DESKTOP WALKTHROUGH

Emergency Unit Prototype

SERV 732 Service Prototyping: Testing | Professor Ricardo Martins

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DESK RESEARCH Manchester Triage System

Number, name, colour, minutes

- 1 immediate 0
- 2 very urgent 10
- 3 urgent 60
- 4 standard 120
- 5 non-urgent 240

General discriminators

- Life threat – ABC - Red
- Conscious level – fitting, altered level, history
- Haemorrhage – exsanguinating, major, minor
- Temperature – very hot (41°C), hot (>38.5°C), warm (<38.5°C)
- Pain – severe, moderate, recent
- Acuteness – abrupt (seconds minutes), acute (24 hours), recent (7 days)

Red (1) discriminators, LOC

- Currently fitting adult
- Unresponsive child
- Currently fitting child

Orange (2) discriminators

- Altered level of consciousness
- Child responds to voice or pain
- Uncontrolled major haemorrhage
- Very hot person over 1 year of age (T > 41°C)
- Hot baby 0 – 1 year (T > 38.5°C)
- Cold person (T < 35°C)

Yellow (3) discriminators

- History of unconsciousness in adult or child
- Uncontrolled minor haemorrhage
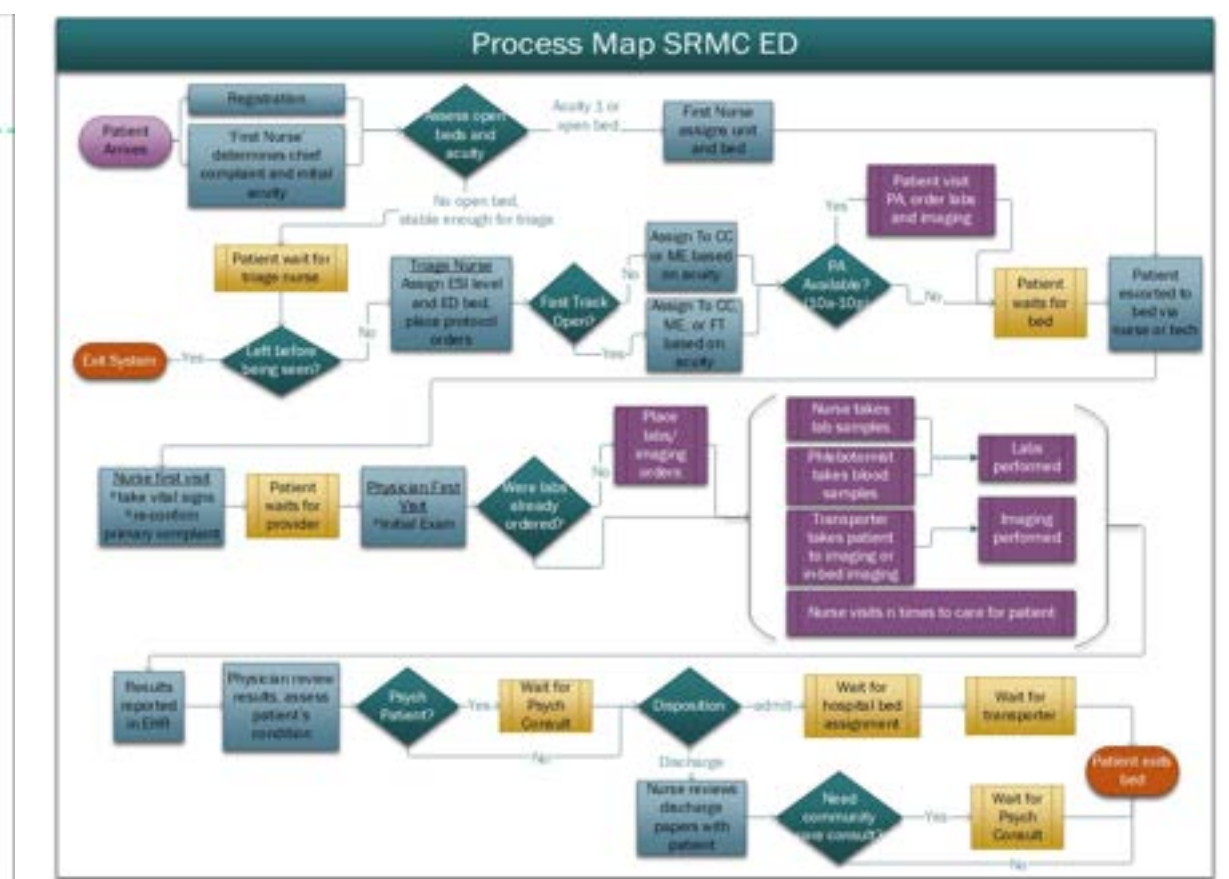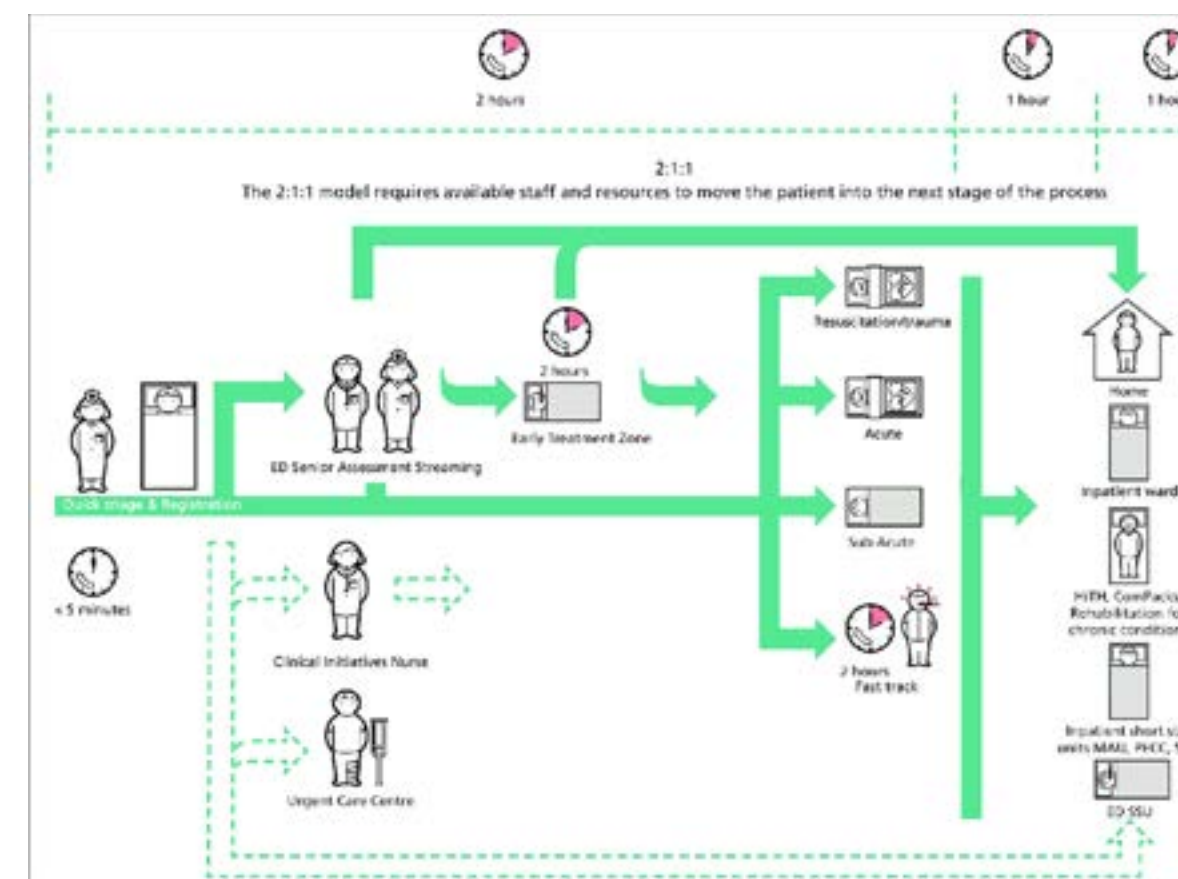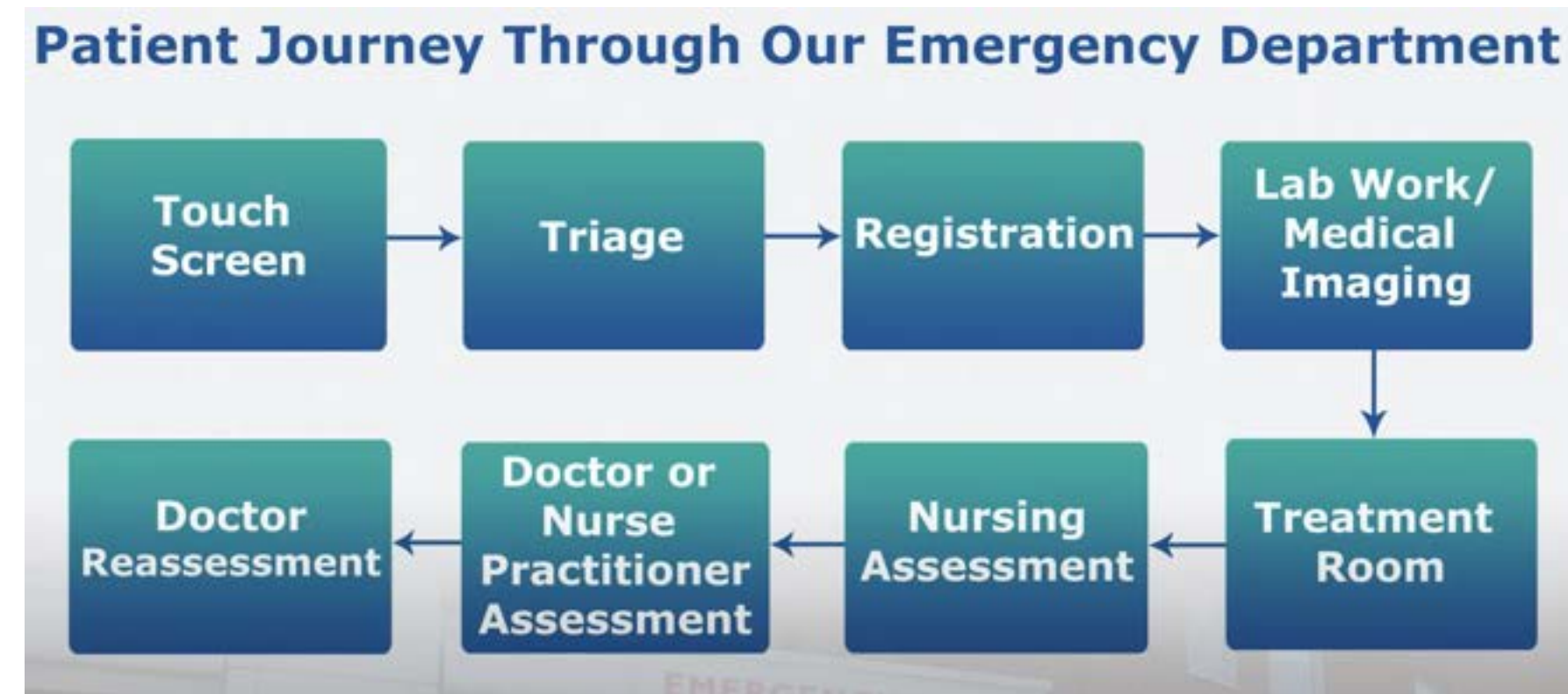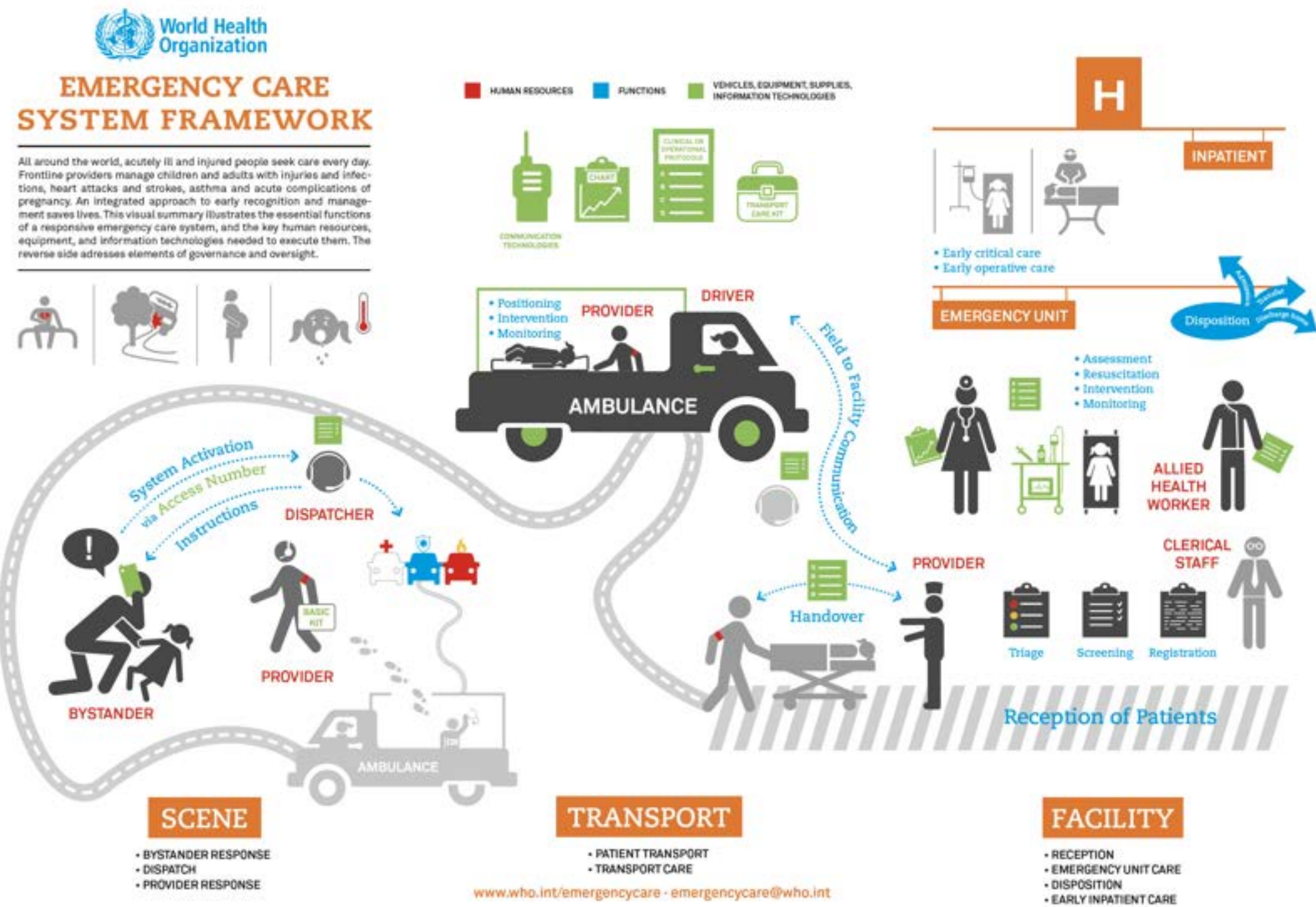- Hot (over 1 year) (T > 38.5°C)
- Moderate pain

