

Transforming Patient Care in the ER

The graphic design features several thick, horizontal lines in shades of pink, orange, and maroon. A prominent pink line starts from the left, curves upwards into a semi-circle, and then continues horizontally to the right. Below this, there are three more horizontal lines: an orange line that curves downwards, a pink line that curves upwards, and a maroon line that is straight. These lines are arranged in a way that suggests a flow or a process.



why

we're working in the ER?

Project Overview
Design Process

what

we've seen so far.

Patient's Stories
Journey Models

where

we're going.

Opportunity Areas
Design Implications



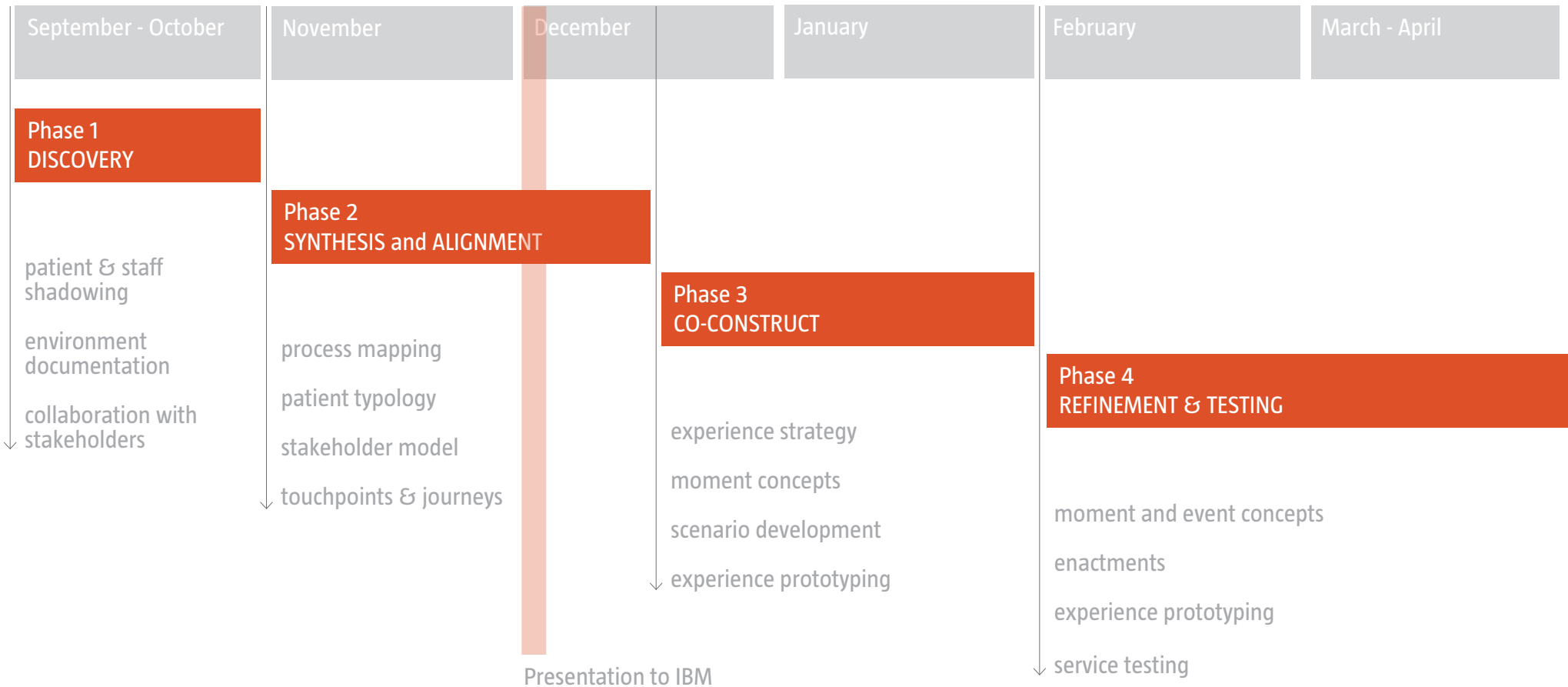
design and health care... why?

We see value in applying design tools, methods and frameworks to shape the patient and provider experience.

