading the units one by one, where the first unit forms the first category. If the next unit reflects the same topic, it goes into the same category, otherwise it forms a new one. Then this process is repeated until all individual units are categorized [30].

The data was read multiple times, and every unit identified consisting of information with a connection to the pharmaceutical success or factors connected to the launching of a pharmaceutical was marked in the text. All the parts that were marked were transferred to a new document. The units were read through to ensure they all made sense outside their context. A total of seven subthemes were identified. There were a number of interconnections between more than two of the subthemes, which is why it was more relevant to construct a mind-map-like figure to show how they interact with each other rather than a tree-structured figure.

Ethical considerations
The collected data was unidentified, and action was taken to minimize the possibility for information to be traced back to any of the participants. For example, this includes the name of places, e.g. Stockholm, was crossed out in the text.
4. FINDINGS
The data analysis resulted in one main theme ‘Trust’, and a subheading named ‘Value of Money’, which has two subthemes: ‘Health Economics’ and ‘Financial Aspect’. From the main theme ‘Trust’ there are five subthemes: ‘Guidelines and Regulations’, Clinical Efficacy and Clinical Evidence’, ‘Marketing’, ‘Information’, and ‘Adherence and Compliance’. This is presented in Figure 1.

Figure 1. Schematic figure over the themes.

The main theme is ‘Trust’. This is linked to the value delivering process, from the initial developing to a finished product to the end user. Trust is in Oxford Dictionaries defined as: “Firm belief in the reliability, truth, or ability of someone or something, and the acceptance of the truth of a statement without evidence or investigation” [31]. The end user needs to believe in the product and this is created by trust to the physician. In the way value is discussed in the background in this thesis, this value cannot be delivered if there is no trust between the people involved. To transfer the value, trust needs to be built up first.

TRUST
Five sub-themes were discovered within the theme ‘Trust’; ‘Marketing’, ‘Information’, ‘Adherence and Compliance, ‘Guidelines and Regulations’ and ‘Clinical Efficacy and Clinical Evidence’. All these subthemes are grounded in trust.

Guidelines and Regulations
According to the interviews with the patient organization, LIF, and NT-Council, the patients’ possibility to receive treatments with new pharmaceuticals can be slowed by the number of regulatory steps, e.g. TLV, guidelines, introduction system etc. The patient organization also referred to the budgets of the County Councils as a contributing factor to different possibilities to receive treatments with new expensive pharmaceuticals.
Another reason why utilization of pharmaceutical between County Councils can alter was the different introduction systems according to the NT-Council interviewee. This can result in uneven provision of healthcare in the different County Councils. The expert group interviewee said that as long as there are different guidelines in the County Councils, the goal cannot be that everyone should receive the same treatment in the country. If that was the goal, there should be one mutual guideline for all the County Councils. The interviewee could not see any problem with one shared guideline, as the treatment considered to be the most suitable should be that no matter where in the country you live. But due to the structure with different healthcare regions, the politicians consider it to be better with local guidelines. The interviewee continued:

“But at the same time one can wonder, with improved studies and tougher requirements for evidence, is there a reason to have twenty something different guidelines that are close to equal? But that is up to the politicians to decide, there are possibilities for sure to streamline and have clear directives, but that is not how it is now anyway.”

According to the same interviewee, one positive aspect of the local guidelines is that the introduction of new pharmaceuticals can take less time, as the decisions do not need to be established in the whole country. The interviewee also said that the local guidelines enhances the possibility for the prescriber to trust the recommendations if he/she is familiar with the person who made them. An interviewee from another DFC expressed a similar opinion. Local guidelines are beneficial in the sense that they open up for local discussions, for instance about clinical cases, resulting in a higher value of the guidelines due to enhanced trust, than if the prescribers only receive an email about what is recommended.

A recommendation within the DFCs says that a pharmaceutical must be on the market for at least two years before it can be included in the guidelines from the DFCs. The interviewed DFC members all expressed the rarity to overlook this ‘two-year recommendation’. This is because more knowledge about the pharmaceutical is gained after it becomes available on the market. The interviewee from the expert group mentioned that the information about the safety profile is scarce when a pharmaceutical is new, and therefore recommendations are restrained. One interviewee from a DFC explained it as:

“It is preferable if the specialists get to know the pharmaceutical before they give any recommendations to the primary care physicians on how they should use it.”

All the interviewed DFC members said that the guidelines for primary care are appreciated. One of these interviewees said that the specialist care is different, referring to the fact that specialist physicians often prefer to work without guidelines:

“It is much harder to affect the doctors working in the hospitals, the primary care doctors got so much to keep in their heads that they are just happy for simple guidelines and lists they could have in their pockets. While the specialists hate cookbooks and believe they are at their best if they can freelance, which most likely is wrong, but that’s how many think about themselves.”

The same interviewee believed this would make the specialists more sensitive to personal relationships with e.g. the industry.
Clinical Efficacy and Clinical Evidence

One of the most important factors when recommending pharmaceuticals to be included in guidelines is the clinical efficacy, according to all the interviewed DFCs. One member from a DFC described the need to document clinical efficacy in large pivotal studies. The clinical efficacy was also mentioned as the most important factor for compliance according to one of the interviewed physicians. Furthermore, the interviewee from LIF said:

“… there is no other logical way to price and value a pharmaceutical, it needs to be based on the clinical efficacy.”

Two of the DFC members emphasized that improved clinical efficacy should not only be shown as surrogate endpoints. They wanted to see hard endpoints, e.g. a demonstration of an increase in lifespan rather than to just show a reduction in blood glucose levels. Where the third DFC member talked about these endpoints it was in terms of being cured or feeling well. One member from a DFC expressed that the industry often fail on that note and said:

“But then the firms have failed over and over again to actually lengthen peoples lives, yes it lowers the blood glucose, but that itself does not give any health benefits.”

Another aspect that was discussed by the interviewees was the design of the studies. There was a desire to see more head-to-head studies, and not only placebo controlled studies. However, the interviewee from the expert group said that it seldom companies want to perform these head-to-head studies, as they do not want to risk the competitors pharmaceuticals’ to be proven better. The same interviewee also mentioned the publication bias, that companies only publish the positive results.

