THE EXPERIENCE OF CANCER
RESEARCH AND DESIGN FOR THE ONCOLOGICAL CENTER

NKI-AVL
Paimio Sanatorium, Alvar Aalto (1929), Finland
new developments
new developments
new developments
new developments
What are the feelings, concerns and attitudes of patients in relation to their (built) environment?
Field Research

Netherlands Cancer Institute / Antoni van Leeuwenhoek hospital
Dit waren de belangrijkste momenten na de (eerste) diagnose...


Hier ben ik geweest...

In welke ruimtes bent u geweest toen u in het ziekenhuis was, welke ruimtes kunt u zich goed herinneren?

Kunt u de betreffende ruimte aankruisen en met behulp van de collage afbeeldingen aangeven aangeven waar u deze ruimte mee associeert?
Patient experience Scenario

The scenario of ‘Willem’

Name: Willem
Age: 53
Profession: Financial Consultant
Diagnosis: Bowel Cancer

This is actually not Willem (Source: Getty Images)
The first encounter with the Cancer Clinic

The first encounter with the Cancer Clinic is really important for the patient as well as for the appearance of the Hospital building itself. From this first impression the patient will judge if this hospital is professional, clean and would provide him with the right care. Guidelines in this aspect are:

- **Human Scale**
  
  In designing the building will provide personal care, you should avoid the "sterilized feeling," a way of things that is keeping the human scale in mind and try to avoid big and monumental spaces.

- **Clarity**
  
  For the patient it is important to know where to go in a instant moment, therefore the floorplan should be clear and visible.

- **Direct access to information**
  
  Cancer patients suffer from a big uncertainty, and feel fast, they want to have fast access to information to feel to be in control.

The importance of the waiting room

One of the spaces were the patient is most sensible to its environment in the search for distraction and comfort is within the waiting room of the Polyclinic.

**Avoiding Conformism**

Because the Polyclinic is also the place were the confrontation takes place with other cancer patients in different stages of the disease, possibilities to retreat and create privacy should be taken into account.

**Providing distraction**

Also the waiting room should provide some distraction or items to conversation starters. This could be with the temptation for the exhibit of specific art objects.

Also ideas to introduce things to have a view outside to prevent the patient will get the feeling he is closed of from outside. Immediate exit:

After the meeting with the doctor the possibility should be created to have another way out, instead of going again through the waiting room. Because in most cases the patient wants to retreat and get out to his own comfort zone as fast as possible.

The day of the operation and the day after

When a operation the cancer issue is surgically removed from the body. In the case of bowel cancer this means that this will also mean a healthy part of the body is removed. For the other hand the surgery and the most of the hospital visit will be done not in one day but in different steps over several days. Nurse explains what is done with the operation and aftercare.

Appearance

Although, every type of department has its own organizational properties, it would help to have a certain theme at the basis of every part of the building.

**Shared language in design**

This shared identity could count for the doors, door handles, Flooring, wall types in shared and more public spaces.

The spaces which are really defined to the stay for small groups of people like for example in daycare or internal care treatment could differ more from each other.

**Providing Storage**

In the hospital the patient will have their own island. This means that storage should be made available. This will be done in a special way to minimize the stress and the anxiety of the patient.

**Natural atmosphere**

Like from the beginning.

More hospitals have a clean white, factory like finish in order to alter this association. The hospital could contribute from introducing natural materials, like wood and ceramics which are naturally anti-septic and anti-bacterial.

This, along with the advice set out by Healing Environments, there should be a sufficient amount of daylight within the building. More daylight improves the cardiac rhythm and therefore healing this could be combined with windows and contact with the outside.
First encounter with the Cancer Clinic

The first encounter with the Cancer Clinic is really important for the patient as well as for the appearance of the Hospital building itself. From this first impression the patient will judge if this hospital is professional, clean and would provide him with the right care.