Human-centered approach

Co-creation

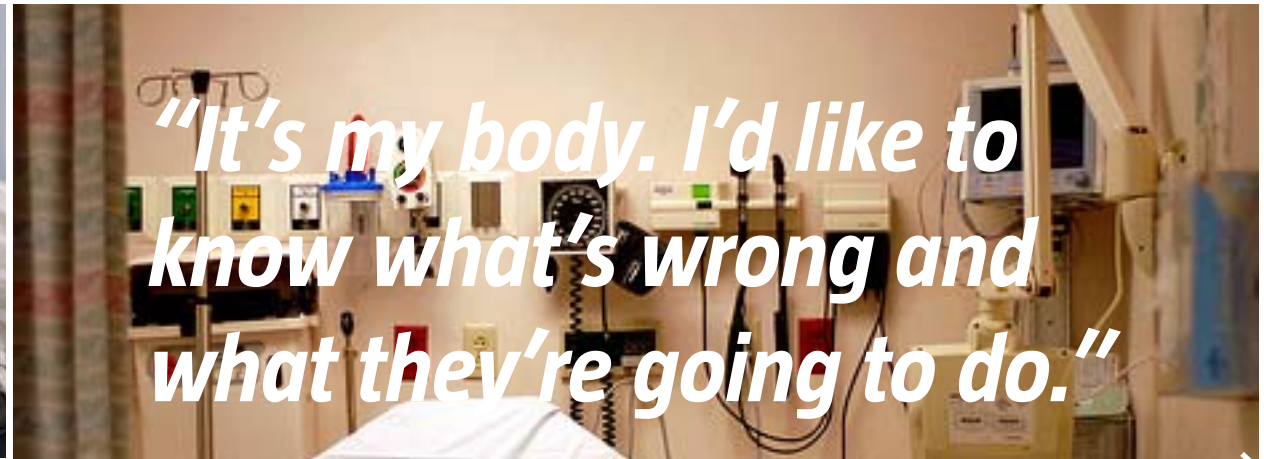
Rapid service prototyping



Our Design Process

Our service design process draws from a human-centered approach. This incorporates participatory design and experience prototyping .

Patients come to the ER with more than medical conditions, they bring with them expectations, experiences and needs.



meet "joe"

expectations

Extensive medical history and past negative health care experience.

Intent on staying fully informed throughout his stay in the ER.

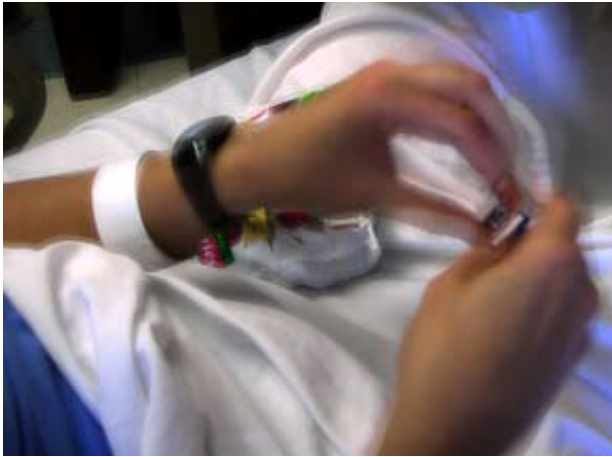
Frequently asks nurses & doctors questions about medical condition.

results

25 minutes after diagnostic test, he is told that results are normal, will be admitted for observation and that his doctor will be contacted.

Relieved to receive information that he needs.

Despite negative feelings during his consultation, he is satisfied in the end with his visit to the ER.



“Every patient deserves the same level of care regardless of emergency.”

meet “sally”

expectations

Second consecutive trip to the ER, but reluctant to come back. almost left before being discharged.

Convinced by her family, she decides to come back to the ER and hopes it will be better than the last.

