DESIGNING A PROMISING WAY TOWARDS

Better (colorectal) cancer care

IN DIJKLANDER ZIEKENHUIS

Jolien Heddes
Designing a promising way towards better (colorectal) cancer care in Dijklander Ziekenhuis

Master Thesis

J.S.M. Heddes
30 October 2019
How this thesis have turned into a 230-page document is still a mystery to me in various ways: to me, my graduation period felt like one long weekend, I only had to work sometimes and moreover writing text (in english) is still not my favourite activity.

There were plenty of moments where I was told: “Shouldn’t you graduate Jolien?” or “Shouldn’t you have stress or panic? Tomorrow is your midterm/graduation moment, right? “Jolien do you get bored during your graduation, that you are always on vacation? Busy with thousand other projects or sport activities?” I could really only answer: “Noooo, everything is under control and going well!”

I think, this was due to the golden rules I found out myself:
It is just a project with a deadline. Preferable you have to set the presentation day and time as early as possible in order to invite as many people as possible. So in april the save the date was already there: 30th October 2019 15:45.

You should not work if you have the (the slightest) feeling of being not productive. Stop fooling yourself and use the time as efficient as possible. So if graduating doesn’t seem to go smoothly, it is time to stop studying and focus on other activities. At least then you know for sure that you haven’t done anything. In addition, it is mostly the shortest way to gain energy and inspiration to get things (read: graduation stuff) done quickly and efficiently later on.


No time to do anything for your graduation project.
When writing fails: Draw!
The best tip for anyone who is not blessed with the skill to make letters flow across the screen. I think this is why I came to 230 pages: Writing text to support figures instead of making figures to support the text.
Buy shares in the Post-it company.
This company actually makes a lot of profit on you during your graduation project.
The cliffhanger method: stop working just before something is 100% finished. This was my surprisingly good working secret weapon against startup problems. In this way I could start the day with finishing something that was nearly finished and was immediately in a productive workflow. Gather enough people around you who will always be there for you.
I would like to thank my whole family but in particular my mum and dad. Mum for bringing me in contact with this challenging assignment, and for the help throughout the project for all hospital related questions. Dad, for all the support, critical questions on my activities and sparring sessions where I could learn so much from you and vice versa.
I want to thank Koen for reading my report and correcting it, even when I accidentally served you the same pages twice... to test your accuracy of course :)
I want to thank my colleagues for passing by in our office, the enthusiasm about my post its and drawings, the bringing of cookies and cakes and the socialising moments. But a special thanks to Jolanda for arranging all the appointments with medical specialists, to arranging theme evenings, meetings etc. But besides, it was practical to work together, it was very nice to work together, we were always aware of the deadline and liked the result but foremost I want to thank my supervisory team Harriët, Silje and Lianne. Silje for the pleasant meetings and always trying to balance the questions always give me insights just in time. It was very pleasant to work together! Login for the useful input, despite the floating words the advices were really concrete in some way. Harriët for trusting me as crazy TU Delft student, the quick feedback, the thinking along and for being a nice and compassionate collegue!
Enjoy reading!

Jolien
Executive summary

The whishes and needs uncovered and translated in a tangible advise

The Implementation Manual is written to make sure that the preconditions that are necessary to work towards better (colorectal) cancer care within Dijklander Ziekenhuis will be met.

The Business Case is written to make sure that the new care pathway is designed in such a format that it goes substantio the future vision of the centre. The whishes and the reasoning behind the wishes to deliver bespoke and patient-centred care while expertise is retained and the overall process is monitored due to the new module within the pathway: the bridge. The care pathway also can be a ‘secret weapon’ to be leading in cancer care can take in the design three layers what makes possible better communication towards patients. This is essential for shaping decision making.

With these characteristics, the new Care Pathway appears to be a gold mine on the way towards better (colorectal) cancer care within Dijklander Ziekenhuis.

The Implementation Manual literally describes the promising way towards better (colorectal) cancer. The aim of the Implementation Manual is to transform the current Cancer Centre into the desired Future Cancer Centre in which the new Care Pathway is integrated. There is chosen for an phased implementation approach including pilots. In this way, there is ensured a minimal disruption to the patient care and possible problems can be resolved quickly.
Introduction

Innovations in healthcare

Today, we are privileged to live in a world where innovations make our lives easier. Constantly, new innovations are developed and integrated in our daily lives. When we think of innovations, most people think of digital and technical innovations like our mobile phones that are fully integrated in our lives, or the upcoming self-driving cars. But when we take a look in the health care sector, innovations not always look very technical and robotic. Nevertheless, hospitals are no longer the hospitals that are known from a few decades ago.

For example until the 1970s outsiders were not allowed to interfere in the provision of care. Nowadays there is realized that in addition to excellent care, there are other factors of great importance, feeling safe, having your love ones with you etc. There can be concluded that there is more and more attention paid to the needs of patients.

Another innovation is the disappearing of the large 20-plus patient wards. In the past, patients were really considered as ‘weak’ and mostly cared for weeks or months in the hospital. At that time, hospitals were real guest houses. Nowadays, hospitals are increasingly seen as ‘companies’ and they have to deal with more and more business aspects. As a result, we see that lead times in hospitals are considerably reduced. Where previously there was token care of patients for a longer period of time, nowadays patients must undergo surgery and recovery in a few hours and they are dismissed within one (or a few) day(s).

There can be concluded that there is a call for human-centred innovations. These innovations have to meet the wishes and needs of patients, while caregivers are able to offer excellent care and monitor patients as good or better as they were able to in the patient ward where patients stayed for a long time.

In cancer care, the latter call is made. An appropriate suggestion seems to be case management. Therefore, within this project, case management is elaborated for Dijklander Ziekenhuis in order to make next to technical innovations, also human innovations happen within the hospital.

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Section II Context

How is Dijklander Ziekenhuis and the Cancer Centre currently organized? And how is the current workflow for colorectal cancer.

Section III Users

How do patients and caregivers experience current colorectal cancer care and how do they feel about case management?

Section IV Synthesis

A literature overview on status quo of cancer care and what kind of changes are going on in the field of colorectal cancer.

Section V Deliverables

This deliverable describes the future cancer care in more detail and which can be used as tools during implementation.

Interested in a shortcut? I want to know everything about what is researched during the study.

I am interested in the future Cancer Centre.

I want to read the conclusion.

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10 Introduction
Section II

Context

Chapter 01: Project Scope
Chapter 02: Project Approach

The purpose of this section is to introduce the problem and the scope of this project. After an extensive study in the field of cancer care, Chapter 01 offers some background information about the status quo and the developments going on in cancer care. This chapter ends up with an explanation of case management as the starting point of the project and a clear problem definition and objectives is given. Chapter 02 describes the approach used during the project to ultimately fulfill the objectives of the project as described in Chapter 01.
This study takes place in the cancer centre of Dijklander Ziekenhuis. The aim of the project is to improve cancer care in the hospital by implementing case management and improve the patient experience. To find out whether or not this is a logical step, first a literature review in the field of cancer care is carried out to find out the status quo of cancer care and what kind of changes are going on in the field of cancer care. This chapter introduces the scope of the project based on this literature review.
1.1 Improvements needed in cancer care

Cancer is a disease that mainly occurs in old age. The combination of an increase in the number of older patients and the fact that almost all care providers recognise those patients as patients with a high need for care results in the growth of elderly people is high in the catchment area of Dijklander Ziekenhuis. In addition, the demand on cancer care is becoming more complex.

Cancer care has become increasingly complex and fragmented. Patients have to hop from discipline to discipline. At the same time, nurses are hopping from tumour group to tumour group. The number of cancer patients is increasing, chemotherapy, surgical procedures, radiations, and every transition and interface miscue can result in delayed treatment planning and inevitable problems. The combination of all these factors makes the care for cancer become more complex.

In the Netherlands annually more than 90,000 new cancer patients are diagnosed with cancer (DLZ, DICA oflens, 2017). The number of cancer patients is increasing, the reason for this increase is double ageing. Cancer is a disease that mainly occurs in old age. People that are retiring in a home care up, increased patient anxiety, and every transition and interface miscue can result in delayed treatment planning and inevitable problems. The combination of all these factors makes the care for cancer become more complex.

As stated before, the treatment options of a patient can be separated in different disciplines and departments to deal with different aspects of the disease. This results in the individual specialists trying to provide optimal care in his or her individual part of the chain while the optimisation of the total chain remains. (Figures 1 & 2.)

This is in line with the vision of Melvin Samson in his book ‘Seamless’ (2009). ‘The department structure can be described as fragmented.’ Cancer patients go from department to department, Samson remarks. ‘The potential for up-grading quality and sophisticated treatment is high, yet a number of potential “failure events” in the continuum of cancer treatment has multiplied. The combination of an increase in the number of older patients and the fact that almost all care providers recognise those patients as patients with a high need for care results in the growth of elderly people is high in the catchment area of Dijklander Ziekenhuis. In addition, the demand on cancer care is becoming more complex.’

The number of Dijklander Ziekenhuis patients with cancer is increasing, chemotherapy, surgical procedures, radiations, and every transition and interface miscue can result in delayed treatment planning and inevitable problems. The combination of all these factors makes the care for cancer become more complex. In this paragraph there is reviewed on the need for more overview in the cancer care treatment process is taken into account. In this standard, hospices are expected to offer oncology patients access to a well-structured care. They describe this care as horizontal. This means that the journey of a patient is not a department to department to department to department. Samson optimised the care pathways and reorganised the structure in the Krankenhaus hospitals into care units instead of departments. The hospital is now organised around several care themes, by led by a head nurse instead of separated departments with their own head nurse. This transition was not from struggles. Even though many doctors were waiting for it and was enthousiastic: it was a big change with a lot of fears and resistance. Klinke, J. opinions wide spread: ‘People know what they currently have, but don’t know what to expect. It is important to understand, why people react this way.’ (Klinke, Jomans, Bembesz & Kromann, 2010). Others also discussed this issue in the literature, the perceived work change, and financial consequences are noticeable. Nobody is looking forward to these “failure events” in the continuum of cancer treatment. ‘Original in Dutch.’ In Kijk, B. “Dikkelderziekenhuis 2002.” 1.1 Improvements needed in cancer care

Problem framing

How do you want to define quality, quality and efficiency are combined (Blaauwgeers, 2009). Hence, IGJ states that it is important that the fragmentation of care should be tackled. This is in line with the vision of Melvin Samson in his book ‘Seamless’ (2009). ‘People know what they currently have, but don’t know what to expect. It is important to understand, why people react this way.’ The Dutch Inspectorate for Healthcare (Former IGZ, now IGJ) investigated this phenomenon in 2009 and concluded that this causes stagnation in the process with delays in diagnosis and care, that almost all care providers recognise those patients as patients with a high need for care results in the growth of elderly people is high in the catchment area of Dijklander Ziekenhuis. In addition, the demand on cancer care is becoming more complex. The Inspectorate, the fragmented process with many fragmented processes, decreased patient satisfaction, and declines in quality and efficiency are combined (Blaauwgeers, 2009). Hence, IGJ states that it is important that the fragmentation of care should be tackled. This is in line with the vision of Melvin Samson in his book ‘Seamless’ (2009). ‘People know what they currently have, but don’t know what to expect. It is important to understand, why people react this way.’

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Figure 1: At the moment the hospital and cancer care is vertical organised in different disciplines.

Figure 2: The current care pathways and the fragmentation result in many transitions and interface miscue.

Task need of the nurse specialist

To improve the quality of care and to keep care affordable, Netherlands (Bruins, 2019) states that nurse specialists can take over additional professional and care responsibilities. nurse specialists can take over additional professional and care responsibilities. Nurse specialists can indeed bestow a quality improvement in a horizontal structured care. They say that a vertical organised cancer care is fragmented. As ascertained by the Healthcare Inspectorate, the fragmented processes, incomplete follow-up, increased patient anxiety, and almost all care providers recognise those patients as patients with a high need for care results in the growth of elderly people is high in the catchment area of Dijklander Ziekenhuis. In addition, the demand on cancer care is becoming more complex. Hence, IGJ states that it is important that the fragmentation of care should be tackled. This is in line with the vision of Melvin Samson in his book ‘Seamless’ (2009). ‘People know what they currently have, but don’t know what to expect. It is important to understand, why people react this way.’

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Figure 1: At the moment the hospital and cancer care is vertical organised in different disciplines.

Figure 2: The current care pathways and the fragmentation result in many transitions and interface miscue.

A fixed point of contact in the chain

In general the health professionals have found that this is still a closed chain. The hospital into care units instead of departments. The hospital is now organised around several care themes, by a head nurse instead of separated departments with their own head nurse. This transition was not from struggles. Even though many doctors were waiting for it and was enthousiastic: it was a big change with a lot of fears and resistance. Klinke, J. Joseph Bosch Ziekenhuis (2002). (VPS). This has to contribute to more efficient and cost-effective care. Samson optimised the care pathways and reorganised the structure in the Krankenhaus hospitals into care units instead of departments. The hospital is now organised around several care themes, by a head nurse instead of separated departments with their own head nurse. This transition was not from struggles. Even though many doctors were waiting for it and was enthousiastic: it was a big change with a lot of fears and resistance. Klinke, J. Joseph Bosch Ziekenhuis (2002).

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1.2 Case management

Definition and implementation suggestions

The aim of the hospital is to implement case management conform standards as described in paragraph 1.1. Some research about case management is already done. This paragraph summarises what has been described in the literature so far about case management.

Brief introduction to case management

The origin of case management is a long one, and it goes back to the USA in the late 1800s in the social sector. Case management was initially developed to reduce high costs in New York City. Over time, case management has emerged as a preferred service delivery approach in various public agencies (Austin, 1990). Already in 1983, James Intaglia wrote about the rapid expansion of service programmes that they are still an issue in today’s oncology care. Back then, Intaglia was still an issue in today’s oncology care. Back then, Intaglia described case management as a necessary the care process is being adjusted. It became clear that the model of integral case management was not preferred due to the lack of expertise of a casemanager which will lead to extra confusion instead of support for patients. In conclusion, the model for integral case management in combination with the role of a casemanager as developed by Geukes (2010) is investigated by Geukes and depicted confirmed by research et al. (2019) introduced three different models of care management in combination with the role of a casemanager. For JBZ Hospital, the role of a casemanager is being investigated by Geukes (2010) and depicted confirmed by research et al. (2019). The expert case management model was not preferred due to the lack of expertise of a casemanager which will lead to extra confusion instead of support for patients. In conclusion, the model for integral case management in combination with the role of a casemanager is being investigated by Geukes (2010) and depicted confirmed by research et al. (2019).
After reviewing literature (Figure 6) the project objective can be defined. Therefore, this paragraph will give the aim of the project together with the scope to make the project suitable within the given time.

Project focus
Even though the definition of cancer is very broad, this project will focus on colorectal cancer. Colorectal cancer is the third most common type of cancer (IKNL, 2014). In Dijklander Ziekenhuis every year 200 people are diagnosed with colorectal cancer. Besides, because of the complexity of the treatment, colorectal cancer is one of the most interesting type of cancer for this project to focus on. Mostly multiple care givers are involved in the care process over prolonged periods of time. Furthermore, within the project there is a focus on the care process which takes place in the hospital itself. The General Practitioner is not taken into account. Lastly, the computersystem HiX that is used in the hospital for patient records etc. falls out of scope due to the time limit of this research. However, some system is currently being developed, therefore I will mention existing the most urgent recommendations, at the end of this project.

Project objective
To finally make sure that case management within implementation for colorectal cancer patients, the project objective is towards better colorectal cancer care in Dijklander Ziekenhuis, the study identifies a promising way to implement case management.

The project objective explained
The ‘promising way of implementing case management’ is divided in different components: designing the desired future situation and designing an implementation plan. This means that this project will deliver the desired design of case management for Dijklander Ziekenhuis and an implementation plan consisting of tools to make implementation of case management feasible and viable. Various methods and the co-creation approach are used to design the components.

In Chapter 02, the approach is discussed in more detail by explaining the used methods and deliverables throughout this project.

Towards better colorectal cancer care in Dijklander Ziekenhuis, this study identifies a promising way to implement case management.
Chapter 02

DESIGN APPROACH

Chapter 02 explained the background and origin of this project and described the project scope. Chapter 02 builds upon that and will give the approach taken during the project. This chapter also gives substitution to a promising way to implement case management by giving a model of implementation which is used throughout the project.
2.1 A promising way to implement case management

Crucial ingredients for successful implementation

Implementing case management will mean that a big change ahead. To change is not easy. It is crucial to make support and keep everyone onboard to make it work. It is therefore how this could be accomplished and how to keep everyone on board. 

Focus on implementation

With respect to realizing case management, Van der Put (2015) advises to not fixate on the ‘implementation model’. Instead, focus on the findings from the literature what model will fit the organization. Further, he introduces the implementation model as a familiar tool within hospitals to enhance medical specialists. Furthermore, she proposes to introduce the role of oncology nurses, nurse specialists and the care professionals to make clear different roles and responsibilities and interventions (2001).

Technical and human side of change

Based on comprehensive studies, Van der Put (2015) has pointed out that a new care pathway is helpful to map out the desired situation in a care process. This means that it is needed to carefully find out what model will fit the organization. Further, he advises to look at the implementation model as a familiar tool within hospitals to enhance medical specialists. Further, he introduces the implementation model as a familiar tool within hospitals to enhance medical specialists. Furthermore, she proposes to introduce the role of oncology nurses, nurse specialists and the care professionals to make clear different roles and responsibilities and interventions (2001).

1. Understanding how people experience change

Understanding how people experience change is crucial and must be elaborated, for example in a care pathway. Further, a care pathway enables care professionals to make clear different roles, responsibilities and interventions (2001).

Change management

Change management will support the people side of change and will guide employees in embracing, adapting and utilizing change in their workflow (Prosci, n.d.). In addition, the most complicated task is to engage employees and long-term commitment, maintain momentum, and keep innovative members ‘actively working together’ (Calabretta et al., 2016) therefore change management can be described as a series of steps, based on theories of Prosci (n.d) and Vanhaecht (2007). Besides, Choi et al. (2011) concludes that the resilience of professional cultures within healthcare limits the degree to which they are willing to change their jobs, and it will be the more people on willing to change will be even more successful in changing strategies and activities. Chreim et al., (2011) concluded that the resilience in changing process will work (Vanhaecht, 2007). Besides, Choi et al. (2011) concluded that the resilience of professional cultures within healthcare limits the degree to which they are willing to change their jobs, and it will be the more people on willing to change will be even more successful in changing strategies and activities. Chreim et al., (2011) concluded that the resilience in changing process will work (Vanhaecht, 2007). Besides, Choi et al. (2011) concluded that the resilience in changing process will work (Vanhaecht, 2007). Besides, Choi et al. (2011) concluded that the resilience in changing process will work (Vanhaecht, 2007). Besides, Choi et al. (2011) concluded that the resilience in changing process will work (Vanhaecht, 2007).