Guidelines in this aspect are:

- Human Scale
  - In assisting that the building will provide personal care, you can create a ‘human feeling’. A way of doing this is keeping the human scale in mind and try to avoid big and monumental spaces.
- Clarity
  - For the patient it is important to know where to go in a instant moment, therefore the layout should be clear and not entice the patient.
- Direct access to information
  - Cancer patients suffer from a big uncertainty, and feel lost, they want to have fast access to information to feel in control.

Design Strategies

In this part design strategies are proposed, or what you can do to improve the situations described above, you can see this as a kind of considerations which will be developed further in the architectural design.

First encounter with the Cancer Clinic

Patient experiences having uncertainty

Patient is confronted with Cancer

Anxiety for the end of the diagnosis

Dealing with Cancer

When the Doctor brings the message: ‘You have cancer’. It has tremendous impact on the patient. Often they want to get out of the hospital as soon as possible and don’t want to be confronted again with the people waiting for their appointment as well.

After this first emotion of retreat and denying Cancer there is the question, so what next? What helps here, or at least in the NV-AV, is that there is a clear treatment plan. Although their life is turned upside down, there is a certain clarity of process the patient has to go through to have a certain chance of survival.

This treatment plan is greeted with acceptance, and the patient is often willing to fight the cancer and go through the operations, chemotherapy’s and radiation treatment.

At this point the patient feels that they have lost control, and they are dependent on the hospital for their cure of the disease.

Week later:

Blood tests, Endoscopic research to check the diagnostic area. This the patient goes from the Policlinic to the Intake for Operation.

Patient wakes up in the recovery room. Surgeon performs the surgery to remove the tumor. After surgery the patient is transferred to the Policlinic area for Aftercare.

The importance of the waiting room

The importance of the waiting room

"Voor de strijd kom te vroeg voor je vertrouwens

Patient is wating for the result of the test that will give a huge support but uncertainty as well. The family is of big importance to this patient, therefore the waiting room must be equipped with facilities for conversation with the patient for an understandable conversation. This could be a vitrine with a temporary exhibition of specific art objects. Providing distraction takes place with other cancer patients in different stages of the disease. Because the Policlinic is also the place where the confrontation with other patients takes place, a special place is needed for this purpose. In either way, the outlook of the hospital should promote a clean environment. Providing Storage of people, like for example in daycare or internal care treatment.

The spaces which are really defined to the stay for small groups are the waiting room of the Policlinic. Although, every type of department has its own regularities within the Policlinic.

Appearance

Although, every type of department has its own organizational properties, it would help to have a certain theme at the basis of every part of the building.

Shared language in deconing

This shared identity could count for the doors, door handles, finishing, wall and ceiling in shared and more public spaces.

The spaces which are really defined to the stay for small groups of people like for example in daycare or internal care treatment could differ from each other.

Providing Storage

In this way the outlook of the hospital should promote a clean and professional outlook, this means a sufficient amount of daylight, light colors on the walls and furthermore a clean environment with as less clutter as possible.

Nature and atmosphere

Like from the beginning. Most hospitals have a clean white, factory like finish in order to alter this association. The hospital could contribute from introducing natural materials, like wood and ceramics which are naturally anti-septic and anti-bacteriostatic.

Contact with the outside

Along with the advise set out by Healing Environments, there should be a sufficient amount of daylight within the building. More daylight improves the cardiac rhythm and therefore healing this could be combined with windows and contact with the outside.
First Signs of Cancer

- First encounter with the Cancer Clinic
  - Monday afternoon:
  - Doctor performs tests and tries to set out a diagnosis

Dealing with Cancer

- When the Doctor brings the message: You have cancer. It has tremendous impact on the patient. Often they want to get out of the hospital as soon as possible and don’t want to be confronted with the people waiting for their appointment as well.

- After this first emotions of retreat and denying Cancer there is the question, so what next? What helps here, or at least in this case, he enters a hospital specific for cancer.

- This anxiety makes the waiting for the message often extremely stressful, any minute is already a minute too long. The environment of the polyclinic can play an important role in the formation of the patient making the waiting more bearable for the patient and family.

- In illustrating that the building will provide personal care, you will judge if this hospital is professional, clean and would provide him with the right care.