Information

This sub theme describes how the information about the pharmaceutical can be spread between different stakeholders on the market. All the interviewees were asked about KOLs during the interviews. However, only two interviewees gave suggestions of people they considered important in their field. Instead the interviewees mentioned other sources for information, e.g. associations or scientific papered as relevant, and not individual statements. The physician and the patient organization, both within rheumatology, suggested the congresses (national and international) and the ‘Rheumatology day’ as important sources of new information in their field. The physicians said:

“We have these national rheumatology training sessions. They are held several times a year and should anything new happen, it would be discussed during these meetings... And since many attend these sessions, the ones that show up hopefully share their knowledge to their clinics and spreads the word on ”

Both the interviewed physicians emphasized that prominent researchers are an important source of information. Additionally, researchers working with clinical trials in their field of knowledge are also considered as important. Further the interviewee from the patient organization thought their chairman Anne Carlsson and the front row rheumatologist to be important, as well as the people within the County Council and the MPA. In the interview with LIF, congresses and specialist journals were mentioned as important
sources of information. In addition, TLV’s decisions are an information source as well as the Horizon Scanning in collaboration with SALAR.

The interviewee from the expert group first and foremost talked about scientific literature that is peer reviewed to be the primary source of information, and added that information from authorities could be used as well. However, the interviewee said that they do not consider any opinions from experts’ within the field; they want to see the facts from studies done in that field.

**Adherence and Compliance**

According to the interviewee from the patient organization, information about the treatment is the most important factor for compliance, i.e. it is essential that the patients understand how to take the pharmaceutical and why he/she is prescribed the treatment. One of the physicians also expressed information to be one of the most important factors for compliance, after clinical efficacy. The other interviewed physician did not talk about information directly, but rather the importance of the fact that patients are confident about the therapy he/she receives. The patient organization described it as follows:

“I believe it is very important that one has understood, that one receives an explanation on how to take the medicine, and why it is important. But also... I think it is a lot about knowledge amongst the patients.”

The interviewee from the patient organization also emphasized, especially regarding rheumatism, that not only the physician is an important source of information. If the patients go into the hospital for an infusion the nurse giving the treatment is an important source of information. Likewise, if the patient goes to a pharmacy to pick up the prescription the pharmacist is an important source of information.

The same interviewee continued with telling an example from child rheumatology where the information had had impact on the outcome of compliance. With children, due to their young age, information is given to the parents in most cases. This example is regarding a mother going to the pharmacy to pick up the prescribed therapy [methotrexate] for her son. At the pharmacy the pharmacist starts to talk about all the side effects, and that the pharmaceutical is used in chemotherapy, that it is not tested on children etc. The mother then starts to wonder whether that is the right treatment when her son has pain in his hip, and not cancer. This as an example of how information about a pharmaceutical can end up in parents doubting their children’s treatment. Such fear could, according to the interviewee, be hard to back up for the rheumatologists. This example is emphasizing the importance of correctly given information to the patient and parents in case of children, to feel safe and comfortable with the treatment.

Side effects and/or no effect of the pharmaceutical were considered to be the most common reasons for canceling a therapy according to both physicians, hence connected to the clinical efficacy. In rare cases the cost of the pharmaceutical (if a biopharmaceutical) could affect the compliance within rheumatism, according to the interviewee from the patient organization. This can occur even though there is a cost ceiling for pharmaceuticals for patients in Sweden the same interviewee continued. The interviewed physicians specialized in atopic dermatitis emphasized the importance of the patient to be well informed about the treatment he or she is given. A risk within the treatment of atopic dermatitis was therapy interruption due to that a positive result had
been reached. Such treatment needs to be continuously ongoing, and an interruption in the therapy will most likely result in a relapse.

Risks of canceling the therapy, both in rheumatism and atopic dermatitis, could be connected to issues with the administration of the pharmaceutical. Within atopic dermatitis local therapy is the most common treatment option, which is a treatment that patients can find troublesome. The fact that the patient experiences it troublesome could result in canceling the treatment, according to the interviewed physician. Another reason for canceling the therapy is limited effect of the pharmaceutical. However, the limiting effect can be a result of low compliance to the treatment, or the quality of the application of the pharmaceutical. The biologic treatments for rheumatism require self-administered injections or hospital visits every eighth week for infusion. This is one of the issues related with the administration of the biologic treatment for rheumatism. For both rheumatism and atopic dermatitis well informed patients were essential for adherence and compliance.

The physicians specialized in rheumatism also mentioned the value of listening to what therapy the patient wants. Different biological therapies have different administration schemed and could therefore suit the patients’ lifestyle differently. Another factor is when a patient expresses the that he/she wants a certain pharmaceutical based on that someone he/she knows is achieving positive results from taking it. The interviewee mentioned that the last reason is not common. However, the interviewee did not see any problem with following the patients’ wish, as long as there were no medical reasons for receiving a specific biological treatment since they all have similar clinical efficacy and side-effects. That the patients are satisfied with his/her treatment is important for the adherence. A reason to receive a specific biological treatment could be that the patient has other medical conditions in addition to rheumatism.

One theoretic reason for why new pharmaceuticals might not reach the patients could be that physicians doubt the quality of the pharmaceutical according to the interviewee from the patient organization. However, the interviewee said that it only is a theory. In rare cases according to the physicians within rheumatism, it could be that the physicians were not updated about new pharmaceuticals on the market. The interviewee from LIF argued that within the Swedish healthcare sector there is a strong reliance on older pharmaceuticals. Enlarging it with that the physicians feel they know how the pharmaceutical works and that they are safe to use. Even though the interviewee finds this behavior naturally, the interviewee sees this as a problem for the utilization of new pharmaceuticals in Sweden. Another reason why new pharmaceuticals might not reach the patients can be prescribing traditions, i.e. the prescribing process becomes a habit, according to a DFC member and the interviewee from the expert group. The member from the DFC described it as follows:

“… to some extent I believe there is a medical precautionary principle, and maybe to some extent a little bit of comfort. I mean it is easier to continue to use something you know, and today the majority of the physicians has limited possibilities for professional development.”

Marketing
Marketing is here referred to the interaction between a representative of the pharmaceutical industry and a physician. Two of the interviewed DFCs pointed out the risk with these types of personal relationship; that it can effect the utilization of pharmaceuticals. For example, a good relationship between physician and industry could
increase the possibility of a higher level of distribution of the product on the market. For instance, if the relationship is with a physician with close contact to a DFC, it could affect the outcome of the guidelines. According to one interviewee, a high rate of prescription from one physician or clinic of a non-recommended pharmaceutical could often be explained with successful marketing to a specific physician. The specialist care was pinpointed as more exposed to personal relationship than the primary care according to one of the interviewees from a DFC. The specialist care often has less strict guidelines and with that the room for personal relations is larger, including room for emotional arguments.