Green (4) discriminators

- Warm person (T < 38.5°C)
- Recent mild pain
- Recent problem (> 7 days) – green or blue

DESK RESEARCH
Emergency Journey

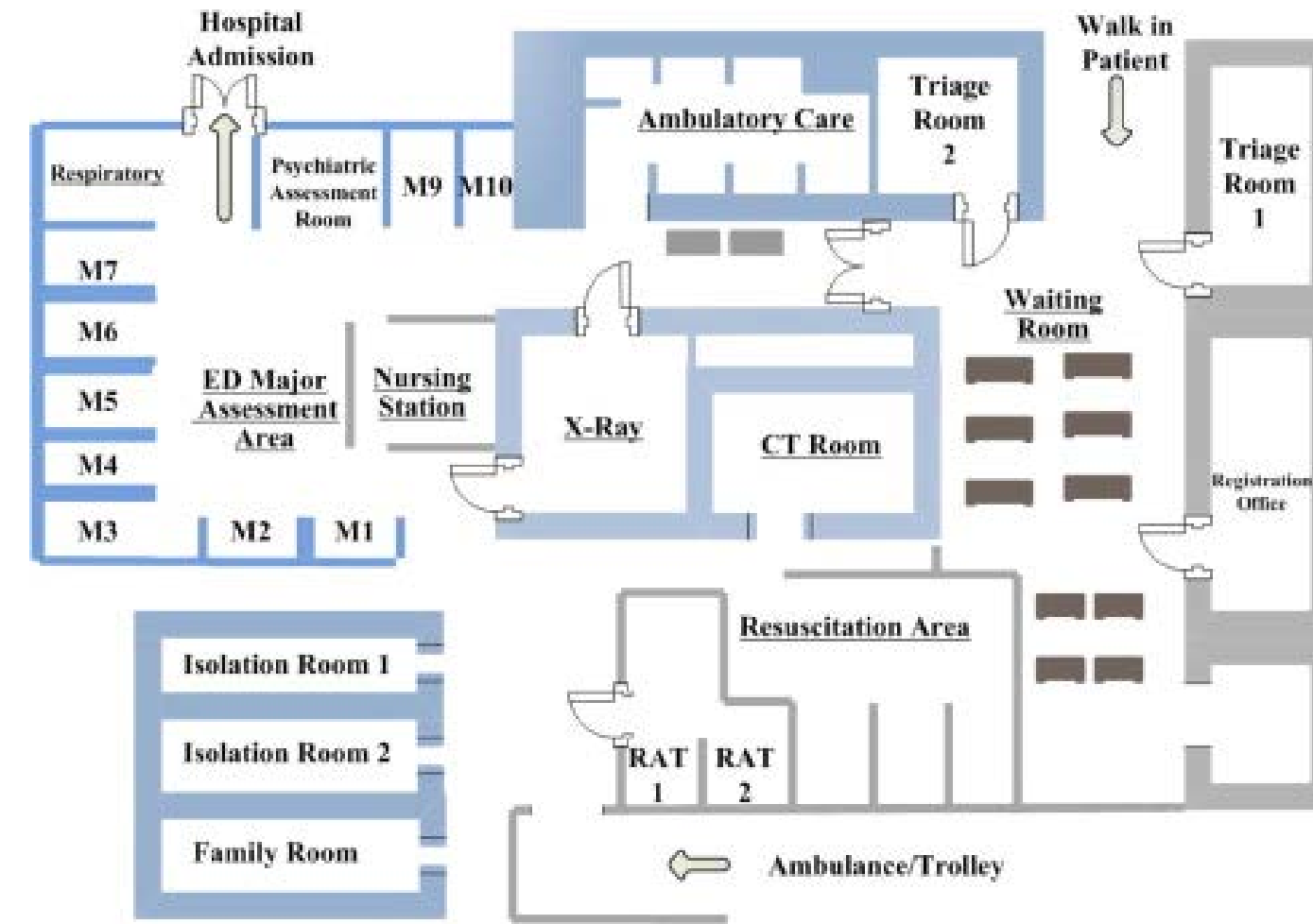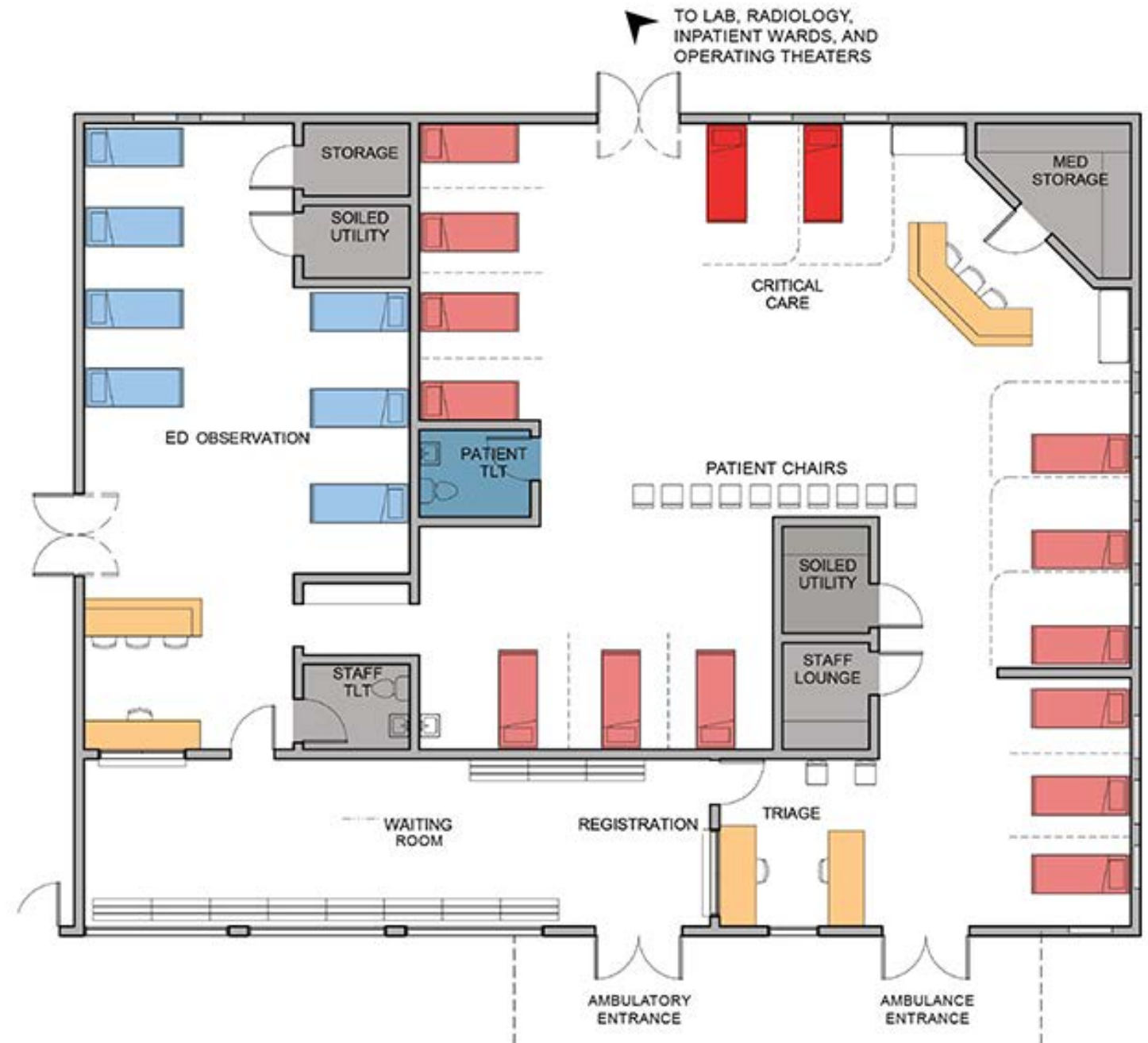# DESK RESEARCH