Aunt had a recent visit to same ER that was highly positive.

results

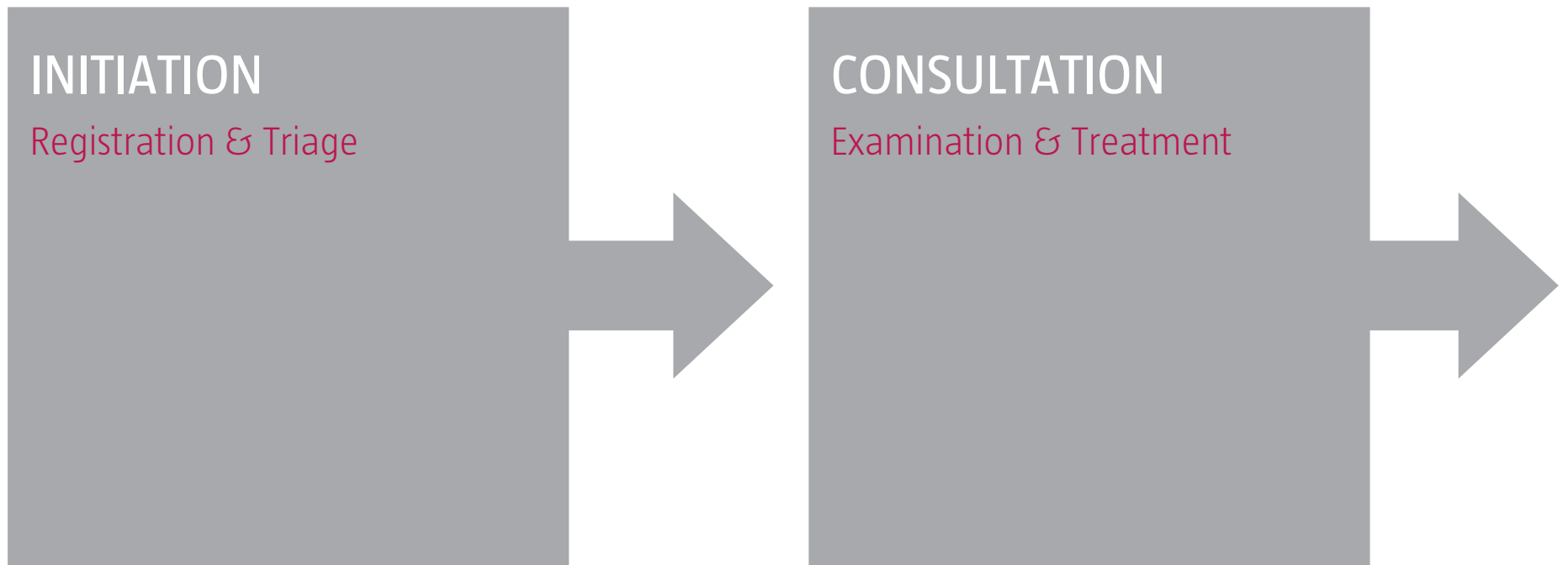
She is required to undergo identical tests to the day before.

Left in the room for over an hour with no information.

Family chooses to find the doctor on their own.