In the interviews with the DFCs more than one mentioned that there is an increase in number of County Councils that prohibits the industry to visit the clinics without arranging a meeting with the management. This was also confirmed with the interviewee from the NT-Council, saying that the County Councils have had issues with the industry’s marketing methods and how the industry easily identifies backdoors into separate clinics. One of the interviewed DFCs gave an example from his/her own experience earlier in the career when he/she worked with research:

“And afterwards I've understood that 'Oh, I've kind of been bought by the industry without noticing'. I've been to the meetings, and heard about the products, I know the people. You don't get a balanced knowledge after, and the cost efficiency and the safety. You get very, how should I say it, the information provided by the industry is limited. They choose what will sell. So I've become more critical to the information provided by the pharmaceutical industry now.”

Furthermore, the same interviewee stated that over-prescription was connected to these types of personal relationships with the industry. Another DFC interviewee expressed the same opinion. Both the interviewed physicians, saying they would receive information from the industry about new pharmaceuticals, also confirmed these types of interactions. However, one of them said that no one is allowed to visit the clinic from the industry nowadays, while the other one said they have meetings nearly once a week with the industry. Still, the DFCs that saw the problems with the industry visiting the clinics, also expressed that when denying the industry entrance an important source of information about new treatments is removed from the clinics. At this moment, there is no replacement for this information loss, according to the same interviewee – arguing that the County Councils would most likely need to review this.

VALUE FOR MONEY
The theme ‘Value for Money’ includes the two sub-themes: ‘Financial Aspect’ and ‘Health Economics’. Value for Money is not only the minimum price, it also comprises the efficiency and the effectiveness of the purchase.

Financial Aspect
The interviews showed that the price of the pharmaceutical has a central role when choosing which pharmaceutical to prescribe or recommend in guidelines. One DFC member said that what is best for the patient should always be prioritized, however the price can still not be ignored. Furthermore, the interviewee continued and said that in the case where there are two similar pharmaceuticals, the cheaper one is usually recommended. The interviewee from the expert group expressed the same opinion, but added that different deals, e.g. procurements, can affect the price and hence the likelihood of a particular pharmaceutical to be recommended. Another DFC interviewee said that when patents expire, the expensive products that previously were avoided in the
guidelines could be included, hence indicating the price to be the crucial factor. According to the physician within rheumatism, requests from the patient about which treatment to receive could be considered in the choice of treatment. However, the cost of the therapy cannot be ignored. In the end it is the society, not the patient who is economically responsible for the treatment.

The interviewee from the NT-Council mentioned uncertainty in data as a factor influencing the willingness to pay less for a pharmaceutical. An example could be uncertainty in the health economics or that the clinical trials are limited in size. Rarity and severity of the disease were mentioned as factors influencing the willingness to pay a higher price for the pharmaceutical.

The pharmaceuticals included in guidelines in the primary care are often generic pharmaceuticals; hence the price is not a limiting factor for the pharmaceutical to be included, or for the treatment to reach the patient.

According to the patient organization, the expert group, and two of the DFC interviewees, the varying budget within the different County Councils can result in uneven usage of different pharmaceuticals. Budget limitations result in a need to prioritize; who should receive treatment and how many treatments does the budget cover? One of the DFCs had an example from when they receive recommendations from the NT-Council:

The goal with the NT-Council is that it should be decently similar in Sweden. It hasn’t been that, it has been very large regional differences in Sweden, in what extent different medicines been used. And then the county politicians and county government says for example, that now with the new pharmaceuticals for hepatitis, they last year received money to treat 50 patients. [...] Then the clinic knew, when they had treated the 50th patient, and then it was just to stop. So they had to priorities among those hepatitis-C patients, and chose the most suitable 50.

The interviewee from LIF had the view that individual physicians get a larger and larger responsibility for the budget today, and that could result in the prevention of prescription of new pharmaceutical due to their higher price. In contrast to what LIF expressed, one DFC interviewee mentioned that the budget responsibility lies on the clinical manager, and within the County Council where the interviewee works, the physicians do not consider the budget for prescription.

**Health Economics**

In addition to the subtheme ‘Financial Aspect’, which was mentioned by all interviewees, health economics was mentioned in half of the interviews. It was mainly expressed by two of the DFC members, the NT-Council, and LIF. The DFCs said that their aim was to recommend cost-effective therapies, emphasizing that their job is to develop recommendations. In the end it is the hospital operation manager that will need to take a stand on whether to use the pharmaceutical or not, not the DFC. About the development of recommendations being cost-effective one DFC interviewee said:

“To choose who benefits the most, so that one doesn’t treat in vain, since the money is a limiting resource.”

Both LIF and the NT-Council discussed the difference in cost-effectiveness of a pharmaceutical depending on disease and/or indication. When the number of indications
for one pharmaceutical increase, the cost-effectiveness for treating the different indications can change. In addition, the NT-Council interviewee added that in their recommendations the increased number of indications could result in a pharmaceutical being recommended for one indication but not for another due to lack of cost-effectiveness.

The interviewees from the DFCs often consider changes in the formulation to have a limited contribution to the choice of pharmaceuticals for the guidelines. In many cases the contribution of a changed formula was considered to be limited compared to the increase in price. These changes can be e.g. a two-dose treatment becomes a single-dose treatment, or two different pills become a combination pill. However, when pharmaceutical companies launch new products based on changes in formulations, there is no appropriate way to measure these changes that are not connected to the clinical efficacy according to LIF. When using health economics as a tool to compare treatments, that only results in an increase of cost for the treatment, as the clinical efficiency is the same.
5. DISCUSSION

The aim of this thesis is to identify factors that are of importance when launching a pharmaceutical for it to become a commercial success. In the following section the result from the literature review and the result from the empirical part will be discussed.

The empirical part investigated factors that are of importance when introducing pharmaceuticals on the Swedish market, e.g. including pharmaceuticals in guidelines, factors contributing to the utilizations of pharmaceuticals, and factors affecting the adherence. This resulted in a main theme ‘Trust’ with a total of seven subthemes: ‘Guidelines and Regulations’, ‘Clinical Efficacy and Clinical Evidence’, ‘Marketing’, ‘Information’, ‘Adherence and Compliance’, and ‘Value of Money’. In addition, the theme ‘Value of Money’ has two subthemes: ‘Health Economics’ and ‘Financial Aspect’.

These themes all share a common denominator: they are connected to the value delivering process. They are either linked to the second phase ‘value delivering’ or third phase ‘communicating the value’. One aspect of the pharmaceutical market that makes it unlike most other markets is that the end user and the payer are not the same person. Furthermore, it is not the end user that chose what product to purchase, as it is decided and prescribed by the physician.

