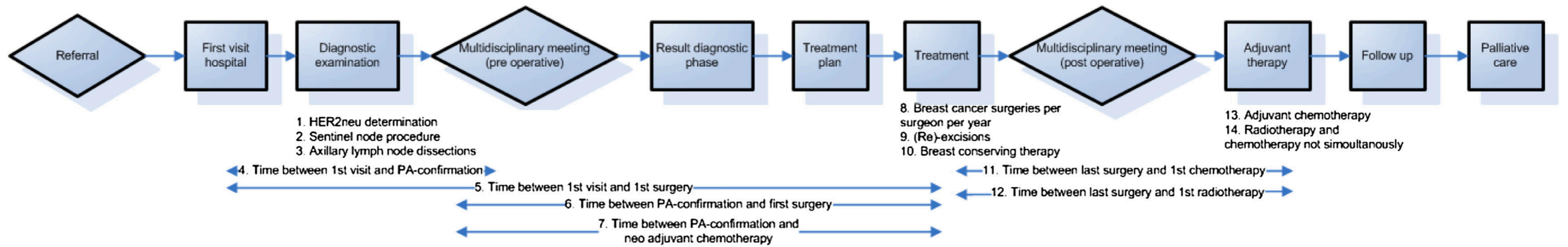




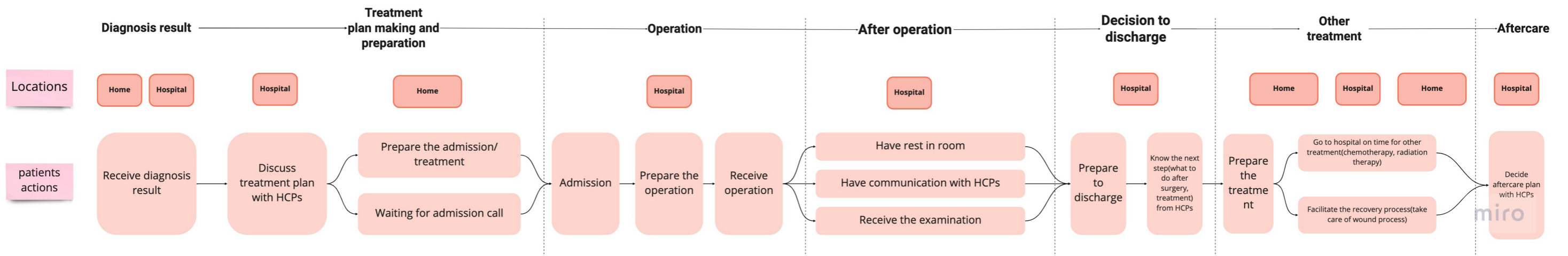
# Appendix: Design a hybrid patient journey in supportive care

Strategic Product Design  
Tingwei Long

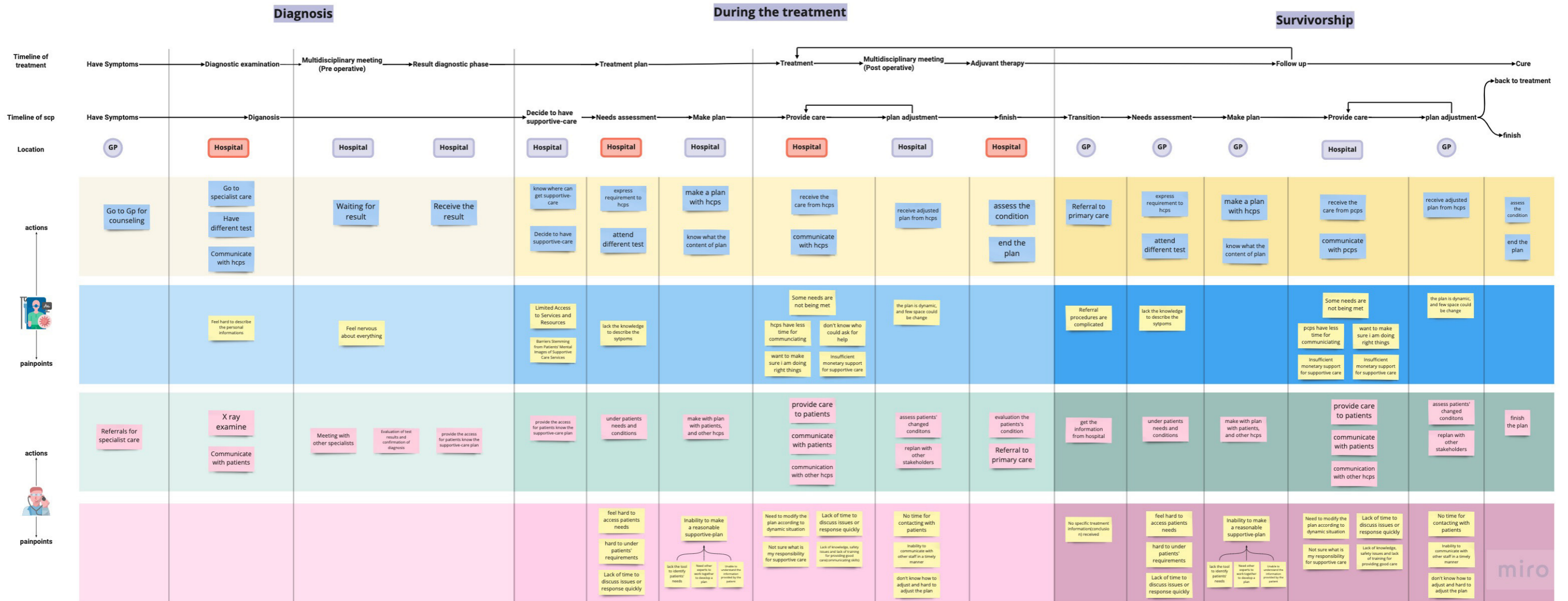
# Appendix A: Breast cancer treatment journey



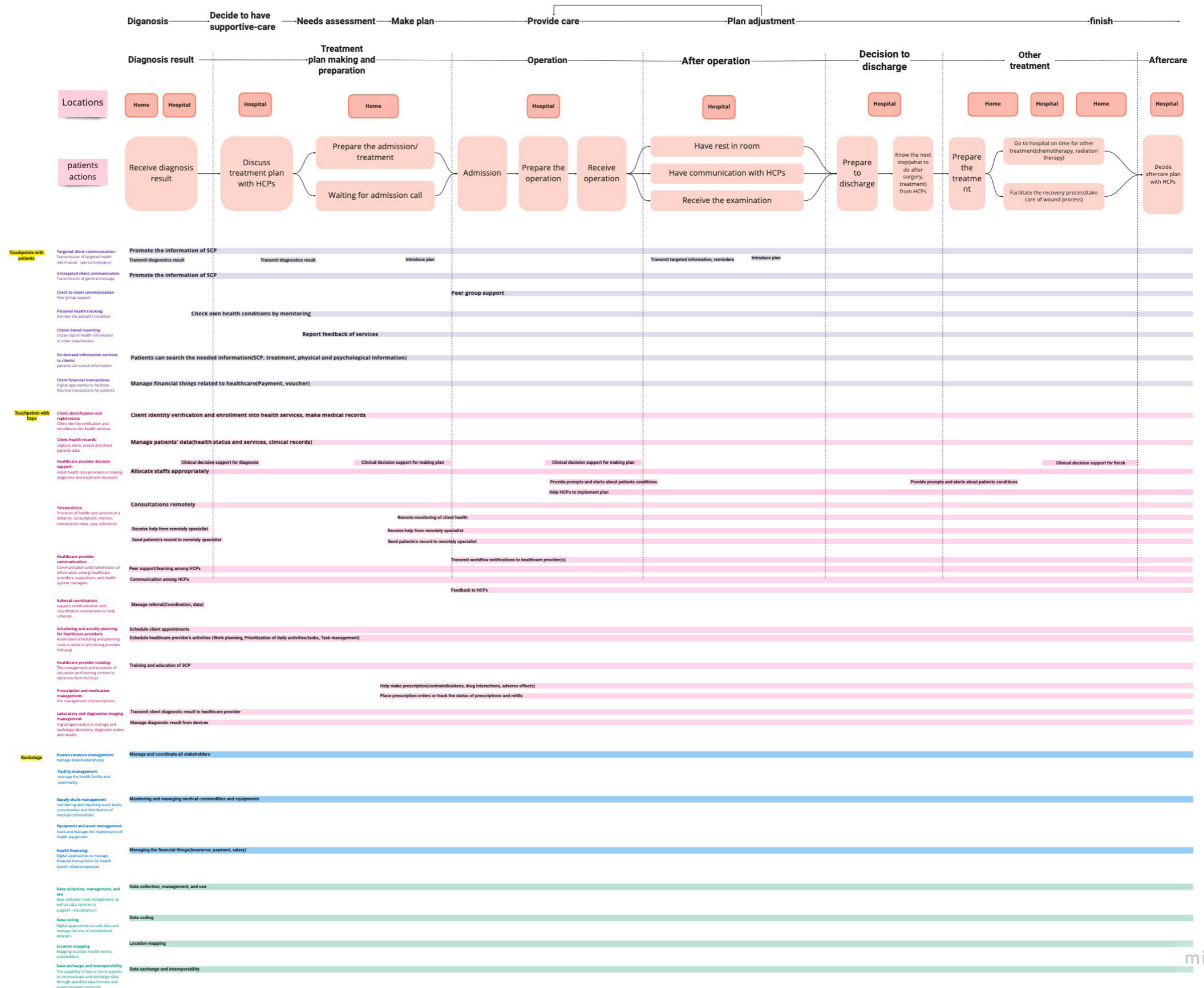
(Liao et al., 2014)



# Appendix B: First draft of patients journey



# Appendix C: Future opportunities of DHIs in literature review



# Appendix D: Interview guide for experts

## Experts interview

### Checklist for start

1. Interviewee needs to sign an informed consent form
2. Audio-record the interview.
3. Roles: 1 interviewer
4. Intended time for interview: 60 minutes
  - Introduction: Welcoming and briefing - 10 min.
  - Questions - 40 min.
  - Closing - 5 min.