Interior Arrangement
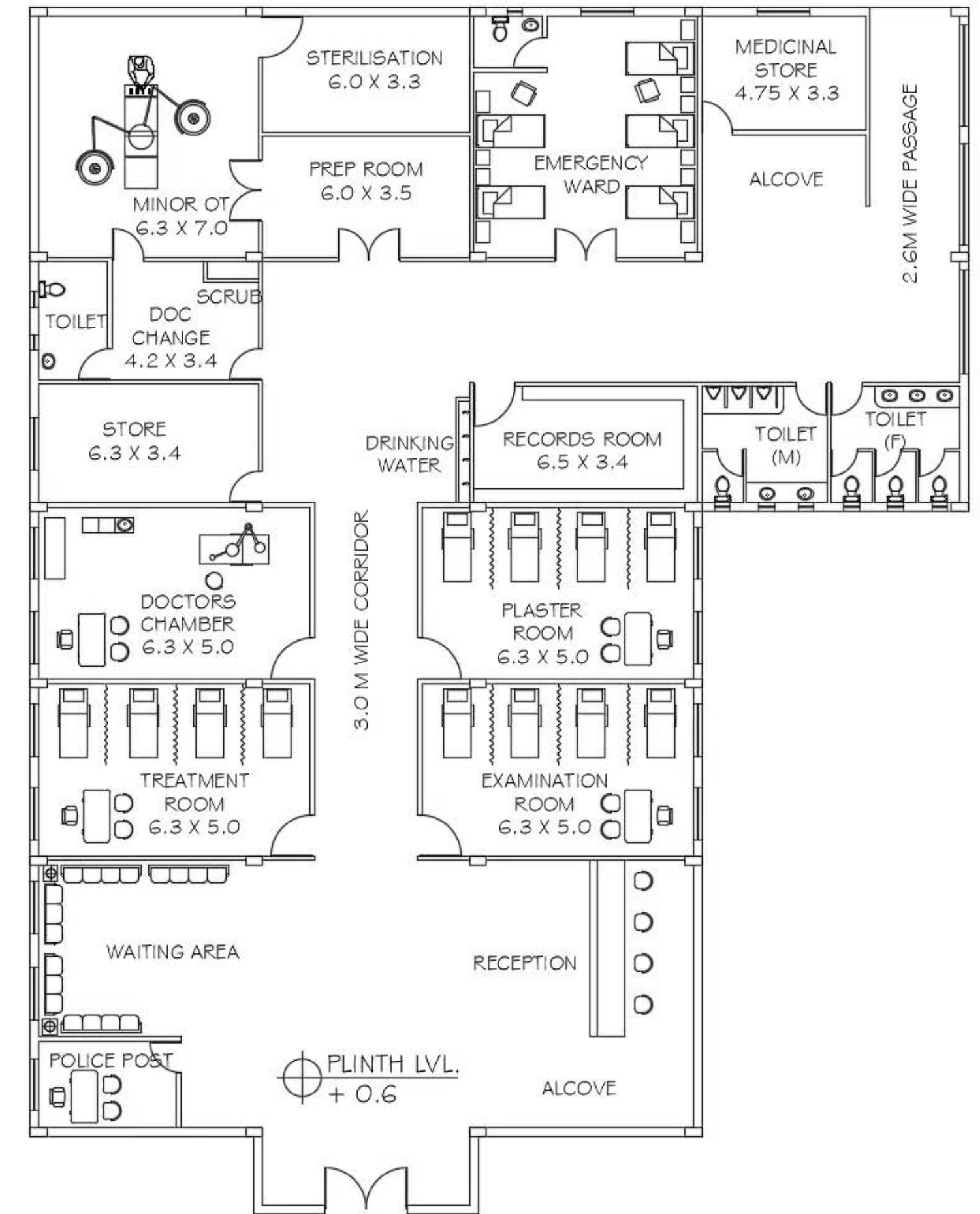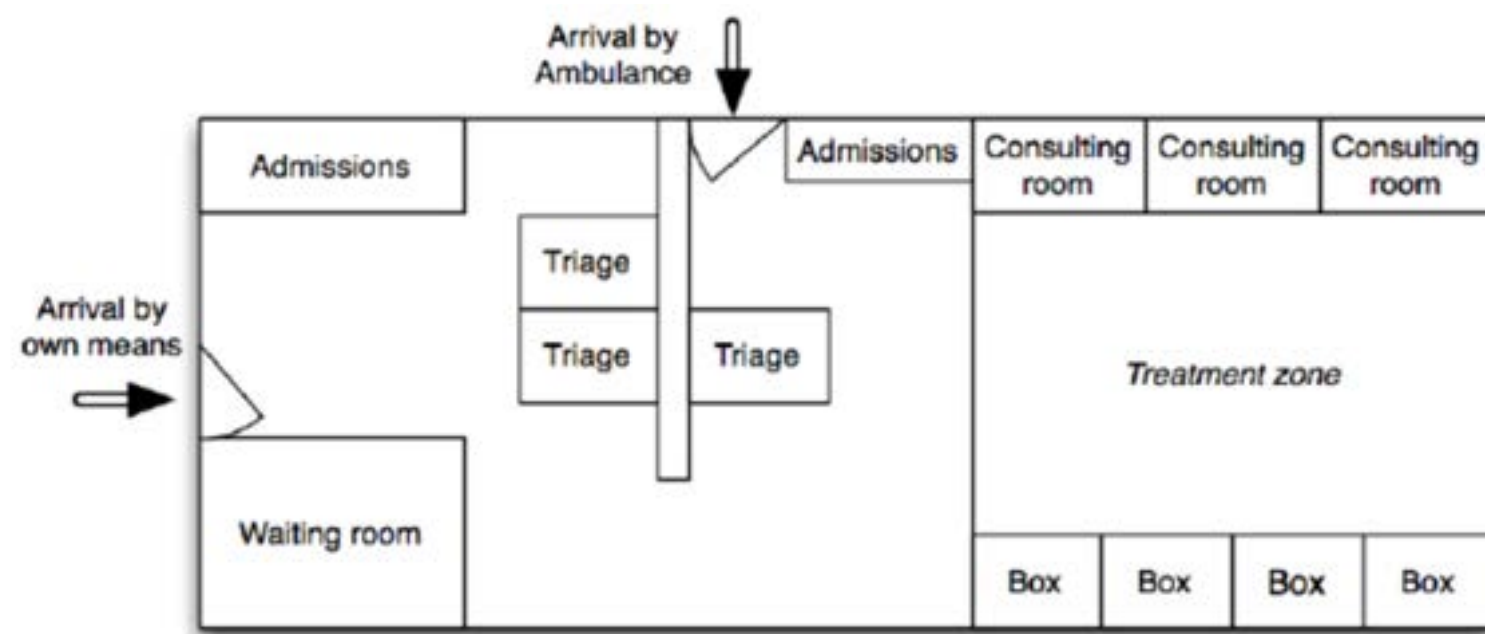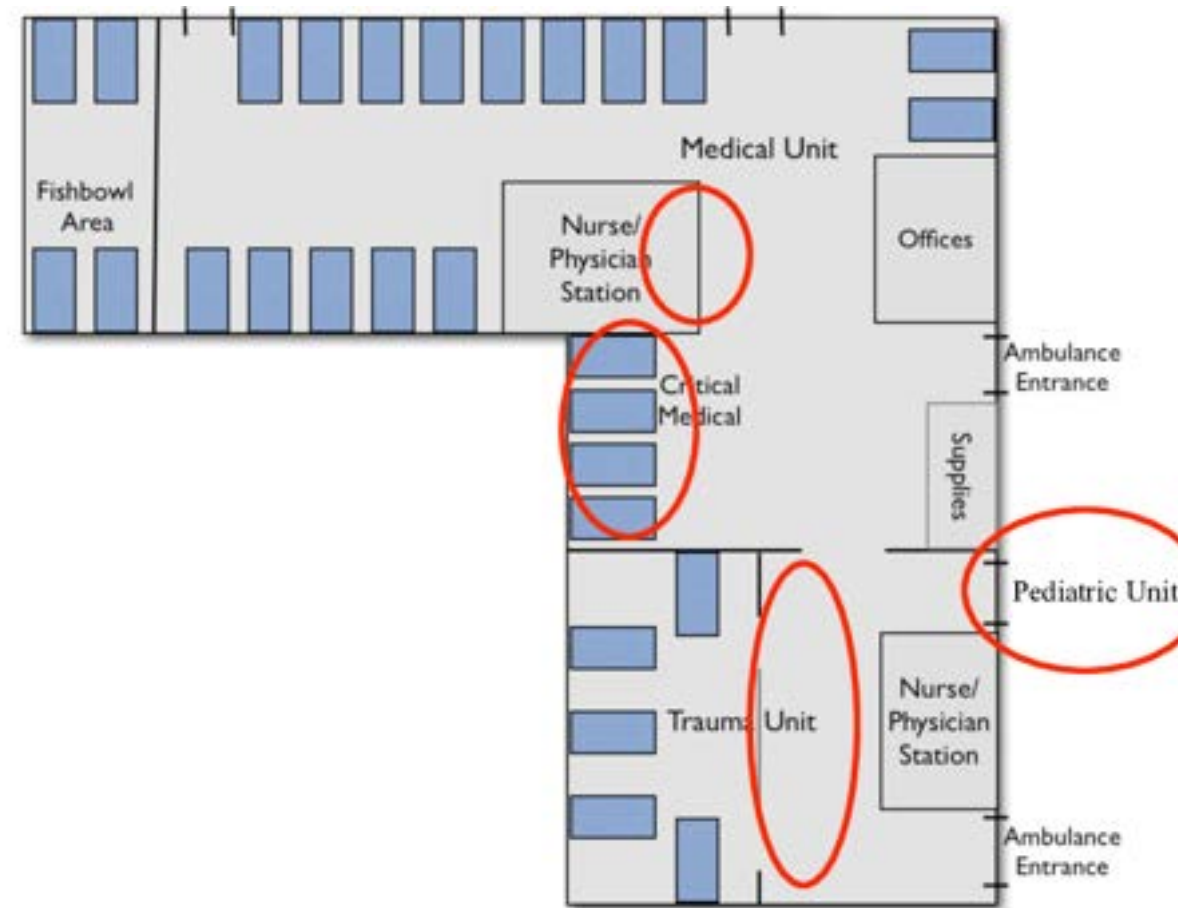
INTERVIEW

To understand the journey from a patient's view, we interviewed a student who had been to Candler Hospital's emergency unit. We asked some questions related to the journey, touchpoints and physical evidence.

Medical condition

Describe medical condition: why he had to visit the emergency room?

He could not hear and ear was bleeding

Place

Which hospital did he visit? Name & location

Candler Hospital-Emergency Department

5353 Reynold St

Why did you visit this hospital?

Because this was the nearest emergency department at that time

How did you get there?

His friend drove to him

Who did you go with?

With his roommate and a friend

Journey

Can you describe the process in Emergency room?

In fact, he went to the general clinic several times before going to the emergency department and did not improve, so he chose to go to the emergency department.

He didn't make an appointment that just arrive there directly. After arriving at the hospital, he lined up to the front desk to describe the specific situation, and then the staff gave him a bracelet with his name and number printed on it. After that, he waited for the nurse to call his name in the hall. After calling his name, the nurse took him to the doctor's office. The doctor asked the specific information and prescribing medicine.

Billing

How much did you spend?
How was the billing process?

It was free because of the insurance.

No billing, give medical insurance card when registering at the front desk.

After taking the prescription, he could leave directly

INTERVIEW

Time

How long did you wait?
Because it is not particularly serious, he waited for almost an hour

People

Who did you meet during the process?
One is the staff who registered his information at the front desk, and the other is to take him in and wait for a nurse who will collect his basic information such as blood pressure, and then the doctor who shows him a doctor in the ward. Because doctors who see a doctor will change doctors according to their needs. For example, if there is a problem with his ears, a attending doctor adds another assistant to wash his ears.

How does the staff there?
The staff's attitude is very friendly, they asked him if there is any uncomfortable place

Item

What kind of items did you touch?
He didn't know what the names were. There were cotton swabs, alcohol, and then there was a equipment which is similar to flashlights to Illuminate the ears, and it had a magnifying glass in front. Also, ear spoons and a machine washed his ears.

