

SmoothOp

Efficiency where it matter most



PROBLEM STATEMENT

The paper-based scheduling system is causing extensive daily delays and stress for operating theatre staff

NEED STATEMENT

A technological solution for instant scheduling updates and communication between hospital staff involved with operating theatre wards

BACKGROUND

Globally the number of people undergoing surgery and awaiting surgery is rising on a yearly basis with waiting lists expanding further due to the pandemic. Prolonged waiting lists are a health and economic burden on the Irish population. One report found it took patients 182 days to be seen for a hip replacement in Ireland. This is 50% above average for OECD natis. With the cumulative delays brought about by covid, some procedures have seen their waiting lists tripled. As a result, time has become a luxury that must be carefully managed. There is no longer room for time to be wasted between operations due to scheduling and communication difficulties between theatre and ward staff. Efficiency is essential. Smooth Op aims to modernize the scheduling process for operating theaters by introducing a real-time scheduling platform, replacing the outdated practice of using printed schedules. This web/android app, using St. James's hospital as a test case, aims to streamline communication between hospital staff and increase the efficiency of patient scheduling by replacing the current communication system (or lack thereof) with a more efficient system. This electronic system aims to supersede the error-prone paper scheduling and 'word of mouth' coordination.

USER REQUIREMENTS

- Administration staff must be able to easily create and edit operating appointments with all necessary information for support staff.
- Theatre nurses should have the ability to edit appointments while within the theatre and provide instant updates to ward nurses preparing the next patient.
- Cleaners must be given advanced notice when an operation is coming to an end.

- Surgeons should have access to instant updates while out of theatre for upcoming operations regardless of their location.
- Ward nurses should have access to instant updates for designated operating theatres as they time the preparation of patients awaiting an operation



USER STORIES

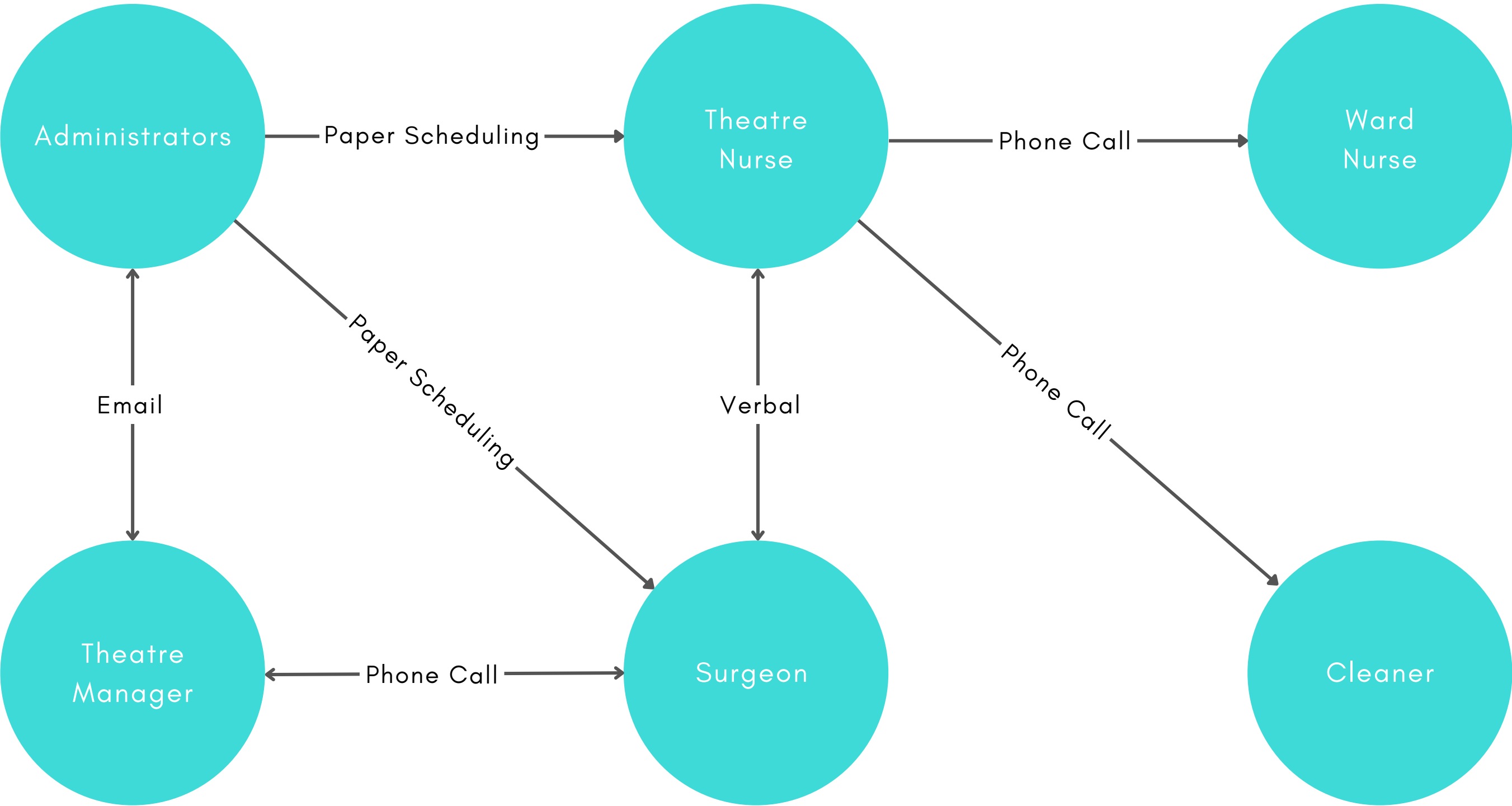
"As a theatre nurse, I want to be able to edit appointments while in the theatre and provide instant updates to ward nurses, so that we can keep track of patients and prepare them in a timely manner."