### Introductory script

I am a master's student of strategic product design in Tuedelft, and my graduation project is studying the supportive care plan and digital health intervention. Therefore, I would like to invite you to provide some insights into digital health intervention and the process of the supportive care plan by interviewing. For each question, there are no right or wrong answers, you can answer by your own opinions and personal experiences. The answer is anonymous and won't be shared on the network. Also, feel free to interpret me at any time. I think it would be really helpful by talking with you. Before we start, would you mind letting me record the interview?

### Theme 1: Digital health intervention

1. Could you please describe your experience of having an online consultation with patients?
  - a. Probe: when did you use it? How did you feel about this experience? how much time do you have for each consultation?
  - b. Probe: What is the difference between online consultation and face-to-face consultation?
  - c. Probe: What are the benefits and negative aspects of online consultation?
  - d. Probe: When did you prefer using the online consultation? Which patients do you think are more likely to use digital tools ?
  - e. If they need regular consulting, what does the regular consultation look like? How does it work? (Any addition to single consulting)
    - i.
2. If the not online experience
  - a. To your knowledge, how is the usage of teleconsultation in hospitals/HC systems in NL?
  - b. Probe: what kind of problem do you have with your efficiency during the consultation?
  - c. Probe: Why do you not use the online consultation tools?
    - i.
3. What kind of other digital tools do you use in your consultation process? not matter online or offline. For example, a medical device to test the patients' conditions.
  - a. Probe: When will you use it ?
  - b. Probe: How did it help you? like improving your efficiency.
  - c. Probe: How do you feel about this experience? why? Are there any new problems?
  - d. if not, how do you access the condition of patients?

4. Try to describe an ideal future healthcare environment with 2 or 3 keywords?
  - a. Reasons behind?

### Ending:

1. Thanks for your help. Do you have other suggestions for me to continue my research or anything else you want to say?

### Checklist for closure:

- Shortly summarize the interview
- Thanking the participant

# Appendix E: Interview guide for stakeholders

## Checklist for start

1. Interviewee needs to sign an informed consent form
2. Audio-record the interview.
3. Roles: 1 interviewer
4. Intended time for interview: 60 minutes
  - Introduction: Welcoming and briefing - 10 min.
  - Questions - 40 min.
  - Closing - 5 min.

## Introductory script

I am a master's student of strategic product design in Tuedelft, and my graduation project is studying the supportive care plan and digital health intervention. Therefore, I would like to invite you to provide some insights into the process of the supportive care plan by interviewing. For each question, there are no right or wrong answers, you can answer by your own opinions and personal experiences. The answer is anonymous and won't be shared on the network. Also, feel free to interpret me at any time. Would you mind me recording the interview?

## Theme 1: General description

1. What is your role and job in SCP(cancer care)like?

## Theme 2: Process of SCP

Could you mind describing the current process of supportive care (cancer care) by using this toolkit?

1. What do you need to prepare when first meeting with patients?
  - a. Probe: How could you get new patients?
  - b. Probe: What do you need to do and the patient's assignment before the first meeting?
2. What do you do during the first consultation meeting?
  - a. Probe: How could you assess the needs of patients?
  - b. Probe: What do you need to do and the patient's assignment in the first meeting?
  - c. Probe: How do you make plans for following supportive care?
3. How do you make plans for supportive care?
  - a. Probe: What kind of information do you need for making a plan?
  - b. Probe: How is the plan look like? a booklet, or a digital file?
4. What kind of services do you have during the care process?
  - a. Probe: How do you monitor the patients' condition? do you always make changes according to the condition of patients?
  - b. Probe: How do you communicate with patients and HCPs?
  - c. Probe: Will you have a dedicated contact person for each patient?
  - d. Probe: What do you need to prepare for every consultation?
  - e. Probe: How you can make sure patients follow the plan?
  - f. Probe: How do you manage every patient's schedule?
5. How do you cooperate with other staff? you can use the toolkit to describe the process.
  - a. Probe: What other providers you will work with?
  - b. Probe: How could you work with the oncologist, or nurse for treatment?
  - c. Probe: How will you get data from patients? like the treatment plan
  - d. Probe: Who is now responsible for leading supportive care?

- e. Probe: What kinds of tools do you use for communicating with others?
- f. Probe: Do you always have a meeting with them? How to organize it? who is the leader of the meeting?

6. How do you feel about the workflow of SCP(cancer care)? Please use the red pen to make the mark, and also describe the feeling
  - a. Probe: What kind of problems do you have when providing supportive care (cancer care) to cancer patients?
  - b. Probe: What factors do you think caused this problem?
  - c. Probe: How did you solve this problem?
7. what is the difference between breast cancer care and other care, also specially for patients during the treatment, not after the treatment?

## Theme 3: Digital tools

1. What kind of digital tools do you use in the supportive care plan process? for example, you can have online meetings by computer, and medical device for monitoring the patients' conditions. Please fill in this toolkit.
  - a. Probe: When will you use it ?
  - b. Probe: How did it help you? like improving your efficiency.
  - c. Probe: How do you feel about this experience? why? is there any new problems?
  - d. Probe: If you have a problem or patients have digital problems? where could you ask for help?
2. Please describe when and how could use these two kinds of care. For example, some meetings with patients could be held online; some high-risk patients may require less digital care.
  - a. Probe: Which patients do you think are more likely to use digital tools ?
  - b. Probe: Why do you think?
3. Try to describe an ideal future supportive care plan with 2 or 3 keywords?
  - a. Reasons behind?

## Theme 4: Evaluation of concepts

1. The most important: the ai-decision support: show the problem defined and future vision here
  - a. Probe: How do you feel about this concept? could be helpful and meaningful? or how do you about disadvantages and advantages?
  - b. Probe: Any tips for improving it and implementing it?
  - c. Probe: related products?
2. Others:
  - a. Probe: which is the most helpful one? which is not why?
  - b. Probe: Are there other opportunities for digital intervention?

## Ending :

1. Anything else you want to say about digital tools and SCP?

## Checklist for closure:

- Shortly summarize the interview
- Thanking the participant

# Appendix F: Coding tree for user research

**Problem of SCP(94)**

**Wrong intervention(7)**

The intervention is not absolutely helpful(5)

Needs to make more accurate diagnosis(5)

Doctor feel hard to understand patients' condition(7)

**Lack of support(10)**

Lack of psychological support(1)

Lack of information(7)

Lack of follow check up(2)

**Delay of intervention(53)**

System problem(5)

Communication problems(18)

Delay health guidance from HCPs(9)

Delay of appointment(4)

Due to the HCPs busy schedule(11)

Lots of rules for medical(1)

Too late to receive exam result(8)

**Patients' self problem(12)**

Don't know how to communicate(4)

Feel tired(7)

**Hard to build connection with HCPs(4)**

Hard to build connection in such short time(1)

**Easy to build connection with HCPs in physical(1)**

**Want to have a good connection with HCPs(1)**

**Nurse's attitude is not kind(1)**

**Condition of patients(42)**

Feel tired according to the side effects(12)

Hard to manage the busy schedule and energy(14)

Worry about the body condition(16)

**Requirement of SCP(35)**

Personalized(3)

More communicate with HCPs(12)

Need companion(2)

Have a good relationship with HCPs(5)

More cooperation within HCPs(13)

**Peer group(19)**

Attitude of peer group(5)

Helpful to train or talk with peers(4)

Peers also give some pressure(1)

Type of peer group(14)

Workshop(4)

Personal contact(5)

Peer group community(3)

Help find peers(2)

**Consultation process(25)**

Negative aspects(4)

Lots of information from consultation(2)

Doctor's schedule is tight(2)

Needs of consultation(22)

Record the consultation(7)

Too for good consultation(11)

Bring the relatives to consultation(2)

Seeking information from HCPs(1)

Record the consultation(5)

Want to ask questions(1)

**Digital health intervention(189)**

Negative aspects(19)

Untrust(4)

Unreliable(3)

Lacking of training(2)

Hard to build relationship(3)

Hard to express emotion(2)

Don't want to discuss negative result on phone(2)

Fear when receiving test of information online(1)

Annoying receiving reminder from App(1)

**Category of DHIs(148)**

Get information(15)

Monitor body(9)

Communicate and cooperate(4)

Exercise and intervention(5)

Agenda and schedule(15)

Decision support(2)

Manage data(14)

Improve physical experience(5)

Benefits of DHIs(26)

Digital devices is helpful(9)

Less travel, less energy(4)

More information(3)

Easy to communicate with HCPs(2)

Record the consultation(5)

Do assessment immediately(1)

Personalized service(1)

**Physical visiting(82)**

Negative aspects(47)

Need waiting(2)

Transport waiting(9)

Doctor's schedule is tight(3)

Need companion(2)

Need to same steps(1)

Don't want to discuss negative result on phone(2)

Positive aspects(16)

Detailed examination(2)

More directly guidance(2)

Social connection(11)

Workshop(18)

Education workshop(2)

Making friends(5)

Team with peers(7)

Workshop is helpful(2)

Workshop provides special events(1)

**Need support(246)**

Physical intervention(59)

Nutrition intervention(32)

Psychological intervention(34)

Need help to manage everything(1)

Information support(112)

Supportive care from HCPs is important(18)

Friends and relatives(18)

Emotional support(11)