All the themes will have impact on the likelihood for the pharmaceutical to become a success. Depending on where in the process, different people are involved, and therefore different themes alter in their impact.

5.1 THE VALUE CREATING PROCESS

The most important factor is to create a value that a customer wants to invest in. The price needs to be in relation to the value created to be meaningful to invest in. When Kotler and Keller [5] describes two different types of marketing: one that is introduced in the selling process, and one that is introduced in the early process of product development. The marketing method depends on the specific kind of customer. A market where customers have different buying criteria, individual needs, preferences and perceptions – there, the marketing must take place in the very beginning of the process. An important aspect of this is identifying the right customers who are valuable for a long-term relationship. According to Wettermark et al. [11] the pharmaceutical industry should try to approach the key personnel within the regional groups directly, rather than use direct marketing to physicians, as the direct marketing is becoming more restricted.

That the direct marketing has become more restricted was confirmed in this study too, both in the interviews with the DFC, but also in the interview with the NT-Council. These new marketing restrictions stress the impact marketing has on the prescription of pharmaceuticals.

Oxford Dictionaries exemplifies trust as ‘Relationships has to be build on trust’ and ‘They have been able to win the trust of others’ [31]. Relationship orientation was one aspect identified in the literature review as important for building a long-term success. To build trust takes time, and it has been emphasized that the value should be build during the whole supply chain process. Along with this the trust is build through relationships. Furthermore, rather than seeing the launch of pharmaceuticals as individual projects: they should be seen as processes, where all the launches are linked together. That as when the pharmaceutical is launched the process of value creating continues, and every product the company delivers should increase the value to the customer.
Among the interviewees few considered KOLs to be an important source of information for new pharmaceuticals, when compared to the findings in the literature that stress the importance of KOLs. Only two interviewees mentioned people they found identified as KOLs. Interviewees more commonly said that they do not take into consideration what individuals have to say in these types of situations. However, why the interviewees rejected the idea of KOLs could originate from the fact the pharmaceutical industry used to have a large influence in the prescription of pharmaceuticals. Today these relationships are seen as a problem and acts have been taken to close that kind of collaborations. To receive information from individual experts might than be considered to close connected to how the pharmaceutical industry used to work with direct marketing. In the interviews prominent researchers were pointed out to be important sources of information, which I believe are KOLs, even though the interviewees did not identify them as that. Furthermore, the interviewee that explicit said that information should only come from peer-reviewed scientific papers was the interviewee from the expert group. In the DFCs they will gather information from the expert group within the different fields. Therefore it would be the expert groups that have a larger risk of being subject to personal marketing.

5.2 GUIDELINES ARE IMPORTANT FOR A SUCCESS

The changing landscape of the pharmaceutical market, with an increase in more premium priced pharmaceuticals, results in a need for the health authorities to develop new strategies to manage the increased costs. In the beginning of the twenty-century, Sweden conducted several reforms to control the increasing cost of pharmaceuticals, and went from an annual increase of 10 % to 1-3 %. One part of this was the implementation of the DFCs [11]. The adherence to the recommendations in the Stockholm County Council in 2009 was in the primary health care centers 87 %, in hospitals 77 %, and in private specialists 73 % [32]. Demonstrating that within the pharmaceuticals prescribed in the primary care it is significant for pharmaceuticals to be included in the guidelines. For the industry a high adherence to guidelines clearly is good if the company has their pharmaceuticals included in the guidelines. Gustafsson et. al. [32] also found that the exchange of the pharmaceuticals in the guideline is relative low, only one to fifteen pharmaceuticals got changes annually [32], underlining the importance of inclusion.

At this time the NT-Council did not have any follow up on the adherence to their recommendations. However, the interviewee from the NT-Council believed that the recommendations were appreciated, referring to that all the County Councils have chosen to support their work:

“Yes, we know that the County Council wants the recommendations, and that all counties have committed to work in this model, and acceded to it and finance it and so. So it’s a request from the Council’s management that they want this, so we believe that they are loyal, we have not received any signals that it is different.”

The question of more national guidelines was discussed in two of the interviews. They both argued that national guidelines are the way to go if the goal is to get an equal healthcare in Sweden. The NT-Council is a step in that direction in the case of a few selected high priced pharmaceuticals.
The individuals that create the guidelines need to be seen as customers, and knowledgeable customers will expect a higher value of the product. When products that are not sold in markets with goods shortage, the value creation needs to start at the beginning of the process. Hence, to attract the right people early in the process is of great importance to prepare for a launch. However, it is not only in the industries interest, it is also the healthcare’s wish to have the best treatment for the patients. Therefore it is important for the pharmaceutical industry to be aware of the health authorities methods to identify new products on the market. With an increase of more premium priced pharmaceuticals there is an increased need for the authorities to examine and plan for new products on the market, to ensure patients receive the best possible treatment. In Sweden the NT-Council is an example of this progress. Therefore it is of importance to be aware how they value pharmaceuticals. However, they do not work alone, they gather information from different authorities, e.g. the health economics from TLV. As the preparation for the launch needs to start early in the process, this means that the payer and the user need to be identified at the start of the process. One problematic factor is that at this time the NT-Council and TLV do not have the same guidelines for identifying e.g. what a severe disease is. NT-Council recently released a matrix for their criteria, while TLV says in their written response that they are working on that. If it shows that the adherence to the recommendations from the NT-Council are high that is a clear indication for the pharmaceutical companies to focus on the guideline in the matrix the NT-Council following.

The concerns with clinical trials being compared to placebo instead of an equivalent treatment as expressed in the theme ‘Clinical Efficacy and Clinical Evidence’ is confirmed in a study by Malmström et al [33]. In that study they empathized the study design, and to not compare to placebo or non-inferiority pharmaceuticals to gain as valuable results as possible. However, even if the clinical efficiency should be the factor that are of the utmost importance for pharmaceutical decisions, there seems to be an individual influence originating from personal relationships. In a number of interviews, examples were given where individual physicians had been subject to marketing. In a study by Olsson and Merlo [34] they found alterations in prescribing’s and what they call ‘therapy traditions’, which are local factors that influence physicians to prescribe one pharmaceutical at a greater number than other care units [34]. Wadmann et al. [35] investigated the prescribing in the primary care, and could identify what they call ‘borrowing experience’ from colleagues.