2.1 A promising way to implement case management

The iterative innovation approach

The iterative innovation approach is used to finally come up with a scientific substantiated end result. The iterative innovation approach which is used to finally come up with a scientific substantiated end result is explained in paragraph 2.1. Within this project, there are several phases which are visualized in figure 8. Every loop describes an iteration loop. This means that each phase can be a concatenation of loops. At the end of each cycle, there is a validation moment, to check whether or not the quality is good enough to continue. Otherwise, another loop is required.

Need for Design Thinking

With healthcare, there is a need for design thinking (van der Wardt, 2019). This has to do with the quantity of stakeholders within healthcare projects, the increasing technological possibilities and change in patient behaviour. Patients can now be seen as consumers as well.

Co-creation

Co-Creation

According to literature, the design thinking process is about iterative improvements and can be used to achieve user-friendly, desirable and safe design solutions (Plattner et al., 2010). It is known that a linear design process does not exist and each step can be seen as a cycle (Broen, 2001). This is the case in this project as well.

Iteration loops within this project

Within this project, there are several phases which are visualized in figure 8. Every loop describes an iteration loop. This means that each phase can be a concatenation of loops. At the end of each cycle, there is a validation moment, to check whether or not the quality is good enough to continue. Otherwise, another loop is required.

Implementation model

Implementation model

To eventually facilitate a smooth transition from old to new workflow, it is needed to take the ‘implementation plan’ and the definition of the ‘implementation model’ is used for the whole delivery. This has to do with the quantity of stakeholders within healthcare projects, the increasing technological possibilities and change in patient behaviour. Patients can now be seen as consumers as well.

Literature

In nearly every cycle, literature research plays a role. This means: Analysing literature, models, and numbers and designs the more technical innovation approach which is used to finally come up with a scientific substantiated end result. The literature part describes the technical side of the design and implementation processes.

Co-Creation

Important within Design Thinking is the understanding and explaining (van der Wardt, 2019). To involve the users, as much as possible, this is done by using a co-creation approach. How co-creation is carried out in the research phase is explained in paragraph 2.1. During the design and implementation phases, co-creation is used to test ‘prototypes’ and to involve them in the changing process.

Co-creation can be seen as the human side of the design and implementation processes as described in paragraph 2.1.
In order to succeed change in healthcare, a balance between technology and human aspects is necessary. However, less attention is paid to the human aspect within an implementation process, which aims to improve their lives.

The co-creation approach applied in this study

Within this project, it is necessary to use the co-creation approach, to generate knowledge and to create a setting to obtain observative knowledge. Therefore throughout this project co-creation is used as following:

1. Through personal conversations and interviews, the explicit knowledge will be collected. Sometimes, interviews were held in combination with the use of toolkits.
2. Visiting the patients in home situations and visiting clinicians in their workplace allowed

To succeed change in healthcare, a balance between technology and human aspects is necessary. However, less attention is paid to the human aspect. Therefore in this research, the role of the patients and caregivers is taken into account, by using co-creation.

The idea behind co-creation is based on the idea that all people are creative as proposed by Sanders & Stappers (2016). Many people think that they are not creative, but in the end almost everyone has ideas and is able to contribute to design processes, regarding their experiences and their Shake up the idea that people areonly experts of phenomena for children. For example: when asking a child if she or he is able to make a drawing, almost everybody will assure answer with yes. When asking the same question to adults, practically nobody will say they can make a drawing. This means that peopleuality can help people to express themselves. Toolkits for expressions (figure 11) can help participants to recall memories, make connections and

The co-creation approach applied in this study

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1. Through personal conversations and interviews, the explicit knowledge will be collected. Sometimes, interviews were held in combination with the use of toolkits.
2. Visiting the patients in home situations and visiting clinicians in their workplace allowed
2.4 Care Pathway
Definition, function and application of a care pathway design

A care pathway can be a deliverable within the implementation plan as indicated in paragraph 2.1. The care pathway represents the design of the activities of the multidisciplinary care team and the patients and families. The care pathway describes how care pathway modelling is defined in literature.

Introduction of a care pathway model
When care management must be introduced in a hospital, Geukes recommends to map out the role of a casemanager and make a clear division of tasks. Nowadays, a care pathway is a familiar tool within hospitals (De Bleser et al. 2016). Based on different views, the term ‘Care pathway model’ is used in this project. According to Oosterholt et al. (2017): “A model represents a simplified and communicative visual manner. Models are able to transfer and transmit knowledge across organisational boundaries.” Because of these described properties of a model, in this study the term ‘Care pathway model’ is used in this project.

Based on the research of Oosterholt et al. (2017) that adapted to this study, a care pathway model is postulated as “a visual representation of the organisation of the care pathway; depicting actors and roles and acts, visualized and connected in a time sequence.”

The function of a care pathway model in this study
Conceptualising the care pathway model in this study is to visualise the role of a casemanager to support and to retrain. The retraining and lost hours entail financial difficulties and to depict the roles of all involved care professionals and make a clear division of tasks (De Bleser et al. 2006). This is a crucial step in discovering where the care pathway can come in to play in the future. Afterwards, it is possible to design the future care pathway model including the casemanager’s activities.

Care Pathway Modelling applied to this study
According to the postulated definition of a care pathway model, information must be presented in such a way that the care pathway model visualises:

1. All activities of the treatment process in a time sequence.
2. The relationships between all actors.
3. The relationships between all actors.

2.5 Business Case
Definition, function and application of a Business case

The European Pathway Association defines a care pathway as following: “a care pathway is a complex intervention for the mutual decision making and organisation of care processes for a well-defined group of patients during a well-defined time period.”

Introduction of a business case
When case management must be introduced in a hospital, Geukes (2010) recommends to quickly write a solid document, which ensures that the care pathway for colorectal patients and outpatients must be visible in a business case. Based on this, the business case approach is common in hospitals for implementing changes with the purpose of an organisational boundary. Because of these, the business case can predict feasibility, not only related to money, but also in time and necessary to summarise and bundle them in the business case. The business case has to be a short but complete document, which ensures that it reads quickly and is easy to understand. A well-written business case has the potential to influence important stakeholders such as doctors, patients and management. Therefore, a business case is a necessary tool to convince and support the change. A well-written business case can be used to influence political, social and economic stakeholders.

As stated by Calabretta et al. (2016): “The business case approach is common in hospitals for implementing changes. Based on this, the business case approach is common in hospitals for implementing changes with the purpose of an organisational boundary. Because of these, the business case can predict feasibility, not only related to money, but also in time and necessary to summarise and bundle them in the business case. The business case has to be a short but complete document, which ensures that it reads quickly and is easy to understand. A well-written business case has the potential to influence important stakeholders such as doctors, patients and management. Therefore, a business case is a necessary tool to convince and support the change. A well-written business case can be used to influence political, social and economic stakeholders.”

The risks of the change
To attract and convince management, a well-written document is needed to gain commitment, permission and cooperation.

The function of a business case in this study
After carrying out a literature review, analysing the current situation and conducting user insights, it is necessary to summarise and bundle them in the business case. The business case has to be a short but complete document, which ensures that it reads quickly and is easy to understand. A well-written business case has the potential to influence important stakeholders such as doctors, patients and management. Therefore, a business case is a necessary tool to convince and support the change. A well-written business case can be used to influence political, social and economic stakeholders.
2.6 Implementation Manual

**Definition, function and application of the manual**

In order to support successful change on an organisational level it is needed that everyone’s knowledge is shared and that everyone is on board. The implementation manual is a document which contains strategies and procedures to support the transition towards the new workflow. The manual itself must be seen as a tool that guides the implementation process, as well as a communication tool that provides a shared understanding of the change. It is a living document that needs to be updated and developed throughout the change process. The manual should be comprehensive, clear, and easy to use.

**Innovation going.**

When speaking about execution is easy but to actually execute is tough task. Project execution is a vital phase of a project in which implementation actually starts. Project execution is therefore the most demanding phase (Caietti, 2018). However, in this study the change actually starts. Project execution is therefore the vital phase of a project in which implementation will be a document which contains strategies and procedures to support the transition towards the new workflow. The manual itself must be seen as a tool that guides the implementation process, as well as a communication tool that provides a shared understanding of the change. It is a living document that needs to be updated and developed throughout the change process. The manual should be comprehensive, clear, and easy to use.

**Implementation model**

Because of lack of information about implementing changes in a healthcare setting, the need to predict the transition from old to new workflow, the need for the change, the impact of it, the investments needed, the risks, benefits and limitations. The implementation model is created which can be used to facilitate a smooth transition and take the needed actions to ensure a successful change.

**Take-aways for the rest of the project**

- **Problem framing**
- **Implementation plan**
- **Implementation model**
- **Three deliverables**

**The three deliverables together are needed for successful implementation**

When it comes to changes in job roles and responsibilities, people can endorse this aspect as well. In this way it is possible to implement changes in a complex environment. Next to this the sense of capability is boosted when celebrating every success. When it comes to changes in job roles and responsibilities, people can endorse this aspect as well. In this way it is possible to implement changes in a complex environment. Next to this the sense of capability is boosted when celebrating every success. When it comes to changes in job roles and responsibilities, people can endorse this aspect as well. In this way it is possible to implement changes in a complex environment.

**Dividing the big change into micro changes**

The more people experience those feelings, the more likely people are willing to participate and support (Perkin, 2017). Dividing the big change into micro changes can evade this aspect as well. In this way it is easier to implement changes in a complex environment. Next to this the sense of capability is boosted when celebrating every success.

**Adressing roadblocks**

When struggles are foreseen in crucial transition steps, it is needed to alleviate this in a preventive way by paying extra attention to those roadblocks. For example extra communication, information or coaching can help.

**Tracking resistance**

When people have difficulty in change, there is always resistance. This mostly happens on individual level; therefore it is important to communicate personally to monitor underlying causes and grievances.

**Implementation-manual applied to this study**

After describing different aspects of an implementation manual, those aspects must be reflected in the plan itself. The Supporting execution plan will be a document which contains the following components:

1. A planning in which micro changes (and pilots) are depicted and which specifies them in a detailed way.
2. Communication plan which identifies the communication requirements for the project.
3. Coaching plan to support caregivers throughout the change.

Consequently, the supporting execution plan will ensure that within Dijklander Ziekenhuis, the employees (caregivers) feelcherished, supported and heard while performing their work.

2.7 Design approach summary

**Take-aways for the rest of the project**

- **Problem framing**
- **Implementation plan**
- **Implementation model**
- **Three deliverables**

**The three deliverables together are needed for successful implementation**

When it comes to changes in job roles and responsibilities, people can endorse this aspect as well. In this way it is possible to implement changes in a complex environment. Next to this the sense of capability is boosted when celebrating every success. When it comes to changes in job roles and responsibilities, people can endorse this aspect as well. In this way it is possible to implement changes in a complex environment. Next to this the sense of capability is boosted when celebrating every success. When it comes to changes in job roles and responsibilities, people can endorse this aspect as well. In this way it is possible to implement changes in a complex environment. Next to this the sense of capability is boosted when celebrating every success.
The purpose of this section is to introduce the context of the problem and the scope of this project. This is done by providing understanding of colorectal cancer and the context of this disease in Dijklander Ziekenhuis in the Netherlands. Hence, this section is divided in three chapters. Chapter 03 is about the hospital where this study takes place and the cancer Centre. Chapter 04 is more about the disease. Eventually the current care process of colorectal cancer is analysed and depicted.
In order to deliver a design that fits the hospital and its culture, some research is done to investigate the origin, the strategy and the structure of the hospital. First, some general information about Dijklander Ziekenhuis, the hospital where this study takes place, is described. Subsequently the financial situation of the hospital is discussed because of recent struggles, which will probably influence the project. Then the organisational structure of the hospital is depicted. Currently the hospital is traditional (vertically) organised, but there are some developments within healthcare going on, to revise the traditional structure into a horizontal one. Compared to that, this project represents a part of this whole. The Cancer Centre is discussed in a more detailed way to gain insights about the focus and policy within the Cancer Centre.
3.1 History and geography

The hospital where this study takes place was opened in 1912 in Hoorn. "Waterland Ziekenhuis" was the name of the hospital. Over the years, the hospital has undergone several mergers and name changes. In 1940, the care institution "St. Liduina" was opened in Hoorn. In 1954, the city hospital merged with 'Sint Jans Gasthuis' and was given the name 'Westfriesgasthuis'. Eventually, this was changed to "Snouck van Loosen" and "Algemeen Streekziekenhuis West-Friesland". Then the government stated that small hospitals in the region were economically irresponsible. A few years later, "Snouck van Loosen" was admitted to "Algemeen Streekziekenhuis West-Friesland". The hospital was then renamed "Dijklander Ziekenhuis".

The name 'Dijklander Ziekenhuis' does not exist for a long time at the moment due to a recent merger. The hospital where this study takes place is called "Dijklander Ziekenhuis".

3.2 Strategy

Dijklander Ziekenhuis wants to exceed those expectations. It is working on excellent specialist medical care at all existing locations in the coming two years. This is done by following the five core themes of the hospital-wide strategy (figure 17). To get management support for the project, it is important to be in contact to the five core themes of the hospital-wide strategy (figure 17).

The strategy for Dijklander Ziekenhuis is announced via intranet of the hospital.

3.3 Financial situation

The financial situation is published in the annual report of Dijklander Ziekenhuis. The financial situation is analysed to ultimately bring the technical infrastructure of the hospital into a financially healthy hospital.

Recovery plan
1. Reduce costs and align them with the original financial forecast set in the (Dijklander) budget.
2. Train the deployment of personnel not in payroll service.
3. Check the employment agreements. Their new measures must result in lower material costs.
4. There are new measures in order to reduce the costs of diagnostics.
5. The policy regarding training grants has changed, this will lead to higher variability in material and lower costs of the various programs.
6. Implement the classification of care according to the original business plan of the merger in order to achieve the savings objectives.
7. Various small measures which have to be lead to considerable cost reduction.

Figure 16: Locations of Dijklander Ziekenhuis in 2019.
3.4 Organisational structure

Locating involved stakeholders

Sjouwerm et al. (2019) investigated the phenomenon of taking both technical and human aspects into account in change in healthcare and suggested that healthcare organisation structure is a critical factor in successful implementation of organisational change initiatives and a costly patient dislike. Therefore it is important to investigate the organisational structure applied and explained.

Structure in Dijklander Ziekenhuis

Spread over the five locations, a total amount of 3000 employees and 450 volunteers work at Dijklander Ziekenhuis. 3000 of them are medical specialists distributed over 27 care departments. In addition, each department has their own priorities, Blaauwgeers (personal communication, June 12, 2019) clarifies about that: “For example, within the surgery department, it is difficult for them to determine the focus and where the money goes.”

The board of directors is responsible for the strategy, policy and day-to-day operations of Dijklander Ziekenhuis. The supervisory board has the task of integral supervision of the policy development within the Dijklander Hospital. The works council (VAR) gives independent advice that contributes to the development of the nursing profession and policy development within the Dijklander Hospital. The client council (OR) represents the interests of the employees, and monitors the quality of the care. The client council (OR) seeks for optimal care and services for current and future patients of the hospital in order to guarantee quality. The Health Care and Youth Centre (CR) monitors the quality of care in the hospital. Finally, as a result of an HII report, this study was started. Because of the financial issues the medical specialists of this department are involved in the process in paragraph 3.5, the department finance & healthcare administration could be an important stakeholder as well.

Care departments

There are 27 different care departments within Dijklander Hospital. One of those departments is the Cancer Centre. This project is hosted by the Cancer Centre. The aim of the project is to make case management possible over the whole trajectory of colon cancer treatment. Therefore, this project has to deal with different departments: oncology, surgery, internal medicine, radiology, and nuclear medicine and stomach, intestine and liver (MDL). At Dijklander Hospital, one of those departments is the multidisciplinary outpatient clinic called: ‘Specialties of Amsterdam UMC’. This is where a team of oncologists, pulmonologists and surgeons are working as explained in paragraph 35. In addition, each surgeon has one or more focus areas. In total there are 16 surgeons of which 7 are focussing on the oncology surgery. Internal medicine is one of the largest specialties within Dijklander Ziekenhuis. Here, disorders of all internal processes in the body are examined and treated. The medical specialists of this department are internalists. In Dijklander Ziekenhuis there are 270 of them. They are involved in the project, because of the financial issues explained in paragraph 35. In addition, the specialists of Amsterdam UMC participate the national colon cancer screening program enter the hospital via this department. In order to maintain the quality of care, the radiotherapeutic care is provided by the specialists of Amsterdam UMC. Lastly in Dijklander Ziekenhuis there is a special multidisciplinary outpatient clinic called ‘Cancer Centre’. This is where a team of oncologists, hemato-oncologists, medical specialists, internists, and surgeons are working as explained in paragraph 35.

Care units instead of departments

Cancer is a complex disease which requires complex care across multiple departments as explained before. The department structure sometimes leads to struggles. Mostly within a department, many different types of diseases and conditions are treated. In addition, the general specialists are dispensing more and more and doctors often specialise in specific areas, explained in paragraph 35. Sometimes it is difficult for them to determine the focus and where the money goes.

Figure 18: The current organisation of Dijklander Hospital. The blue-lined boxes are the most interesting for this project.
Section II

Context

3.5 Cancer Centre

Organisation of the Cancer Centre

The executive committee is a committee for four hospitals, including the Dijklander Hospital in Purmerend and Hoorn. The Cancer Centre is the Theme Centre Cancer Care and the Cancer Centre Committee. Both managed by the executive healthcare administration. An overview of the complete cancer care system within the hospitals is given on the next page.

3.6 Changes within the Cancer Centre

Strategy of the Oncology department

The Oncology department has been extensively revised. The ambition of the Oncology Department has been formulated in so-called ‘Soncos’ (Soncs, 2019). This means a restructuring for the Oncology department. The restructuring has impact on the financial aspects of the hospital. Furthermore, the role of the casemanager has to be reconsidered.

Objectives

The objectives of the OncoCentre are to level the care process of the patient.

All patients must be discussed multidisciplinary. Patients centred and has to experience a well organised care process.

There is one point of contact for every patient.

The casemanager has to be integrated in the Theme Centre care path way.

There is an excellent collaboration with the OncoCentre.

UMC for the more complex treatments.

The physical accessibility is good.

There is one point of contact for every patient. Case management must be set up according to the Soncs standards of 2019. This requires a restructuring for the oncology department.

For the more complex treatments, there is a multidisciplinary team.

Therapeutical decision for diagnosis and treatment options.

According to the Soncs standards of 2019, it is mandatory for each hospital to have a multidisciplinary team. That means a restructuring for the entire care process of the patient. All patients must be discussed multidisciplinary. The casemanager has to be integrated in the Theme Centre care path way.