# Appendix G: Toolkits for interview

*Please describe the workflow of supportive care plan*

	Before the first consultation	During the first consultation		During the supportive care		End
	Preparation	Needs assessment	Make plan	Provide care	Adjust care	End of care
<b>!</b>	-What do you or patients need prepare when first meeting with patients?	-What do you do during the first consultation meeting? -How could you assessed the needs of patients?	-How can you make supportive care plan? -Do you need to cooperate with others?	-What kind of services you provide in your scope? -How do you monitor the patients' condition? -How do you communicate with patients and healthcare staff? -What you need to prepare for every consultation? -How you can make sure patients follow the plan?	-Do you always make changes according to the condition of patients?	-When is the end of care?
You						
Patients						

*Please describe how the digital tools used in workflow*

	Before the first consultation	During the first consultation		During the supportive care		End
	Preparation	Needs assessment	Make plan	Provide care	Adjust care	End of care
Current digital tools						
Wanted digital tools						

*Please describe how you communicate with other stakeholders*

	Before the first consultation	During the first consultation		During the supportive care		End
	Preparation	Needs assessment	Make plan	Provide care	Adjust care	End of care
Supportive care centre						
Other departments						



# Appendix H: Interview from Stakeholders

## Interview



Nurse



Navigator nurse



Dietitian



Physiotherapist

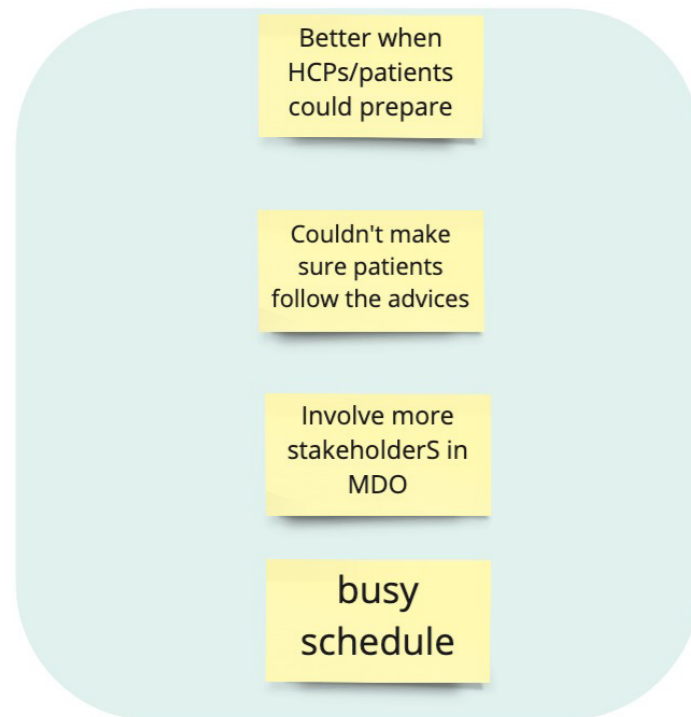


Social worker



Psychologist

## Workflow problem



**HCPs need more time for prepare**

- We get called in consult sometimes too late, not enough time to prepare.



**Better when patients prepare**

- Most of the time we came in, patients didn't even know why we had come to them. It would be better if they were preparing



**Physician not involve in MDO**

- Often the referring physician isn't present at a weekly meeting.
- the less input from physician makes it harder to decide on the intervention



**Couldn't make sure patients follow the advices**

- We give advice, but they don't have to take it.



**Patients not fill the questionnaire**

- patients did not fill the form because they felt too much workload and too busy, or no one asked for it
- preparation is a huge workload



**Not convenient to make referral work**

- it's not convenient when referring the patients to another specialist not in AVL: they are busy, and the nurse can't fill the referral
- thinking about to make like a standard referral in HIX and nurse can fill it; And then maybe I can send it to the working list of the doctor and they have to read it and then sign it



**Too many patients and too busy to manage everything**

- I think I have too many patients sometimes, so sometimes it's a hectic day, and I also have to make notes in Hix(EHR), and sometimes I don't have time for that. I have too many patients, and it's tough to make notes or send a letter, for example, to the General practitioner, and that's what I found the most difficult to find time to do my administration.



**The session provided to patients is limited**

- And sometimes it's also difficult to end a therapy so there.
- It wasn't easy to act to end the therapy, but he finally agreed with it so. This sometimes can be difficult because the AVL is a hospital where I can give only 10 sessions, and then then it's over



**Involve more stakeholder in MOD**

- More possibilities to include more people outside the walls of the hospital, more possibilities for multi-disciplinary



**Feel hard to connect with other professional**

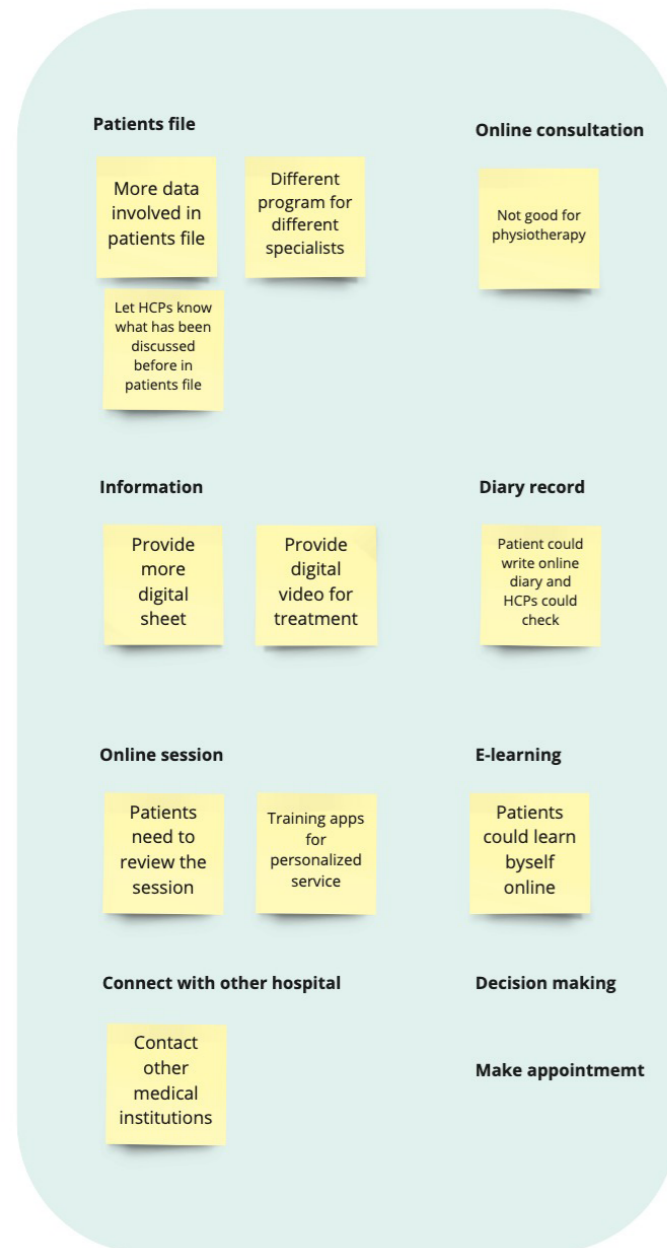
- Discuss with other professionals: So I think it's easier in our field than in other hospitals because of the connections here is easy. you can ask colleagues what you think, but sometimes it can be difficult because we all are busy and cannot find the time to discuss with each other.



**Patients could fill the questionnaire by apps or email**

- patients be able to prepare the digital questionnaire: And that's I think also with epic(EHR) you can send a questionnaire to a patient and they can prepare for their conversation with you so that would be a big thing

## Attitude to Current DHIs



**Lack the data in patients file**

- not every nurse remember to check the weight

**Need help to get more food's information**

- we want to register the all product in the system, not only our hospital product



**Online consultation is difficult for physiotherapy**

- Online consultation: during the treatment is very difficult to know what's wrong. It's I can't do it by a camera, yeah, if you have shoulder pain, I have to do it. I have to take tests and I can't.
- A lot of information about how is someone feeling? What is someone thinking? This is nonverbal information. And therefore, I have to see the whole patient, yeah, some. All the way you see it when you use your hands? As you know, that gives me information.



**Involve the calculation program in HIX**

- the calculation couldn't used in hix, i need use another program



**Patients need to review the session**

- Well, maybe I have something because when they finish, they can't go back to the first session. They can scroll back, so when you have questions about the first session, you can go back.



**Let HCPs know what has been discussed before in patients file**

- We could have a digital place to keep track of advanced care planning so everyone knows what has been discussed
- We can put it in the report but hard to go through all reports



**Provide more digital sheet**

- I think when we are going to the digital. More digital health, we also need good online sheets to give people you know, yes.



**Provide digital video for treatment**

- I thought maybe is helpful too. To see some digital videos about breast cancer operations or all those things, you need to know when you are getting treatment. Do you mean that, for example? And also, we focus on women with breasts.
- Enter with this a phone line therapy, we help people after treatment with side effects from chemo or hormone therapy. Ok, so please stay online program will benefit breast cancer patients with that side effects.



**E-learning**

- e-learning-- a platform to know Lymphoedema physiotherapist: information. advise, knowing how your body work
- They can read a lot of information and about some problems. For example, the program anxiety or depression or tiredness. They can read it at home and to also some exercises at home. They can also be more independent from the psychologist and to do it more yeah on their own
- I think that they don't have to go to the AVL for really conversation, but they can read information about the program at home and do some exercise. And only receive some feedback from the psychologist.



**Training apps for personalized service**

- using apps: We don't do anything with that, but. I think it can be very useful to provide personalized service



**Diary record**

- To develop some program that a patient can. Have some diary from what they take for food and they can send it to us in patient fail or to develop something. It would be also helpful because now they sent it by sometimes they sent it by email and then we have to check it, but then it will be complete. Digital tools for training.