Instructions

What kind of instructions did you have to follow?
The doctor opened the ear drops and gave him a list. There are medicines and locations on the list, and there are time to re -diagnosis.

OBSERVATION

Place: Candler Hospital's emergency
Date: Sep 20
Time: 18:00-18:30
Temperature: 80~85°F

Medical room

Waiting area

Corridor

Exterior - right

Exterior - left

PATIENT JOURNEY

Based on the interview data and desk research

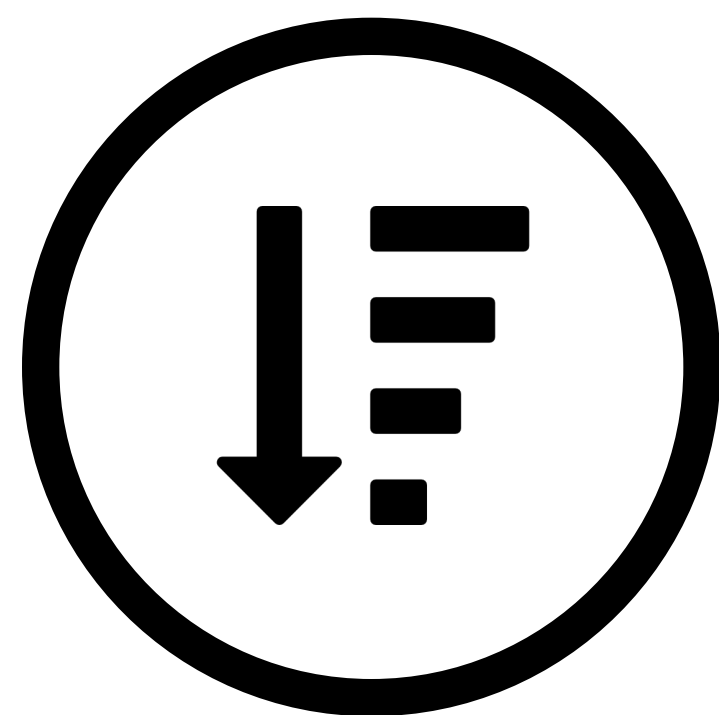Walks in ER → Registration → Insurance → Wait → Triage Nurse
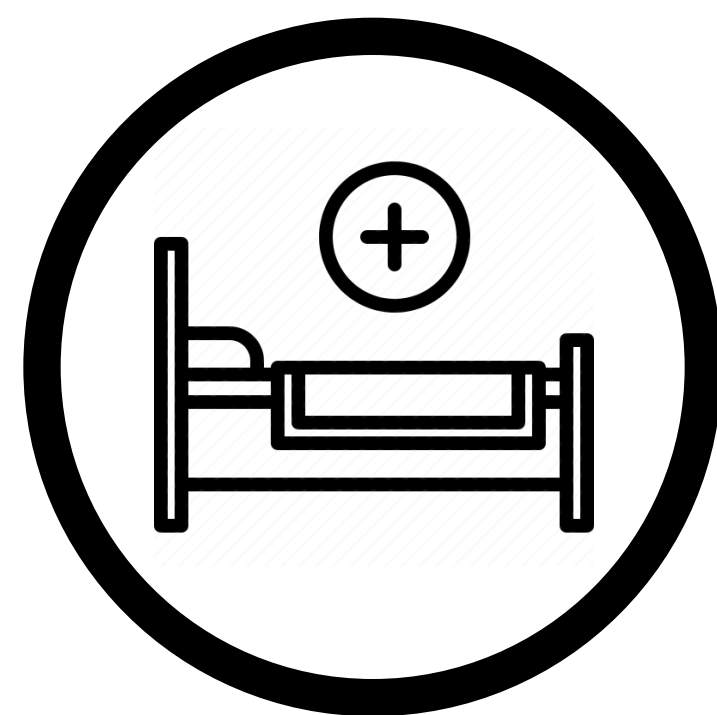
PATIENT JOURNEY

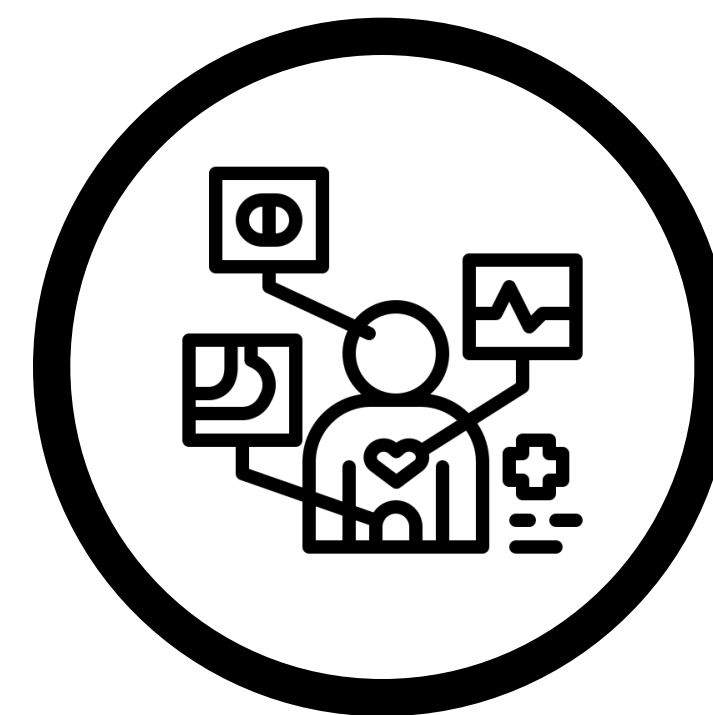Based on the interview data and desk research
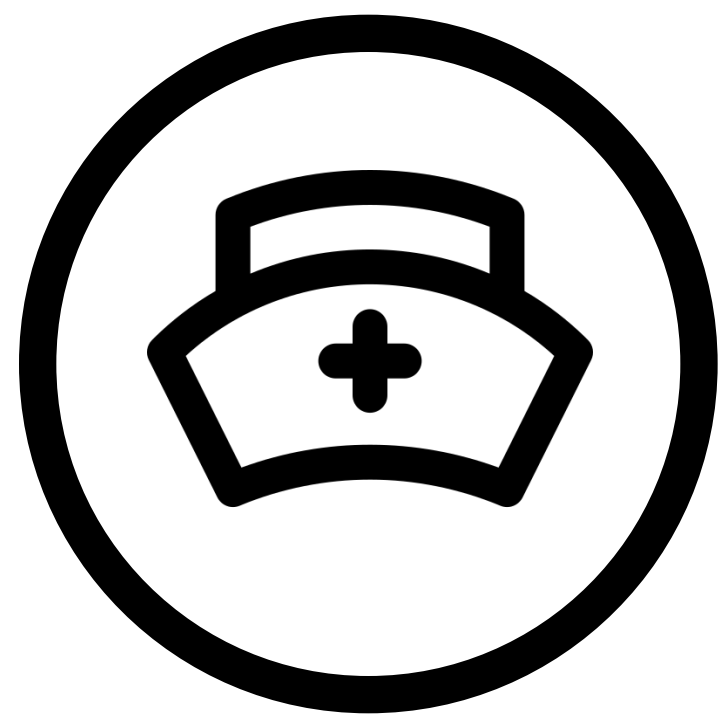

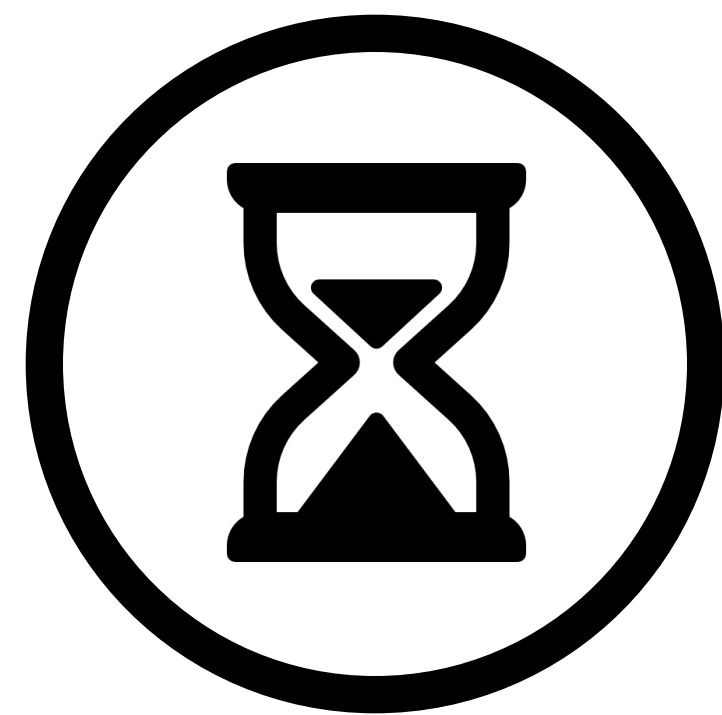Triage Process → Treatment → Wait → Inspection → Diagnosis