Brekke et al. [21] identified a number of factors affecting the altering diffusion of the use of the different TNF-alfa-inhibitors between countries. That could be time-invariant factors as healthcare systems and prevalence of the disease. The price and number of approved indications are factors, which effects the per-capita consumption. Furthermore, the income and healthcare expenditure could explain some of the cross-country differences. However, that did not explain all the difference, arguing that they could be due to factors changing over time, i.e. guidelines, marketing strategies and funding schemes [21]. Factors that in this thesis have been identified as important for the utilization of the pharmaceuticals too.

A commercial success requires the utilization of pharmaceuticals, that the physician prescribes the pharmaceutical and that the patient continues to take it. The ‘Clinical Efficacy and Clinical Evidence’ is highlighted as the most important factor when prescribing pharmaceuticals. Within all interviews, this was discussed as the number one reason for recommending a pharmaceutical. However, one of the interviews within a
DFC also mentioned the importance of compliance. How the pharmaceutical is administered affects the compliance of it. An example the interviewee had was with the new PD-1 inhibitors, that it alters whether the DFCs in different County Councils have included them in their guidelines or not. In a lot of cases they were not included due to the higher price compared to Waran. However, this interviewee also mentioned that Waran had another positive factor, as the patient need to go to the hospital to control the PK-value the healthcare had an indicator that the patient took his/her medication. With this new medication, PD-1 inhibitor, that control would be gone, which could be a reason, according to the interviewee, to not change the treatment recommendation. As interruptions in treatments are a larger problem among patients who take medications preventatively. This concern was also noticed by Wadmann and Bang [35], that when physicians prescribe pharmaceuticals not only the scientific factors are of importance. Instead they also consider how the pharmaceutical will cooperate with the patients’ everyday life.

The interviews made clear that the DFCs had a strong economic perspective when developing their recommendations. In comparison to physicians, who did not mention the cost of the pharmaceuticals when talking about the choice of pharmaceutical prescribed. However, the interviewee from LIF expressed that physicians today have larger economic responsibilities when prescribing pharmaceuticals, than previously. One interviewee from a DFC described how in his/her County Council the operation manger is responsible for their own budget, which allows more decisions to be made at lower levels. For example, the prescription of a new pharmaceutical is adjusted to the budget received for that pharmaceutical during a physician meeting. I believe that is an indication confirming the increased budget responsibility on the physicians too. That implies both the pharmaceutical use in the primary and specialist care.

5.3 HOW DID HUMIRA BECOME THE SUCCESS IT IS?
It is important to understand the field the pharmaceutical is to be launched in, and to have it in mind already during the R&D. One study by Schulze and Ringel (2013) claimed that it is best to be first in class, rather then to be best in class [16]. On the other hand, an article in Forbes [36] suggests that when new pharmaceuticals are launched, it could be better to be later in the class, suggesting that the field (prescribers etc.) has had time to adopt to the new treatment method [36]. Additionally, it could give the company time to do more comprehensive clinical studies. For Humira to be launched into a market with already existing products and become a success can be supported by Fraenkel’s (2011) thesis, where he states that the chance for a successful launch increases if the product launched is not new to the market but new to the company launching it.

Supply and demand is one self-evident aspect, which is important to manage. The time-to-market was identified in the literature review to be crucial, and one factor causing problems was the delay in getting product out on the market. When Enbrel was launched, Amgen/Pfizer had issues with supplying the market with the amount needed. In Sweden the supply of Enbrel was only enough to cover the demand for children, according to the interviewed physician within the field. Hence, this might have affected the use of Enbrel, as not showing the capability to deliver the amount needed could create distrust. This point of view is supported by Timmerman [22], a journalist in the internet magazine Xconomy.com, believing that the launch of Humira at the time when Enbrel had problem supplying the capacity needed, had a positive impact on Humira [22]. The ability to deliver the amount needed was addressed in the interview with the
County Council procurement department. The interviewee also empathized the advantage of having different supplier in different County Councils, as it gives the possibility to assists each other with supply if one product is on backorder. This also pushes for the case of not being first can still be credible, as in Humiras case.

Humira are used for a number of indications, which has a positive impact on the utilization. Additionally, people with rheumatism could have other diseases too, which in some cases could be treated with a TNF-alfa-inhibitors as well, e.g. Crohn’s disease. This gives Humira an advantage compared to other TNF-alfa-inhibitors, e.g. Enbrel.

Not only has this a positive impact that Humira then will be chosen rather then the other TNF-alfa-inhibitors, but can also affect prescribers in other disease areas. If physicians within one field use a pharmaceutical it could influence other physicians within the same hospital to use Humira too, due the ‘prescribing traditions’ and ‘therapy traditions’. This show how the trust can be transferred among the prescribers, e.g. one prescribers use of a pharmaceutical can help another prescriber to trust it and therefore prescribe it. Hence, not only the pharmaceutical industry creates the trust for a pharmaceutical, it creates and transfers among the people working within the healthcare as well.
6. CONCLUSION

For a pharmaceutical to become a commercial success when launched, a number of factors have been identified in the literature review and the empirical part to be of importance. First and for most value need to be created that can be transferred. The transfer of value is possible due to a trust among the producer, buyer and user. The literature review gives a more general perspective on this, while the empirical part investigate it more in-depth and identify factors that are of importance on the Swedish market.

During the development it is vital to have the end user and the prescriber in mind to identify which guidelines that will be of importance. That the pharmaceutical is recommended in a guideline, i.e. NT-Council or DFC, will have impact on the utilization of the pharmaceutical. New strategies are evolving to handle increased cost of pharmaceuticals, and the NT-Council is central for recommendations of new costly treatments. At the time of the interview they did not have any method to follow up the adherence to their recommendation, however the interviewee said they would in the future. If the adherence is high that is then self-evident that these guidelines are important for new pharmaceuticals, and compared to guidelines from the DFC, these guidelines include new pharmaceuticals on the market.

The design of the study is of importance, that the pharmaceutical is being compared not only to non-inferior or placebo, but rather an active treatment instead. This makes the study more credible. Furthermore, data of the health economic is of importance. The impact of this data is likely to increase in the future when more costly pharmaceuticals evolve, but also an growing population will increase the cost of healthcare overall.

Everyone in the supply chain until the end-user need to have the correct information. Not only the physician, to also include the person delivering the pharmaceutical to the patient, e.g. the nurse if the patient receives the treatment on the hospital, or pharmacist if the pharmaceutical is picked up at the pharmacy. The marketing needs to involve everyone in this chain.