- Providing distraction
  - The spaces which are really defined to the stay for small groups should be a sufficient amount of daylight within the building,
  - Along with the advice set out by Healing Environments, there could be a sufficient amount of daylight within the building, more daytime improves the cardiac rhythm and therefore healing this could be combined with windows and contact with the outside.

- With a operation the cancer tissue is surgically removed from the body. In the case of bowel cancer this means that this will also mean a healthy part of the bowels is removed to ensure there is no cancer tissue around the spot which was originally found.

- For the patient, the operation starts with the introduction room, here the patient is transferred from his hospital to a operation bed and his anaesthesics are injected into his body. Most of the time, people are not really aware about the spaces around them because everything happens in a kind of a bubble.
First encounter with the Cancer Clinic

Monday afternoon:
Doctor performs tests and tries to set out a diagnosis

First signs of cancer
Making a diagnosis

Monday morning:

Design strategies

First encounter with the Cancer Clinic

The first encounter with the Cancer Clinic is really important for the patient as well as for the appearance of the Hospital building itself. From this first impression the patient will judge if this hospital is professional, clean and would provide him with the right care. Guidelines in this aspect are:

- Scale
- Human Scale

In assessing that the building will provide personal care, you should remove the ‘cookie-cutter’ type of design by keeping the human scale in mind and try to avoid big and monumental rooms.

Direct access to information

Cancer patients suffer from a big uncertainty. And feel lost, they want to have fast access to information to feel to be in control.

From the first moment, something is wrong with the patient. It doesn’t have to mean that the patient has cancer. But surely from the first point onwards a indication can be made towards the disease of cancer this creates a uncertainty for the patient. It depends on the type of cancer whether this process of visible symptoms happens quickly or over a longer period.

Patient experiences having uncertainty

Patient is confronted with Cancer

New information is overwhelming.

First of all the patient has to be prepared for the disease and how this is described above, you can see this as considerations which will be developed further in the architectural design.

Anxiety for the end of the result diagnosis

When the Doctor brings the message ‘You have cancer’. It has tremendous impact on the patient. Often they want to get out of the hospital as soon as possible and don’t want to be confronted again with the people waiting for their appointment as well.

After this first emotion of retreat and denying Cancer there is the question, ‘what next?’. What helps here, if at least in the first 3 days, that there is a clear treatment plan. Although their life is turned upside down, there is a certain clarity of processes the patient has to go through to have a certain chance of survival.

This treatment plan is greeted with acceptance, and the patient is often willing to fight the cancer and go through the operations, chemotherapy’s and radiation treatment. At this moment the patient feels that they have lost control and start getting dependent on the hospital for their cure of the disease.

Dealing with Cancer

When a cancer is surgically removed from the body in the case of bowel cancer this means that this will also mean a healthy part of the bowels is removed to ensure no cancer tissue around the spot which was originally found.

For the patient the operation starts with the introduction room, here the patient is transferred from his hospital bed to a operation table and his anesthesiologist are injected into his body. Most of the time people are not really aware of the spaces around them because everything happens in a kind of fable.

Operation and Aftercare

When a cancer operation was successfully done there are you, you are still a bit under anesthesiata so you cannot really react on the environment.

If the operation was very critical the patient is transferred towards the Intensive Care Unit area. Here the patient is further monitored and analysed before he can brought back towards the normal internal care department.

Appearance

Although, every type of department has its own organisational properties, it would help to have a certain theme at the areas of every part of the building.

Shared language in designing

This shared identity could count for the doors, door handles, flooring, wall types in shared and more public spaces. This could differ more from each other.

Providing Storage

In either way the outlook of the hospital should promote a clean environment with less clutter as possible.

Nature of atmosphere

Most hospitals have a clean white, factory like finish, in order to alter this atmosphere the hospital could contribute from introducing natural materials, like wood and ceramics which are naturally anti-bacterial and anti-bacterial. Contact with the outside

Along with the advice set out by Haeling Environments, there should be a sufficient amount of daylight within the building, more daylight improves the cardiac rhythm and therefore healing this could be combined with windows and contact with the outside.