Clinical care is about everything what has to do with cancer. Because of the complexity of cancer, a lot of physicians and nurses are involved in a case treatment process. In Dijklander and Ziekenhuis, a part of the hospital (as well as in UMC) is focused on a care pathway. Therefore, the objective of the centre is to monitor and promote the quality of care at both locations. Purmerend and Hoorn. The Cancer Centre is divided by the Theme Centre Cancer Care and the Cancer Centre Committee. Both managed by the executive healthcare administration. An overview of the complete cancer care system within the hospitals is given on the next page.

healthcare administration keeps an overview of cancer care to the board of directors. They provide advice on the quality of care to the board of directors, treatment policies, participation in research, working and waiting times, etc. This committee includes members of the executive committee and chairmen of the tumour working groups (TWG).

Tumor Working Groups (TWG)

This multidisciplinary team meets with the focus of one tumour type and is responsible for the care process of the tumour type and location. They will set the location to adopt the treatment policy. A TWG coordinates the multidisciplinary process in diagnosis, treatments, follow-up and improvements of a specific patient group.

Thematic Centre Cancer Care

The Thematic Centre Cancer Care is the care provided at the Theme Centre Cancer Care. This is where the consultation hours are held in the multidisciplinary outpatient clinic and where the systematic treatments takes place. The Thematic Centre Cancer Care ensures that patients can visit one central location within the hospital for cancer care. The Thematic Centre Cancer Care provides physical work together. However, they still belong to their own department for example surgery or internal medicine. The information desks reflect this aspect appropriately. In Hoorn, there are two information desks: one desk for surgical appointments and the other one for follow-up and improvements of a specific patient.

Organisation of the Cancer Centre

Cancer care

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Executive healthcare administration

The executive healthcare administration acts on behalf of the cancer care committee as first contact point.

Executive committee

The executive committee is a committee for four years. It consists of three medical specialists, one nurse specialist, the care manager of the cancer centre and the head of the cancer centre outpatient clinic and systemic therapies and the senior policy advisor. Together they implement and evaluate the oncological policy of the hospital. More about this policy is written in section 34.

Cancer care committee

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Outpatient clinic

Consultations are held in the outpatient clinic. During consultation hours, nurses and doctors offer patients extra support and guidance. Usually just after patients have been diagnosed. Patients want to understand the process of correctly diagnosing the type of cancer, which stage of cancer they have and what the treatment options are (Discharge, 2017).

Systematic treatments

Systematic treatments are therapies such as chemotherapy and immunotherapy that are used in case of malignant tumour diagnoses. A systematic treatment takes place in a room with several patients at the same time. In Hoorn, there are 12 rooms and in Purmerend there are 10 places. During the therapy patients are sitting in comfortable chairs or in bed. For a treatment or a cancer patients, stay for a time varying from 30 minutes to a few hours in the Theme Centre and afterwards they can go home.

Multidisciplinary meetings (MDO)

Every Tuesday, all oncology care gives from both Purmerend and Hoorn, and specialists from Amsterdam UMC meet for a MDO in order to bring everyone together from three different locations, those MDO’s are mostly held via video conferencing. During this MDO they discuss the patients’ diagnosis and treatment options.

Oncology department

According to the Soncs standards of 2019, it is mandatory for each hospital to have a multidisciplinary team. That means a restructuring for the entire care process of the patient. As Oncology theme centre they want to level the best with the best practices, or the best practice.

Thematic Centre Cancer Care

The Theme Centre Cancer Care and summarised below.

3.7 Dijklander Ziekenhuis summary

The physical accessibility is good.

There is an excellent collaboration with the Theme Centre.

For surgical appointments and the other one for follow-up and improvements of a specific patient.

In Hoorn, there are 19 places and in Purmerend, 10 places. Therefore, the oncology team in the Theme Centre Cancer Care and summarised below.

In Hoorn, there are 19 places and in Purmerend, 10 places. Therefore, the oncology team in the Theme Centre Cancer Care and summarised below.
Because cancer is still a broad disease, this project focuses on colorectal cancer, the third most common type of cancer (IKNL, 2014). In Dijklander Ziekenhuis, every year 200 people are diagnosed with colorectal cancer. Because of the complexity of the treatment, colorectal cancer is an interesting type of cancer for this project to initially focus on. In this chapter some background information about the disease is given and the current way of working in Dijklander Ziekenhuis is discussed.
4.1 Colorectal cancer

Different stages and how this affects the treatment process

In order to understand the treatment process of colorectal cancer (a not so deeper knowledge about the disease itself is needed), this paragraph describes how diagnosis of colorectal cancer is described in literature.

Cancer and colorectal cancer in general

Cancer cells divide in the body to grow out of control. Mostly cancers form a tumour, this is the name for a lump with cancerous cells. To classify cancer in a stage, specialists use a stage classification called the TNM format (Federatie Medisch Specialisten 2014). This format describes:

1. Tumour (T-code). The location and size of the tumour.
2. Node (N-code). How far the tumour has grown into the tissue and blood vessels.
3. Metastasis (M-code). Whether there are metastases in the body or not.

When we speak about colorectal cancer, the tumour is in the colon or rectum. Not all polyps become cancer. Some polyps change into cancer over time. Colorectal cancer starts like a polyp in the wall of the intestine or rectum. Colorectal cancer is described during its first occurrence. Tumours in the rectum are treated differently than tumours in the colon.

The three codes together determine the stage format (Federatie Medisch Specialisten 2014). This format describes:

1. Tumour (T-code). The location and size of the tumour.
2. Node (N-code). How far the tumour has grown into the tissue and blood vessels.
3. Metastasis (M-code). Whether there are metastases in the body or not.

Figure 20: Different stages of colorectal cancer. (Kanker.nl) The higher the stage, the more complicated the treatment will be.

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Different stages and how this affects the treatment process

National screening

At the moment the 5-year survival rate for colorectal cancer is 45%. Varying from 11% for stage II to 95% for stage I. 21% of the patients are diagnosed with stage IV. In order to detect cancer at an early stage and to prevent people from colorectal cancer, NSH starts a population screening in the Netherlands. Since this screening, a shift to more favourable stage distribution has been noticed (figure 21). This is desirable, because in those stages the treatment is less intense with a better chance to survive.

Combining the puzzle pieces

Combining the puzzle pieces results in different treatment processes. IKNL has registered different treatment processes. The modules are explained below and visualised as puzzle pieces. Different treatments as puzzle pieces

A treatment plan is set up during the MDG with different specialists together after examining the entire case. Therefore, the treatment plan will describe all different steps of the treatment process. Different stages within a treatment process are diagnosis, surgery, radiotherapy, chemotherapy, and the follow-up consultations. A more detailed description of all stages, as they are now, is given in paragraph 4.3. As described before, there are various factors, which make the colorectal cancer treatment process is divided into several stages. Some of these stages are given by the type and stage of colorectal cancer. When a patient enters a stage, this treatment step within the entire process can be seen as a puzzle piece as shown in figure 22. And these puzzle pieces are for example, the surgery treatment, radiotherapy, chemotherapy, and the follow-up consultations. All these puzzle pieces are the modular treatment process. The modules are the 3 main treatments.

Radiotherapy

Radiotherapy is the second most common treatment for colorectal cancer. Surgery is the third most common treatment for colorectal cancer. Surgery is the main treatment.
4.3 Protocols

Current documentation of the care process

To get an idea of the workflow and the need for a standardized protocol for colorectal cancer treatments, this paragraph describes how the care process of colorectal cancer currently is documented: in various documents, computer systems, and internet pages. An overview of the treatment process is summarized in paragraph 4.4.

Analysis

All different documents were analyzed in order to get an overview of the current treatment process and understand the roles of every stakeholder. This is done by organizing all steps logically with Post-its which gives the opportunity to complement it when new information was found (see photo on the right page).

The baseline (in pink) is formed by all steps in which the patient is involved. In yellow, the steps related to radiotherapy are given. In the bottom orange post-its, everything what has to do with the MDO is depicted. In the top orange post-its were sticked lastly, and were used as clustering post-its, these post-its describe the phase in which the memos belong to.

By sticking the memos, an overview was created and it made clear at what moment which specialist is involved in the process and in what way.

The current care pathway in iProva

The most important guideline is a care pathway which is available via the HiX computer system in iProva. HiX is a fully integrated system for hospitals. Here the treatment process of colorectal cancer within Dijklander Ziekenhuis is recorded as a nearly linear process tree of 18 steps accompanied by text for every step in the process tree, a matrix in which tasks, responsibilities, and competences are depicted and a table with an overview of possible risks during the treatment process.

The process tree shows all steps of the most common treatment process of a colorectal carcinoma: surgery + systematic therapy. All crucial appointments with the patient surrounding the surgery are described. The steps which are made during systematic therapy or radiotherapy are not clear in this document and depicted as one step in the process tree.

The accompanying texts of the process tree contain more detailed descriptions, the involved care providers, criteria, possible referrals, and additional comments.

EMAS Protocol

The process around the surgery is mapped out clearly in the care pathway in HiX. Even more detailed is the EMAS program which stands for Enhance the Recovery After Surgery. This program is designed to optimize the perioperative process (Holzhauer, 2017).

Within the care pathway in iProva is referred to Oncoline for more detailed information when an adjuvant treatment (systematic therapy) is needed. Oncoline is an online platform providing nationwide guidelines from the Netherlands for the field of cancer care and palliative care. For example, recommendations are given on which specific medicine is preferable in which situation. This platform is mostly used as an enchiridion for specialists and does not describe the general processes in Dijklander Ziekenhuis.

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Dijklander Ziekenhuis, this program is described in a document which is available for patients. Patients receive this document when they enter the treatment process of colorectal cancer. Every appointment with specialists or nurses is described in a detailed way in order to optically prepare expectations of patients.

The EMAS protocol is the reason why the treatment process around surgery is optimized and documented very well in the hospital.

Oncoline

Besides the care pathway in iProva is referred to Oncoline for more detailed information when an adjuvant treatment (systematic therapy) is needed. Oncoline is an online platform providing nationwide guidelines from the Netherlands for the field of cancer care and palliative care. For example, recommendations are given on which specific medicine is preferable in which situation. This platform is mostly used as an enchiridion for specialists and does not describe the general processes in Dijklander Ziekenhuis.
4.4 Overview colorectal cancer treatment

How colorectal cancer care is currently organised within Dijklander Ziekenhuis

**Section II**

**Context**

**How colorectal cancer care currently is organised within Dijklander Ziekenhuis**

Since 2014, a national screening program in the Netherlands is started in order to detect colorectal cancer in an early stage. This screening consists of a stool test. Together with the invitation to participate in the screening, patients receive a postcard to persons with an age between 55 - 75 years old: “When you decide to participate, they have to prick the stool with the rod and send it to the local postbox.” Eventually, the stool is examined in a laboratory. If there is blood in the stool, the participant will be referred for a colonoscopy (Rijksinstituut voor Volksgezondheid en Gezondheidszorg, 2019). When there is a suspicion of cancer, the Colectomy Surgeon can make a diagnosis and the treatment process will be initiated, starting with a phone call from the Colectomy Surgeon and possibly additional examinations to determine how far the tumour has grown (Pigew lever darm stichting, 2019).

**Coloscopy**

During a coloscopy, a flexible tube with a light and a camera (endoscope) is pushed through the anus into the rectum. A flexed colon can detect polyps and tumours in the colon. An advantage of this examination is that the MDL doctor can immediately remove polyps during the coloscopy. The MDL doctor also can take a tissue biopsy from a cancerous or suspicious spot in the intestine. These polyps and biopsies will be examined in the laboratory by a pathologist. If malignant cells are found during this examination, there is cancer diagnosed and the treatment process will be initiated, starting with a phone call from the Colectomy Surgeon and possibly additional examinations to determine how far the tumour has grown (Pigew lever darm stichting, 2019).

**Endoscopy**

In the case of rectal cancer, the Colectomy Surgeon immediately will contact the pathologist to plan an appointment with the patient. The patient will be referred for a colonoscopy and schedule the operation (Rijksinstituut voor Volksgezondheid en Gezondheidszorg, 2019). When the results of the pathologist and the additional examinations are known, the patient visits the Anesthesiologist. The surgeon will discuss the diagnosis and the policy of the treatment. Moreover, the patient visits the Colectomy Surgeon who will further information about the surgery and how much time is necessary to answer questions. At this time, the Colectomy Surgeon performs the patient for the scheduled surgery. The patient is referred to the Anesthesiologist for a preoperative investigation and the Anesthesiologist for a check-up (ERAS protocol, 2019).

**Surgery**

For colorectal cancer, surgery is a common treatment. Mostly, surgery is part of a curative (healing) treatment. Before the surgery, the patient is seen by the medical doctor who will discuss the results of the pathologist after who the patient is admitted to the ward of the MDL doctor. During surgery, the tumour is removed only by the surgeon, but a part with fat with lymph nodes near the tumour will be removed. These lymph nodes will be examined in a laboratory to check the possible presence of cancer cells. After surgery, the patient stays in the hospital for a few days to recover from the surgery. After surgery, the patient stays in the hospital for a few days to recover from the surgery. If there is no indication for any other (adjunct) treatment, the patient visits the Internist-Oncologist, afterwards they have a yearly check-up. It is unclear what the effects of differents schemes are two following years and after three years (Maag lever darm stichting, 2019). When patients finish the treatments like surgery, systematic therapy and/or radiotherapy, they enter the follow-up process. During the follow-up process, patients can discuss the treatment, possible complaints, symptoms and questions. Follow-up checks, are to detect local recurrences or metastases at an early stage. This will lead to better treatment results. In Dijklander hospital, the follow-up checks are attended between the surgeon and the inter-oncologist. The patients have a follow-up visit monthly in the first year, twice a year in the following years and after three years they have a yearly check-up. It is unclear what the effects of differents schemes are (Oncoline, 2019).
4.5 Colorectal cancer as a case study

Zooming out

Because of the broadness of the disease Cancer, this project focuses on colorectal cancer and the current workflow around this type of cancer. Therefore this project can be seen as a case study. Eventually, key changes must be extended to other tumor types to continue the implementation of integral case management.

4.6 Current care process summary

Take-aways for the rest of the project

Because of the broadness of the disease Cancer, this project focuses on colorectal cancer and the current workflow around this type of cancer. Therefore this project can be seen as a case study. Eventually, key changes must be extended to other tumor types to continue the implementation of integral case management.

Jump outs within the current workflow

Within the current workflow there are several take-aways to take into account during the project. To begin with the fact that colorectal cancer is diagnosed mainly in stage 1 and 2 (1*) due to the national screening. This entails more and more simple treatment processes, mostly only surgery. Due to the ERAS program, this surgery treatment is optimised very well. However, when extending the project to other tumor types, it is needed to look at the other available treatment processes as well. For colorectal cancer the main treatments next to surgery are radiotherapy and systematic therapy. When systematic therapy and radiotherapy comes into play, the entire treatment process is not always a smooth one (2*). This is partly caused by the organisational structure as described in paragraph 3.4 and partly by the lack of one clear care pathway (3*). The current protocols are now documented in various ways, which causes not a structured overall workflow.

Next to the organisational issues within the hospital, for colorectal patients there is a close collaboration with A'dam UMC (4*). This means that patients must be registred in two hospitals and there is a big risk on losing the overview. Furthermore, changes are going on due to the merger, within cancer care, this becomes visible in the surgery department: the aim is to move all cancer surgeries to location Hoorn which falls under the objective 'Lateralisation (5*) as described in paragraph 3.6.

*numbers in the brackets refer to the numbers in figure: 25

When focussing on colorectal cancer, it is needed to keep the whole picture in mind. Changing something in the treatment process of colorectal cancer influences directly other treatment processes, this phenomenon is explained in this paragraph.

Fragmented, but still intertwined

Because cancer is still a very broad disease, this project primarily focuses on colorectal cancer. However, at the moment the organisational structure within the cancer centre is so called vertically organised as explained in paragraph 4. This causes the Fragmented, but still intertwined: this vertical organisation means that when one care pathway and thus current workflow for colorectal cancer changes, it directly affects other care processes for other tumor types.

This means that entering for conducting a pilot integral case management in one go is supposed in the very beginning, is not an option.

Case study

This project will still focus on colorectal cancer. However, due to the obstacles as described before, this project can be seen as a case study. This case study must be extended or extrapolated to other tumor types by defining key changes. Subsequently, it is possible to organise oncology cancer care across all its strands, step by step to finally achieve entire case management for all cancer types in order to subsequently be able to make possible the reorganisation of the Cancer Centre.

To finally implement case management across the whole Cancer Centre, it is needed to clearly identify how one case study during implementation, and how to extend it to other tumor types.

Figure 25: Overview of literature research related to case management.

Explained in paragraph 4.6: Current workflow summary
A user study is conducted to find out how patients and caregivers experience current colorectal cancer and how they feel about case management. The user approach is explained in Chapter 06. Within this section, there is discussed per study theme: the setup, the results, and conclusions and discussion.
Within this Chapter is described how caregivers are involved in the research phase of the project. Opportunities and threats are identified by interviewing caregivers and making use of toolkits. In the end there can be referred to co-creation, because the interviewed caregivers play a big role throughout the developing phase as well.
5.1 Research setup caregivers study

Interviews and supportive toolkits

This paragraph describes the goal and the methods used during the caregivers study.

Goal

The aim of all research activities among caregivers was to find answers to the question "How do caregivers and caregivers experience their job and how do they feel about care management?" There is investigated how the process of colorectal cancer is organized in reality and there is explored what caregivers think about the upcoming changes in their field of experience.

Methods

First interviews were scheduled by the medical secretary. Caregivers from both locations Hoorn and Purmerend were interviewed, as well as caregivers from different disciplines and as different as nurses as specialists. An overview of the total research (participants and activities) among caregivers is given in figure 27.

The interviews were held with a semi-structured approach by using an interview guide with a set of questions which were determined in advance (figure 26, Appendix A.1).

Some interviews were supported by toolkits to uncover extra or more hidden information. Interviewees were encouraged to overthink their thoughts in other ways by making something. A storyline toolkit was used to accompany questions as: How does your day start? What are daily tasks? How many patients do you take care of? What do you (dis)like on a workday? In this toolkit a paper with a backdrop was provided. The backdrop caused a suggestive structure to guide the participants through the exercise (Sanders & Stappers, 2016).

An empathy map provided a basis to identify the needs of the participants and find opportunities for the project (Board of Innovation, 2019). It is a tool to get participants attaching a topic from different angles. The interviews were analyzed by transcribing the interviews (Appendix A.2 - A.8), coding those transcriptions and creating a grounded theory out of it. This analyzing process and the codes can be found in Appendix A.9.

Furthermore, during the whole project, caregivers were involved, by small creative sessions. Asking for feedback and small talks in the work environment.

Figure 26: Interview guide and toolkits which were used during the research activities with caregivers.