Further research

This thesis showed that marketing is important in the value creating process and a number of factors were identified to achieve this. Further research to investigate in-depth how this is created in the pharmaceutical industry would be highly credible as this is one key element in gaining a commercial success. Furthermore, in the empirical part the guidelines are emphasized, however they have a large influence in the primary care but their influence in the specialist care is not evaluated. This would be highly valuable to look further into as the recommendations for specialist pharmaceuticals are increasing.
REFERENCES


APPENDIX A

SEARCH FACET

The following table shows the initial research that was conducted in this thesis, which was done in September 2015.

Table 2. The process of the initial literature review.

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<td>Pubmed - general</td>
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<tr>
<td>Google - general</td>
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<td>-</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Google - specific</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td><strong>5222</strong></td>
<td><strong>5124</strong></td>
<td><strong>107</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Furthermore research has been conducted based on references in articles listed in Table 2. Information has also been attained through homepages of organizations/agencies. Additionally research has been conducted through the work with this thesis to fill information caps.

Table 3. Search terms

<table>
<thead>
<tr>
<th>Database</th>
<th>Search terms and limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature - general</td>
<td>(TITLE-ABS-KEY ((success AND factor) OR launch* OR success* OR blockbuster* AND TITLED-ABS-KEY (pharma* OR drug* OR therap* OR treatment*)) AND PUBYEAR &gt; 1999 AND (LIMIT-TO (LANGUAGE, &quot;English&quot;) AND (LIMIT-TO (AFFILCOUNTRY, &quot;Australia&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;Sweden&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;Denmark&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;Finland&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;New Zealand&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;Norway&quot;) AND (LIMIT-TO (SUBJAREA, &quot;MULT&quot;) OR LIMIT-TO (SUBJAREA, &quot;BUSI&quot;) OR LIMIT-TO (SUBJAREA, &quot;ECON&quot;) OR LIMIT-TO (SUBJAREA, &quot;DECI&quot;) )))</td>
</tr>
<tr>
<td>Medline – general</td>
<td>&quot;atopic dermatitis&quot; OR asthma OR &quot;rheumatoid arthritis&quot; AND success* NEXT/1 factor* OR launch* OR success* OR blockbuster* AND pharma* OR drug* OR therap* OR treatment* AND scandinavia OR swed* OR norw* OR denmark OR danish OR finland OR finnish OR iceland* OR nordic* OR scandinavia* Search TOPIC-Add MeSH, Timespan: 2000-2015. Refined by: RESEARCH AREAS: (PHARMACOLOGY PHARMACY OR HEALTH CARE SCIENCES SERVICES OR BUSINESS ECONOMICS OR LIFE SCIENCES BIOMEDICINE OTHER TOPICS)</td>
</tr>
<tr>
<td>Scopus - specific</td>
<td>(TITLE-ABS-KEY ((success AND factor) OR launch* OR success* OR blockbuster* AND TITLED-ABS-KEY (pharma* OR drug* OR therap* OR treatment*)) AND PUBYEAR &gt; 1999 AND (LIMIT-TO (LANGUAGE, &quot;English&quot;) AND (LIMIT-TO (AFFILCOUNTRY, &quot;Australia&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;Sweden&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;Denmark&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;Finland&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;New Zealand&quot;) OR LIMIT-TO (AFFILCOUNTRY, &quot;Norway&quot;) AND (LIMIT-TO (SUBJAREA, &quot;MULT&quot;) OR LIMIT-TO (SUBJAREA, &quot;BUSI&quot;) OR LIMIT-TO (SUBJAREA, &quot;ECON&quot;) OR LIMIT-TO (SUBJAREA, &quot;DECI&quot;)).)</td>
</tr>
<tr>
<td>Scopus - general</td>
<td>TITLE-ABS-KEY ((success* factor*) OR launch* OR success OR blockbuster*)</td>
</tr>
<tr>
<td>Date</td>
<td>Query</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>[2015-09-16]</td>
<td>AND TITLE-ABS-KEY ( (( atopic dermatitis ) OR asthma OR ( rheumatoid arthritis ) OR 'ra' ) ) AND PUBYEAR &gt; 1999 AND ( LIMIT-TO ( LANGUAGE, &quot;English&quot; ) ) AND ( LIMIT-TO ( SUBJAREA, &quot;PHAR&quot; ) OR LIMIT-TO ( SUBJAREA, &quot;HEAL&quot; ) OR LIMIT-TO ( SUBJAREA, &quot;BUSI&quot; ) OR LIMIT-TO ( SUBJAREA, &quot;MULT&quot; ) OR LIMIT-TO ( SUBJAREA, &quot;ECON&quot; ) )</td>
</tr>
<tr>
<td>[2015-09-18]</td>
<td>Embase - specific tnf* OR 'tumor necrosis factor' OR 'il-6' OR 'il-4' OR 'il-13' OR 'ciklosporin' AND 'atopic dermatitis'/exp OR 'atopic dermatitis' OR 'asthma'/exp OR 'asthma' OR 'rheumatoid arthritis'/exp OR 'rheumatoid arthritis' OR 'ra' AND success* NEXT/1 factor* OR launch* OR 'success'/exp OR blockbuster* AND [2000-2015]/py</td>
</tr>
<tr>
<td>[2015-09-18]</td>
<td>Embase - general pharma* OR drug* OR therap* OR treatment* AND success* NEXT/1 factor* OR launch* OR 'success'/exp OR blockbuster* AND 'scandinavia'/exp OR swed*:ab,ti OR norw*:ab,ti OR denmark:ab,ti OR danish:ab,ti OR finland:ab,ti OR finnish:ab,ti OR iceland*:ab,ti OR nordic*:ab,ti OR scandinia*:ab,ti AND [2000-2015]/py (success[All Fields] AND factors[All Fields]) AND (&quot;drug industry&quot;[MeSH Terms] OR &quot;drug industry&quot;[All Fields] OR &quot;pharmaceutical industry&quot;[All Fields])</td>
</tr>
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<td>[2015-09-16]</td>
<td>Google – general (success factors) AND (pharmaceutical industry) AND (launching)</td>
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## APPENDIX B