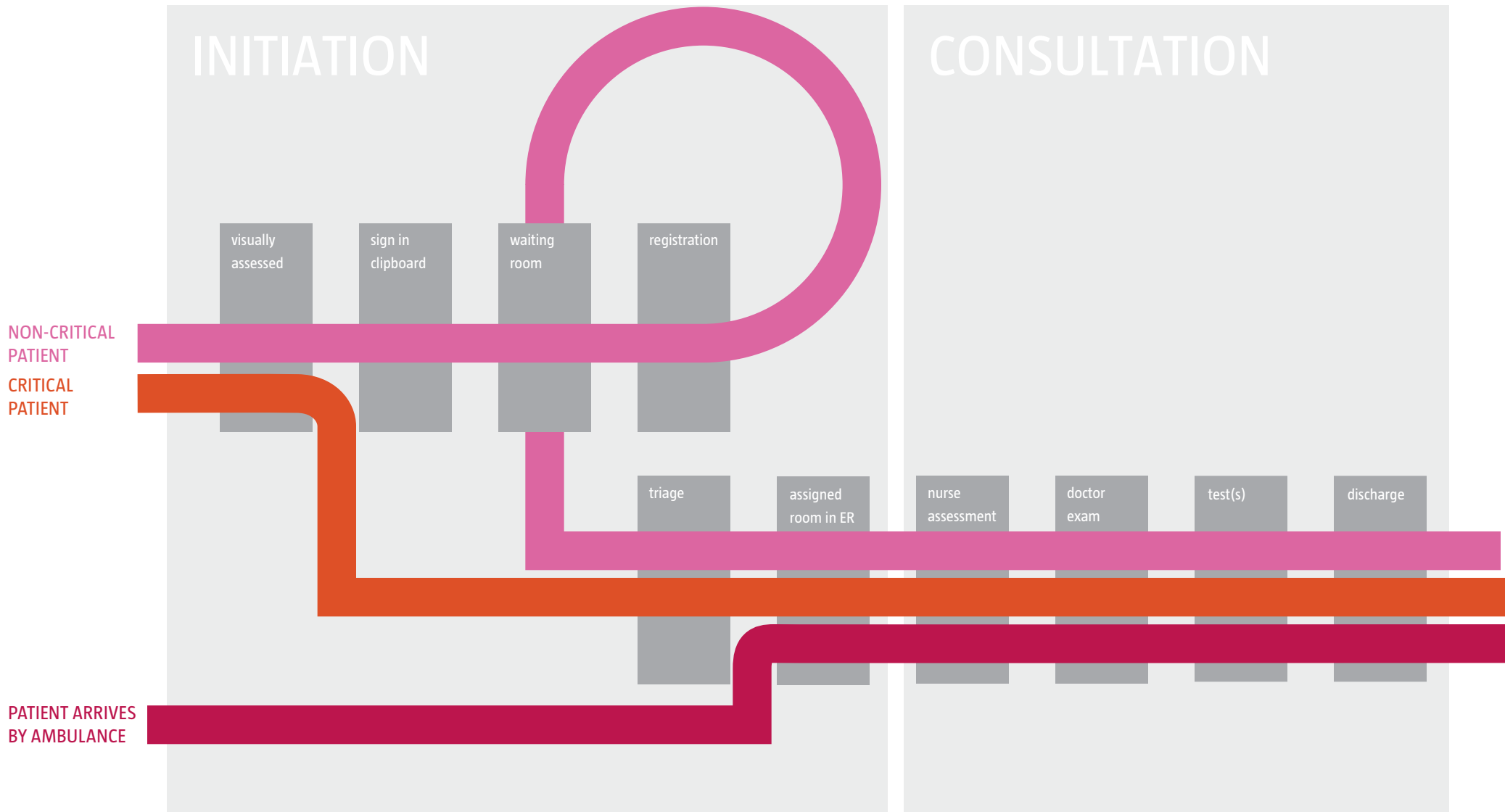
She leaves ER without diagnosis or test results.

The intended journey does not
always match the patient's experiences.



High-level Process Flow

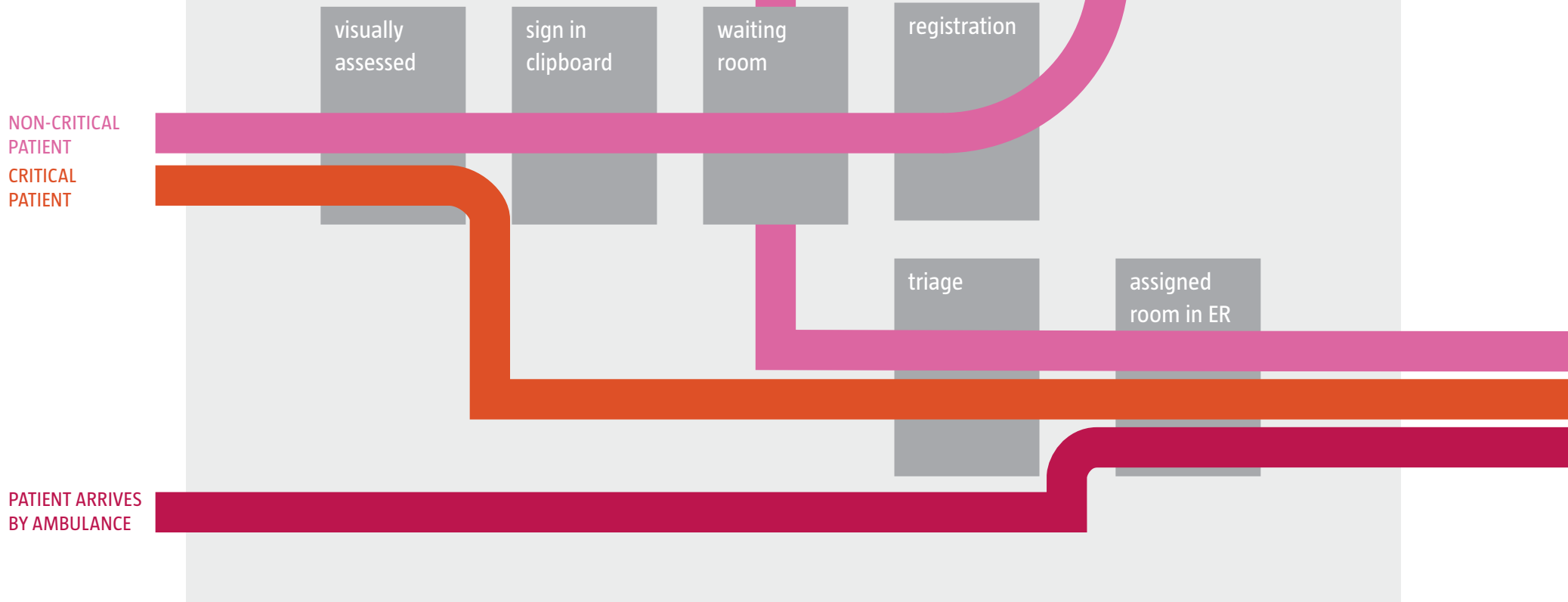
Through observations, we noticed that the patient flow is divided into two segments. The connection between the two are not optimized contributing to a disjointed experience.