Figure 27: Overview of the participants and used methods.
5.2 Results

Various recurrent topics were discussed. Those were lack of communication (13), high workload (9), contact point (6), expertise (8), patients need an accessible contact point (8), patients need support and answers on questions (7), communication failures are a reality (10), nurses have to retrain to nurse specialists (8), and expertise must shift from sub-areas to the entire process (10). The numbers show the equivalent of how often the topic is mentioned.

Fears

Fears were related to the workload (9), lack of expertise (8), and the fear of sudden reorganisation where retraining is mandatory (4). The general opinion among caregivers is that it is crucial that a contact point, a casemanager, would be ideal. There is also a lack of expertise within the departments. As well as the fear of workload and a shortage of formation.

Wants and needs

Wants and needs came into play when it comes to patient care itself. Patient contact is the most enjoyable part of the job (11) and caregivers want to offer the best care possible (15). During implementation of case management, the fears of caregivers related to workload, expertise, reorganisation when retraining is mandatory (10), and the shortage of formation.

Discussion

The grounded theory is based on interviews with only a few caregivers. It can be questioned to what extent it can be extrapolated to caregivers in the care centre. Additionally, the experts must shift from sub-areas to the entire process which is experienced as an obstacle as well. Caregivers are afraid of a lack of expertise within the experiments. As such the fear related to workload and a shortage of formation.

5.3 Conclusion & Discussion

Due to the fact that caregivers are ultimately the ‘executive party’ in integrating case management, the results of the caregivers study form important input for the further implementation of case management.

Conclusion

The grounded theory as visualised in figure 28 shows the results in a logic and related order what visualises the conclusion of the caregivers research. Communication failures between and within the departments occur. The general opinion among caregivers is that a contact point, a casemanager, would be ideal. Moreover, they agree with the fact that case management has to be a task of a nurse specialist. However, that being the case, nurses have to retrain which is experienced as an enormous barrier. Additionally to this, the expertise must shift from sub-areas to the entire process which is experienced as an obstacle as well. As well as this, the fear of reorganisation when retraining is mandatory (10), and the shortage of formation.

Discussion

The grounded theory is based on interviews with only a few caregivers. It can be questioned to what extent it can be extrapolated to caregivers in the care centre. Additionally, the experts must shift from sub-areas to the entire process which is experienced as an obstacle as well. As well as this, the fear of reorganisation when retraining is mandatory (10), and the shortage of formation.

5.4 Caregivers study summary

Take-aways for the rest of the project

The executive party in integrating case management, are the caregivers. The opinions and intrinsic motivations of the caregivers are important to take into account.

Jump outs in the caregivers research

As visualised above there are three main issues to take away in the rest of the project. The first one describes the underlying motivation of nurses and specialists to perform their job. Helping patients is most important to carry out their job. Next to this they want to enjoy their job. This is supported with issues related to workload, and administrative tasks. Caregivers want to replace this with more patient contact for example. Lastly, caregivers want to offer the best care possible. They want to respond to personal situations and wishes of patients. During implementation of case management.

The fears of caregivers related to workload, expertise, reorganisation when retraining is mandatory (10), and the shortage of formation. We want care that is in line with the personal situations and wishes of patients. I want to enjoy my job!
As concluded in Chapter 5, caregivers want to offer care that suits the patients perfectly. In order to find out how this can be achieved, patients are involved in this research. This Chapter describes how patients are involved in the research phase of the this project and what they expect from Dijklander Ziekenhuis.
6.1 Research setup patients study

Generative techniques

This paragraph describes the goal and the methods used during the patient study.

**Goal**

The aim of research activities among patients was to find answers on the question "How do patients and caregivers experience colorectal cancer care and how do they feel about cases management?". There is investigated how patients experience the processes of colorectal cancer and in them explored what the expert from the hospital further says.

**Methods**

A generative approach was taken to gain insights from patients. As a result of the research (participants and activities) among patients in figure 29 is described in more detail in Appendix B.7.. To obtain the tacit and latent needs of patients, in research patient insights on the deeper layers of understanding. This led to the development of the sensitising booklet. The participants were asked to think about the hospital experience and to give their own thoughts and feelings about the treatment process and the hospital. The interviews and generative sessions were transformed into a patient journey and presented for the patient support matrix, which are shown in figure 30 and 31.

**Research setup patients study**

The interviews, feedback and analysis resulted in more insights. The booklet gave basic insights in the treatment process and gave an overview of the emotions of patients during the treatment process. Interviews and generative sessions afterwards give the opportunity to gain more insights about the underlying wishes and needs. This paragraph describes the insights.

Different treatment processes

Different treatment processes are investigated. The lower the diagnosis stage of the cancer, the easier the treatment process. For patients who only need surgery, the surgery process is optimised very well according to patient F73. This is substantiated with the other patients who are also very pleased about the surgery treatment. To explain how the more complicated the treatment process, the more imperfections become visible. This phenomenon is reinforced when a patient is more complicated the treatment process, the more imperfections become visible. This phenomenon is reinforced when a patient is

**Patients don't like it when they are redirected and during the whole treatment process patients also expect a certain level of control. Sometimes they think their wishes are not being fulfilled and they do not want to receive unexpected calls. Patients also expect a certain level of communication. It is important for patients to know what is expected and they do not want to receive unexpected calls. What patients really enjoy is coming back to the person with whom they discussed the treatment plan in the very beginning.**

**Patient journey and patient support matrix**

In Appendix B.7 there is described how the data is transformed into a patient journey and patients insights are shown in figure 30 and 31. Both are in a more detailed visual representation of the insights as described above.
Figure 32: Patient Journey

Section III: Users
The results of the interviews, sessions and booklets were processed in such a way (Patient journey and patient support matrix) that conclusions easily can be drawn. Those conclusions are explained in this paragraph.

**Patient journey (Figure 32 page 64-65)**

In this journey it quickly became clear that the patients experience the first phases as most horrible. Here, the red (unhappy) smileys play a big role. Quotes support that and show that the uncertainties and fear play a big role. These points return when patients come for a check-up consult but it turns out that the results are not good. It is good to know that it is important for the hospital to focus on the very beginning of the treatment process.

**Patient support matrix (Figure 33 page 66)**

A matrix was created to organise the insights from patient research activities. The matrix was horizontally divided in types of information/support provision: non-human, family and friends, nurses or medical specialists. Vertically the matrix was split in positive and negative. The insights were placed in the matrix and it became clear that there were boxes almost empty. For example patients experience the provision of non-human information not as extremely positive. This is something to respond to as hospital.

Consultations are experienced as overwhelming, due to the fact that a lot of information is provided and together with the emotions, it is hard to remember everything patients would appreciate it if there was extra support to help them with this. What must be taken into account further on is the fact that patients experience it as hard to ask the right questions. It is clear that some guidance here is desirable.

**Discussion**

To gain reliable insights, it is needed to interview more patients. However, it was difficult to find participants for this study due to the extreme workload for nurses in the hospital, the average age of colorectal patients and the fact that most patients only had a surgery. What works well was obtaining participants via networking. Maybe the diversity of patients is influenced in this way. Despite the fact that reliability can be discussed, the results are taken into account because the results aligns with research (a questionnaire among 4300 patients) from Nederlandse Federatie van Kankerpatienten (2018).

Another issue was the influenceability of the researcher. In two cases, the patients asked to help filling in the booklets. Thus in two cases the booklet cannot be seen as a generative tool. Nevertheless, insights were included in this study, because the patient availability was so low and useful things were discussed. Despite the misuse of the tool, useful things were discussed in a sense, it also gave the patients a lot of freedom to speak.

**6.3 Conclusion & Discussion**

Generative techniques

The aim of the Cancer Centre is to ultimately be able to offer the best care possible for the patient. Caregivers indicate that this is one of their main intentions for working in the health care. For this reason it is important to investigate how patients actually experience the care and what they would improve.

What Dijklander Ziekenhuis must keep

Patients indicate that the hospital is a warm hospital. They advise to keep the personal attention. Especially the care they received from nurses is experienced by patients. Next to this, patients experience the service treatment as very positive. Particularly patients with a treatment process what only consists of a surgery treatment are very positive about the hospital.

What Dijklander Ziekenhuis can improve

The patients experience the consultations as overwhelming and it is hard for patients to use the consults as optimal as possible. Dijklander Ziekenhuis can take a unique position by offering guidance throughout the treatment process and especially in the approach towards consults. This could be done by providing extra support, coaching and (informational) tools during the treatment process. This can help in dosing information to patients, help patients to manage their own process and asking the right questions during consults.

Next to this, the hospital must prevent as many referral and communication errors as possible. The hospital can prevent these errors by providing extra tools. These tools can be seen as generative tools. Nevertheless, insights were included in this study, because the patient availability was so low and useful things were discussed. Despite the misuse of the tool, useful things were discussed in a sense, it also gave the patients a lot of freedom to speak.

**6.4 Patient study summary**

Take-aways for the rest of the project

The aim of this study is to ultimately be able to offer the best care possible for the patient. Caregivers indicate that this is one of their main intentions for working in the health care. For this reason it is important to investigate how patients actually experience the care and what they would improve.

What Dijklander Ziekenhuis must keep

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What Dijklander Ziekenhuis can improve

The patients experience the consultations as overwhelming and it is hard for patients to use the consults as optimal as possible. Dijklander Ziekenhuis can take a unique position by offering guidance throughout the treatment process and especially in the approach towards consults. This could be done by providing extra support, coaching and (informational) tools during the treatment process. This can help in dosing information to patients, help patients to manage their own process and asking the right questions during consults.

Next to this, the hospital must prevent as many referral and communication errors as possible.
This Section is about the future vision of the new workflow which is summarised in a Care Pathway, one of the deliverables as mentioned in Chapter 02. This Section summarises the research activities in order to gain insights into what must be adapted in the old workflow by designing the new Care Pathway.
Based on all research activities in Section II and Section III, a list of design challenges and design criteria is created and summarised in this Chapter. Those are needed to validate the final deliverables: the new care pathway, the business case and the implementation manual.
7.1 Combining the studies

First step towards defining the project objective

At this paragraph, an overview is given which combines all insights of all different studies: the insights from literature, patient study, caregivers study and research about the hospital. This overview is illustrated in figure 34. In the text, there is referred to the numbers in this figure.

**Literature & standards**

This project is the result of changes that have been initiated by healthcare organisations and the government. Literature showed that cancer care is becoming more and more complex and that patients experience a lack of support due to fragmentation (1). Therefore, SONCOS (2019) introduced a new standard regarding to cancer care and implementing case management (2). Because of this, implementing case management is hot topic in hospitals in the Netherlands, together with task reallocation as stimulated by the government (Bruins, 2019). He proposes to train and deploy Nurse Specialists (3). Some studies in the Netherlands (Geukes, 2010 & Van der Put 2015), investigated the phenomenon of case management already and advise to retrain nurses into Nurse Specialists and to develop a clear care pathway to implement case management as successful as possible (4). Van der Put, discussed different models of case management and Geukes developed the role of a case manager for another. This project investigates options to build upon these studies in order to develop case management 2.0 what will perfectly fit in Dijklander Ziekenhuis as well as developing an appropriate implementation plan.

**Patients study**

People diagnosed with colorectal cancer mostly have little knowledge in the medical field. Together with the uncertainties and fears (especially during the diagnostically phase in the beginning), they experience the treatment process often as overwhelming (5). Next to this, it is often difficult for patients to know what to ask because guidance is desirable. A trusted and fixed contact point within the hospital can support them with this by representing and defending patients interests and providing explanation and information (6). Patients often experience the caregiver who tells the diagnosis and the treatment plan as the most important caregiver during their treatment, they like it when they come back to this person (7). Support is most desired in the first period of research and investigations (8). Striking was that patients were especially full of praise for the nurses in contrast to the Medical Specialists.

Dijklander Ziekenhuis & The Cancer Centre

The recently merged hospital wants to innovate and fulfill patients needs and cherishing the employees. Those themes are described in the core themes of the strategy (9). Another core theme is to invest in care that matters. In line with those themes, the Cancer Centre of the hospital is interested in implementing case management (10). With implementing case management, they want to level with the best practices. Nevertheless, case management has to overcome the failures and patient’s related to fragmentation in cancer care. It is needed to create budget to execute these plans. Another painpoint is the lack of one clear pathway to work with. There are differences between the methods and procedures used at both locations. And for some parts of the treatment process, it is not well established who is responsible. The goal is to have updated standard operating procedures and care pathways which are the same for both locations (10). This can ensure clarity regarding the upcoming institutionalization due to the merger.

**Caregivers study**

Caregivers want to offer the best care possible. They want to change but not be changed (Sonneveld, 2019). At the moment caregivers have to work in new teams due to the merger and they foresee new problems when another reorganisation will happen: they have to learn to work together in an efficient and pleasant way and quality must be guaranteed all the time (11). Caregivers foresee high work pressure while the workload is already too high at the moment (12). Next to this, the expertise will shift from expertise within disciplines to expertise over the whole chain for specific tumourtypes, thus a training program must be drawn up to enable interdisciplinary knowledge (13).
7.2 The future Cancer Centre
How to define the future cancer centre

As described in paragraph 7.1 there are a lot of interests of different parties to take into account. This paragraph describes how those interests are integrated in the Future Cancer Centre and how this study responds to this.

Principals of the future cancer centre
The interests of all parties are combined in four aspects what forms the basis of ambitions of the future cancer centre. The ambitions are:

- The cancer centre is patient-centred, and delivers bespoke care. Patients receive the support they deserve.
- A cancer centre which makes shared decision making possible.
- A cancer centre offers a pleasant working environment which facilitates cooperation.
- A future proof cancer centre which meet all requirements and creates opportunities for leading in cancer care in the area.

Patient-centered care
In line with the strategy of the hospital patient-centred care is an important focus point. In the future cancer centre bespoke care is offered. This means that treatment processes are tailored for every patient. Besides, the cancer centre responds to the wishes and needs of patients regarding the information lack on some points. This means that the future cancer centre offers extra support in the form of a casemanager.

Next to this, the hospital will optimalise the care process in such a way that some extra guidance is provided during the care process in order to reduce the overwhelming feeling of patients.

Shared decision making
When looking at patient needs, it is needed to improve on communication and collaboration with the patient. This topic eventually can be stretched towards ‘shared decision making’ what is hot topic in healthcare at the moment. When speaking about the future cancer centre it is important to take this aspect into account. When looking at the strategy of the hospital, improving communication and collaboration and offering shared decision making, perfectly fit in the strategy.

Pleasant working environment
Within the future cancer centre it is needed that everyone works together to keep everyone motivated. This became clear in the caregivers study. Caregivers want to work in well cooperating teams. Therefore within the future cancer centre all workflows of the involved caregivers of different locations must be combined. Due to the merger, this is an extra challenging focus point. In addition, caregivers want to practice their profession for which they have chosen. This means that in the future cancer centre tasks are redistributed to the professions where they belong.

A future proof cancer centre
When a reorganisation takes place, it is important that it is done in such a way that it will pay off in the long term as well. Therefore it is needed to not only look at the consequences on the short term. Sometimes this will mean that problems must be tackled in a more rigorous way. Therefore during the reorganisation of the cancer centre and by implementing casemanagement, standards are taken into account in such a way that they are extrapolated to the future.

This means for example implementing integral casemanagement, retaining nurses and the preparations of a care pathway format that can constantly be developed and improved.

The future cancer centre visualised
The future cancer centre is shown on the next page. It is a cancer centre where it’s all about the humans: both patient and caregivers.

This cancer centre visualises the ambitions as described above. In Chapter 8 there is further explained from the design of a new care pathway including casemanagement will face those ambitions.
7.3 The project checklist

How desirability, feasibility and viability can be measured

Desirability
Developing the future vision of colorectal cancer care within Dijklander Ziekenhuis is mainly about desirability and will meet the needs and wishes of people and is in the end about enhancing their lives and creating a better society (Calabretta et al., 2016). Within this project this future vision is designed in the form of a Care Pathway.

The challenges regarding desirability are mainly formulated out of insights of the patient research and context analysis. The insights used for the desirability part are 1, 2, 3, 5, 6, 7, 8, 11, 12, and 13 of figure 34 (explained in paragraph 7.1).

Feasibility
An organisational design towards this future vision will show the feasibility of the project. This means that the future vision can be achieved with the resources available, or describes how those resources can be created.

The challenges regarding feasibility are mainly formulated out of insights of the context analysis.

Viability
The viability of the project is guaranteed by preparing a business case. This means that the design of the future care pathway and the organisational design implementation plan are sustained with a financial overview and a risk analysis. This analysis has to include the long-term prognosis to make the project viable.

Project checklist
In figure 37 a set-up for the design process is made in the form of a project checklist. The insights of the research phase which are summarised in paragraph 7.1 are formulated as design challenges. These design challenges are then assigned to the different deliverables that each cover one of the aspects of strategic design.
This Section is about the future vision of the new workflow which is summarised in a Care Pathway, one of the deliverables as mentioned in Chapter 02. The care pathway describes in more detail the future desired situation. The Business Case in Chapter 09 is about the facts and numbers which can be seen as preconditions, and in the Implementation Manual in Chapter 10 the way towards the desired situation is elaborated.
This chapter is about the design of the new care pathway. The care pathway is a tool that can be used to work towards the desired future cancer centre as described in paragraph 7.2. This chapter explains how the care pathway is built up and how it can be used as a tool.
8.1 The new format of a care pathway

Ingredients for a redesigned format of a care pathway model

Communication on different levels

Research is done in order to take into account all different stakeholders when implementing case management. However, every stakeholder has his own information flow and needs of information. This means that when starting implementing case management, it is necessary to communicate to all stakeholders on their own level and in that way working together towards better care.

Care pathway divided in three levels

To meet all ambitions of the cancer centre as set out in paragraph 3.6 and to communicate to all stakeholders on their own level, the new care pathway format is divided in three levels. The design of a new care pathway consists of one coherent entity, built up in different layers in order to communicate on those different levels. In figure 38, the different levels are showed, together with the expectations of a care pathway.

Care pathway to create overview

The care pathway on organisational level is designed to create overview of the treatment process. This part of the care pathway shows the whole process and the relationships between actors. This part of the care pathway is explained in paragraph 5.6.

Modular care pathway for protocols

Within (colorectal) cancer care various treatment processes are possible, as explained in paragraph 4.2. Determining a fitting treatment process depends on various factors: the stage of the cancer, the well-being of a patient and certain considerations of caregivers and patients. A modular care pathway makes it possible to personalize a care pathway relative easy while taking into account all necessary steps. This part of the care pathway is explained in more detail in paragraph 5.4.