# Appendix I: Stakeholders in SCP

## Activity Center

It offers creative activities, reading materials, and games. We can help you find ideas, materials, and inspiration to create something personal without too much effort. This can support your recovery by giving you a moment to unwind during this stressful time. We offer space and materials to paint, draw, make mosaics, paint silk, craft jewelry, or paint porcelain.

Activity  
Counselor

Referral: Don't need to make an appointment to visit the center. Please feel free to stop by if you want to know more about our center. If a visit is not possible for you, a member of our staff can visit you at your ward or outpatient clinic. Please ask your nurse for more information

## Dietetics

The dietetics department aims to prevent and treat issues that arise surrounding nutrition and food and that are caused by your illness or treatment. Nutrition and exercise play an important role in maintaining or improving your physical condition.

Dietitian

Referral: see a dietitian at the Netherlands Cancer Institute as part of their treatment

## Psychiatry

We are specialized in the diagnostics and treatment of psychological and psychiatric symptoms in patients with cancer. Besides diagnostics and treatment of patients, we offer recommendations to physicians (at the Netherlands Cancer Institute and elsewhere) about patients with psychological or psychiatric problems and cancer.

psychiatrists

a clinical  
nurse  
specialist

a  
consultant  
psychiatric  
nurse

Referral: from your practicing physician, clinical nurse specialist, supportive consultant, or anyone seeing you at the Survivorship Center (psychologist or medical social worker).

## Smoking Cessation

The Smoking Cessation Clinic helps patients currently receiving treatment, or who have previously received treatment at the Netherlands Cancer Institute. The Smoking Cessation Clinic aims to help you quit smoking to increase your quality of life after cancer.

An oncology  
nurse navigator  
specialized in  
smoking  
cessation

Referral: self appointment, practicing physician or contact person for a referral.

## Occupational therapy

For patients who unable to continue everyday activities, like hobbies, social contacts, work, or housekeeping, due to decreased energy levels, cognitive problems, and/or physical impairments. Occupational therapist can help you find solutions and can offer you tools to help you distribute your energy, structure your day, continue your work, improve your posture, and adapt the way you sit.

Occupational  
Therapist

Referral: You can come to see us once your physician, clinical nurse specialist, or rehabilitation physician has referred you to us. You can let them know that you would like our guidance.

## Physical therapy

The dietetics department aims to prevent and treat issues that arise surrounding nutrition and food and that are caused by your illness or treatment. Nutrition and exercise play an important role in maintaining or improving your physical condition.

Physical  
Therapist

Referral: our physical therapist may be part of your treatment of cancer. Your practicing physician can request treatment by a physical therapist. During your stay at the hospital, your physical therapist will regularly discuss your progress with your specialists. If you have not been admitted to the hospital, you may be eligible for treatment by a physical therapist in your area, before or after examination and advice from a specialized physical therapist at the Netherlands Cancer Institute. You can request treatment by a physical therapist yourself. Please consult your specialist, clinical nurse specialist, or general practitioner.

## Art therapy

This therapy is available for patients experiencing problems processing their illness during or after their treatment. The therapy may involve topics such as dealing with cancer or changes in self-image. You can express your feelings of sadness, confusion, or anger in a different way than during a consultation. This therapy is available to anyone and is usually considered surprising and refreshing by our patients. Individual art therapy is part of our rehabilitation program.

Creative  
therapist

Activiteit  
enbegel  
eider

Referral: through someone involved in your treatment at the **Netherlands Cancer Institute**.

## Secretariat

Help patients make an appointment for meeting with staffs

secretary

## Patient information centre

## Spiritual guidance

Spiritual Counseling team offers professional guidance, help, and advice in finding meaning in your life and other philosophical and spiritual questions

Spiritual  
counselor

Referral: make an appointment at the recommendation of your physician, nurse, or other health care professional at the Netherlands Cancer Institute. You can request a consultation through your practicing physician or clinical nurse specialist, or sign up for a consultation yourself through the secretariat of the Survivorship Center.

## Medical social work

They are specialized in psychosocial problems related to cancer and are available to support patients and their loved ones. Consultations with a medical social worker aim to stabilize or strengthen the capacity, coping with anxiety, uncertainty, mourning, and loss

medical  
social  
worker

Referral: make an appointment at the recommendation of your physician, nurse, or other health care professional at the Netherlands Cancer Institute.

## Clinic Supportive Care team

The Supportive Care Team offers inpatient and outpatient support for people who are receiving treatment that does not aim to cure them through their final phase. The Supportive Care Team aims to maintain or improve the quality of life in terms of physical, psychosocial, and spiritual matters and looks beyond just palliative care in this final phase. If the impact of the illness strongly affects your day-to-day life, the Supportive Care Team can help you out in ways that are important to you. The team can help you name goals and creating plans while you remain in full control of your treatment. The team closely collaborates with all care providers that are part of your treatment, and focuses on your needs and wishes as well as those of your loved ones. Our goal is to keep you in charge of the process.

Palliative  
Care  
Specialist

Internist

Clinical  
nurse  
specialist

Differentiated  
nurse  
palliative care

Referral: at the recommendation of your **physician, nurse**, or another member of staff at the **Netherlands Cancer Institute**. You can also make an appointment at your **own initiative**

medical  
oncologist

a  
rehabilitation  
specialist

a  
psychiatrist

a  
radiation  
oncologist

A [medical social worker](#), [psychologist](#), [spiritual counselor](#), and [transfer nurse](#) are also involved. We will look at your priorities together with you, and you will be in charge of your treatment. Some of the areas we can focus on during treatment are:

## Medical psychology(Psychology and sexology)

Psychologist helps you release psychological illness, such as depression, anxiety, panic, trauma and problems in relational and sexological areas. Complex choice problems related to heredity and cancer can also be the subject of psychological treatment. The psychologist will examine with you how you can best reduce your complaints and how you can deal with your emotions. The sexologist maps out complex sexual problems after cancer and provides short-term treatment.

Psychologist

Clinical  
neuropsy  
chologist

Referral: Your specialist, hospital psychiatrist, or medical social worker at the Netherlands Cancer Institute can refer you to us. Our supportive care consultant can refer you to us as well, in collaboration with your specialist.

## Nurse Navigator

During a consultation, nurse navigator can provide information and advice applicable to your personal situation. If necessary, the nurse navigator can refer you to a paramedical or psychosocial care provider at the Survivorship Center at the NKI, or a care provider in your area.

Nurse

Referral: self-appointment, practicing physician or contact person to refer you to us.

## Transfer nurse

We can organize the essential professional care for you, in collaboration with you and your loved ones as well as other disciplines involved. We can assist you in:

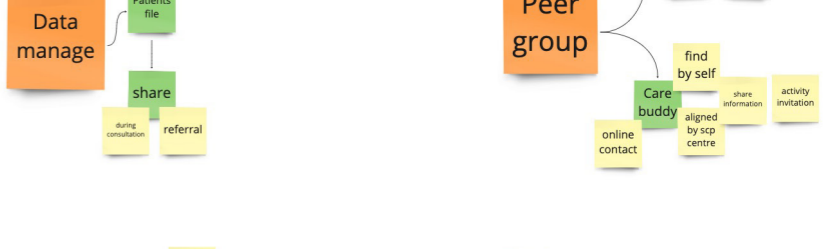
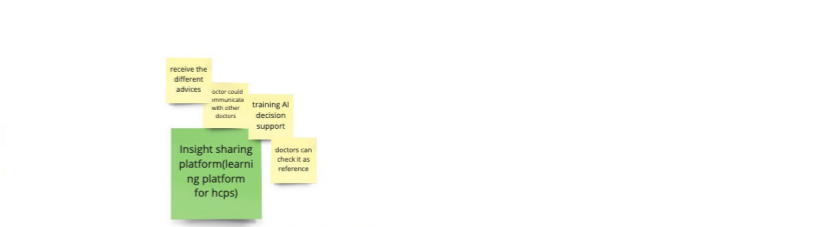
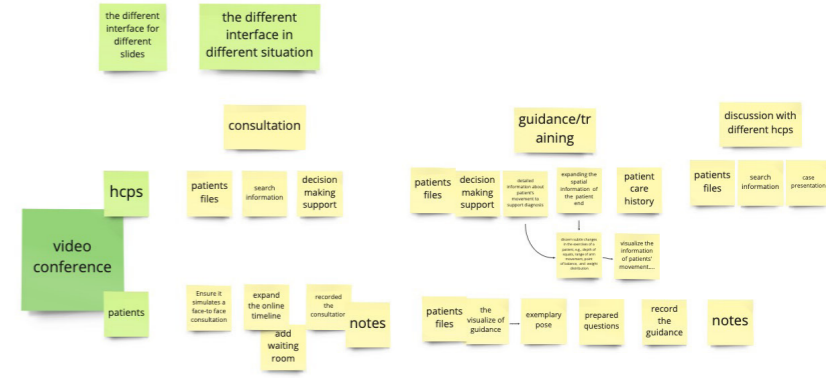
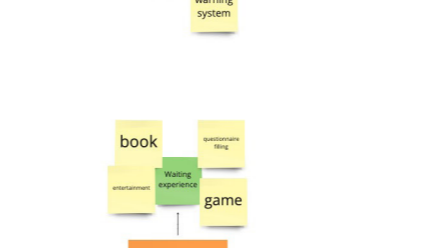
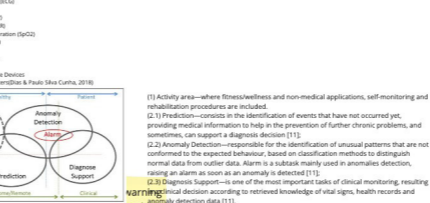
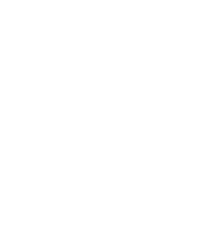
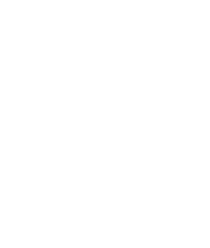
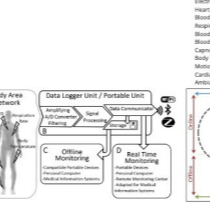
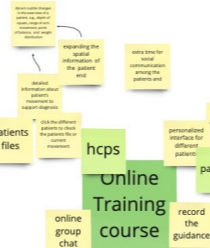
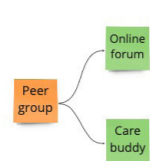
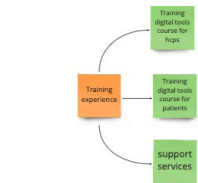
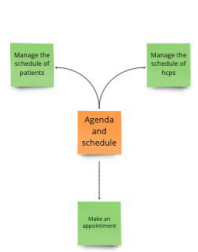
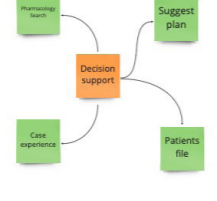
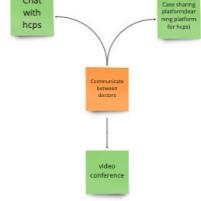
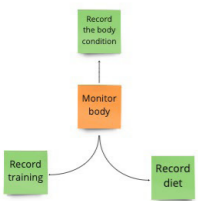
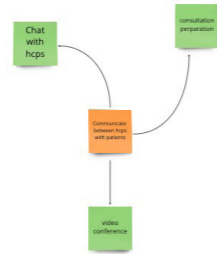
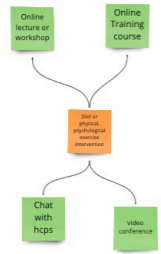
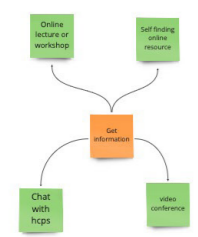
- Home care (such as continuity of care)
- Temporary stay at a care facility or rehabilitation center, for example
- Request aids and resources