Intended Patient Flow

Through talking with ER staff, we saw that the ER process was intended to streamline the flow of patients from initiation to consultation according to their acuity level.

INITIATION



Intended Patient Flow

The goal for triage and assessment is to expedite emergent and critical patients so that they can begin treatment sooner.

INITIATION

visually
assessed

sign in
clipboard

waiting
room

registration

triage

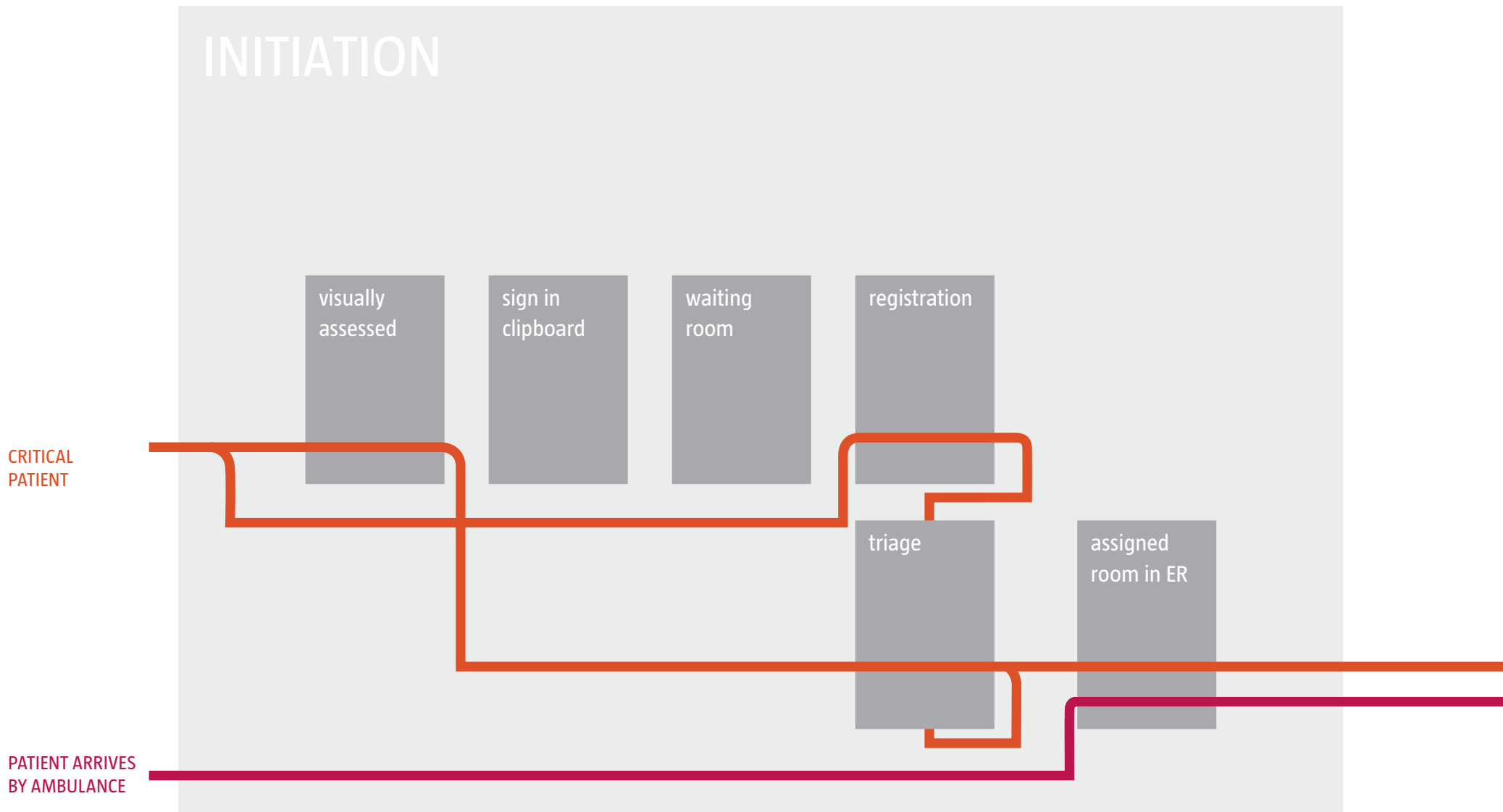
assigned
room in ER

PATIENT ARRIVES
BY AMBULANCE

Observed Patient Flow

Patients who arrive by ambulance experience the intended flow. This initiation journey is expedited to ensure that care is received promptly.