Puzzle pieces with information

The patient study made clear that for patients, it is often hard to communicate clear and efficient with caregivers. Patients experience a lack of knowledge “In a consult, I don’t know what kind of questions I can ask”. Next to this, it is often hard for them to remember everything what is said. At the same time, physicians experience a gap in communication to patients. Sometimes it is unclear when nurses share information, they communicate more at the same level.” To close these gaps, the new care pathway forms a platform of information and offers small tools to help patients communicating to caregivers, which is done by using puzzle pieces with information, at the backside of the modular care pathway. These puzzle pieces can be used as ‘image board’ during consults. Patients can take it home to make it easier for them explaining friends and family what is going on. Therefore, the image board puzzle pieces provide opportunities to make a step forward in shared decision making. However, to make shared decision making actually possible, it is needed to focus more on how to work with the care pathway, rather than only implementing the task reallocation and the sequencing of steps within the care process.

The new format

The new format of the care pathway is visualised in figure 39. Here the differences between the levels are quickly visible. Based on research within this study, this care pathway format has to function on all levels.
8.2 Care pathway to create overview

The organisational care pathway

Key elements within the organisational care pathway are formed by the actors. Each with their own roles. The interactions of each actor are connected and visualised as dots in the line. In the way as it is perfectly visible in what sequence different actors come into play in the treatment process.

The organisational care pathway is visualised in figure 42.

The organisational care pathway

The organisational part of the care pathway is designed to read from left to right. All interactions in the same vertical line are related with each other. The pathway is divided in different columns: diagnostics, surgery, internal medicine, radiotherapy and follow-up. These columns correspond with the modules within the care pathway on the level of caregivers’ and patients’ levels.

The key element within the organisational care pathway is formed by the actors. Each with their own role. The interactions of each actor are connected and visualised as dots in the line. The way as it is perfectly visible in what sequence different actors come into play in the treatment process.

The organisational care pathway is visualised in figure 42.

Actors in the network

The key elements within the organisational care pathway are formed by the actors. Each with their own role. The interactions of each actor are connected and visualised as dots in the line. The way as it is perfectly visible in what sequence different actors come into play in the treatment process.

The organisational care pathway is visualised in figure 42.

Interactions

Several interactions are depicted in the organisational care pathway. Those interactions are connected and further explained on the next page. After categorising the interactions and corresponding actors, a job description can be derived for the most important care officials in the cancer centre. The explanation of the interactions and job descriptions for assistants, casemanagers (nurse specialists) and physicians is given in figure 41.

Bedside versus background interactions

In the background a gray surface visualises the ‘bedside’ part versus the ‘background’ part. The patient is involved in all interactions in the white part. The steps in the grey surface visualise all other interactions executed by caregivers.

Figure 41: The Care Pathway in use

The final organisational care pathway

The final organisational care pathway, including actors, interactions and modules is given in figure 42.

Bedside versus background interactions

In the background a gray surface visualises the ‘bedside’ part versus the ‘background’ part. The patient is involved in all interactions in the white part. The steps in the grey surface visualise all other interactions executed by caregivers.

Figure 42: The Care Pathway in use

8.2.1 Care pathway to create overview

The organisational care pathway

The key elements within the organisational care pathway are formed by the actors. Each with their own role. The interactions of each actor are connected and visualised as dots in the line. The way as it is perfectly visible in what sequence different actors come into play in the treatment process.

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Bedside versus background interactions

In the background a gray surface visualises the ‘bedside’ part versus the ‘background’ part. The patient is involved in all interactions in the white part. The steps in the grey surface visualise all other interactions executed by caregivers.
Figure 42: Organisational care pathway
8.3 Care pathway to enforce protocols

The modular care pathway: Protocol side

This paragraph describes the modular approach of the care pathway. The care pathway goes beyond the organisational care pathway in terms of protocols and communication. This paragraph shows the modular logic within the care pathway.

Origin of the format
When investigating the status quo of the treatment processes, hot spots were discovered (as also shown earlier when a transition towards the new care pathway is implemented). In this way, it is possible to use the same protocols for different treatment processes. This means that this carecare pathway can be adopted for different treatments or a specific oncological cancer. However, the format is built in such a way that the modules can be used for other tumour types as well. In that case, the involved casemanagers have to give per module what extent it directly can be implemented or needs to be changed.

The modular logic within this project: when the puzzle pieces perfectly fit together, it guarantees a valid care pathway in which all required protocols and guidelines are incorporated. In the way in the final design of the casemanager case pathway, the extra puzzle piece is designed which is named: ‘the bridge’. This puzzle piece is designed which requires new protocol side of the care pathway. This protocol within the care pathway describes the possible transitions from one treatment to the next treatment. This protocol is developed and described on page 90.

Modularity makes the pathway future-proof
Due to the modularity of the care pathway, it is possible to use the same protocols for different treatment processes. This care pathway can be a valid protocol for different treatments or a specific oncological cancer. However, the format is built in such a way that the modules can be used for other tumour types as well. In that case, the involved casemanagers have to give per module what extent it directly can be implemented or needs to be changed.

Using the puzzle pieces for building a care pathway
The idea behind the puzzle pieces is that everyone can build a valid care pathway (for patient, family and friends), there has been made use of the AIDA method that is often used in marketing. The AIDA method stands for: Attention, Interest, Desire and Action. The idea behind this format is that everyone can use the puzzle pieces for building a valid care pathway. The idea behind this format is that everyone can use the puzzle pieces for building a valid care pathway. The idea behind this format is that everyone can use the puzzle pieces for building a valid care pathway. The idea behind this format is that everyone can use the puzzle pieces for building a valid care pathway. The idea behind this format is that everyone can use the puzzle pieces for building a valid care pathway.
**Diagnostics (Figure 48)**

This module is the starting point, being visualised by the flat edges. This makes it clear to patients that they have to start with this module when they recaps on the colorectal cancer process and build their own care pathway at home. Within the diagnostics module, it is essential to find out where the casemanager comes into play. For colorectal cancer, the casemanager will take care of a patient when the MDL specialist sees something suspicious at the colonoscopy. The casemanager is therefore available for questions and support during the time of further research.

**The bridge (Figure 49)**

The ‘bridge’ puzzle pieces are the only puzzle pieces with notches on both sides. Therefore, those ‘bridges’ are the only pieces which fits in the care process to connect all treatments. This puzzle piece symbolises the new way of working with a separated protocol around the MDO. In this module, the casemanager plays a central role. Together with the fact that this module is a recurring one, this module ensures that casemangement over the whole treatment process is guaranteed.

**Surgery (Figure 50)**

This puzzle piece has two bulges, which characterise the ‘treatment pieces’. Every ‘treatment piece’ has this shape and therefore they can be swapped easily to make a personalised care pathway. This module describes the protocols within the surgery treatment process. For now, this is based on the protocols as explained in ERAS and IPROVA. The surgeon is the main practitioner in this module and the casemanager is available for questions and (psychosocial) support. Because of the frequency of surgery within the colorectal cancer treatment process, the surgeon is able to already get to know the patient in a consult during ‘the bridge’, together with the casemanager.

**Internal Medicine (Figure 51)**

This puzzle piece has two bulges, which characterise the ‘treatment pieces’. Every ‘treatment piece’ has this shape and therefore they can be swapped easily to make a personalised care pathway. This module describes the protocols within the systematic therapy treatment process. The Internist-Oncologist acts as the main practitioner in this module and the casemanager is available for questions and (psychosocial) support. It is important that the patient first discusses the results of the MDO with the casemanager (as shown in ‘the bridge’). Afterwards, they visit the Internist-Oncologist.
Diagnostics (Figure 52)
This puzzle piece has two bulges, which characterise the 'treatment pieces'. Every treatment piece has this shape and therefore they can be swapped easily to make a personalised care pathway.

This module describes the protocols within the radiotherapy treatment process. This is a special one, due to the fact that this process is organised by Amsterdam UMC. Thus, Dijklander Ziekenhuis has to adapt protocols of Amsterdam UMC and integrate their CM around it. A new step in the protocol could be added and is the phone consult with the case manager 2 weeks after referral, to check whether or not the patient is treated.

Follow-up part I (Figure 53)
This puzzle piece has a unique form. On the left side a bulge which fits in the 'Bridge' pieces. On the right sight there is a notch. This is placed out of the centre in order to make sure that it only fits with Follow-up part II or a special 'bridge' part when results of the Follow-up are negative.

An important change is that the case manager is responsible during the Follow-up trajectory. Another important change is the DICA registration (general dutch registration system for all cancer patients) which needs to be done by an external party or an assistant.

Follow-up part II (Figure 54)
This puzzle piece symbolises the end of a treatment process, which is clearly visible by the flat edge on the right sight. This puzzle piece only fits in the follow-up part I piece.

The bridge (Figure 55 and 56)
There are several shapes of bridges. They are based on the original format. There are only small differences (for example, the first bridge has no option to refer to follow-up and there is a special bridge which fits in the follow-up when results are negative). The other shapes are made to make sure that patients can intuitively puzzle and at the same time build and validate care pathway.
8.4 Care pathway to stimulate communication

Puzzle care pathway info side

The current patient need

During the patient study it became clear that patients experience consultations as overwhelming. Especially in the beginning there is still going on. Patients are confronted with an emotional rollercoaster; patients are not yet familiar with the medical (cancer) jargon and much information is lost during consultations. All aspects together cause undesirable situations. For example, a lot of valuable information is lost during consultations. Next to this, it is hard for patients to know what to ask during consultations.

Challenging consultations

Those undesirable situations are confirmed in literature: “Interactions between patients and medical practitioners can sometimes be challenging. We have all had consultations in which we experienced that the medical practitioner or as a patient.” (Hardavella et al., 2017). To deal with challenging interactions, medical practitioners can sometimes be convinced that it is recommended to create ideal conditions. Concrete they suggest to develop skills and tools for effective communication.

Hardavella et al. state that it is recommended to improve the consultation quality, a trending topic within healthcare. “Interactions between patients and medical practitioners can sometimes be challenging. We have all had consultations in which we experienced that the medical practitioner or as a patient.” (Hardavella et al., 2017). According to Pel & Van de Pol (2017) there is a need for shared decision making. Advantages of shared decision making are for example patient education, patient empowerment and patient-centered communication, which involves the patient, family, and friends. To make shared decision making happen, treatment options must be explained and there is a need for shared decision making to reform the patient experience. Expecially in the beginning there is a lot going on. Patients are confronted with an emotional rollercoaster, patients are not yet familiar with the medical (cancer) jargon and much information is lost during consultations. All aspects together cause undesirable situations. For example, a lot of valuable information is lost during consultations. Next to this, it is hard for patients to know what to ask during consultations.

Modular care pathway info side

Together with the casemanager’s role, the care pathway has all ingredients to form a basis towards shared decision making and enable effective communications.

The modular care pathway as explained in paragraph 8.3 is focussed on caregivers and the puzzle care pathway has all ingredients to form a basis towards shared decision making and enable effective communications.

Patient-centered care and shared decision making in literature

To improve patient-centered care and shared decision making in literature a special information side needs to be designed which is called the ‘puzzle care pathway’ (Levit et al., 2013). Levit et al., 2013). According to Pel & Van de Pol (2017) there is a need for shared decision making. Advantages of shared decision making are for example patient education, patient empowerment and patient-centered communication, which involves the patient, family, and friends. To make shared decision making happen, treatment options must be explained and there is a need for shared decision making to reform the patient experience. Expecially in the beginning there is a lot going on. Patients are confronted with an emotional rollercoaster, patients are not yet familiar with the medical (cancer) jargon and much information is lost during consultations. All aspects together cause undesirable situations. For example, a lot of valuable information is lost during consultations. Next to this, it is hard for patients to know what to ask during consultations.

How to use the puzzle care pathway in patient-centered care

The puzzle care pathway is an image board which is mainly used by the casemanager. The casemanager can explain the advice of the HOD by using the puzzle pieces. After this consultation, the patient can bring the puzzle pieces home to reconstruct the consultation and think over the possibilities. In the puzzle pieces there is a lot of information on answers for questions, notes etc. This aims to stimulate patients being prepared in the next consultations. Another component is the puzzle pieces attractive and understandable, images are needed. In figures 58 & 59, images of the modular care pathway are used. However, these are not specifically aimed at patients.

The aim of using the puzzle care pathway in patient-centered care is to improve the quality of consultations, offering tools to make shared decision possible and to reform the patient experience.

The format of the puzzle care pathway

To use the puzzle care pathway as an image board, several components are suggested and explained below. First extra information is recommended. A detailed description of the procedures within the puzzle pieces is given. It is highly recommended to write this down as simply, and effectively as possible. Within the first suggestion figures 58 & 59, examples are given to do this.

Another component is to prepare the patients for consultations and to treat them through a decision making process by asking questions. There must be elaborated what kind of questions will work most effectively. A suggestion is done in figure 58 and figure 59.

Lastly, to make the puzzle pieces attractive and understandable, images are needed. In figures 58 & 59, images of the modular care pathway are used. However, these are not specifically aimed at patients.
8.5 Working with the new care pathway

Transition in formation explained

Within this study, a new format for care pathways is presented. A care pathway no longer exists of a flowchart with explanatory notes. The new care pathway requires a multi-layered application. There is time needed to integrate the care pathway at different levels.

Using the three layers

The organizational layer of the care pathway is already introduced to create awareness and to present the general idea of case management.

The modular care pathway which describes the protocols is presented in tumour working groups, to validate the process, but more validation sessions are needed.

The puzzle pieces care pathway, which contains the information towards patients, must be developed and implemented. A rough version is given in order to get an idea, but it is recommended to develop this in the last phase of the implementation of case management. In this way, the focus is on getting ready the organisational part of case management, and on this is transitioned to patients.

Opinions about the new format

The care pathway as presented within this study can be seen as format and suggestion for the care pathway of colorectal cancer. This resulted in several validating sessions.

Within this study, there is suggested to change consultations within the workflow and to work with a returning protocol during the treatment processes. However, in a hospital environment, there are many opinions to the protocols and therefore care pathways. Within this study the care pathway was discussed several times to validate the substantive quality of the care pathway. It appeared that there is a very conservative attitude to changes, especially when the care pathway is being presented as a final version. Therefore, this aspect is included in the execution timeline of the care pathway as ‘defining the modular care pathway’ (figure 8).

Defining the modular care pathway

For every tumour type, there must be a session (or several sessions) to determine the exact protocols within the modular care pathway. This is elaborated upon in the implementation manual of Chapter 10.

Designing the patient care pathway

It is recommended to have the care pathway worked out in its entirety and on detailed level in 2023. It must be taken into account how the patient care pathway can be used during consultations to make shared decision possible.

8.6 The new care pathway summarised

The new care pathway towards better (colorectal) cancer care

The new care pathway is one of the deliverables as established in Chapter 02. In this Chapter it was determined how a care pathway could contribute to the promising way towards better (colorectal) cancer care in Dijklander Ziekenhuis. This was elaborated after the research phase in a more detailed way. In this box the design of the new care pathway and the tools to determine better (colorectal) cancer care summarised.

The formal new of the new care pathway

The new care pathway is designed in a new format. This format is new in three ways. This format is designed on three levels to communicate with different stakeholders and to the care pathways built up in modules which makes it possible to retain expertise within each module while monitoring the overall process. The new care pathway can be used in several scenarios. This organisational care pathway describes the roles of the caregivers and gives overview of the treatment process. The modular care pathway makes protocols visible and how these protocols can be validated. The informational care pathway gives opportunities towards shared decision making and therefore the pathway gives an extra dimension in the direction of patient-centred care.

Once the care pathway has been validated, the care pathway must be used in specific scenarios to work towards the future scenario. Furthermore, the care pathway can be used in specific scenarios and how this can lead to a better organisation and clarity on the content of the care pathway the care pathway must be evaluated in a more detailed way. However, this is guaranteed in the implementation manual.

The new care pathway towards better (colorectal) cancer care in Dijklander Ziekenhuis

The new care pathway is a conceptual design which makes the future vision of the cancer centre more tangible. The care pathway in combination with the implementation manual can be used as tool to work towards the future scenario. First of all, the care pathway makes the consultation clear, what often possible, in terms of determining budgeting and formation. These two aspects are crucial when it comes to the actual implementation of case management as recorded in the future vision and therefore in the new care pathway.
The Business Case

A business case is a key tool to manage viability of a strategic decision (Calabretta et al., 2016). Within this project, the business case is used to predict the financial feasibility of the project and to release money by convincing management layers of the need of change. The need of change and the impact of it is summarised in Chapter 07. The complete version of the business case is made by the hospital. This chapter describes the components that are made as part of this graduation project. Therefore, the business case within this chapter describes the technical changes needed to succeed the project and the risks of the project are discussed.
1.9 The new formation

What is needed for colorectal cancer care

When switching from old to new care pathway, and integrating case management, it is required to map out the amount of caregivers (tumour type). In order to do so, the formation of the current care process needs to be calculated per patient and then total number of hours of care provided by each caregiver by using the formula:

\[ \text{Total FTE} = \frac{\text{Billable hours}}{\text{Percentage of work hours which can be declared}} \times \text{Productivity factor} \times \text{Extrapolation factor} \]

The calculation of total amount of FTE was needed to make a transition from calculated formation of the current care process to new care pathway. These elements are given below:

- \( \text{Billable hours} \)
- \( \text{Percentage of work hours which can be declared} \)
- \( \text{Productivity factor} \)
- \( \text{Extrapolation factor} \)

\( \text{Extrapolation factor} \) is based on figures from the entire Kankercentrum Nederland and \( \text{Extrapolation factor} \) was determined on calculations of hospital figures. An overview of the validated calculations is given in figure 61.

Calculating the hospital care strata of FTE

In order to calculate the required formation, it was needed to make a transfer from calculated colorectal care to total amount of FTE. This is done by using the formula: \( \text{Total FTE} = \frac{\text{Billable hours}}{\text{Percentage of work hours which can be declared}} \times \text{Productivity factor} \times \text{Extrapolation factor} \)

The productivity factor describes the percentage of work which can be declared and is shown in figure 61. This factor is variable for every caregiver and shown in figure 61. The factors are based on productivity factor * Extrapolation factor

The desired formation

In figure 61, the desired formation is shown and the results are explained below:

- \( \text{The amount of medical specialists will shrink with 3,74 FTE, this is mainly caused by the identification of unnecessary FTE, it is available for colorectal related casemanager activities.} \)
- \( \text{Currently, 0.72 FTE of this total is executed by nurses/nurse specialists.} \)
- \( \text{A total of 1.75 FTE of nurses/nurse specialists is available for casemanager activities across the whole cancer centre.} \)
- \( \text{The desired number of FTE available for colorectal related casemanager activities is estimated to be 4.7 FTE.} \)

Validating the calculations

The calculations were made accurate upon validation with the estimation of the current care process. This became clear as the extrapolation factor had to change to 7.14 the extrapolation factor was based on figures from the entire Kankercentrum Nederland and the factor of 5.12 was determined on calculations of hospital figures. The calculation based on care pathway.