Operation

Aftercare

The family can visit the patient and provide support

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For the patient, the operation starts with the introduction room, here the patient is transferred from his hospital bed to an operation table and his anesthesiologist are injected into his body. Most of the time, people are not really aware of the spaces around them because everything happens in a kind of fable.

The patient registers at the internal care department or ICU

Surgeon gives report of the operation and his recommendations

The family visits the patient

Patient prepares for the operation

Patient is transfered towards the operation department or ICU

The patient registers at the internal care department or ICU

Surgeon brings forward the plan of operation, anesthetist gives the patient the drugs

Patient is wakening up after the operation

The patient is transferred towards the recovery rooms

Nurse provides the patient the information and care

Patient vanishes to the recovery rooms

The family can visit the patient and provide support

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For the patient, the operation starts with the introduction room, here the patient is transferred from his hospital bed to a operation table and his anesthesiologist are injected into his body. Most of the time, people are not really aware of the spaces around them because everything happens in a kind of fable.
Design
Cancer Care Center Leiden
In the next decade there will be a 40% increase of Cancer patients in the Netherlands in the coming decade.

The focus of treatment will shift from long stay to day care.
The Cancer Center in Leiden will provide centralized local care. It has the capacity to provide high-end cancer care for around 5000 patients on a yearly basis.

- 25 beds Long Stay intern care
- 35 beds Daycare places
- Diagnostic department
- Operation Rooms
- Knowledge library
- Radiation Therapy

Total program: 8000 m²
Design Strategies

- First encounter with the cancer clinic
- The importance of the waiting room
- Appearance
- Patient information terminal
- Providing distraction
- Retreat
- Providing privacy through single patient rooms
- A environment you can control
- Night situation
- Space for silence and reflection
Design Strategies

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- A environment you can control
- Night situation
- Space for silence and reflection
First encounter with the cancer clinic
First encounter with the cancer clinic

Human Scale
Clarity
Direct access to information
First encounter with the cancer clinic
First encounter with the cancer clinic
First encounter with the cancer clinic
First encounter with the cancer clinic
human scale

First encounter with the cancer clinic
human scale and clarity

First encounter with the cancer clinic
human scale and clarity

First encounter with the cancer clinic
human scale and clarity

First encounter with the cancer clinic
First encounter with the cancer clinic
First encounter with the cancer clinic
human scale and clarity

First encounter with the cancer clinic
direct access to information

First encounter with the cancer clinic
direct access to information

First encounter with the cancer clinic
direct access to information

First encounter with the cancer clinic
Importance of the waiting room
Importance of the waiting room

- Avoiding confrontation
- Providing Distraction
- Immediate exit
Importance of the waiting room
avoiding confrontation

Importance of the waiting room
avoiding confrontation

Importance of the waiting room
avoiding confrontation

Importance of the waiting room
Appearance
Appearance

Natural atmosphere
Shared language in details
Contact with the outside
Contact with the outside

Appearance
Making hospital technology invisible
Making hospital technology invisible
Making hospital technology invisible
Making hospital technology invisible
Making hospital technology invisible
Making hospital technology invisible
Making hospital technology invisible
Making hospital technology invisible
Providing distraction
Providing distraction

Activity rooms
Promote social interaction when wanted
Provide interesting views to the outside
Providing distraction
activity rooms and family rooms

Providing distraction
activity rooms and family rooms

Providing distraction
promote social interaction when wanted
promote social interaction when wanted

Providing distraction
promote social interaction when wanted

Providing distraction
Interesting views to the outside

Providing distraction
Retreat
Retreat

Private sitting places in the patient ward
Inner gardens which are accessible
private sitting places with outside view
private sitting places with outside view
accessible inner gardens
accessible inner gardens
accessible inner gardens
Single patient rooms
Single patient rooms
increasing the border between hallway and patient room
increasing the border between hallway and patient room

Single patient rooms
Single patient rooms increasing the border between hallway and patient room
increasing the border between hallway and patient room
Space for silence and reflection
Space for silence and reflection
Space for silence and reflection
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Space for silence and reflection
Conclusion
With thanks to
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