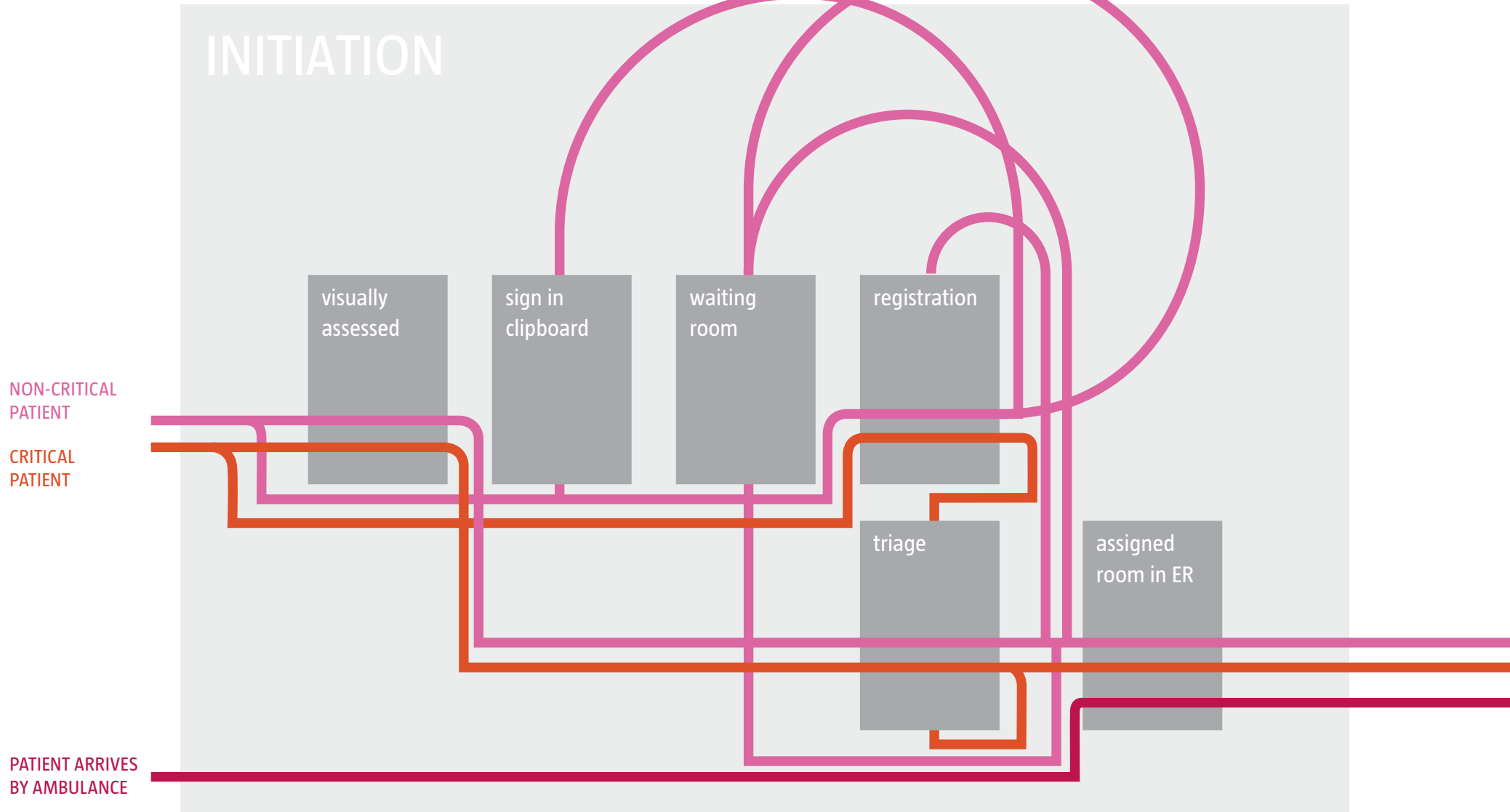
INITIATION



Observed Patient Flow

The experience for critical patients vary according to if they are visually assessed by the triage nurse upon entering the ER.

INITIATION



Observed Patient Flow

The non-critical patient often experiences a very disjointed process during their Initiation into the ER. The flow requires patients to interact with various touchpoints.

Keep Me Supported

Does not know the names of the medications or what each one does. Patient places medications in a bag and brings them to the ER. May or may not have a primary care physician.

Keep Me Informed

Knows the names of medications, often knows the dosage, and knows what each medication is for. Has a primary care physician and has seen specialists. Knows the terms for medical conditions.