The calculations were highly accurate and validated the calculations made based on the care pathway. These strata can be found in Appendix D2.
9.2 Transition to new organisation

Transition in formation explained

The slide puzzle metaphor is used to explain what is needed to transform the current workflow. The puzzle pieces are horizontally organized which symbolizes the transition from old to new organisation.

Current situation

Within the current workflow, there are three main problems (figure 63). The first problem is related to the uncoordinated care process. This means that all current nurse consultants must be retrained to become nurse specialists. In paragraph 9.1 there was a call for extra capacity needed to have room to familiarize nurses with the new working methods and to support retraining trajectories.

Desired situation

This project describes as desired situation a horizontal organized process, with casemangers being involved along the whole treatment process. In this workflow, the cancer centre is considered as a whole within which all nurses, surgeons, internist oncologists and secretarial assistants fall under this unit instead of their department unit head.

In this transition, extra capacity is required to be able to shuffle in tasks and create room for that. In the current workflow there is a shortage of employees and this problem in getting bigger during the implementation of casemanagement. This is substantiated by literature. Research has shown that nurses who were undergoing restructuring processes for example due to mergers or downsizings were extra susceptible to burnouts and depressions (Greenhalgh et al., 2003).

Within this project, the cancer centre is considered as a whole within which all nurses, surgeons, internist oncologists and secretarial assistants fall under this unit instead of their department unit head. In this transition, extra capacity is required to be able to shuffle in tasks and create room for that.

Arranging the retraining of nurses

Nurses must be retrained to become nurse specialists. In paragraph 9.1 there was a call for extra capacity needed to have room to familiarize nurses with the new working methods and to support retraining trajectories.

During the transition phase there is extra occupancy needed to have room to familiarize the nurses with the new working methods and to support retraining trajectories.

The transformation

The transition from old to new organisation requires several changes. Only one unit head is responsible for the management of the department. Currently, every department is coordinated by their own unit head. The transition from old to new organisation requires several changes. Only one unit head is responsible for the management of the department. Currently, every department is coordinated by their own unit head.

The slide puzzle metaphor

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The transformation

The transition from old to new organisation requires several changes. Only one unit head is responsible for the management of the department. Currently, every department is coordinated by their own unit head.
9.3 Risks

What is needed for colorectal cancer care

Symptoms and consequences of untreated colorectal cancer can be fatal for the project. Risks can negatively influence the result of the project, cause a delay in the planning, exceed budgets, or the project can fail due to insufficient support.

To maximise the chances of success of this project and to minimise these symptoms and consequences, a risk analysis was executed to identify the possible risks.

Identifying risks

Risks were identified in several categories: change management, financial, implementation and care process.

Risks in the change management category were identified by applying the theories related to understanding how people experience change and supporting successful change on organisational level of Prosci (n.d.) and Chreim et al. (2012) on this project.

Risks in the ‘financial’ category were identified during writing the business case. Frequently asked questions were: ‘is this budget really necessary?’ and ‘what if we don’t get this budget?’ Answers on those questions were formulated as risks in this matrix.

The care process risks resulted mainly from the PRI analysis. On 15 October, a PRI analysis was held in the hospital. Here, all colorectal cancer-related caregivers were invited to discuss the care pathway and identify risks on care specific level.

The last category contains risks which are directly related to implementation. Those risks were mainly identified by going through the care process and comparing it with the interviews and literature research.

Risk matrix

The most important risks are given in figure 67. This matrix describes the risks, how likely it is that a certain category of risks occurs and the impact of the risks. The risks are sorted from most important to least important and then by probability.

Eventually, this overview is created to protect the project against as many of these risks as possible. Therefore, it is needed to set up control measures. Within this matrix reference is made to stepping stone cards of the implementation manual in Chapter 10. These stepping stone cards show the responsible person and a step-by-step plan to prevent the project from risks.

9.4 The Business Case summarised

The Business Case towards better (colorectal) cancer care

The Business Case is one of the deliverables as established in Chapter 02. The Business Case describes the technical side of the implementation plan and its importance to get the GQ on organisational level.

The entire Business Case

This report describes the components of the Business Case that were created as part of this project. These components have been merged with the entire Business Case. The entire Business Case includes a detailed time distribution per employee, and a budget. Those components were not published in this study.

Does the new care pathway fulfill the viability challenges?

On 15 October, the business case has been sent to the budget committee of the hospital to get a GO on budgetting. This is one of the most important bullet points on the checklist (on the left) which is not checked because this requires more time.
Discussing the modular care pathway in a ‘Tumor werkgroep’ meeting

Jolien Heddes 18 September 2019

The new care pathway and the business case describe the future vision and the substantiation of it. However, the real execution is not guaranteed with those two documents. Project execution is sometimes underexposed in big projects, while the success or failure of a project is related to good project execution.
10.1 Implementation approach

A phase approach including a pilot team

Getting the implementation phase right is crucial. When the project is succesful, there are various types of implementation approaches that can be taken (Charvat, 2003). Within this paragraph the recommended approach to implement integral casemanagement is described as Chapter 07 in Dijklander Ziekenhuis (2016).

Phase approach

Implementing integral casemanagement in the whole cancer centre at once is not feasible. The whole implementation process is divided in several phases. The end of each phase is marked with a milestone to check whether or not the phase has been completed and can be closed. The stepping stone cards are made in the same format. This format can be used as template to develop extra stepping stones cards when needed later on.

Stepping stones cards as guide through the implementation process

The stepping stone cards are made in the same format. This format can be used as template to develop extra stepping stones cards when needed later on.

10.2 Implementation manual

Stepping stones cards as guide through the implementation process

The manual is built during implementation: the implementation manual is updated in a step-by-step plan to achieve this. Therefore, it is needed to make a pilot group, consisting of all departments instead of tumour related teams. So, phasing within this project is eleborated.

Figure 68: Framework for managing the implementation of casemanagement

The implementation manual is built up in a step-by-step plan to achieve this. Therefore, it is needed to make a pilot group, consisting of all departments instead of tumour related teams. So, phasing within this project is eleborated.

Figure 69: An overview is given with all stepping stones cards.

For every stepping stone, a stepping stone card, the purpose of the stepping stone, the stakeholders involved. There is given when it should start and when it should be finished. The card, the purpose of the stepping stone, the required personal input and tasks are elaborated.

Future vision, milestones and stepping stones cards

The implementation manual is built up in a future vision which is already given in paragraph 10.1. The idea behind the implementation manual is that can be taken (Charvat, 2003). Within this paragraph the recommended approach to implement integral casemanagement is described.

Phasing within this project

In the fifth and last phase, it comes all dedicated teams together in theh future cancer centre as described in paragraph 4.5. This means that all teams must be organised in tumour teams at the same time. At the same time, the dedicated teams for other tumour types will continue with their activities as they are at the moment. This means that campainers in the cancer centre will be divided into dedicated teams but casemanagement is still implemented.

For this project, the phase approach is recommended to use this as 'pilot group'.

Pilots

The pilot group is defined by the caregivers that can be taken (Charvat, 2003). With the pilot for colorectal cancer. In this phase dedicated teams’. The aim of this phase is to form care pathways for every tumour type. Therefore, it is needed to make a pilot group, consisting of all departments instead of tumour related teams. So, phasing within this project is eleborated.

Figure 70: Framework for managing the implementation of casemanagement

For every stepping stone, a stepping stone card, the purpose of the stepping stone, the stakeholders involved. There is given when it should start and when it should be finished. The card, the purpose of the stepping stone, the required personal input and tasks are elaborated.

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For this project, the phase approach is recommended to use this as 'pilot group'.
Information presentations

**Start date:** 30th September 2019

**End date:** 28 October 2019

**Responsible person:** John Hodson

**Involved persons:** All employees in the Cancer Centre

**Objectives:**
For successful implementation of changes, it is necessary to build momentum (pace, exit). This can be achieved by giving presentations and organizing interactive sessions.

Almost all must become clear that "Trevenor" is expected to build a future Cancer Centre. It is necessary to communicate the intentions and motives for changing the communication meetings. Next to this, it must be clear that there is no fixed ideal situation, and not a fixed view to achieve the situation. Everyone has to understand that it is a moving process of everyone to aim for the best for everyone (Staker, 2019).

- Keeping everyone on board
- Make everyone enthusiastic
- Communication of intentions

**Preparation and tools:**
Preparation of 30 September
- Prepare presentation slides to communicate the intentions and motives.
- Preparation of 29 October
- Presentation slides must be prepared and discussed with the project team prior to the presentation.
- An interactive activity must be prepared in order to give an extra dimension to the meeting and to get everyone into an active role. We are going to get started together. Furthermore, an information booklet/handout must be developed and hand out afterwards.

- Presentation slides
- Interactive activity
- Information booklet / handout

**Execution:**
Presentation slides are prepared (separate 300). During the presentation of 30 September, the intentions and motives were communicated to nursing staff and medical specialists.

28 September, final presentation before 25 September will regulate everyone on the intentions and motives. Then the global long-term planning will be discussed and the next steps for the next round.

During the meeting it is the moment to start the implementation process and the next round of the project plan. Also the business case will be discussed in order to give some concrete information about training and costs.

- Communicate intentions, plans and planning
- Transition from design to implementation phase
- Discuss business case
Accreditation of the business case

**Objective(s)**
The aim of the business case is to get accreditation of the board of the hospital to execute the project. Further on the need is to finish and get accreditation before the end of the year in order to be sure to have budget in the next year for executing the project.

The business case needs to identify risks in advance, helps to predict costs and gives an overview of the benefits and limitations of the project.

- Costing management
- Creating budget
- Being aware of risks

**Preparation and tools**
To complete the business case it is necessary to get an overview of the whole problem by investigating literature and apply this in the environment of Dillipier Ziekenhuis. It is needed to have insight into the current capacity to finally describe the financial movements and risks.

To conclude the board, the business case must be presented in a suitable format and possibly accompanied with a presentation and conservation.

- Overview of the problem
- Insights in current capacity/financial situation
- Presenting in a nice way to the board

**Execution**
Harriet will take the lead in writing the business case, organizing required meetings (both finance is useful to finally present it to the board).

- Meetings for analysis
- Writing the business case
- Evaluate the business case

Training places available

**Objective(s)**
Nurse specialists are identified as T-shaped professionals which means that they possess in-depth skills within their own area of expertise, while being able to interact independently with other professionals from other specializations. (NLG&Z, 2022).

The aim is to improve the quality of care and to keep care efficient and future proof within the hospital. Therefore it is needed to follow nurses in order to return them as nurse specialists when possible.

This is to contribute to more efficient care provision. There are training place needed for Nursing Specialists. Meanwhile it is necessary to train nurses on casemanager qualities (taking support on a whole). This can be done by following the casemanager training.

- Obtaining training places for Nursing Specialists
- Obtaining training places for Casemanager

**Preparation and tools**
It is necessary to find out whether or not the training programs have overlap. When ‘casemanager training’ is included in the nurse specialist training, there must be act as a lack of two to obtain training places for both courses. This means that it must be clarified that both courses are necessary to offer complete and excellent casemanager.

- Clarify content of the courses

**Execution**
Asking the board for permission of budget for training purposes.

- Submitting for training places
- Investigate whether or not trainings in the neighbourhood. Organizing the training in Dillipier Ziekenhuis when necessary.
- Request for training places and budget
- Subscribe for training places
- Determine ‘leave hour’ and arrange capacity
- Organise courses in Dillipier Ziekenhuis when necessary.
### Determining GO or NO GO

**Objective(s):**
In order to succeed with the project in a successful way, it is necessary to start with a solid basis early in the project. Therefore, a stage-gate approach is recommended in the transition from phase (A) awareness to phase (B) project control. The approach will ensure that an early right moment to start with the real implementation will be given in an indication about the chance of success.

**Preparation and Tools:**
The preconditions must be clear. Unlike the project checklist, these must be clear which preconditions must be met at this point. Especially attention must be paid to the know-how in regarding capacity and budget in the pilot phase and overall enthusiasm and interest motivation among employees.

To prepare the moment of decision, the project checklist (Figure 100) must be reviewed and if necessary supplemented. In order to check if everything is overlooked, the project checklist can be compared with several Go/No-Go checklists which can be found online.

- **Definition of preconditions**
- Make clear which one must be met at this point
- Complete project checklist (Figure 100)

**Execution:**
When the project checklist is completed, the final go or no-go decision is relatively easy, since checking the boxes, when conditions are met, the impact of this must be evaluated, and a plan must be drawn up to meet the conditions.

Depending on the impact and the data made, it can be decided to continue with the project or not.

The advice is to take all preconditions seriously, a project which is started too early may have major consequences.

- **Meeting for analysts**
- Writing the business case
- Evaluate the business case

### POP Plans

**Objective(s):**
To recover personal ambitions and motives and to coordinate them in a way that these align with objectives of the care centre, it is needed to make concrete agreements about the career of caregivers. Here, a step towards task localization can be made by finding out what will be the position in the future scenario, and to work towards it step by step.

Working with personal development plans can result in motivation in projects following hearings, courses and performing other activities. All these factors can lead to motivation and satisfaction on work-related activities (van den Berg, 2018).

- Uncover personal ambitions and motives, find out what role fits everyone
- Create motivation and satisfaction
- Align personal plans with the ambitions of the Care Centre

**Preparation and Tools:**
By using the AKAVAR model (Awareness, Decide, Knowledge, Ability, Willing, Commit), barriers can be identified in order to overcome these barriers. Also, "GO" strategies are developed and linked to the agreements. To finally come up with an "Agreement" contract between the care center and all caregivers.

The AKAVAR steps must be elaborated and adjusted by making a personal development plan (POP) plan. Then, it is needed to evaluate this plan with care regarding throughout the entire implementation process in order to detect small problems for improvement at any time.

It is recommended to outsource these activities to a professional or a professional organization.

- **Using an AKAVAR model**
- Investigate which "professional" suits the tasks and is responsible or at least create capacity within the hospital to fulfill these tasks.

**Execution:**
Prior to changes, it must be clear in what direction caregivers want to employ themselves. Therefore, the timeline on 08/30 October can be used as awareness/monitoring after which the persons can take a hundred of located home to overhaul their personal ambitions and write a plan for the POP plans. After all, October.

After the awareness phase and the accreditation of the Business Case, individual concerns must be investigated accordingly. Then it is needed to evaluate in regular basics to check progress and monitor the well-being of caregivers.

- **On awareness: G-Devaluatie**
- Set up POP plans
- Monitoring and evaluating POP plans

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Allining colorectal cancer care pathway

**Objective(s):**
Consensus must be reached in order to get everyone on board to actually work according to the care pathway (Grants, 2010)

- Achieve everyone to work according to the care pathway
- Guarantee quality

**Preparation and tools:**
The care pathway as proposed in chapter X can be used as tool. This care pathway is made on three levels. To align the care gives activities, the organization level and the monitoring process have an useful.

- Email sessions must be scheduled to bring caregivers of all disciplines together.
- A workshop must be elaborated which focuses on how to use the tools to finally end up with consensus and a work made without counterparty.

It can be powerful to include this way of working throughout the order paid in Agile loop.

- Scheduling sessions
- Use the tools: Casepaths
- Elaborate a workshop

**Execution:**
Within these sessions, caregivers related to the care pathway is dedicated board (together to discuss on the current care pathway and indicate needed components within the care pathway).

- It is needed that a positive and innovative mind is created before starting the workshop.

- It is also recommended to engage a moderator that keeps track of time and ensures a good mood.

- The workshops must be recorded and elaborated.

- It is important to use the other learnings as well.

- Planning up
- Moderation
- Recording the process

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**Allining colorectal cancer care pathway**

**Start date:** 24 October 2016

**End date:** Various sessions planned 18 February 2020

**Responsible person:**
- First Johan Hojblok – Commissioner care pathway of the dedicated team
- First “I.W.S colorectal” – Dedicated team colorectal

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**Forming of dedicated teams**

**Start date:** 24 October 2016

**End date:** January 2020

**Responsible person:** Board of Cancer Centre

**Involved persons:** All employees in the cancer centre

**Objective(s):**
This project strives to design situation a functional organized process, with caregivers along the whole treatment process.

- It is decided that the caregivers change from position to position. In that case we see the departments are not working, but caregivers work in dedicated teams per tumour type.

- The goal is to structure the cancer centre in tumour types. Instead of departments in order overcome problems related to fragmented cancer care.

- To achieve more uniformity in the implementation of case management and the associated preconditions it is recommended to appoint one cancer centre head (instead of different units / hospitals).

- ID to ID dedicated tumour teams

- Overcome problems related to fragmented cancer care

**Preparation and tools:**
The transition to dedicated teams can be experienced as overwhelming by some caregivers. Therefore there must be started early with providing information and offering support to agile 180 degrees.

- Emphasis must have the feeling that they can think about it themselves with time pressure and without having the feeling that they are being pushed in a certain direction.

- Tools can be developed to stimulate this overwhelming for caregivers. For example questionnaires and presentations.

- 08 see Cancer Center head (for the duties of caregivers are not more than 10% oncologic). In addition, it is recommended that financial management of these offices be performed by the oncology department.

- Monitoring
- Decision pressure

**Execution:**
The job of out side can be started with giving information about what expected in terms of dedicated teams. Afterdwards a booklet with questions or checklists or something similar can be handed out.

- End of November 2016 there must be an indication of what direction everyone wants to tips.

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Agile implementation

**Objective(s):**
- In the end, the new care pathway must be integrated in the workflow. By using the Agile approach, all changes can be flexibly tested, evaluated, and improved.
- Agile is very suitable for complex projects, it delivers changes and developments in iterations. Small projects for “timekeeping”.
- Actively encourage everyone to work according to the care pathway
- Guaranteeing quality

**Preparation and tools**
- There must be determined a schedule in which a four-week cycle can be deducted. This four-week cycle describes the fixed procedure of every Agile cycle. It is suggested to set every two weeks with the dedicated team, the Care Team.
- Before starting with those meetings, it is necessary to make clear why these meetings are necessary, and why it is necessary to meet at a fixed moment.
- Another important role is the agile leader. There must be a leader in the beginning to start up the Agile sessions, to explain the need of Agile and to moderate the sessions.
- > Clarify need for sessions
- > Scheduling fixed moments during working hours to have agile meetings.
- > Find an Agile leader

**Execution**
- The new care pathway must be divided in sub-processes. Every change has its own Agile calendar. So in the next, the change will be decided. Then the change will be prepared at what is the team comes together to discuss what went well and what could be improved.
- These improvements can be applied in the next cycle until the change is implemented in a way that suits the hospital, patients and the team.
- > Determine sub-process changes
- > Implement and evaluate
- > Implement changes

3

Teambuilding activities

**Objective(s):**
- One of the lessons among caregivers was that they learn to function as a team again.
- To improve productivity and motivation, to motivate caregivers of each dedicated team to work together.
- To develop their strengths and address weaknesses, teambuilding activities will be an ideal solution.
- Learn to function as team again

**Preparation and tools**
- The task of the care center is to plan teambuilding activities. Recommended is to provide budget for those activities.
- There must be ensured that the teams are enthusiastic to join in teambuilding in order to succeed in a successful way.
- > Scheduling activities
- > Make the team enthusiastic for teambuilding

**Execution**
- In the beginning, it is recommended to plan more activities sessions. Every month two meetings. Then it can be reduced to once or twice per year.
- Furthermore, it is recommended to encourage the teambuilding activities.
- > Timing: Beginning more
- > Outsource the activities

3

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Alling all care pathways

**Objective(s):**
Consensus must be reached in order to get everyone on board to actually work according to the care pathway (Sawers, 2003). It is vital that all stakeholders are engaged in order to ensure the quality is guaranteed.