Transfer  
nurse

Referral: Your **practicing physician** can let you know on which day you will be discharged from the hospital. The **nurse at your ward** will discuss the care and assistance you will need at home and can call on a transfer nurse if needed. They will schedule an appointment for an intake consultation with you. If you are not hospitalized at our hospital, you can contact our [Patient Information Center](#) for more information about arranging additional care.

## Rehabilitation medicine

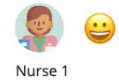
# Appendix J: Brainstorm



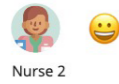
# Appendix K: Evaluation for first concept

## Brief Evaluation for future vision

### Stakeholder



Nurse 1  
This is really cool. I like all of it.

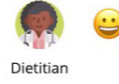


Nurse 2  
**It would be helpful to categorize patients, and provide different things to them**

- To find out what the patient needs so the one patient needs to see somebody face to face and took I'd somebody but the other patient can do it by himself. If you give him some information or some tools.
- I think that's the same thing we see the green or orange and a red patient in it. And you can provide them something different so the one patient have to leave them by the hand and the other patient can do it himself with all those things digital self tools**
- So I think when you are a little bit tired. You can go some do some app or digital things. If you need some more. Yeah, of course, then we have to go search to you

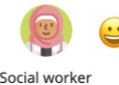
#### Also helpful for doctor

- I think this will be very helpful and also maybe for the doctor so. The patient we don't have to see and I see them from the prompts and they have to think about something that will yeah people help.



Dietitian  
**we can do more digital(video consultation) We talk a lot, so it's also possibly online I think**

- I think for elder people. With a higher age or some people there also here for other for the doctor or anything, it's also good option and it can't get away. But I think. It's a good combination combination.



Social worker  
**Prefer to see people physically, but online meetings are very effective**

- I think for elder people. With a higher age or some people there also here for other for the doctor or anything, it's also good option and it can't get away. But I think. It's a good combination combination.



Physiotherapist  
**digital tools is supportive , not leading; the main strength is the face to face**

- AVL is a hospital where the patients can com from far, digital tools can help them to reduce the time what they have to visit the hospital

### Experts



IT expert  
"Offered it as a proper package or what you say assess the patient beforehand and offer like a selection of these tools you know what with the patient prefer to use. That I think is where there's a lot of room for improvement. Yeah, good point."

### Decision making system

That's no one is really formed vision on this yet. So we don't really know yet how this will influence doctors behave here what exactly they want from a tool like this? How can we present the advice in the best way? When do you present it do you involve? Patient or not there, many questions still but how exactly it should be implemented.

### Questionnaire experience for patients

Let patients understand the aim of questionnaire Only put the most important one. In questionnaire The questionnaire also could be finished before the hospital visiting or during hospital waiting Staff could help orderly people to finish the questionnaire.



Ehealth advisor  
I think it suits our future fishing as well. I think a lot of things are already there, or planned so at least in the minds of my colleague at me. Uh things that we would actually would like to do, yeah, so that's really nice.

-What would be interesting to me is how you if you can predict what will help patients best? What kind of combination that you're talking about so how many? How much physical how much digital if it is possible to actually predict it. And based on what kind of aspects.

### Connect with other hospital

Some people actually want to have a psychologist or psychiatrist within their own region, so a better working together from our hospital with other. Go to their own hospital or their own supportive care giver in the region

### better digital way of making decisions:

making sure that people are better prepared to make the right decision and that they feel

### How could patients ask their questions

Ask questions, now is just call the general phone number, but sometimes the caregiver doesn't have time to answer or call back

### Make appointment

it's more about being able to plan your own appointments

### waiting experience

-the waiting experience because the only thing we do right now is showing. How long you have to wait: still would be interesting so that people are feeling more free to walk around and do what they want instead of being anxious and sitting in the waiting room.

#### Patient file

The file contains the data of patients, include: general information, treatment plan, body condition, supportive care plan. Patients and doctors have access for these data. These data of patients could help doctors to choose the type of digital intervention.

the patients file with other hospitals: send to hospitals about patients information would be very easier. If you click and you can send it instead of making a new story about patients, that would be difficult.

#### Making supportive care plan

The AI system helps specialists and patients make supportive care plan. The AI system could collect and analyze the data from patient files and make recommendations, for example what, when and where to make intervention...

using ai as the basis for the plan seems reasonable, but important that everyone understands who is actually making the plan

So maybe you can do them more together, like more shared decision-making.

Take the role of the doctor just that will be fine and maybe also the patient said if they want or will also they have a choice in it.

#### Waiting experience

Use the digital tools to improve the experience of waiting experience, for example, the digital tools for gamification, the booklet for preparing the followed consultation...

People could be more engaged. It increases, I think, trust in the supportive care.

Because the only thing we do know is to show how long you have to wait, it would still be fun to let people move around more freely and do what they want instead of sitting anxiously in the waiting room.

#### Online peer group

The platform help patients find the online peer group or care buddy. Also, they can have communicate online for support each others.

I think there's right now, there's not one platform for it, and it helps patients to have some contact with other patients. And also, they can communicate online to find more information or to have some questions.

#### Digital online source

Doctor provides the reliable resource of information. Patient could use the app or website to search the needed information.

it would require you are also going to have to train the health care professional to think digitally, to recognize the benefits

Recommending steer patients in the right direction; So that they don't Google themselves, silly in the right direction instead of Google.

#### Digital self management -psychology

Patients could use online course to guide the mind training and record the daily emotion for releasing. These course could be arranged by HCPs and adjusted by HCPs.

The need for psychological, psychological support is so significant right now. I mean, it's just getting bigger and bigger and the number of people, so we're forced to go to digital self management, and I think part of psychological help the goal should always be face to face. It's not a super effective, but it's kind of a necessary one.

#### Digital self management -physical exercise

Patients could use online course to guide the daily exercise and use the health devices to check the body condition and record the daily exercise. These course could be arranged by HCPs and adjusted by HCPs.

self management is supportive: the patient should responsibility for their own health

Health device has a risk for information overload: health device it can be useful. But there is also a large group overwhelmed of information



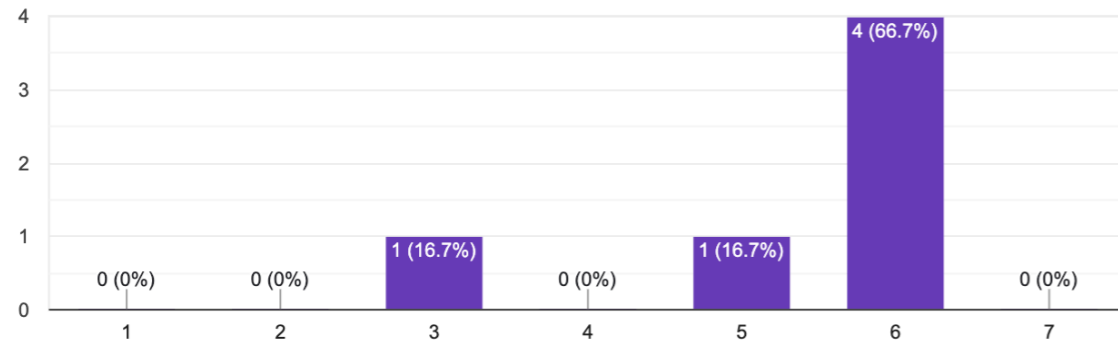
# Appendix L: Validation questionnaire

Check the video of "future scenario" and answer this questions

To what extent, would this new care model help patients have more access to care?