Patient Types and Information Needs

While there are many types of people that go into the ER, we noticed two distinct types of patients. The main differences lies in the relationships to their illness and treatment.

INITIATION

TRIAGE | REGISTRATION | WAITING |

What is wrong with me?

When can I see a doctor?

What is my diagnosis? What is wrong with me?

CONSULTATION

NURSE ASSESSMENT | DOCTOR EXAM | TEST(S) | DISCHARGE

When am I going to feel better?

Am I going to be admitted?

When can I go home?

What is my medical condition?

How will my condition be treated?

What are my vitals?

What are these tests for?

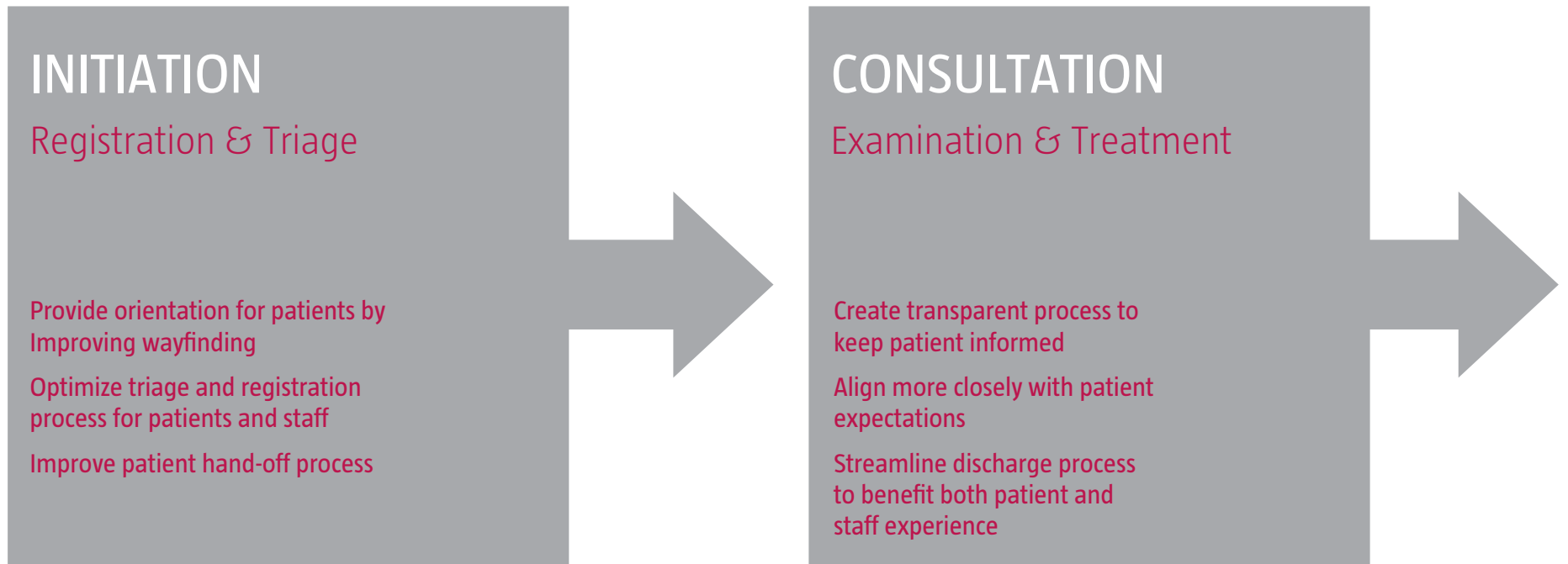
When will I be given a diagnosis?