**Preparation and tools:**
The care pathway is developed by a dedicated team consisting of all stakeholders. A workshop is arranged to discuss the care pathway and the actions to be taken. It is important that all participants are present and engaged.

**Execution:**

- **Scheduling sessions:** Use the tools: Checklists and recommendations of the colorectal care pathway
- **Use the workshops and insights from colorectal care pathway**

Creating extra capacity

**Objective(s):**
Extra capacity is required to be able to deliver in time to create extra capacity for time. There is currently a shortage of staff and this is the problem that needs to be addressed. By addressing this issue, we can make sure that our patients receive the best possible care.

**Preparation and execution:**
Creating the extra capacity is done in two ways:

- **Extra capacity is required**
- **Create room to perform with new workflows**

The extra capacity can be used during the bridging phase to create extra time for managing the changing processes.
Task reallocation

**Objective(s):**
This is one of the most important steps within the implementation. During this step, it is needed to ensure that all dedicated teams work as promised in the two developed care pathways. Hence, it is needed to ensure that the correct scheduling of clinical and support specialists is done.

**Preparation and tools:**
Because of the different profiles of nurses and nurse specialists, this implementation step can be started earlier when there are enough nurse specialists. This is one of the challenging tasks. Otherwise, some tasks cannot be shifted. Make a clear plan for the tasks.

**Execution:**
- Option A: Implement clinical care management for a specific patient group.
- Option B: Introduce implementation of the care pathway in phases, for example first implementing the bridge, then the follow-up etc.

**Involved persons:**
Commissioner of each dedicated team

Internal and external training process

**Objective(s):**
There is chosen for (the process) management where nurse specialists will execute the role of the case managers. Therefore, external training is needed in terms of introducing nurses into nurse specialists and offering the courses to become case managers.

**Preparation and tools:**
- External training: ‘leading top view group specialist’ and ‘leading top case manager’
- Internal training for experts over different departments

**Execution:**
- Organizing learning days for nurses, like co-specialists.
- Clinical cases are organized and sent to the specialists
- Organizing sessions together and learn from each other
- Organizing sessions on discussion sections between dedicated teams
The Implementation manual is one of the deliverables as established in Chapter 02. The ‘promising desired future’ is described in the New Care Pathway, the preconditions were determined in the Business Case and the Implementation manual is about the way towards the desired future.

The Implementation Manual

The Implementation Manual contains an overview with all stepping stones and milestones linked to a time slot. Every stepping stone has a number which refers to the corresponding stepping stone card. In these stepping stone cards, the objective of each stepping stone is explained, together with an execution suggestion.

Does the Implementation Manual fulfill the feasibility challenges?

The feasibility challenges as described in paragraph 7.3 and depicted on the left are met. This means that the implementation manual includes a planning (with microchanges), a communication plan and a coaching plan. There is elaborated what the Hospital needs to do in terms of achieving effective communication, building well-functioning and motivated teams and there is taken into account the transition phase. In fact, the period up to 2024 can be described as a transition phase.

The Implementation Manual towards better colorectal cancer care in Dijklander Ziekenhuis

The Implementation Manual literally describes the promising way towards better colorectal cancer care. By using the stepping stone cards, the milestones can be achieved. All milestones together aim to transform the current cancer centre into the desired future cancer centre.

Some stepping stone cards describe new methods for the Hospital and some of them focus very much on cherishing employees in order to stimulate innovation for these. This is tricky because cherishing employees, which is in line with the strategy of the Hospital as described in paragraph 3.2, is not one of the strengths of the hospital/cancer centre.

9.4 Implementation manual summarised
SECTION VI CLOSURE

- Conclusion
- Contribution to new knowledge
- Limitations & recommendations
- Future research
- Personal reflection
- References
Better (colorectal) cancer care in Dijklander Ziekenhuizen

The new care pathway is a conceptual design which makes the future vision of better (colorectal) cancer care more tangible. The future vision describes a Cancer Centre that meets all standards of SONCOS and the government. Next to this, the future vision describes a Cancer Centre that is leading in cancer care. Delivering bespoke and patient-centred care including shared decision making and offering a pleasant working environment which facilitates cooperation are main focus points within the future vision.

The care pathway is designed in such a way that it gives substance to the future vision of the Cancer Centre. The modular format makes the wishes to deliver bespoke and patient-centred care while expertise is provided and the overall process is monitored. Mentoring the overall process is clearly defining a new module within the care pathway the bridge. In addition, the care pathway makes better communication towards patients possible. This is essential for shared decision making.

With all these characteristics, the new Care Pathway appears making towards patients possible. This is essential for shared decision making. In addition, the care pathway makes better communication on different levels possible. This is plotted against the work colon cancer patients experience their treatment process,. This is plotted against the work colon cancer patients experience their treatment. Better (colorectal) cancer care in Dijklander Ziekenhuizen, this study identifies a promising way to implement case management.

Conclusion
Towards better (colorectal) cancer care in Dijklander Ziekenhuizen, this study identifies a promising way to implement case management. The new care pathway is designed in such a format that it gives substance to the future vision of the Cancer Centre. The modular care pathway.

The implementation of the Implementation Manual literally describes the promising way to implement case management. The aim of the Implementation Manual is to transform the current Cancer Centre into the desired future Cancer Centre in which the new Care Pathway is integrated.

Arranging the preconditions
Towards better (colorectal) cancer care within Dijklander Ziekenhuizen, some preconditions are identified. Those preconditions must be met to succeed the project. Preconditions were mainly budget and formation related. Within this study, it became clear that there are extra nurse specialists needed. The Business Case provides insight into the number of specialists required for the new desired location. The bridge is a recurring module what kind of consultation is needed. The Business Case provides insight into the number of specialists required for the new desired location.

During this research, there was investigated four colorectal cancer patients experiences their treatment process. This is plotted against the work colon cancer patients experience their treatment. Better (colorectal) cancer care in Dijklander Ziekenhuizen, this study identifies a promising way to implement case management. A number of things are already known and implemented regarding to case management in cancer care. However, this is not recorded and published in the form of care pathways. Up to the present day, mainly 1-dimensional static care pathways are used. Within this research there is presented a new format of care pathway that is suitable for case management in cancer care. This care pathway is designed as y-dimensional and modular care pathway.

The three-dimensionality is used to communicate on different levels. In this way, all stakeholders can work with the same care pathway what will improve communication and cost-effectiveness. Furthermore, all stakeholders will operate more on the same level what makes patients move from specialist to doctor who contributes to the process of shared decision making.

The most striking aspect of the design of the new care pathway is the modularity aspect in particular the development of the bridge. The modularity means that the treatment process is split in small pieces which are called ‘modules’. In this way every individual treatment decision is module in this way is easy to offer bespoke care by selecting the different modules and stick to together to create a personalised care pathway. To make this possible, within this research the bridge has been designed. The bridge is a separate module that is necessary to ensure that the different modules connect to each other all the time. The bridge is therefore a securing module which perfectly fits the care pathway role.

During this research there is presented how the sequencing of consultations must be and which module what kind of consultation is needed. This is done in order to make sure that the bridge ensures all consultations that are needed, without unnecessary inefficiency (for example caused by double consultations or consultations where a patient comes unprepared).

Furthermore this research shows how the needed formation can be determined and what realisation of needs is needed to perform activities as described in a Care Pathway. In this way, deviations can be detected easily, likewise gaps can be accounted for where there appears to be a shortage. So this research contributes to make Lean improvements within the hospital.

Better (colorectal) cancer care in Dijklander Ziekenhuizen, this study identifies a promising way to implement case management. The new care pathway is designed in such a format that it gives substance to the future vision of the Cancer Centre.
Limitations, recommendations & further research

To expose the ‘gold mine’ furthermore two types of validation are needed: a new format must be correct. Within this graduation project was limited to a minimum. In addition failures were made during generative feedback.

Validation of the new care pathway

The intention was to validate the new care pathway as is. After the initial phases of validation were put on hold, it was decided to run a co-creation session. However, there was no time to expose the ‘gold mine’.
APPENDICES

Appendix A: Caregiver’s research
Appendix B: Patients booklets
Appendix C: Designing a new Care Pathway
Appendix D: The Business Case
Appendices

A

CAREGIVER’S INTERVIEWS

A.1: Interview Guide
A.2-A.9: Interview transcripts
A.10: Informal session
A.11: Analysing the interviews
A.12: Codebook
A.13: Codes
A.1 Interview guide
For nurses and specialists

Opening:
What do you like the most in this workday? why?
What do you dislike in this workday? (sticker)
Closing:
Optional more content if needed
Do you have anything to add? (record still playing)
Explain more context if needed

Appendix A

Subtopic 1: Phenomenon casemanagement
Opening question: What do you say about casemanagement?
Subtopic 2: Phenomenon casemanagement
Opening question: Do you feel there are differences in casemanagement?

Appendix A

Subtopic 1: Day life at work
Opening question: What kind of advantages do you foresee?
Frustrations o Obstacles
What do you think of DLZ?
What kind of disadvantages do you imagine?
What do they say about it?
From colleagues, management, unit head etc.

Subtopic 2: Phenomenon casemanagement
Opening question: What do you say about casemanagement?
What do you like about Dijklander Ziekenhuis?
Where do you work? (Department/location)

Subtopic 3: Phenomenon casemanagement
Opening question: What do you like about casemanagement?
What do you dislike in this workday? (sticker)
What do you like the most in this workday? (sticker)

A.2 Interview 1
Verpleegkundige Consulent Chirurgie
Naam:
Vrijheden. Wordt natuurlijk ook wel wat van me gewaardeerd op zijn niveau. Mag ook veel vrije
plek om te werken. De sfeer is goed. Onderlinge
op de afdeling gewerkt. Het DLZ is een fijne
polikliniek volledig. Ik heb daar tussendoor nog
heb een speciale module moeten doen maar ook
even verder gaan. Medicatie voorschrijven bvb. Ik
heb in principe 1 dag in de week administratie.
Maar daar kom ik meestal niet aan toe. Dat
heeft dan te maken met: Patiëntenzorg gaat
voor alles en daarnaast heb je heel veel dingen.
De ene dag zie je maar een paar patienten de
andere dag weinig. Maar algemene zorg is er steeds.
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Given the above treatment plan, the administrative
officer called an oncology nurse and a
radiologist. The oncology nurse came to see me
later that day. The radiologist then came to see me
and we planned the first session for a couple of days
later. We met once more before the session and
they told me more about the details of the
procedure. I was present during the session and
even more so when it was time to operate. We
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they told me more about the details of the
procedure. I was present during the session and
even more so when it was time to operate.
We met once more before the session and
they told me more about the details of the
procedure. I was present during the session and
even more so when it was time to operate.
Dus ze maken steeds meer gebruik van ons als zo langzaam aan (paar jaar mee bezig) begint dat mee te maken. MDL werkt anders dan wij. En Mis je nog dingen in de contactmomenten? allemaal tijdens dat eerste onderzoek. te nemen. De opname wordt verder geregeld: de casemanagers om die ingreep nog eens door dan besproken. Bij de chirurg wordt dan ook een wij de belafspraak hebben en zien dat het een besproken worden. Zit ook nog verschil is. Als uitkomt. Dan zorgt de chirurg dat ze in MDO hebben en of ze behandeld moeten worden. Als kanker komen week erna weten ze ook of ze kanker de lever en de longen en daar hebben we 5 Tussendoor wordt dan onderzoek gedaan van arts heeft dan ook al het 1 en ander verteld. Maar wordt gedacht aan kwaadaardigheid. De MDL Dan bellen wij: Je hebt onderzoek gehad, er dat moment is die patient bij ons al in beeld. Nja er zit natuurlijk wel een heel theoretisch ligt vast. Er zijn verschillende trajecten. Dit hadden we al als het waar was om ze te maken als oncologievpk geen zorgen master opgeleide mensen willen. Er wordt nu wel wel niet dat ze daar niet bezig gaan, maar dat is wel waar ik dan erg tegenop zie. Ik wil het niet om straks iets anders doen. Moet die dan bij traject betrokken voor. Dus als dat straks anders wordt heb je maar voor. Dus als jij een deskundige bent dan je moet nu normaal niet intreden. Maar aan de andere kant wordt er ook nog gekletst bij mijn vergadering die u van het prins op wat het waar is en wat het waar is.

Wij zijn dan wel sterk voorbereid. voornamelijk om dat altijd maar de patiënt wel de beneuwdheid dat al doet zoals ik bij mijn vergadering gezegd heb en dat er bij mij aan de hand is. Het is me dat het handig wordt. Net hoe je het gaat inkleden. Met MDO’s enzo. Is zelfde voor de MDO’s. Aanmelden en als eeniek item en wat er niet was dan maar al dat variëert in wat dat over is zin ook heel en zij zitten nu niet. Zullen die bij mijn vergadering zijn. Maar dat heeft zo zijn voordeel. Ik vind het goed omdat ze zo kunnen volgen. Maar wat uitdagend.

Daarna komen mensen op afgesproken Daarna verschillende bij iedereen geïnformeerd, dan achteraf in. Iedere patient schrijven het op en voeren het geheugen en zitten die dat meteen intikt. Zelfde voor de MDO’s. Aanmelden en als eeniek item en wat er net niet was dan maar al dat variëert in wat dat over is zin ook heel en zij zitten nu niet. Zullen die bij mijn vergadering zijn. Maar dat heeft zo zijn voordeel. Ik vind het goed omdat ze zo kunnen volgen. Maar wat uitdagend.

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Appendix A

Een van de meest belangrijke werkzaamheden van de chirurgen is de operatie. In dit verhaal gaat het om een chirurgische operatie, namelijk een borstamputatie. De patiënt, een vrouw van 55 jaar, wordt vanwege een vroege vorm van borstkanker behandeld. De operatie is succesvol en er wordt besloten om adjuvante behandeling in te stellen. De patiënt herstelt en kreeg de gelegenheid om een zoektocht te maken naar de omstandigheden van haar leven na de operatie.

Kernpunten van de gespreksopstelling:
- De patiënt heeft een positieve uitkijk op haar toekomst.
- De chirurgen en verpleegkundigen zijn blij met de resultaten en de gelukkige uitkomsten van de operatie.
- Het is belangrijk om de patiënt te ondersteunen in de periode na de operatie en haar te helpen zich terughoudend te zijn bij het aannemen van de rol van patiënt.

Het verhaal vertrekt vanuit de praktijk van een chirurg, die al jaren ervaring heeft met chirurgische operaties. Hij vertelt over de belangrijkste stap in de operatieweek: de operatie zelf. Hij praat over de gevoelens die de patiënt vaak heeft en de belofte die hij aan haar maakt. Hij benadrukt de cruciale rol van de verpleegkundigen en de samenwerking met de andere medische professionals.

Voor mij concreet: 2 dagdelen per week poli. Voor iedereen wisselt dat natuurlijk. Wij werken full time 4 dagen. Vaste compensatie voor diensten. Voor iedereen wisselt dat natuurlijk. We doen de hoofd chirurgische behandeling van de drie grote groepen. Daar hangt een fusie er even wat gedoe maar in de basis is Haren ben hier terecht gekomen. Toen met de echte leuk ziekenhuis is. Kom uit Groningen/Mooiste vak van de wereld. Ik denk dat het wel I werk nu 10/11 jaar voor DLZ. Ja is nog steeds leuk. Dagdelen per week. Nog wat andere medische

Chirurgie

Interview Werk: Maken we voor je enige koerant? De chirurgische behandeling is een complex proces dat bestaat uit verschillende stappen. De arts moet er altijd voor zorgen dat de patiënt een goed begrip heeft van de procedure en de mogelijke complicaties. Dit verhaal gaat over een van de belangrijkste beleidsbeslu...
Wat wordt er van de CM dan onderdeel van mijn functie. Of dat nu op het hele oncoloog genoemd worden. Dat wil ik ook. CM is erg jammer. Medisch specialist wil ook gewoon
Ik vind het echt pure onderwaardering als we er komt gewoon op mijn kaartje VPS te staan. of het leven. Maar dat is dus wat dus uit jouw stuk
Hebben we samen 4 dagen voor nodig. Al zou
Ik ben benieuwd!! Jij hebt de hele dag om hieraan
Ik hoop dat dat gaat lukken, want je moet
Ik geloof dat in JBZ dat
Maar weet je MDO
Ik zie ze niet zitten
Er eerst gaat kuren, je hebt natuurlijk
Dat is een beetje moeilijk, ik kan natuurlijk…
Kortom, het gaat natuurlijk allemaal mee te maken. [dat
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alle mensen willen, maar dan moet je wel weten
overal bij kan helpen: Geweldig! Dat is toch wat
is het heel mooi als die 1 aanspreekpunt hebben.
En dat moet hier dan ook komen. En zij hebben
Den Bosch prachtig: Daar hebben ze 1 iemand die
je nodig hebt, dan is het leuk bedacht maar dan
dat onze randvoorwaarden daarom bijgesteld
je moet wel alles geregeld hebben. Tis allemaal
Verpleegkundigen) Daar sprak ik iemand van
Heel NL is zoekende, niks is ideaal, er zijn
vinden het prima als het er maar 1 is, misschien
zou je dat willen). En die vragen stel ik ook aan
erg om lachen, wordt voor en tegen je gebruikt.
Ik heb ook spiegelgesprekken gehad. Moet ik heel
opgeleid. In vacatures moet dat bijvoorbeeld
conclusie moet straks zijn dat zij zowel hier wordt
heel veel begeleiding geven. Bij ons heb je nu
zelfde als die toen etc' chemo is een heel raar
kletsen ik zit 35 jaar op die poli, ik weet gewoon
angst nog een beetje, als ik zie wat ik weet van
jaar. Jouw
door de dokter of 1 van ons [VPS] gedaan. In
de behandeling bepalen. Bij ons wordt dat altijd
geen bijzonderheden heeft zoals tintelingen in de
deelnemen. Bij ons hebben ze 40 behandelingen per
dag met [VPS] of dokter de patienten minder. Wij
zien ze nu met zn 2en, werken 24 uur voor 4 medisch
bruggen bouwt, dan ben je ook minder kwetsbaar,
om zo te zeggen want ze hebben er heel veel
kennis voor nodig. Bij ons doet dat misschien
bruggen doorgestuurd naar iemand anders. Collega VPS.
Ik zelf kom om 7:00 ik houd niet van haasten en ik
tegenleggen. Als het hemtalen is wel anders. Bij ons
heeft dat een algoritme om je te helpen om te
zinnen. Er staat in principe 5 minuten voor maar
Dat betekent dat als je veel van de chemo weet dat je
niets. Daar wordt de patient niet beter van. Ik had
wel vaker zelf een bal bij de baas. Dan wordt het helemaal
mijn rol, ik ben geen behandelaar. En dan heb ik
heel anders. Als je Karina ziet dan is dat
heel anders. Als je Karina ziet dan is dat
ervan voorbeelden, en wel wat van een en een
even nauwelijks, de mensen moeten nu
moeten een idee hebben. Of iemand die
zijn kunstwerk volledig. Het werk van de
korrelt. Dus voor jou moet ik dan alle
kunstwerk volledig. Het werk van de
zijn er dan 8 patienten
met elkaar gaan. En dan zijn dat
zwanger. Dan kan ik zijn
het kan maar een
korten. Bovendien heb ik
afspraken.
en is dit ook bij A. Als er een cooperatie van de patienten is, is dat heel geweldig geweest. Maar als je niet kan of niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je niet kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten niet hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten nicht hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en niet hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten nicht hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en nicht hebt iets gedaan, dan is het duidelijk. Wat we nu hebben is dat de patienten nicht hoeft te worden gecheckt in een gezondheidscentrum. Als je nicht kan en nicht hebt iets gedaan, dan is het dui...
Heeft dus een situatie ernaartoe. Voorstellen van een patiënt dat daar samenhangt. Maar we moeten zien dat er een begrenzing moet van 35 dagen. Dit is voor het mentale component. Oncologisch gezien hoef je niet binnen 2 weken om hulp te zoeken, dat is een norm die we hebben. Het probleem is dat je nu die normen hebt.  