"As a cleaner, I want to be given advanced notice when an operation is coming to an end, so that I can clean the theatre in a timely manner and ensure that it is ready for the next operation."

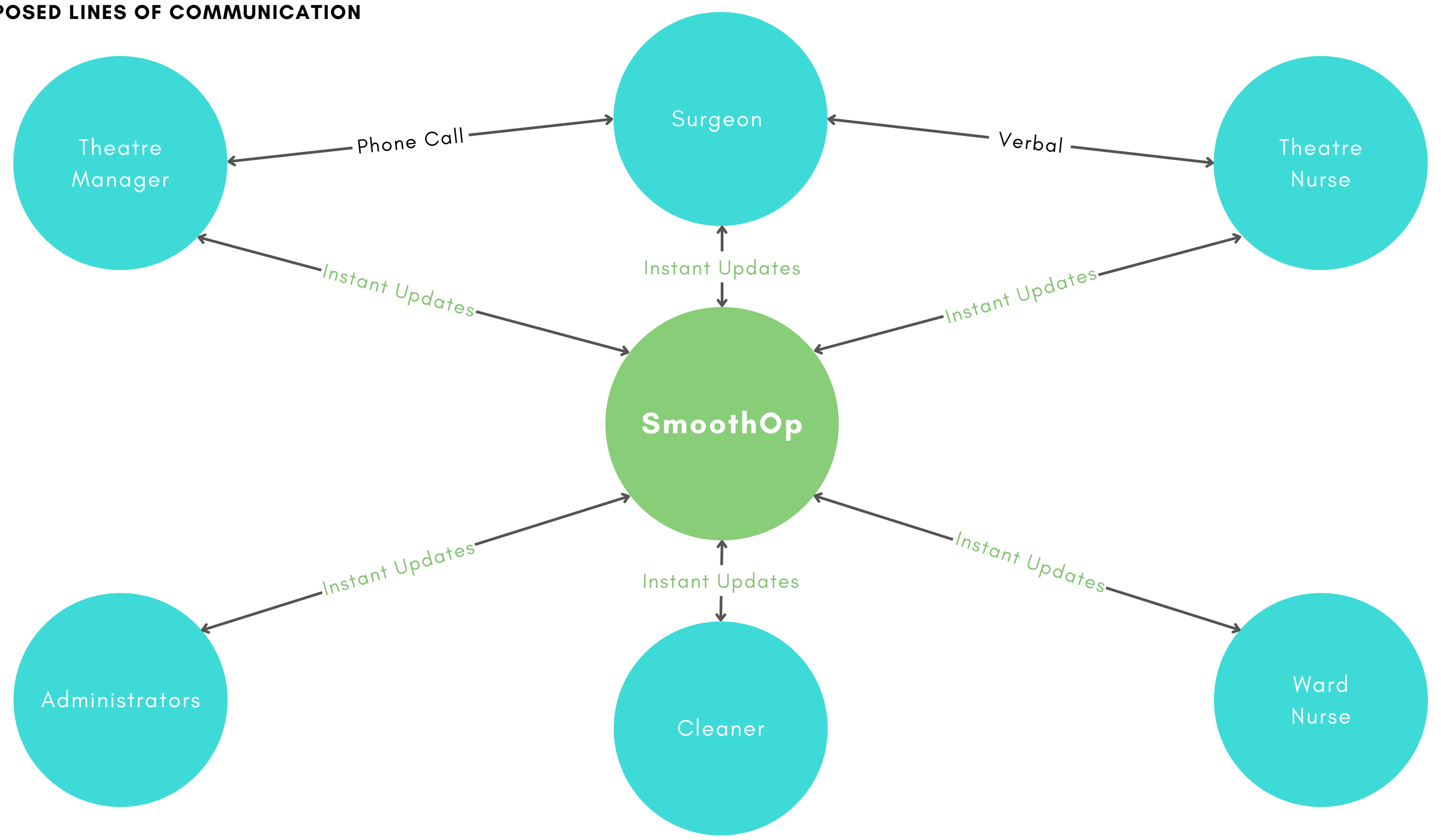
"As a surgeon, I want to have access to instant updates about upcoming operations, regardless of my location, so that I can stay informed about my schedule and prepare for my next operation."