### INTERVIEW GUIDES

<table>
<thead>
<tr>
<th>Patient organization/ Specialist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vad är din bakgrund?</td>
</tr>
<tr>
<td>Vad är din kontakt/koppling till patienter?</td>
</tr>
<tr>
<td>Ur ett patientperspektiv, vilka faktorer anser du vara viktiga för en följsam läkemedelsbehandling?</td>
</tr>
<tr>
<td>• Vad för skäl upplever du till att patienter avbryter behandlingen?</td>
</tr>
<tr>
<td>Vad tror du är huvudskälen till att vissa patienter får vissa typer av läkemedel och andra patienter inte får dessa läkemedel (regionala skillnader, socioekonomiska faktorer, ålder, allvarlighetsgrad av sjukdom etc.)?</td>
</tr>
<tr>
<td>Vilket arbete finns för att nå en likvärdig vård?</td>
</tr>
<tr>
<td>Finns det några hinder som gör att läkemedlet inte når ut till patienten? Hur arbetar man för att komma över det?</td>
</tr>
<tr>
<td>I vilken utsträckning tycker du patienter har tillgång till nya behandlingar?</td>
</tr>
<tr>
<td>Vilka för- och nackdelar ser du med den behandling som finns idag?</td>
</tr>
<tr>
<td>Hur får du tillgång/information om nya behandlingar?</td>
</tr>
<tr>
<td>Vad är din uppfattning som viktigaste informationskällan för nya behandlingar?</td>
</tr>
<tr>
<td>Vilka ser du som viktiga key opinion leaders?</td>
</tr>
<tr>
<td>På vilket sätt kan industrin tycker du underlätta arbetet för att nya produkter ska nå ut till patienter?</td>
</tr>
<tr>
<td>Finns det något du skulle vilja tillägga?</td>
</tr>
<tr>
<td><strong>DFC, NT-Council, LIF</strong></td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>Vad är din roll och vad har du för bakgrund?</td>
</tr>
<tr>
<td>Skulle du kunna beskriva er verksamhet?</td>
</tr>
<tr>
<td>Hur skulle du beskriva syftet med läkemedelsrekommendationer?</td>
</tr>
<tr>
<td>Skulle du kunna förklara för mig hur processen ser ut vid framtagning av läkemedelsrekommendationer?</td>
</tr>
<tr>
<td>• Vad för information ligger till grund för de beslut ni fattar?</td>
</tr>
<tr>
<td>• Vilka expertgrupper använder ni för att ta fram rekommendationerna?</td>
</tr>
<tr>
<td>• Ser det olika ut för olika terapiområden? Vilka samarbeten finns med kommittéer i andra delar av Sverige?</td>
</tr>
<tr>
<td>• Vilka faktorer/aspekter är av betydelse vid läkemedelsrekommendationer?</td>
</tr>
<tr>
<td>• Genomförs några lokala kliniska värderingar?</td>
</tr>
<tr>
<td>• Skiljer sig processen åt beroende vilken typ av läkemedel?</td>
</tr>
<tr>
<td>Hur ser följsamheten ut till rekommendationerna?</td>
</tr>
<tr>
<td>• Finns det skillnader mellan öppen- och slutenvården gällande följsamhet?</td>
</tr>
<tr>
<td>• Hur kan ni påverka följsamheten?</td>
</tr>
<tr>
<td>Vad finns det för skäl till att byta ut läkemedel på listan?</td>
</tr>
<tr>
<td>• Vem är det som tar initiativ till det?</td>
</tr>
<tr>
<td>• Hur ofta sker detta?</td>
</tr>
<tr>
<td>Vad finns för undantag för att ett läkemedel som funnits på marknaden kortare än två år ska rekommenderas?</td>
</tr>
<tr>
<td>• Känner du till något exempel när det skett?</td>
</tr>
<tr>
<td>Upplever du att patienter har tillgång till den senaste behandlingen?</td>
</tr>
<tr>
<td>• Skiljer det sig åt mellan olika läkedelsgrupper?</td>
</tr>
<tr>
<td>• Skiljer det sig mellan regioner?</td>
</tr>
<tr>
<td>• Vilket arbete görs för att uppnå en likvärdig vård?</td>
</tr>
<tr>
<td>Vilken kontakt har ni med andra instanser/organisationer/företag/förskrivare?</td>
</tr>
<tr>
<td>• Hur ser den kontakten ut? (Utveckla vilken typ av samarbete, vilket utbyte har de med dem, vilka är involverade?)</td>
</tr>
<tr>
<td>Tror du denna process vid läkemedelsrekommendationer kommer se ut i framtiden?</td>
</tr>
<tr>
<td>• Trender?</td>
</tr>
<tr>
<td>Hur skulle industrin i framtiden kan underlättta arbetet med läkemedelsrekommendationer?</td>
</tr>
<tr>
<td>• Hur skulle ett samarbete kunna se ut mellan kommittéerna och industrin för att öka kunskapen om produktber?</td>
</tr>
<tr>
<td>Finns det något du skulle vilja tillägga?</td>
</tr>
</tbody>
</table>
APPENDIX C

WRITTEN INFORMED CONSENT

INFORMERAT SAMTYCKTE

Titel på studien:
Arbetstitel: ‘Success factors when launching new pharmaceuticals’.

Utredare/student:
Emelie Falk, Kungliga Tekniska Högskolan, Civilingenjörsprogrammet inriktning Medicinsk Bioteknik, masteruppsats/examensarbete. Studien görs på uppdrag av ett läkemedelsföretag.

Syfte:
Syftet med studien är att undersöka vilka faktorer som skapar en läkemedelsframgång. Jag önskar därav att genomföra intervjuer med personer i läkemedelskedjan från ett godkännande till förskrivning.

Genomförande:
Intervjuerna genomförs individuellt antingen via telefon eller på plats hos den som blir intervjuad. Intervjuerna genomförs på svenska, spelas in och beräknas ta 30-60 minuter.

Risker med studien:
Intervjun kommer att baseras på frågor rörande din erfarenhet av dit/företagets/organisationens arbete och önskar du inte svara på någon fråga har du möjlighet att avböja. Studien innehåller minimal risk eftersom inget personligt eller konfidentiellt kommer att diskuteras.

Konfidentialitet:
Största möjliga konfidentialitet eftersträvas i undersökningen genom att ingen obehörig får ta del av materialet. Materialet förvaras så att det endast är åtkomligt för mig som genomför studien och kommer inte lämnas ut till någon annan part. I rapporteringen av resultatet i form av en examensuppsats på KTH eller i annan form av publicering kommer informanterna att avidentifieras så att det inte går att koppla resultatet till enskilda individer.

Frivillighet:
Ditt deltagande i studien är helt frivilligt. Du kan när som helst avbryta ditt deltagande utan närmare motivering.

Ytterligare upplysningar:
Frågor om studien kan besvaras av mig som genomför studien och jag kan nås på mail: emlfalk@kth.se, alternativt mobil: XXX.

Samtycke:
Du tillfrågas härmed om deltagande i denna undersökning och du ger ditt godkännande till ovan genom att skriva under detta dokument och skickar tillbaka det till mig. Det går bra att scanna in och maila dokumentet.