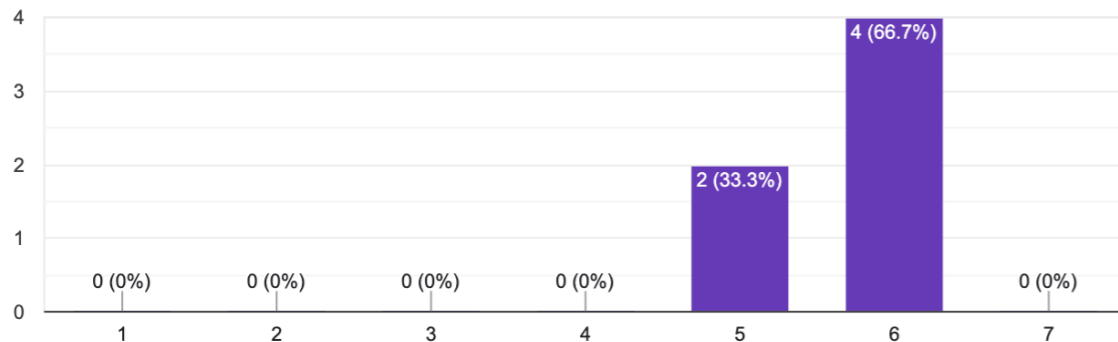
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To what extent, would this new care model help meet patients supportive care needs?



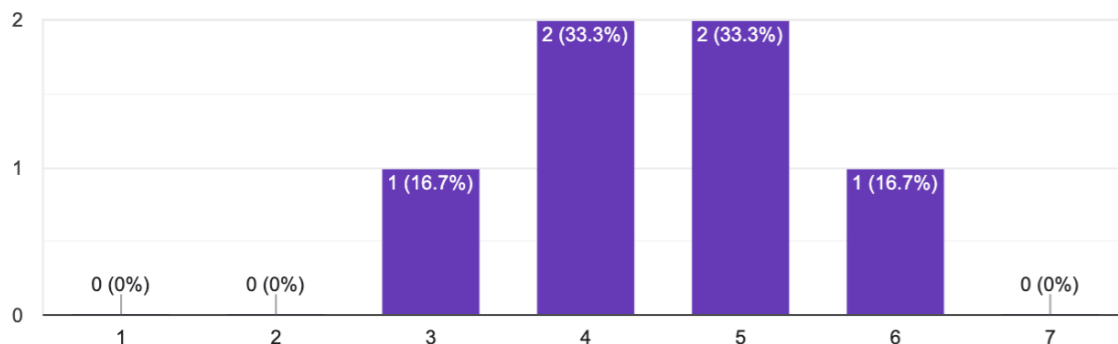
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In this future scenario, to what extent, would the workload for health care providers be released?



(6 条回复)



How do you feel this future scenario? why?

For patients with digital skills, the new possibilities could be very attractive. It would give them more control and personalization options for their diagnosis and treatment. Also, digital tools might be more available to them than scarce healthcare resources, such as specialized clinicians. I really like the idea of personalized care pathways. We would need a more robust digital foundation though to enable it. Currently, we do not have a good digital representation of the state of our hospital (a "digital twin") that an AI model could access for planning, for example.

1 条回复

I could feel it is an ideal scenario of supportive care for patient who have cancer. But the video seems to demonstrate that it could be implemented into every medical segments, like GP?. If it is only for cancer or some serious diseases, will the direct user of the system be the patient themselves? Because usually, when people have serious diseases, their relatives could also be the people who contact the hospital directly on behalf of the patient. Then do you also consider these stakeholders?

1 条回复

I think patients can definitely get better personalized healthcare service by this future scenario. One of my concerns is that even with the help of AI, it may still take time for doctors to personalise the patient journey, since healthcare is a very specific and sensitive topic.

1 条回复

I think it could effectively help the patients to get the doctor's advice in time. In the meantime, AI could predict and set the personal paths for the patient that is quite nice. So the patients will feel more control of their conditions.

1 条回复

I think a plan about supportive care it will help and to see the need and that it is available to everyone. And also important that every plan is tailor-made for every patient's needs

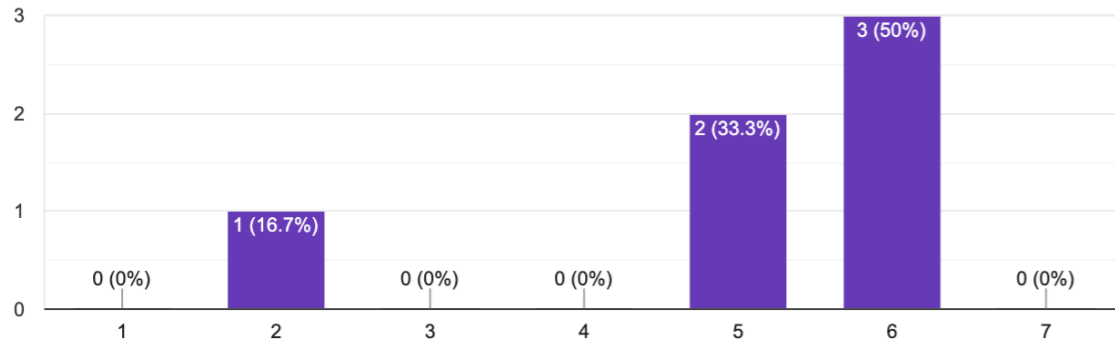
1 条回复

Check the video of "Support system prototype", and answer the questions

For the system, to what extent, would it be integrated well with the current workflow?



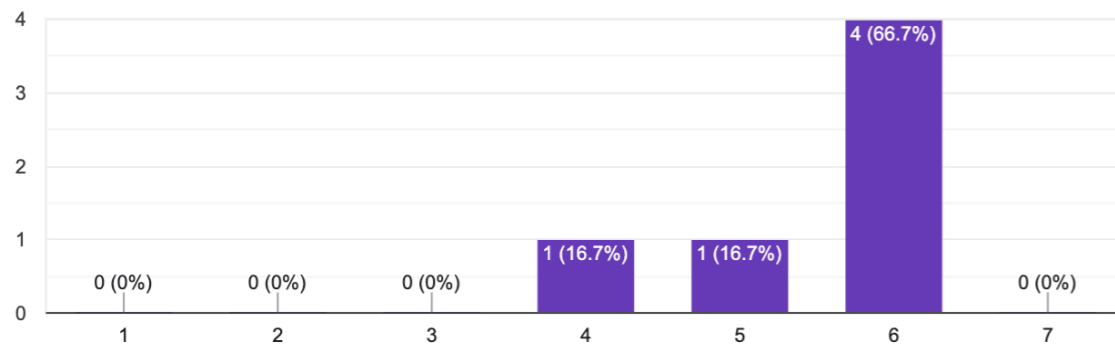
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To what extent, would this system help health care providers know how to provide care in digital or physically?



(6 条回复)



If this system applied in supportive care centre, how do you feel? and why?

This would be amazing to have working. It could really integrate digital care with more traditional physical care. Again, a major hurdle for now would be the digital infrastructure required to enable it. But this could all be solved technically, if we would really work at it.

1 条回复

I think it will be the future:) It will help us to lead the patient to his journey of treatment and after his treatment. The digital way make it easier and gives the patient his information and maybe it gives the patient more control

1 条回复

In general any system that health care providers use must be time-saving overall, and not time consuming. The system should guide the user automatically. It looks good as far as I can tell.

1 条回复

The system is quite easy to use for HCP to provide hybrid consultation. The UI design is clear. And it's smart to show the process of each consultation service.

1 条回复

It will help the care provider to document every patient's information effectively. But it may take times for staffs to learn how to use the system.

1 条回复

Yes. I think it's quite flexible to use for the staff. The staff both have the freedom to follow the recommendations or their own opinion.

1 条回复

How would you improve this system?

One question that came to me while watching the video is who exactly coordinates the care for the patient. In The Netherlands, a GP tends to do this, but usually loses contact with the patient when they are admitted to a hospital. In the hospital, we have the concept of the "hoofdbehandelaar" ("main treatment provider"). They might be able to fulfill the role of coordinating all the care, but would have to be well informed about the different treatment options outside of their usual area of expertise. Perhaps there's a role here for specialized nurses as well.

1 条回复

Now the system has different tabs like physiotherapy and psychology for one disease. I'm wondering is it necessary or possible to have an overview or different tabs of all the diseases of one patient. Because sometimes one patient may have several interrelated illnesses. And the consultation or treatment would also be related with each other.

1 条回复

For the second column, it would be better if the layout of the block could be neater and the information hierarchy could be demonstrated?

1 条回复

I don't know. First and foremost it is important to find out what the patient's needs are, so you can adjust the plan

1 条回复

Maybe it's could add the communication part. The staffs could leave the message for the patients on the platform.

1 条回复

This is the checklist for how to choose the digital care or physical care for patients. If it is not clear, please open the attachment in e-mail.

### Checklists for deciding the care model

Theme	Questions	Yes	Neutral	Not
Situation of care	- Do patients' problem require them to be seen in face to face?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Would having a digital care not make things easier for patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Do you think the treatment patients need can be delivered F2F care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Is it more convenient to patients to have F2F care at this time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expectations and preference of care	- Do patients have a bad experience of digital care and not believe in it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Would patients not be comfortable seeing themselves on a screen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Would a F2F care affect patients more positively ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Do patients feel F2F care is required for themselves?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demands on the patient	- Does the supportive care require for patients in face to face?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Is the session not be able to hold digitally?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Does patients not need to do other things that get in the way of a F2F?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Capacity to allocate resources to care	- Is there not financial problem if patients choose F2F care?(lose job, travel cost)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Do patients have access to what need to have for digital care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Do patients understand how to use what is needed for digital care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Do patients have anyone who could support you with a F2F CARE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	- Could healthcare system support patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The answers lead to three possible advices, you can use it as a reference for your decision:

1. Predominantly "Yes" ---> The supportive care would be better in physical oriented
2. Predominantly "Neutral" ---> Discuss the possibilities of digital care
3. Predominantly "No" ---> Discuss the possibilities of digital care



Case 1: by using the checklist, how you could provide the supportive care for this patient?