"As a ward nurse, I want to have access to instant updates about designated operating theatres, so that I can time the preparation of patients awaiting an operation and ensure that everything is ready when they are needed in the theatre."

EXISTING LINES OF COMMUNICATION



PROPOSED LINES OF COMMUNICATION



LOG IN & HOME PAGE

- Full theatre schedules
- Simple information at a glance
- Further information by tapping the box

User Login Details



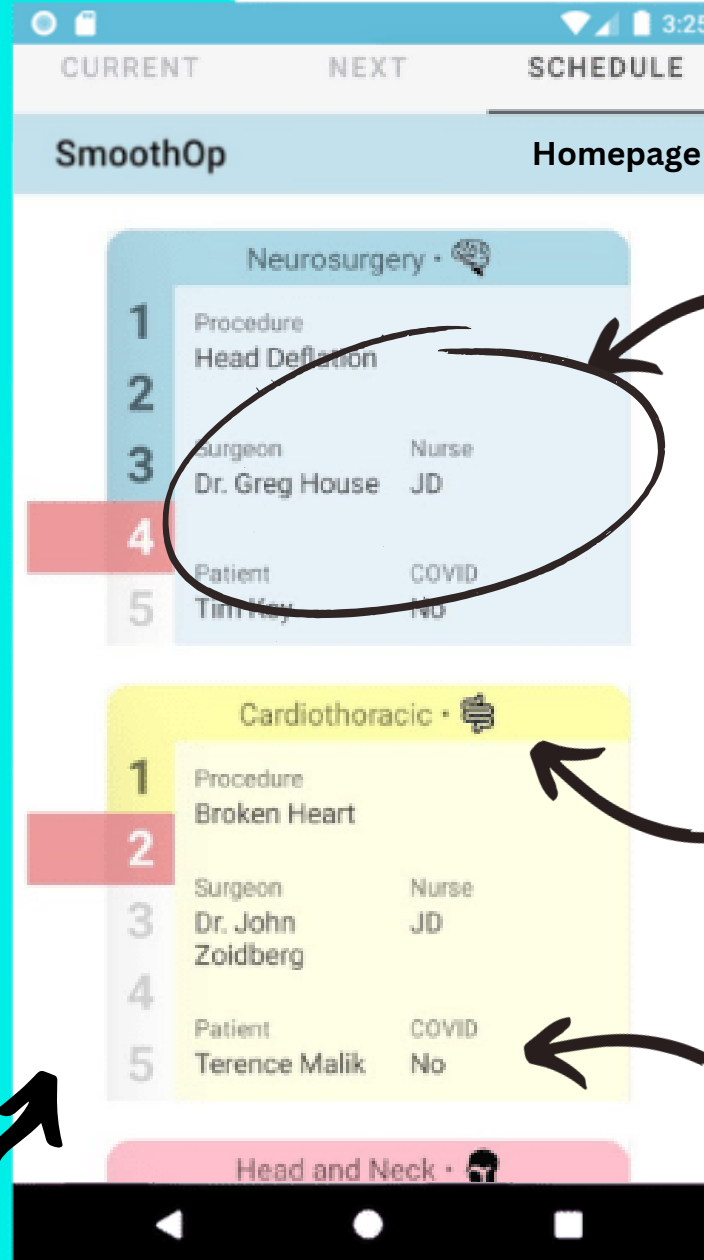
SmoothOp Login

surgeon@thehospital.ie