Am I going to be admitted?

Patient Types and Information Needs

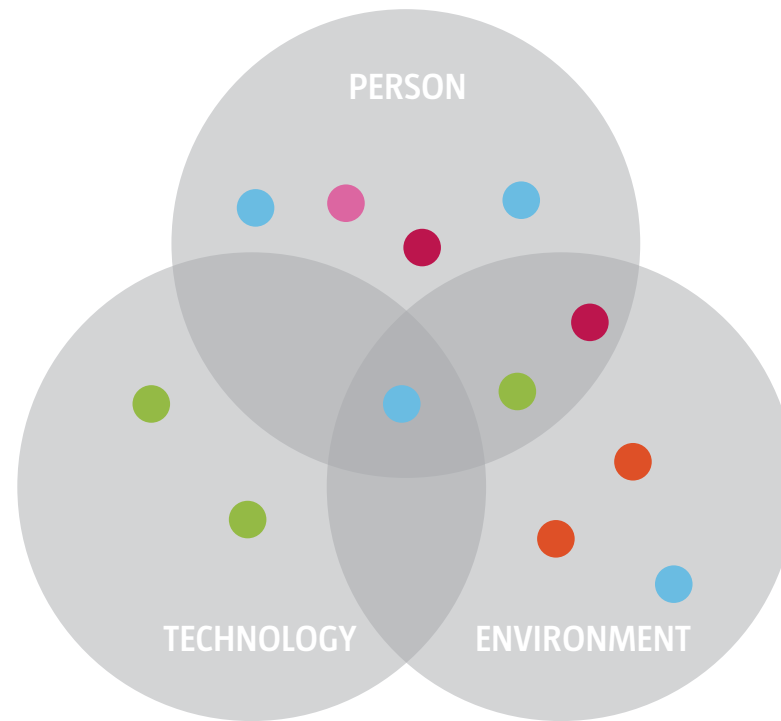
While there are many types of people that go into the ER, we noticed two distinct types of patients. The main differences lies in the relationships to their illness and treatment.

Envisioning the possibilities of
design and health care.



Areas of Opportunity

Based on our research findings, we have outlined the above design implications to guide us as we progress into our concept development and iterative prototyping phases.



| | | | | |
|--|---|--|---|--|
| <p>improve wayfinding</p> <ul style="list-style-type: none"> consistent visual language for signage create an environment which reinforces patient flow | <p>triage & registration</p> <ul style="list-style-type: none"> consultation is moved earlier into the patient journey leverage current technology for repeat customers self-service insurance card | <p>transparent process</p> <ul style="list-style-type: none"> real time tracking of journey dedicated journey guide whiteboard notifier informed or triage assessment | <p>meet patient expectations</p> <ul style="list-style-type: none"> information cards on medical conditions information needs assessment during initiation | <p>streamline discharge</p> <ul style="list-style-type: none"> staff members dedicated to one role |
|--|---|--|---|--|

Design Implications

Our initial design implication for solutions are created by the interaction between people and people, people and their environment, and people and technology.

Thank you.