PATIENT JOURNEY

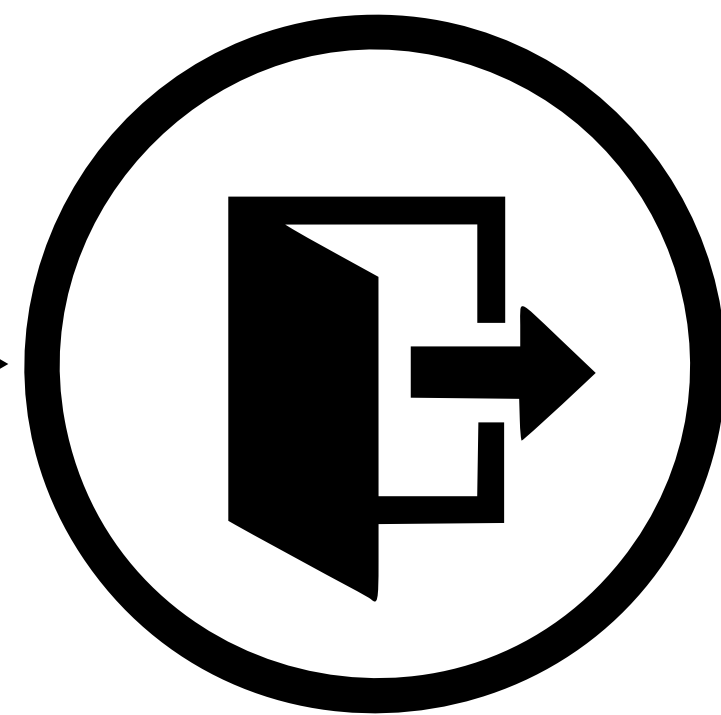Based on the interview data and desk research
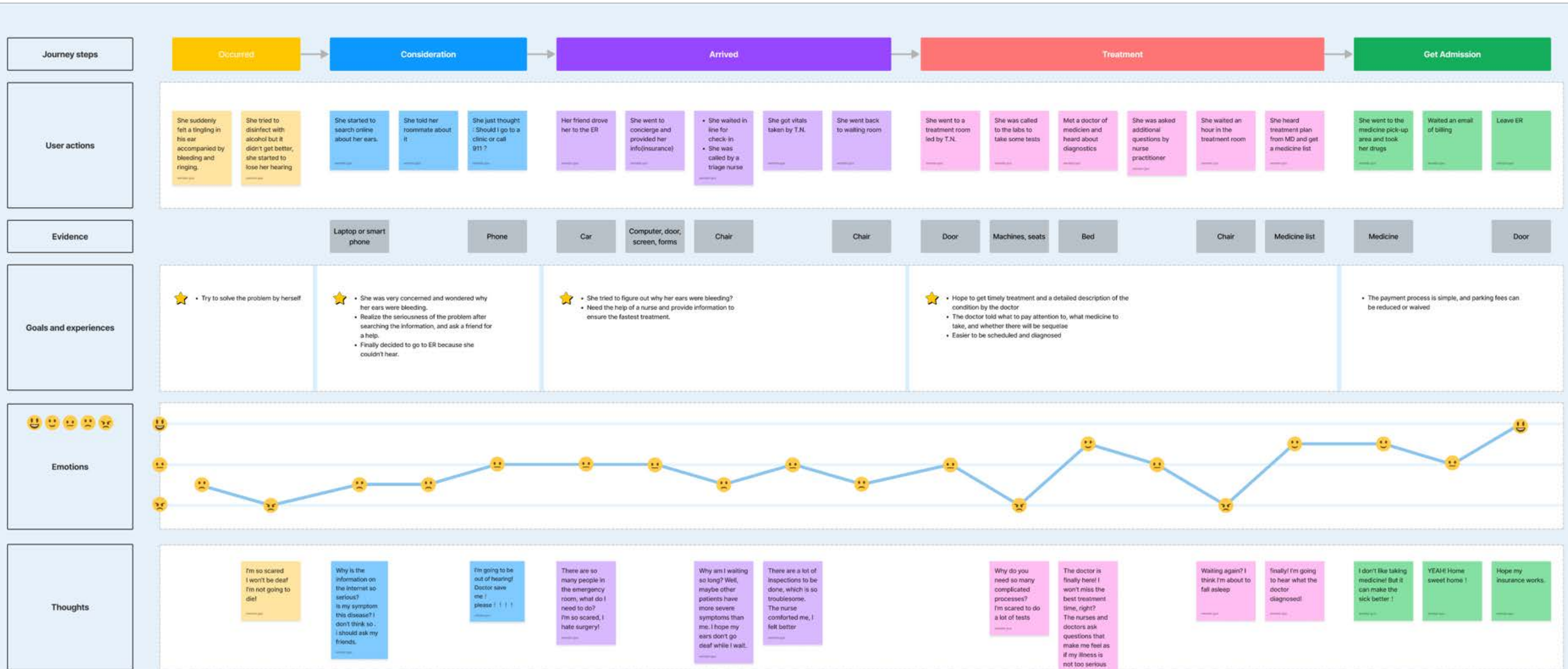

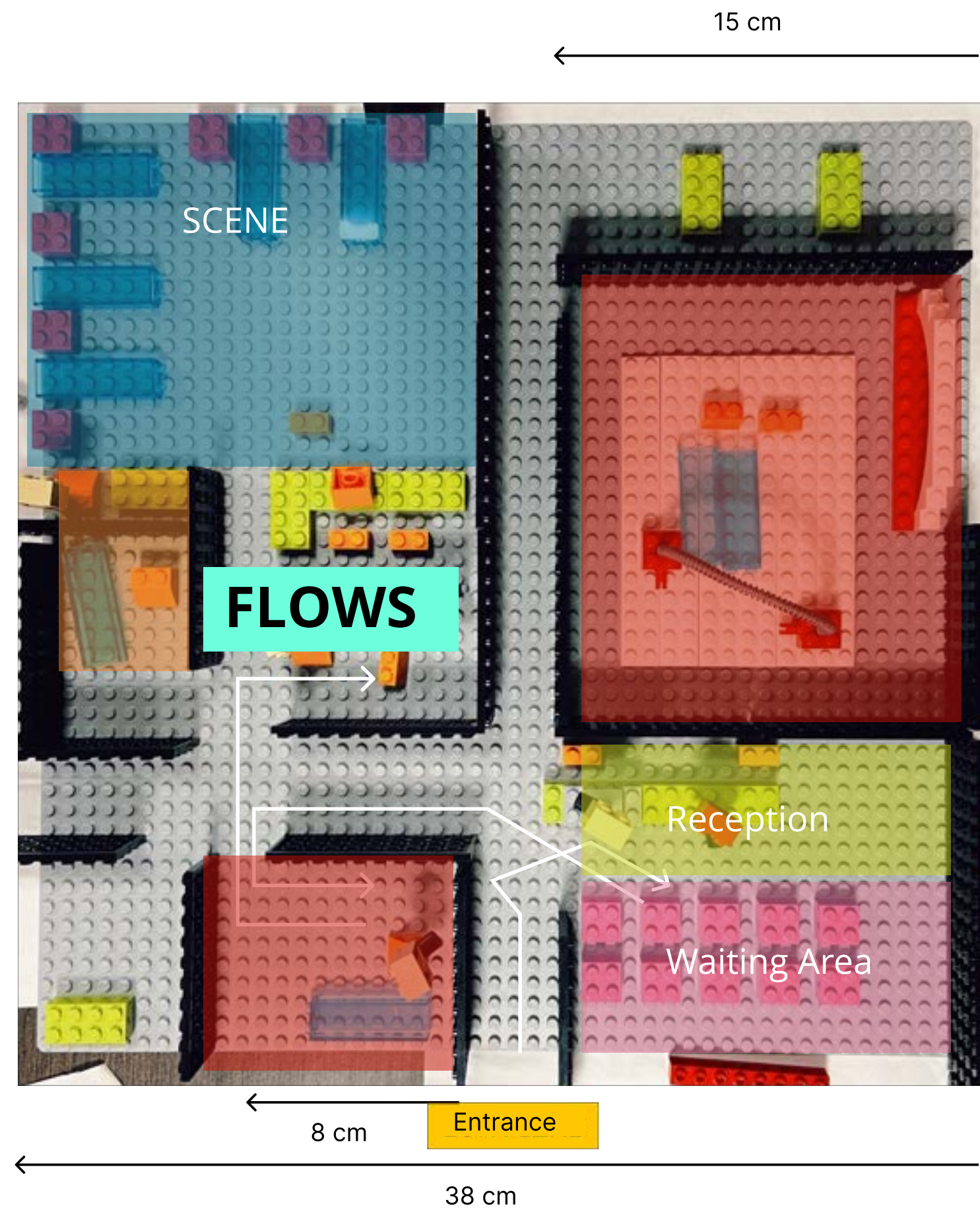Tests and Questions → Wait → Medicine → Walks out ER