.....

LOGIN

Number of attempts left: 3



SmoothOp Homepage

	CURRENT	NEXT	SCHEDULE
Neurosurgery			
1	Procedure		
2	Head Deflation		
3	Surgeon	Nurse	
4	Dr. Greg House	JD	
5	Patient	COVID	
	Tim May	No	
Cardiothoracic			
1	Procedure		
2	Broken Heart		
3	Surgeon	Nurse	
4	Dr. John Zoidberg	JD	
5	Patient	COVID	
	Terence Malik	No	
Head and Neck			

Tap for further information on Operating Theatre (see next page)

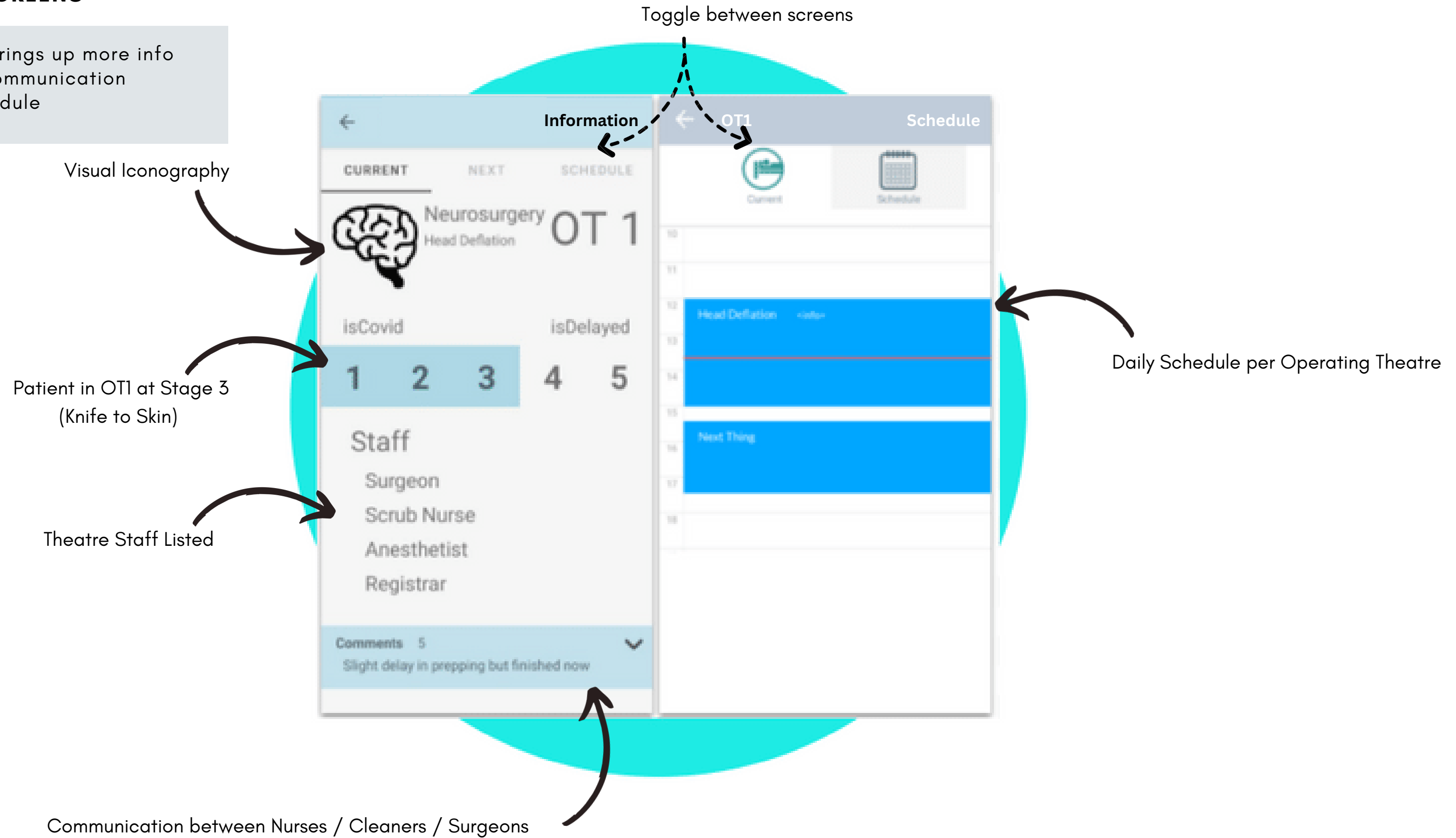
Colour coding and Iconography communicates type of operation