Vitaler worden, welke stappen? Gedachte is dat ze net als een patient op darmkankeroperatie. Was 6% en heeft dan een vitaal iemand. Voorbereiden van een patiënt voor deatie. Zorgen dat het logistiek klopt. Er is een enorm psychosociaal deel. Je kunt niet het palliet van patient, daar kunnen patiënten telkens kwijnen en hun huwelijkse leven. Maar ik denk dat je daar aandacht voor moet hebben. Er is een enorm psychosociaal deel. Je kunt niet het palliet van patient, daar kunnen patiënten telkens kwijnen en hun huwelijkse leven. Maar ik denk dat je daar aandacht voor moet hebben. Er zijn wel initiatieven, liggen vaak buiten het helemaal [tunnelvisie]. Maar er is nog zoveel om daar mee om te gaan. Wij gaan in ziekenhuis...  


Interviewer: En die vragen, het klinkt alsof je een extra laag van de toepassing bent. Dat is zo. Het klinkt als een extra laag van de toepassing, en het klinkt alsof je een extra laag van de toepassing bent.  

Interviewer: Ja en dus die extra laag van de toepassing, die klinkt als een extra laag van de toepassing, die klinkt als een extra laag van de toepassing.
Interviewer: En wat zijn voor jou laatste vraag de
Interviewer: De telefoon opgenomen
Interviewer: En dat is een nieuw KCC gecreëerd. Dat willen we niet.
Interviewer: De telefoon opgenomen
Interviewer: En dat is een nieuw KCC gecreëerd. Dat willen we niet.

Interviewer: Wanneer je de optimale
degelijkheid is een hele lastige.

Interviewer: En dat is een nieuw KCC gecreëerd. Dat willen we niet.

Interviewer: En dat is een nieuw KCC gecreëerd. Dat willen we niet.

Interviewer: Wanneer je de optimale
degelijkheid is een hele lastige.
Kunnen terugvallen op iemand. Dat is dat per eigenlijk. Dat zijn de Fases waarin patiënten het verdenking of diagnose, meestal wordt het dat spiegelgesprek... Dat was borstkankerpatient. Doe je dat? Dat is ook, ik denk dat dokter en vps hier samen iets moeten starten. Is het ook. We hebben nu een diagnose wat gewoon wat kan en moet. Nu gaat dan de patiënten daarna ook. Maar eigenlijk als bij MDL al blijkt dat het maligne is dan moet er al een casemanager komen. Dat is een beetje wat kan en moet. Nu gaat dan de patiënten daarna ook. Maar eigenlijk als bij MDL al blijkt dat het maligne is dan moet er al een casemanager komen.

Interviewer: En follow up? Internist-Oncoloog: Ja want ik heb het idee dat die, die zijn wel echt nieuw bij de interne. Dan stopt de cm. Ja maar wel verknipt he. Een ander niveau te brengen. Dat is heel moeilijk. En dat kan ook niet in één keer dat je dat nog een keer... Interviewer: Nu gaat dan de patiënten daarna ook. 

Internist-Oncoloog: Ja dat vind ik dat vind ik echt heel gezond. Dat is heel erg geen taak... Interviewer: Nog. Daar is een beetje wat los, dat we gaan even verder op... we gaan even verder op bij MDO. Dat stukje Ja maar wel verknipt he. Een ander niveau te brengen. Dat is heel moeilijk. En dat kan ook niet in één keer dat je dat nog een keer...

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Appendix A

Appendix A

Interviewer: Kun je het modules zien?

Internist Oncoloog: Ja misschien anders tekenen, heb je een papiertje? Je zou hem ook zo kunnen tekenen! [letterlijk spin in het web]. Dit is de patient, dit de cm, de ring eromheen, en dit alle stappen. Eigenlijk is dat wat er gebeurt. Ik weet niet of je daar organisatorisch wat mee kunt? Je kunt dit doen maar wel per tumor helpen hè al menselijk. CM is wel goed, cm om te plaatse en met al de dingen elkaar weer vaak raakvlakken. Het eigenlijk om het hele kader in. Ik zit even te denken hoor.. maar hiermee geef je wel goed weer wat de rol is van een cm. En kun je ook aangeven, ene patient heeft een hele dikke vette cm nodig, volgende patient helemaal geen behoefte aan. Dit is letterlijk de spin in het web. Dit zijn allemaal items die gebeuren. Zo kun je items eraan koppelen. Dit is feitelijk wat het is. Per ding heb je zo'n lijn naar buiten. Daarom is die CM zo f* belangrijk.

Interviewer: Even wat anders: Registraties? Voor borst doet ik nl dat? Wat willen we daarmee voor andere tumorsoorten?

Internist-Oncoloog: We doen alleen verplichte registraties, DICA, niet borstkankerlintje. Goeie vraag. Dat neemt tijd. Dat is al business case apart. Als wij het goedkoper doen hier dan bij IKNL dan moet het gewoon hier. Maar je zou kunnen zeggen als cm het in zijn Kop heeft zitten, is het zo geregistreerd. Eigenlijk moet het automatisch geregistreerd worden, vanuit EPD/HiX rechtstreeks gekoppeld wordt.

Interviewer: Ja dat het velden zijn die aan elkaar gelinkt moeten zijn? Ik wil dat ik help bij zijn om die aan elkaar gelinkt moeten zijn?

Internist-Oncoloog: Ja jij praat over velden, maar er moet toch iets zijn dat het rechtstreeks gelinkt wordt. Ik wil niet dat er velden zijn, gewoon uit de vrije tekst. CM is eigenlijk bij alles op de voorgrond of achtergrond betrokken, als vraagbaak, probleemoplosser, alles eigenlijk. Omring wordt ook aangeleerd door CM Die doe dat al.

Jouw, je bent bezig om iets te zeggen.

Interviewer: Geen als anderen Registraties” voor borst dan moet dat wel! Wat wisten wij daarvoor over andere tumorsoorten?

Internist-Oncoloog: We doen alleen verplichte registraties, DICA, niet borstkankerlintje. Goeie vraag. Dat neemt tijd. Dit is al business case apart. CM doet het gewoon hier. Maar je zou kunnen zeggen als cm het in zijn Kop heeft zitten, is het zo geregistreerd. Eigenlijk moet het automatisch geregistreerd worden, vanuit EPD/HiX rechtstreeks gekoppeld wordt.

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A.11 Analysing the caregivers study

Interviews and supportive toolkits

Gaining insights out of interviews requires a process with several steps. In this research, the insights are literally ‘filtered’ from the interview transcripts. This paragraph is about the steps from conducting interviews to creating a grounded theory.

The interviewing process

The interviews were held in the hospital, the working environment of the caregivers, which helps them to talk about their experiences related to the topic. The supportive toolkits were used during most interviews. The participants were asked to think out loud while working with the toolkits. It was allowed to make a sound recording during all interviews when conducting the interviews, transcripts were made out of the audiotape recordings (appendix XX).

From transcript to dataset

Creating a dataset out of the transcripts, several rounds of coding activities were needed. First, the interviews were transcribed into Excel to make a grounded decision on the codes. Second, labels were made in an extra column. Mostly the labels consisted of one or two words. In this way it was possible to compare similar codes originated from different interviews. This was necessary to use several functions of Excel to make a grounded decision on selective codes due to the quantity of open codes, and labels. In the first round, all labels were split and analysed on quantity. In this way, all labels that existed less than 5 times, were filtered out. However, still 931 labels were left, therefore there was played around with the filter function to discover whether or not different labels were used to express the same. This method revealed several labels of ambiguity, in this way it was easy to supplement all codes with the correct labels. Second, there was searched for similar codes by using the filters of Excel and as well in the second round. This gave the opportunity to organise them in a dataset with 931 original codes classified into 37 categories.

From dataset to grounded theory

This part of the process describes the final steps towards a grounded theory. First, there was searched for interesting areas with frequently matching selective codes. This was done by using filters, conditional formatting and the subroutine function in Excel. The interesting areas were analysed by filtering them together and reading the corresponding original codes, here the original codes, the quotes and statements were collected and quantified. The filtered quotes and statements were written down together into interesting areas and cutted. This gave the opportunity to organise them in a grounded theory as visualised on the next page.

The grounded theory

At the moment the hospital is different departments with in-depth knowledge in every department. In hospital care communication failures between and within the departments occur. The general opinion among caregivers is that the communication is experienced as an obstacle as well. Additionally, that being the task of a nurse specialist. However, that being the case, nurses have to retrain which is experienced as an enormous barrier. Additionally to this, the codes must shift from sub-areas to the entire task of a casemanager, would be ideal. Further the opinion is that the casemanager has to be a nurse specialist. However, that being the case, nurses have to retrain which is experienced as an enormous barrier. Additionally, that being the task of a nurse specialist. However, that being the case, nurses have to retrain which is experienced as an enormous barrier. Additionally to this, the codes must shift from sub-areas to the entire task of a casemanager, which is experienced as an obstacle as well. Caregivers are at a lack of expertise within the departments.

The codebook

The codebook is used as described before. A filtering system was built by playing around in the data. The filtering system is given in the figure above. Colors were used to quickly identify important correlations. When filters were applied those colors change and the more intense the color the more interesting. Then the codes were given in the first columns (As showed in the first example on the right). and by reading those codes, it was possible to quickly make connections that served as the basis for grounded theory.

The codes

The codes are given on the next page.
Appendix A

Appendix B
Appendices

PATIENT RESEARCH

B.1: The Booklet
B.2-B.6: Completed booklets
B.7: Executing patients study
B.8: Organising patients insights
B.1 The booklet

The empty booklet
B.4 Patient 3
B.5 Patient 4

Over mijn behandelproces

Dag 2

Leuk is een bijzondere medische term die verwijst naar een groep symptomen van de behandelproces. Bij een leukemie heeft de patiënt perceel in de lymfeklieren, de spieren en de botten. Bij een leukdisease zijn de witte bloedcellen op een hoge waarde en kunnen leiden tot een versnelling van het bloed. Bij een leukanemie zijn de rode bloedcellen afgezwakt en kan dit leiden tot een verminderde genezing van de patiënt. Bij een leucemie zijn de kleverige cellen in de bloedvaten verminderd en kan dit leiden tot een verminderde vorming van bloed. Bij een lymphocytose zijn de witte bloedcellen op een hoge waarde en kan dit leiden tot een versnelling van de behandelproces.

Over positieve en negatieve momenten

Dag 3

Hoewel positieve momenten

Duur positieve momenten

Hoewel negatieve momenten

Duur negatieve momenten

Mijn ideale ziekenhuis/behandeling

Dag 5

Als de patiënt volkomen in de ziekenhuis begeleiding voor zijn behandeling is, kan deze behandeling worden voortgezet. Bij een geleide behandeling is de behandeling van de patiënt in de ziekenhuis begeleiding voor zijn behandeling. Bij een geleide behandeling is de behandeling van de patiënt in de ziekenhuis begeleiding voor zijn behandeling.
B.6 Patient 5

Over mijn behandelproces

Dag 2

Na een flinkje vragen en wat nadenken over mijn momenten van een behandelproces.

Veel van het verhaal van vandaag gaat om de diagnostiek, de specifieke vragen.

Een aantal van mijn harde belevingen waren:

- mijn strategie van bepalings
- mijn moed om te bepalen
- mijn vasthouden aan de wens om te bepalen

Beleving

- moe
- ongerust
- ziek
- bang
- stil

Over positieve en negatieve momenten

Dag 2

Over het positieve momenten en wat er positief aan is in het posten of negatief ervaren en vol daarop in de dag over en vragen.

- positieve momenten:
  - goed slapen
  - goede maaltijden

- negatieve momenten:
  - veel pijn
  - missen mijn leven

Hoever is mijn leven gebied? en over de ervaring moet ik bewonderen?

Vraag over positieve momenten:

- hoe voel je je?
  - heel moe

1. Hoe voel je je?
2. Hoe voel je je?
3. Hoe voel je je?

Mijn ideale ziekenhuisbehandeling

Dag 4

Waarom momenten in de diagnostiek de grootste impact op?’

Een moment waarin behandelproces er opeens leest:

Over een bepaald moment:

De ervaren na het slapen

1. Hoe voel je je?
2. Hoe voel je je?
3. Hoe voel je je?

Mijn ideale ziekenhuisbehandeling

Dag 5

Waarom momenten in de diagnostiek de grootste impact op?’

Een moment waarin behandelproces er opeens leest:

De ervaren na het slapen

1. Hoe voel je je?
2. Hoe voel je je?
3. Hoe voel je je?
In order to transform the data out of interviews, booklets and generative session into useful knowledge an analysing process was needed. The useful knowledge is built first in a patient journey and a patient support matrix. This paragraph describes the steps taken from data to information to knowledge. This is needed to bridge from research to design according to Sanders & Stappers (2012).

Booklets, interviews and generative session
The participants were asked to fill in the booklets. This was done in a way that can be seen as both positive and negative: To really gain respect and willness of the participants to put effort in this kind of research, the booklets were handed out face to face. However, this was misunderstood by one participant which leads to a combined interview and filling in the booklet at the same time. Then the errors accumulated and so it happened that finally the interviewer and the interviewee filled in the booklet together. Despite the made mistakes, most of the information was useful in further research.

The booklets opened interesting starting points for interview questions. With one participant there was no opportunity to meet in real-life so an email conversation was started to ask questions afterwards.

The generative session was the most fruitful part of the research activities. Here an extensive toolkit was used and resulted in a conversation with many insights.

Data to information
The first interpretation of data was done in the first round of analysing. The audio recordings, together with the notes during the interviews and the ‘make’ output of the participants in booklets formed the raw data. This data was transformed into useful information in the first interpretation round: Quotes were filtered out and collected on postits. The stories of the patients were linked together. This was all done by analysing on the wall (see page XX for a picture). The output is visualised in a patient journey (page XX) and a patient support matrix (page XX).

B.7 Executing the Patients study
Generative sessions and analysing

Figure XX: How the data out of interviews, booklets and the generative session is transformed into knowledge

Quiztime!
What goes well and what goes wrong on this photo? (answers on page XX)
B.8 Organising patient insights

For nurses and specialists

Processing all insights was a time-consuming activity. In this Appendix, there is described what is done to come up with useful insights which can be used throughout the project.

Collecting and organising quotes
Quotes out of the interviews, booklets and sessions were collected on post its. With colors there was made distinction in origin of the quote.

The postits enabled to play around and organise them. Quickly became clear that there were different kind of topics. Sometimes related to the care process. Kind of time sequencing. Sometimes they were related to the information and support provision in general. Therefore the quotes were collected in two different windows as shown in the pictures.

Those two windows were used to make an information provision matrix and the patient journey and finally drawing conclusions out of it.

Sidenote: Action is nice for buying cheap stuff. However, the pink marker didn’t stay for a long time. When I came back from holidays the pink notes were barely visible...
Appendix C: Discovering a modular system
C.2: Testing the Care Pathway
First I stuck several A4 papers together and tried to cover the process in one linear care pathway. It quickly became clear that I had to cut the papers again. I needed different ‘modules’ to play around with the sequencing of the care pathway. So I started again with different sheets of paper: for every discipline one. With my self-designed sticker set I made clear all different steps on postits. In that way it was possible to play around with all steps.

In the first version which is showed on the pictures was useful to do a quick check with caregivers whether or not the process will work. The postits made it easy for them to stick them in another sequence etc. However in this first concept, there was no clear ‘bridge’. It became clear that the desire was to have an MDO after each step. That was a sign to me to create a ‘bridge’ which made it possible to shuffle all modules without missing important steps in the care process. And so the idea for a puzzle pieces care pathway was born.

The care pathway was tested several times. The puzzle pieces were attractive and people recognised them very easily.

In the first round it became clear that there were some failures. For example: not continuous lines and bulges and notches at wrong places. In the later sessions there was more focus on the content and it became clear that this could be used as format but the teams themselves have to elaborate them in a very detailed way.
Appendix D

THE BUSINESSCASE

D.1: Dijklander Metro
D.2: Calculations OLD Care Pathway
D.3: Calculations NEW Care Pathway
Reading the Dijklandermetro map

This Dijklandermetro map visualizes the patient journey. The grey dotted line through the most common treatment process of a colon carcinoma. In case of a colon carcinoma the journey starts at the left side with entering the treatment process by recognizing symptoms or participating in the national screening. From that moment the patient is hopping from appointment to appointment with different caregivers, every appointment is visualized as a station.

Usually, the surgery (green lines) takes place, after which in some cases the treatment is continued with an adjuvant treatment like chemotherapy (blue lines). In case of a rectum carcinoma, radiation therapy (orange line) is a possibility. More about different treatment options is described in paragraph 5.5.

All caregivers mainly communicate with each other by discussing patients during an MDO.

Cilo division

There is a clear cilo division visible in the network. Different phases within the treatment process are totally separated from each other. First patients go through the 'green' surgeon 'cilo' after which they enter the 'blue' internist 'cilo' for adjuvant treatment.
Section V

Deliverables - Care Pathway