PATIENTS JOURNEY MAP

From our reasearch and interview we mapped out the patients journey at the emergency department at Chandler hospital, this gave us insights of moments that could be improved for the patient

Journey steps

Occurred	Consideration	Arrived	Treatment	Get Admission

User actions

- She suddenly felt a tingling in his ear accompanied by bleeding and ringing.
- She tried to disinfect with alcohol but it didn't get better, she started to lose her hearing
- She started to search online about her ears.
- She told her roommate about it
- She just thought : Should I go to a clinic or call 911 ?
- Her friend drove her to the ER
- She went to concierge and provided her info(insurance)
- She waited in line for check-in
- She was called by a triage nurse
- She got vitals taken by T.N.
- She went back to waiting room
- She went to a treatment room led by T.N.
- She was called to the labs to take some tests
- Met a doctor of medicien and heard about diagnostics
- She was asked additional questions by nurse practitioner
- She waited an hour in the treatment room
- She heard treatment plan from MD and get a medicine list
- She went to the medicine pick-up area and took her drugs
- Waited an email of billing
- Leave ER

Evidence

| | Laptop or smart phone | Phone | Car | Computer, door, screen, forms | Chair | Chair | Door | Machines, seats | Bed | Chair | Medicine list | Medicine | Door |

Goals and experiences

- ★ Try to solve the problem by herself
- ★ She was very concerned and wondered why her ears were bleeding.
- Realize the seriousness of the problem after searching the information, and ask a friend for a help.
- Finally decided to go to ER because she couldn't hear.
- ★ She tried to figure out why her ears were bleeding?
- Need the help of a nurse and provide information to ensure the fastest treatment.
- ★ Hope to get timely treatment and a detailed description of the condition by the doctor
- The doctor told what to pay attention to, what medicine to take, and whether there will be sequelae
- Easier to be scheduled and diagnosed
- The payment process is simple, and parking fees can be reduced or waived

Emotions

Thoughts

- I'm so scared I won't be deaf I'm not going to die!
- Why is the information on the internet so serious? Is my symptom this disease? I don't think so . I should ask my friends.
- I'm going to be out of hearing! Doctor save me ! please ! ! ! !
- There are so many people in the emergency room, what do I need to do? I'm so scared, I hate surgery!
- Why am I waiting so long? Well, maybe other patients have more severe symptoms than me. I hope my ears don't go deaf while I wait.
- There are a lot of inspections to be done, which is so troublesome. The nurse comforted me, I felt better
- Why do you need so many complicated processes? I'm scared to do a lot of tests
- The doctor is finally here! I won't miss the best treatment time, right? The nurses and doctors ask questions that make me feel as if my illness is not too serious
- Waiting again? I think I'm about to fall asleep
- finally! I'm going to hear what the doctor diagnosed!
- I don't like taking medicine! But it can make the sick better !
- YEAH! Home sweet home !
- Hope my insurance works.

LAYOUT SETUP

LOGO Prototype to clalrify the scale of spcae, the size of probs

15 cm

SCENE

FLOWS

Reception

Waiting Area

8 cm

Entrance

38 cm

SCENE

1. entrance
2. counter
3. nurse station
4. reception
5. treatment room

PROBS

1. beds
2. sits
3. counter
4. computers
5. screens
6. equipments
7. desks

ROLES

1. protagonist
2. nurses
3. doctors
4. patients

EMOTIONS

1. Anxious
2. Uncertain
3. Distrust
4. Worried
5. Complaints

ITERATIONS

- Remove surgery space
- Add Ambulance entrance
- Add server treatment room
- Add doctor offices
- Rearrange the lab layout

SCRIPT

We created a script for each characters and the narrative.

Roles   Narrator - Priyanka | Patient - Heidi | Nurse - Wendan | Doctor - Siyun | Video - Chongyuan

Patient walks into the ER

Alice is a SCAD student who lives in SAV. One evening, Alice was feeling pain in her ear. She touched her ears and found it was bleeding. She panicked and rushed to the nearest Emergency Unit.

A:"My ear is bleeding. Oh its so painful. I need to see the doctor as soon as possible."

Walks through the main door

Alice books an uber and leaves for the emergency. She walks into the emergency unit and approaches the reception desk.

N: "How can I help you?"
A: "My ears hurt, it is bleeding."
N: "Let's us see it. What's your name?"
A: "Alice Jones"
N: "Great, What's your birth day?"
A: "1998.03.17."
N: "Do you have insurance?"
A: "Yes. I have student insurance."
N: "Can you tell me the number on your insurance card?"
A: Show the photo to the nurse. "This is my insurance card."
N: "Thank you! Please wait a minute." Typing..... Give back the phone to the patient.
N: "Ok, Here is your bracelet. Please wait in the waiting area until the TN calls your name"
A: "Thank you!"

Go to waiting room

Alice goes and sits at the waiting area. After a while, she feels thirsty.
She notices the vending machine and buys a bottle of water. Alice keeps looking at her phone.

A: "Oh my god, It's 6:00 pm right now, I have been waiting for an hour! My ear is bleeding and my throat is thirsty, everything feels so long."

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Triage nurse's call

Alice continues waiting until the TN shows up and calls her name.

TN: "Alice Jones" No one answers.
"Where is Alice Jones?"
A: " I am here!."
TN: "Come with me!"

Go to the triage place and triage nurse would ask you questions and give level

Alice follows the triage nurse.

TN: "Hello, Alice. How do you feel now?"
A: "It is painful and my ear is bleeding."
TN: "Can I check your ears?" Alice shows her ears.
TN: "Do you know when it happened and why?"
A: "This afternoon, I was at home. Suddenly, i felt my ears pain, it was bleeding when I touched it. But I don't know why."
TN: "All right. Let's have some basic exams at first."
A: "Ok."

TN put the blood pressure monitor on her finger and typed the results in her computer and puts her under the "Urgent" proprity group and takes her to the treatment room

TN: "Follow me, Let me take you to the treatment room."

Nurse would take you to a treatment room

TN: "Just wait here. The doctor will be with you soon"
A: "OK."

TN left the room.

Stay in the room

A few mintues later, the doctor came in with diagnostic test in his hand.

MD: "Hi, Alice. I am Dr. Cody. I will help you treat your ears. Can you tell me what you are feeling?"
A: " Hi, Cody. My ears hurts really bad and its been bleeding."

The doctor asked her several questions about her symptoms, medicial history and allergies.
Then, The doctor checks the areas around her ear, nose and chest.

MD: "Okay. i am going to recommend an X-ray examiation to make sure everything is clear. Please wait here. I will send the nurse, she will take you to the lab."

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Be called to the labs to take tests (x ray)

A few mintues later, the nurse came to the treatment room and takes her to the lab.

RN: "Alice, please come with me. i will take you to the lab"

Walk to the X-ray lab.
The nurse then told her:
"Please remove all of your metallic accessories, phones, electric items and leave them in the tray here."

Alice took off her jewelry and puts the phone in the tray.

RN: "Please raise both your hands. Put your body in front of the X-ray scanner and please don't move for 5 seconds. "

A: "OK."

RN: "Perfect youre all done. I will send the scans to the Doctor. You can wait for the doctor in the treatment room"

Alice goes back to the treatment room

Doctor receives your test result

She waits in the treatment room for a while. And the doctor calls her to his office.

MD: "I just received your test results, everything is fine. Nothing to worry. Seem like you have an ear infection. I am prescribing some ear drops and some antibiotics. you have to take them twice in a day after your meals."

A: "Where do I get the medcine from?"

MD: "you can pick it by the pharmacy window. Just go straight the aisle and turn right. You will see the phramcy.

A: Thank you Doctor!