______________________________
Datum och ort

______________________________
Underskrift

______________________________
Namnfortydligande
**APPENDIX D**

**TRANSLATION OF THE CITATIONS**

<table>
<thead>
<tr>
<th>Original Citation</th>
<th>Translation</th>
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<tr>
<td>“And afterwards I've understood that 'Oh, I've kind of been bought by the industry without noticing'. I've been to the meetings, and heard about the products, I know the people. You don't get a balanced knowledge after, and the cost efficiency and the safety. You get very, how should I say it, the information provided by the industry is limited. They choose what will sell. So I've become more critical to the information provided by the pharmaceutical industry now.”</td>
<td>Och efteråt har jag förstått att ‘Ojdå, man blev ju lite köpt av industrin fast helt omedvetet’. Man har suttit på möten I – och man hör om preparaten, man känner folket. Efteråt var det inte så balanserad kunskap och kostnadseffektivitet och säkerhet, man blev väldigt, vad ska jag saga, small information som man får av industrin, man väljer vad som är säljande. Så jag har blivit mer kritisk till den informationen som läkemedelsindustrin ger nu.</td>
</tr>
<tr>
<td>“I believe it is very important that one has understood, that one receives an explanation on how to take the medicine, and why it is important. But also… I think it is a lot about knowledge amongst the patients.”</td>
<td>Jag tror det är jätteviktigt att man har förstått, att man får förklarat för sig hur man ska ta sin medicin, och varför det är viktigt, men också att man, jag tror det handlar väldigt mycket om kunskap hos patienten.</td>
</tr>
<tr>
<td>“We have these national rheumatology training sessions. They are held several times a year and should anything new happen, it would be discussed during these meetings... And since many attend these sessions, the ones that show up hopefully share their knowledge to their clinics and spreads the word on ”</td>
<td>Men vi har ju sådana här reumatologutbildningstillfällen i landet, nationella. Då har vi vid flera tillfällen per år och skulle det vara nått nytt som händer så kommer det upp på de här mötena då... Och då kommer många dit, och då de som kommer berättar förhoppningsvis till sina kliniker och sprider vidare.</td>
</tr>
<tr>
<td>“… to some extent I believe there is a medical precautionary principle, and maybe to some extent a little bit of comfort.. I mean it is easier to continue to use something you know, and today the majority of the physicians has limited possibilities for professional development.”</td>
<td>…och till viss del tror jag att det finns en medicinsk försiktighetsprincip, till viss del kanske lite bekvämlighet, alltså jag menar det är lättare att fortsätta använda något man känner till och idag har ju det flesta läkare ganska begränsade möjligheter till kompetensutveckling…</td>
</tr>
<tr>
<td>“It is much harder to affect the doctors working in the hospitals, the primary care doctors got so much to keep in their heads that they are just happy for simple guidelines and lists they could have in their pockets. While the specialists hate cookbooks and believe they are at their best if they can freelance, which most likely is wrong, but that's how many think about themselves.”</td>
<td>Det är mycket svårare och påverka sjukhusläkarna, distriktsläkarna har så mycket att hålla i huvudet så de är bara glada över enkla rekommendationer och listor de kan ha i fickorna som de snabbt kan kolla på. Medans specialister hatar kokböcker och tycker att de bästa kocken är de som får frilansa, vilket troligtvis är helt fel, men de är så många tänker om sig själva.</td>
</tr>
<tr>
<td>“It is preferable if the specialists get to know the pharmaceutical before they give any recommendations to the primary care physicians on how they should use it.”</td>
<td>Så specialisterna får lära känna och bli bekanta med preparaten innan specialisterna går ut till primärvårdsläkarna och berättar hur de ska göra.</td>
</tr>
<tr>
<td>“But at the same time one can wonder, with improved studies and tougher requirements for evidence, is there a reason to have twenty something different guidelines that are close to equal? But that is up to the politicians to decide, there are for sure possibilities to streamline and have clear directives, but that is not how it is now anyway.”</td>
<td>Men samtidigt kan man undra att med bättre och bättre studier och hårdare krav för evidens, finns det någon anledning att ha ett 20-tal olika rekommendationslistor som nästan ser likadana ut. Ja det är upp till politikerna att ta ställning till det, det finns nog säkert möjlighet att strömlinjeförmå och ha tydliga anvisningar, men så är det inte just nu i alla fall.</td>
</tr>
</tbody>
</table>
| “To choose who benefits the most, so that one doesn’t treat in vain, since the money is a limiting | Och sen att välja, för vem har de mest nytta, så att man inte behandlar i onödan, för det är ju, pengarna är en
<table>
<thead>
<tr>
<th>English</th>
<th>Swedish</th>
</tr>
</thead>
<tbody>
<tr>
<td>“… there is no other logical way to price and value a pharmaceutical, it needs to be based on the clinical efficiency.”</td>
<td>… det finns liksom inget annat som man logiskt kan värdera och prissätta läkemedel utifrån, det måste ändå i grunden vara det medicinska.</td>
</tr>
<tr>
<td>“But then the firms over and over again have failed to actually lengthen peoples life, yes it lowers the blood glucose, but that itself does not give any health benefits.”</td>
<td>Men då har ju företagen gång på gång misslyckats med att faktiskt förlänga människors liv, ja det sänker blodsockret, men det ger ingen hälsovinst.</td>
</tr>
<tr>
<td>The goal with the NT-Council is that it should be decently similar in Sweden. It hasn't need that, it has been very large regional differences in Sweden, in what extent different substances been used. And then the county politicians and county government says that now with the new hepatitis pharmaceuticals it was estimated that they received money to treat 50 patients. [...] Then the clinic knew, when they had treated the 50th patient, and then it was just to stop. So they had to priorities among there hepatitis-C patients, and chose the most suitable 50.</td>
<td>Målet med NT-rådet är att det ska bli hyggligt likt i Sverige. Det har inte varit det, det har varit väldigt stora regionala skillnader i Sverige, vilket genomslag olika preparat har fått. Och då säger landstingspolitikerna och landstingsledningen att ja nu så till exempel på med de nya hepatitläkemedelena så räknade man förra året att man gav pengar till 50 patienter. [...] då visste kliniken det att när man behandlat sin 50:e patient så visste kliniken att då får man lägga ner i år och så fick man prioritera bland sina hepatit-C-patienter och välja ut de bästa och mest lämpliga av, så at man fick ihop 50.</td>
</tr>
</tbody>
</table>