35 years, women, Dutch

**Situation of care**  
Breast cancer patients, 3 weeks after mastectomy;  
**Symptoms:** uneasy about side effect of mastectomy, very stressed;  
Feeling guilty about the family;  
Others: High level of mobility;

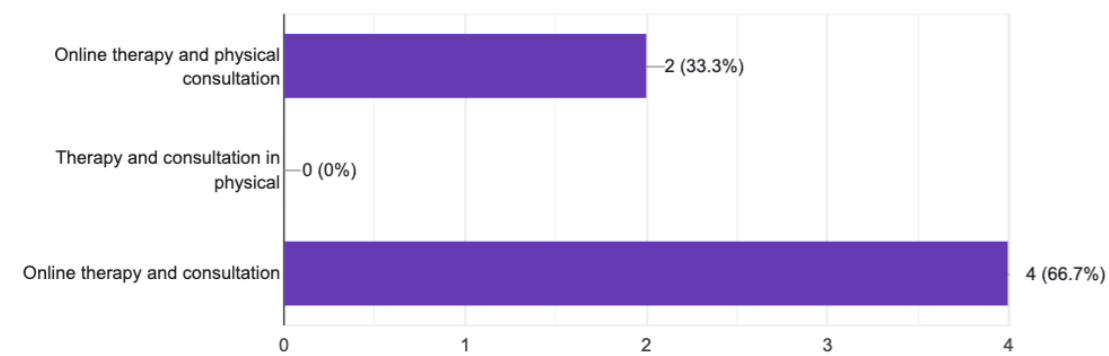
**Expectations and preference of care**  
Fine with digital or physical, but don't want to cause much burden on the family;  
Want to get support in current hospital;  
Haven't used online therapy before;

**Demands on the patient**  
**Supportive care:**  
Already have 1 hour consultation with psychologist;  
Need: Attend 30mins psychologist therapy session everyweek, 30mins follow-up consultation every month(3 times);  
**Personal life required:**  
Live with children(3 years), need to take care of children every day;

**Capacity to allocate resources to care**  
Lives 1 hour from the hospital by train;  
High digital capability;  
Good at computer and digital stuff;

Case 1: by using the checklist, how you could provide the supportive care for this patient?

(6 条回复)



Case 3: by using the checklist, how you could provide the supportive care for this patient?



50 years, women, Dutch

**Situation of care**  
Breast cancer patients during chemotherapy;  
**Symptoms:** poor appetite and weight loss;

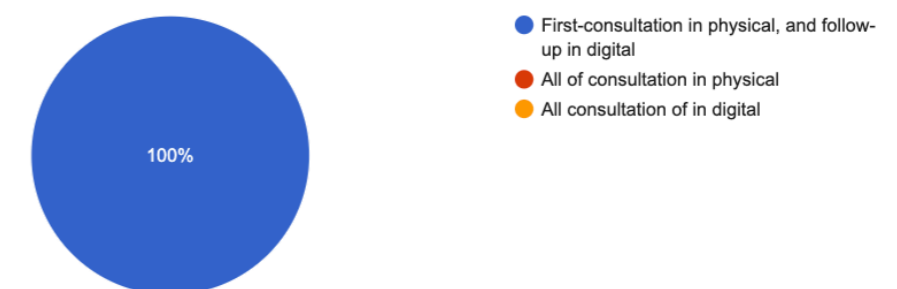
**Expectations and preference of care**  
Fine with digital or physical;  
Want to get support in current hospital;  
Haven't used online therapy before;

**Demands on the patient**  
**Supportive care:**  
30 mins first-consultation with dietitian  
15 mins follow-up consultation

**Capacity to allocate resources to care**  
Lives 30 mins from the hospital by car;  
Not really good at digital stuff, but she think she can ask daughter for help;

Case 3: by using the checklist, how you could provide the supportive care for this patient?

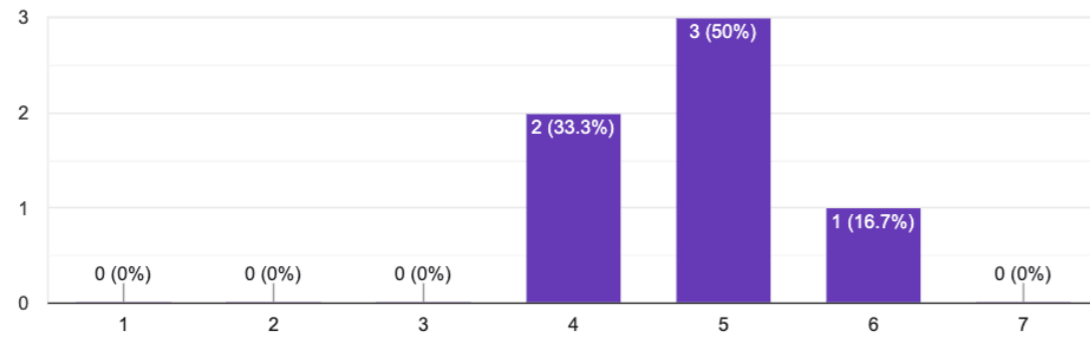
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To what extent, would this checklist help health care providers know how to provide care in digital or physically?



(6 条回复)



How would you improve this checklist?

(6 条回复)

questions/prompts by the checklist are a bit unclear for me

Preferably, make it shorter.

i don't know

For me, as a novice for supportive care, it could help me make decision easier

Maybe different categories could have the priority which depends on the preference of the patients themselves. Then staff could make the decision more easier.

emphasize the important word like "not" in the question

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# Appendix N: Project brief

DESIGN  
FOR our  
future



## IDE Master Graduation

### Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

**! USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT**

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

#### STUDENT DATA & MASTER PROGRAMME

Save this form according to the format "IDE Master Graduation Project Brief\_familyname\_firstname\_studentnumber\_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !

family name	<u>Long</u>	Your master programme (only select the options that apply to you):
initials	<u>T</u> given name <u>Tingwei</u>	IDE master(s): <input type="radio"/> IPD <input type="radio"/> Dfl <input checked="" type="radio"/> SPD
student number	<u>5316464</u>	2 <sup>nd</sup> non-IDE master: _____
street & no.	_____	individual programme: - - - (give date of approval)
zipcode & city	_____	honours programme: <input type="radio"/> Honours Programme Master
country	_____	specialisation / annotation: <input type="radio"/> Medisign
phone	_____	<input type="radio"/> Tech. in Sustainable Design
email	_____	<input type="radio"/> Entrepreneurship

#### SUPERVISORY TEAM \*\*

Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair	<u>Richard Goossens</u>	dept. / section: <u>HCD</u>
** mentor	<u>Silje Dehli</u>	dept. / section: <u>DOS</u>
2 <sup>nd</sup> mentor	_____	
	organisation: _____	
	city: _____	country: _____
comments (optional)	: : :	

- ! Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v.
- ! Second mentor only applies in case the assignment is hosted by an external organisation.
- ! Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

Mapping hybrid patient journey for supportive care project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 07 - 02 - 2022 01 - 07 - 2022 end date

**INTRODUCTION \*\***

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

As we can see, a recent Amwell survey shows, that 92% of physician respondents expect to keep using telehealth even after the pandemic. However, when the pandemic is behind us, many people will still want to see their healthcare providers in person. Ideally, telehealth remains a viable option rather than a necessity, its purpose being to be a supplement and complement. That's why we have a new concept called the hybrid model which could be a balance between digital care and physical care which combines their benefits of them (figure 1)[1]. In terms of reality, practices and health systems should be well equipped to offer a hybrid care model to patients and should consider lots of problems to provide a successful service, like when and how digital care works better in a complex medical situation?

Supportive care interventions, regardless of their diversity or who provides them, seek to improve and preserve the quality of life, autonomy and are aimed toward empowerment and optimizing wellness. To be effective, supportive care must be matched with, an individual's needs within the context of the patients' unique situation[2]. Thus, the different patients would choose the different supportive care where the involved actors are various. Digital intervention as one part of the hybrid model has four categories: Interventions for clients; Interventions for healthcare providers; Interventions for a health system or resource managers; Interventions for data services. The research has found the use of telehealth has altered the typical pattern of health providers-patient interaction[3]. Thus, the changes in supportive care should be looked into, when digital interventions enter the system.

In conclusion, there are lacking of studies on patients journeys of the hybrid model. And, it is not clear that the roles of physical and digital care at different phase, and the interaction of stakeholders. These are not conducive to the implementation of hybrid models in reality. I believe my end result would contributes to this problem.

We choose breast cancer patients as the target group for narrowing the scope of the research. Breast cancer survivors represent 22% of the estimated 10.1 million cancer survivors and 40% of all female cancer survivors[4]. They have some unmet demands of supportive care which have reduced the quality of life. The most serious two are informational support and emotional support. Previous research has established that breast cancer patients have derived the most benefit from telemedicine[5]. So it is reasonable to choose breast cancer as a case to study how the supportive care plan integrated with the hybrid model.