Payment

After the dignoise, Alice went out the room and quickly find the phramcy pick-up.
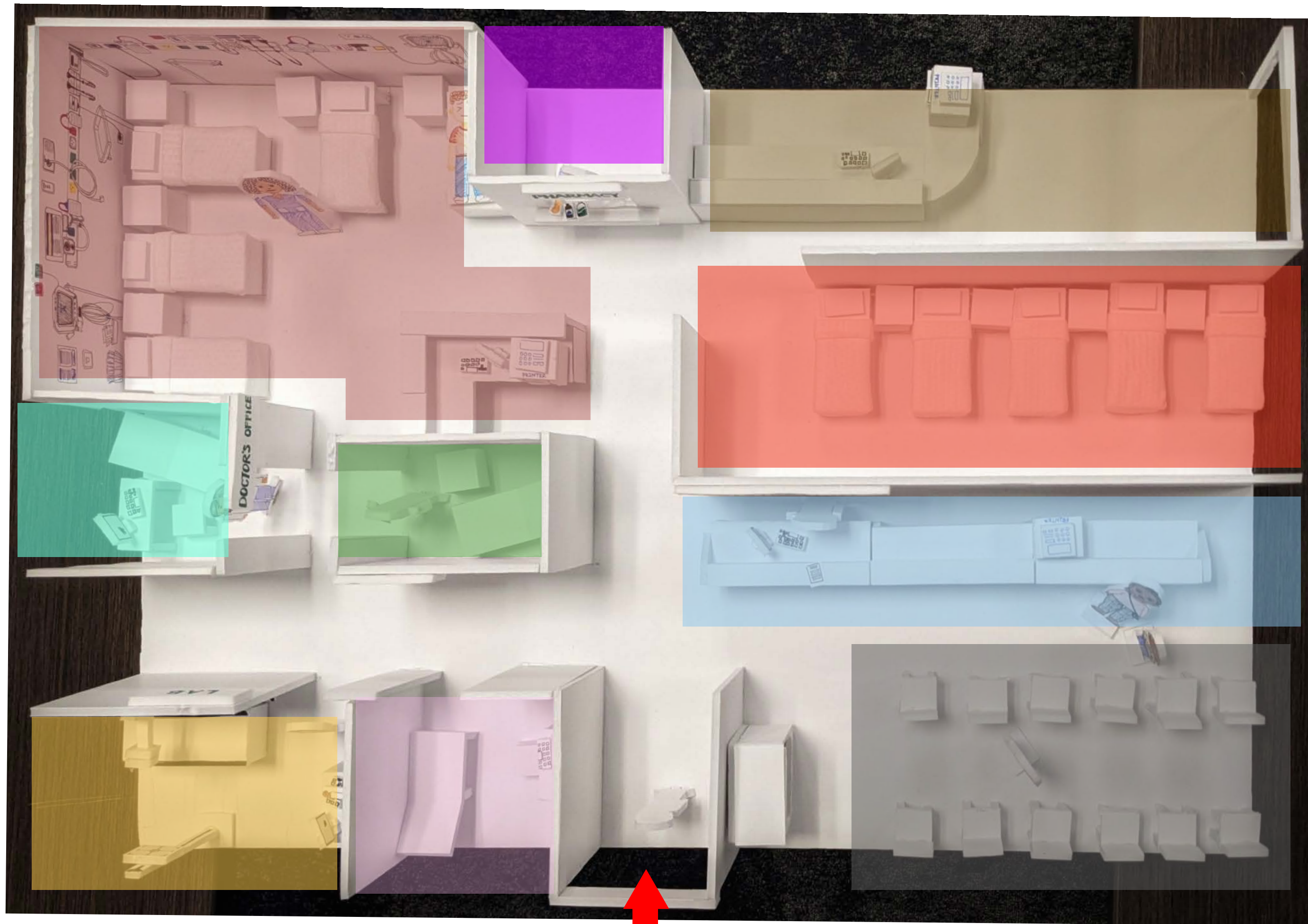
PN: "What's your name?.
A: "Alice Jones"
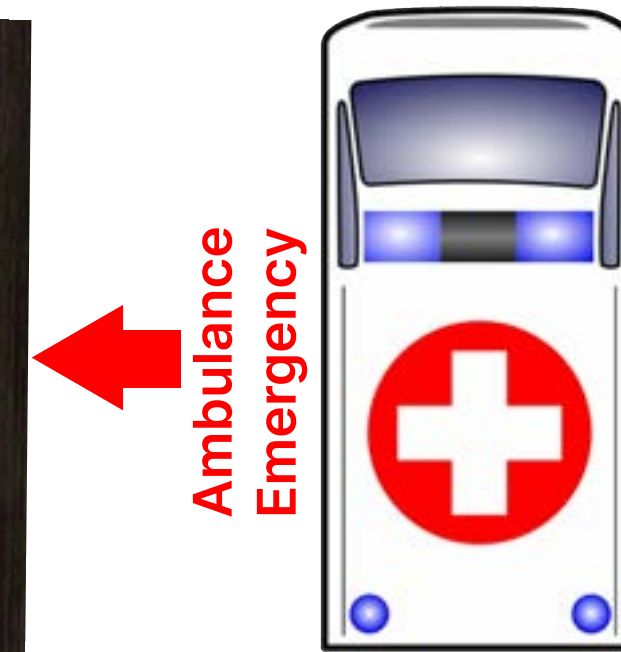PN: "OK, just a mintue. Let me get your medecines. Here you go."
A: "How about the other fees?"
PN: "We will send your the bill within 6 businees days to your email. "

PROTOTYPE BUILDING

Ambulance Emergency

Enter/Exit

- Ambulance Entrance
- Waiting Area
- Urgent Treatment Room
- Registration Area
- Pharmacy
- Treatment Room
- Triage Room
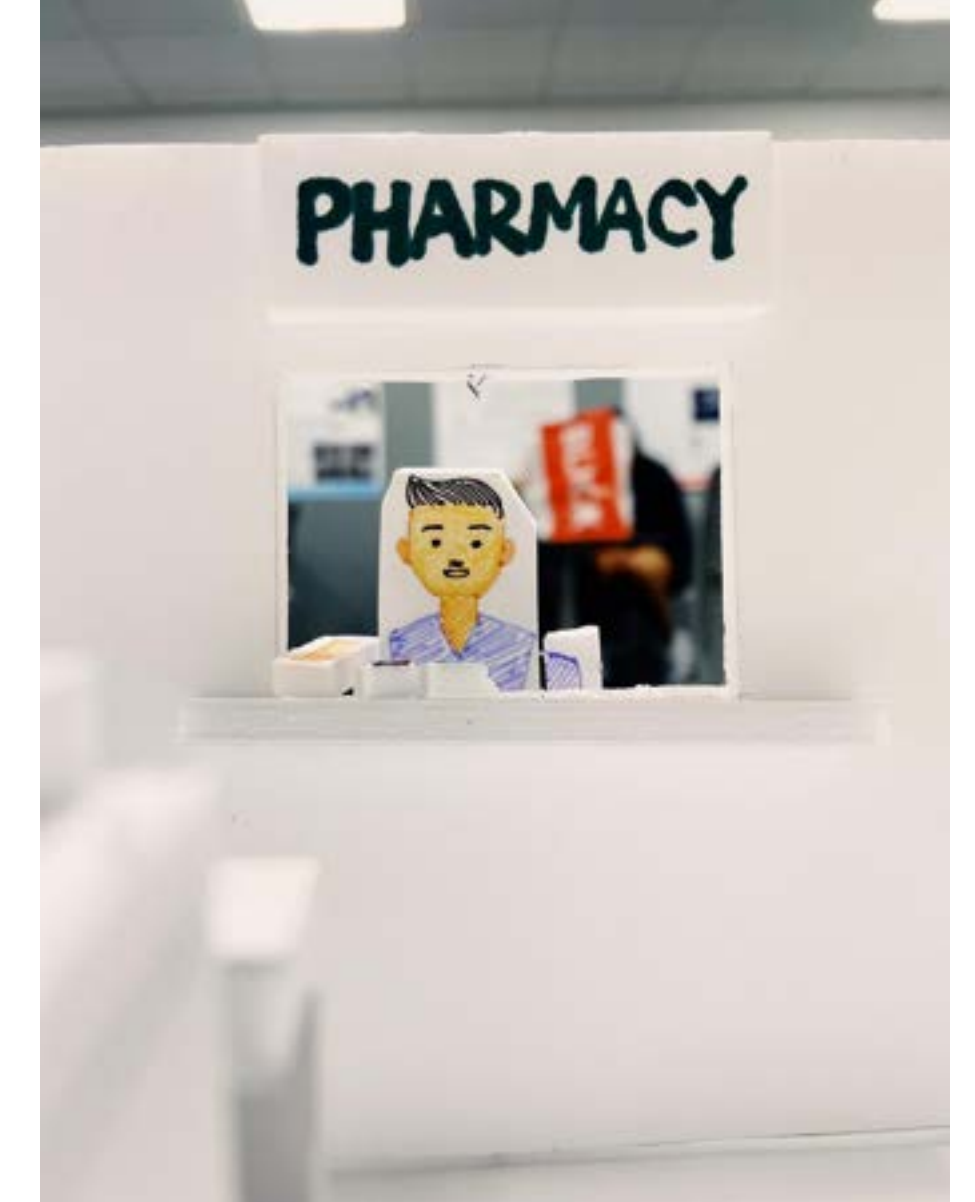- Doctor's Office
- X-ray LAB
- Doctor's Office

PROTOTYPE BUILDING

PROTOTYPE BUILDING

PROTOTYPE BUILDING

VIDEO

https://youtu.be/SO87E3JtjmU

CONTRIBUTIONS

	Chongyuan	Siyun	Heidi	Priyanka	Wendan
Desk research	✓	✓	✓	✓	✓
Interview					✓
Journey Map			✓		✓
Site visit & Observations	✓	✓	✓	✓	✓
Prototype	✓	✓	✓	✓	✓
Script	✓	✓		✓	
Video compilation	✓				
Report	✓	✓	✓	✓	✓