Covid Status Communicates to the Cleaner if a Deep-Clean procedure is Required

- Stage 1: Patient in Prep Room
- Stage 2: Patient in OT
- Stage 3: Knife to Skin
- Stage 4: Stitch Up
- Stage 5: Patient in Recovery Room

INFORMATION SCREENS

- Tapping an OT brings up more info
- Comments for communication
- Relative OT schedule
- Next to develop



WEB APP

- Theatre Nurse uses PC from within the theatre to update the surgery stage with the ability to add comments.
- Administrators create new appointments and can add information such as an expected delay or a covid positive patient
- Adds the ability to update details of an operation

New Operation

Room:

Category:

Anaesthetist:

Surgeon:

Registrar:

ScrubNurse:

Covid:

Patient Name:

Patient Sex:

Room : 2 Stage : 1

Stage Time: 0 minutes

Procedure :	Head Deflation
Category :	Neurosurgery
Anaesthetist :	Annie
Surgeon :	Dr. John Zoidberg
Registrar :	Reggie
ScrubNurse :	JD

Covid : 0

Delayed : 0

Patient Name : Sofia Coppola

Patient Sex : F

Comments:

New Comment:

Room : 3 Stage : 3

Stage Time: 0 minutes

Procedure :	Blocked Nose
Category :	Head and Neck
Anaesthetist :	Tess
Surgeon :	Dr. Perry Cox
Registrar :	Francis

DEMONSTRATION

View the video demonstration online

LINK: <https://youtu.be/yvOnvo2ZlyY>



ADDRESSING USER REQUIREMENTS

1. Administration staff must be able to seamlessly slot in available patients should an appointment get canceled or delayed.

- Appointments can be created or edited via the web app
- Editing privilege is granted to the Administrator on the web app

2. Surgeons should have access to instant updates of upcoming operations regardless of their location

- Mobile App can be securely accessed on a tablet or smartphone device
- Alerts are set per selected theatre in the settings
- Delays are indicated and progress for ongoing operations are tracked

3. Theatre nurses should have the ability to provide instant updates to ward nurses preparing the next patient

- A single click allows the Theatre nurse to communicate progressive operative stages
- Delays are instantly communicated to relevant staff
- Necessary changes to the operation can be quickly implemented via the web app

4. Ward nurses should have access to instant updates as they time the preparation of patients awaiting an operation

- Stages of operation are tracked to allow the ward nurse to prepare subsequent patients at the right time
- The ward nurse can communicate any issue with relevant staff via the comment function