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introduction (continued): space for images

	Face-to-face care	Digital-care
Benefits	<ul style="list-style-type: none"> <li>• Low capability barrier for patients</li> <li>• Patients feel more security and more convincing</li> <li>• The way the organization more familiar with</li> </ul>	<ul style="list-style-type: none"> <li>• Improved access to information;</li> <li>• Provision of care not previously deliverable;</li> <li>• Improved access to services and increasing care delivery;</li> <li>• Improved professional education;</li> <li>• Quality control of screening programmes.[1]</li> </ul>
Drawback	<ul style="list-style-type: none"> <li>• Time and money consuming</li> <li>• Health providers have huge workload</li> <li>• Corona-risk</li> </ul>	<ul style="list-style-type: none"> <li>• Hurt relationship between health professional and patient;</li> <li>• Issues concerning the quality of health information;</li> <li>• The digital divide-affect low-income, rural, disabled, racial/ethnic-minority, and elderly populations.[2]</li> </ul>

**“Hybrid model could bridge the gap between digital care and traditional face-to-face care”**



1. Hjelm, Nils. (2005). Benefits and drawbacks of telemedicine. *Journal of telemedicine and telecare*. 11, 60-70. 10.1258/1357633053499886.
2. Gray DM, Joseph JJ, Olayiwola JN. Strategies for Digital Care of Vulnerable Patients in a COVID-19 World—Keeping in Touch. *JAMA Health Forum*. 2020;1(6):e200734. doi:10.1001/jamahealthforum.2020.0734

image / figure 1: The comparison of two care-model

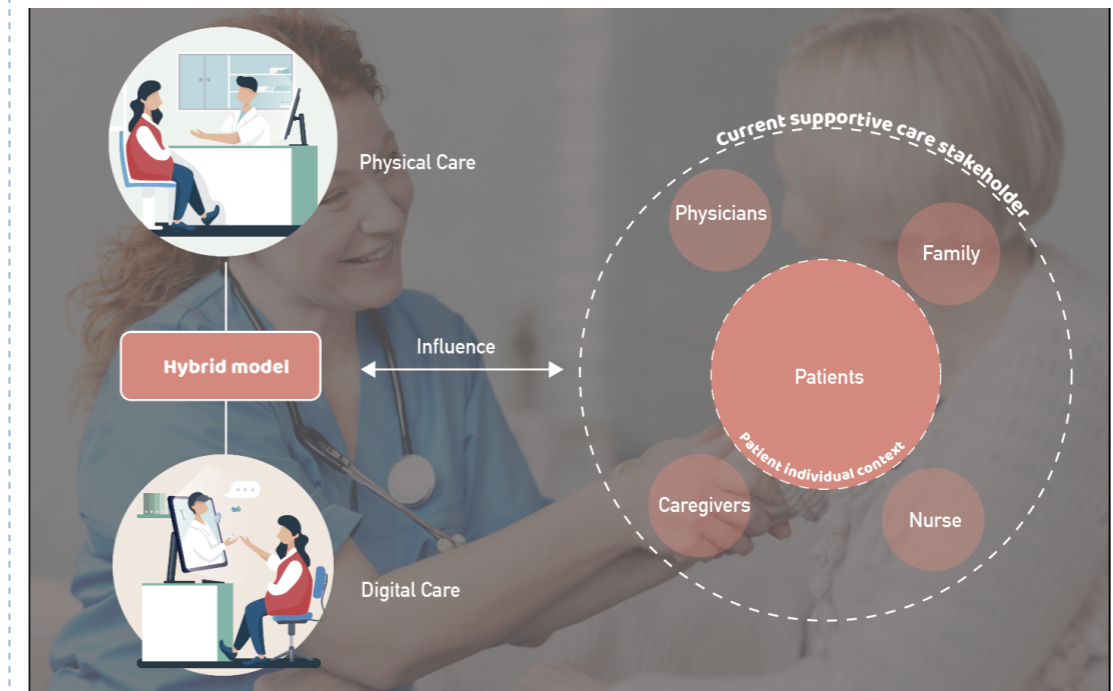


image / figure 2:

**PROBLEM DEFINITION \*\***

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

We should consider how to tie together digital care and face-to-face care to create a seamless experience that fully envelops patients in care when and where it's needed.

However, it is not clear how the hybrid model fits into the context of supportive-care plan. For example, there is unclear definitions of the roles of physical and digital care at different phase, and few description of the interaction between stakeholders. These are not conducive to the implementation of hybrid models in real-world health contexts.

The patient journey map methodology I would like to use could visualize this dynamic and complex process. It could show physical, rational, and functional aspects of the patient experience as well as the emotional, interactional, and feelings aspects of patient experiences. Besides, it's also helpful to show how the stakeholders interact with each other in different phases.

This project would map the hybrid patient journey of the supportive-care plan, so as to optimize the digital experience for improving their quality of life and provide guidances for hybrid model's implementation. We focus on breast cancer patients. The project should identify the workflow of the hybrid model for providing supportive-care plan for breast cancer patients. We would clarify when and how to involve digital health intervention into a supportive-care plan based on the patients' conditions. From the perspective of the system, the role of different stakeholders would be described. These results could form the basis for the implementation and development of hybrid model.

Last but not least, we aim to optimize the digital health experience. I would like to propose some design strategies or guidelines to improve the digital health experience during the journey and give one design example to show bring the different guidelines together.

**ASSIGNMENT \*\***

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, ... . In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

I would explore when and how to involve the digital care in patients' supportive care plan, and clarify the role of stakeholders in the different phrases. I would propose some design strategies for optimizing the digital health experience and improving patients' quality of life

Possible deliverables for this project are:

- 1.A future patient journey map/ service blueprint for providing a hybrid supportive-care plan
- We want to tell the audience "the patient's needs in different phases", "the roles of different stakeholders", "the role of telehealth" under the hybrid supportive-care plan by using the visualized way.
- We also want to show the strategies for guiding health providers to provide different supportive-care plan for different patients.

- 2.The design strategies or guidelines to improve digital health experience during the journey
- I will propose some design guidelines or design strategies for improving the digital health experience under the context of hybrid supportive-care plan. I think these strategies would inspire the (healthcare) designers who interested in designing for hybrid supportive-care plan.
- And I will pick one opportunity to design an "MVP" prototype for showing how to develop the experience by using the strategies I propose.

**PLANNING AND APPROACH \*\***

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 7 - 2 - 2022 end date 1 - 7 - 2022

First day of week	7 feb	14 feb	21 feb	28 feb	7 mar	14 mar	21 mar	28 mar	4 apr	11 apr	18 apr	25 apr	2 may	9 may	16 may	23 may	30 may	6 jun	13 jun	20 jun				
TU Week	3.1	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9				
Project week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
Working days	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5				
Deadline	Kick-off				Mid-term							Greenlight							Hand-in					
Activity	Days																							
1) Preliminary research	17	Preliminary research																						
Literature research	9	4	2	2	1																			
Context research	6	1	2	2	1																			
Draft mapping	2	1	1																					
2) Research	25	Research																						
Desk study for digital care	7	2		3	2																			
Observation	5	2		2	1																			
Experts interview prepare	4	1		1	2																			
Experts interview	4	1		1																				
Analysis	5	1		4																				
3) Patients Research	24	Patients Research																						
Patients interview prepare	5	3		2																				
Patients interview	5	3		2																				
Analysis	5	3		2																				
Mapping	6	3		3																				
Strategy generate	3	2		1																				
4) Concept development	17	Concept development																						
Choose one design concept	2	2																						
Prototyping	5	2		1																				
Testing	4	2		1	1																			
Analysis	4	1		3																				
Recommendation	2	1		1																				
5) Documentation	17	Documentation																						
Thesis report	8	1		1	1																			
Presentation	9	1		2		2		2	2	2														

The plan, as can be seen in the chart, is to start my graduation project at the beginning of February, then graduate at the end of June. Every week I will be working 5 days a week on my graduation project as I have no parallel activities.

- 1) Preliminary research  
In the first phase of my project, I will go deep into the context of my project, like the digital intervention, consultation room, hybrid model, and supportive care plan. I will map a draft journey of general supportive care.
- 2) Research  
After that, I will do the desk research on digital intervention, classify the digital tools in different phases. And I will define the stakeholders and examine their relationship to each other by having observation research on Erasmus MC.
- 3) Patients research  
After having some interviews with actors(nurse, doctors), I start to get touch with real patients. By getting insight with interviews, I will try to specify the hybrid map, presenting how and when to make the digital intervention as well as how stakeholders changes. Meanwhile, I will have some strategies for health providers to provide different supportive care plans for different patients.
- 4) Concept development  
Finally, I will propose some design strategies and develop one concept for final testing and evaluation, so as to show how could bring these strategies together.
- 5) Documentation  
I leave enough time for preparing the presentation and final report.

These phases are not sequential, sometime they have overlap during the real project.



### MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, ... . Stick to no more than five ambitions.

Multiple reasons why I am motivated to execute this assignment:

The first one is that I am very concerned about the healthcare field. My mother was a doctor, and I grew up in the hospital. Therefore, I have been very familiar with the healthcare context and paying attention to this field.

Secondly, digital healthy experience is the future trend. Under the influence of the epidemic, more and more people have adapted to this new approach. I would like to dig deeper into the fields of healthcare design and digital experience.

Thirdly, I am very interested in women's health. Due to social culture women has the stigma of woman's health problem, and lack of knowledge. I hope to explore this topic and help women understand their bodies better. In my health psychology class, I began to gradually understand the context of breast cancer survivors. It was a nice experience and interesting topic, so I hope to have a longer period to go deep in this field.

Personal learning ambitions:

-Developing the ability to deal with complex problems. Under this topic, I need to consider different scenarios, individual contexts of different patients, and different stakeholders. This system is complicated. If I can finish this project, I think my ability will be improved.

-Developing the ability to optimize the user's digital experience.

-Digging deeper into the fields of health context.

### FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.