

March 2007 | UPMC South Side Hospital

Team EPIC

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UPMC & The Microsoft Design Challenge

Orthopedic Patients Discovery & Synthesis

The Microsoft Design Challenge

Using software to improve the daily life, and long term well being of a wide variety of users in the areas of health and wellness.

Our challenge

To not only look at the technological aspect of the problem, but also find out what constitutes the experience of the users in the service areas of health and wellness so we can provide better support through enhanced service.

Experience

noisy
smell
paperwork
phones
neglect
visiting hours

wait
confusion
limitation
lost
squeamish
bad food

Communication

Talking
Gestures
Symptoms
Nurse Bell
Visual
Busy

Home

Hospital's Values

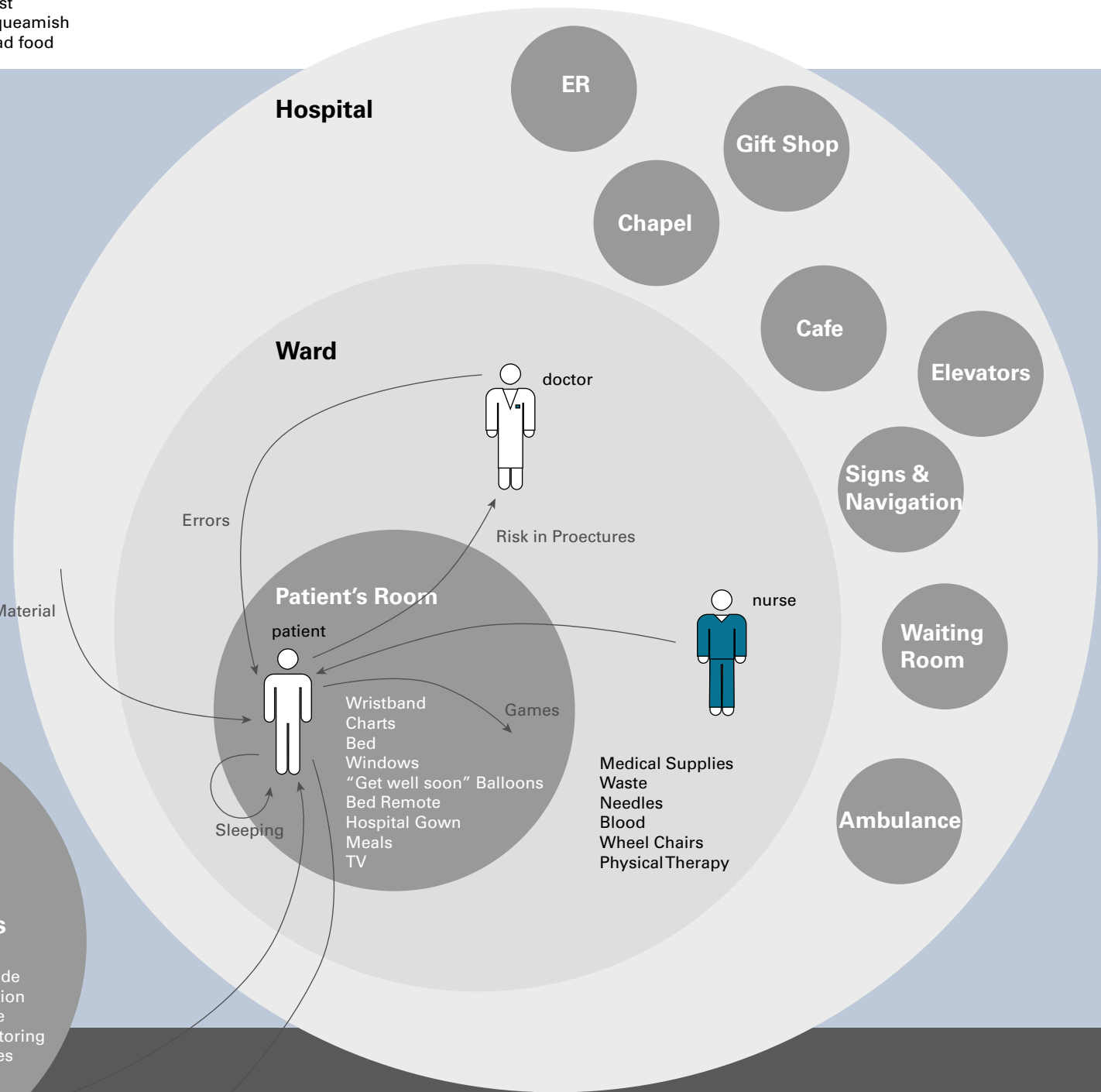
Patient in pain
Efficiencies
Prioritizing
"bad news"
"good news"
Safety

Happiness
Community
Supervise
Satisfaction
Comfort
Involvement

Patient's Values

Emotional Wellness
Sharing
Patient Knowledge
Patient's Needs
(allergies)
Empowering Patient
Religion

Attitude
Isolation
Home
Monitoring
Stories



Our goal

We aim to **empower short term patients** during the entire length of their hospital stay—from the minute they walk in to a hospital, to the minute they return home. We want to address the issues of **communication, activities, relationships, trust & privacy** between patients and practitioners. By exploring problems in these areas we hope to find an opportunity to deliver a service that will enhance their experience while at the hospital.



UPMC South Side values

Bringing state-of-the-art medical & health care techniques, knowledge, services, & equipment to the residents of south Pittsburgh

UPMC general values

Mission statement: to provide outstanding patient care to shape tomorrow's health system through clinical innovation, biomedical & health services research, & education

Heart of UPMC's success: passion for innovation & pursuit of quality



UPMC cultural conditions

\$6 billion organization - region's largest employer (43,000 employees)

U.S. News Best Hospitals honor roll

Largest concentration of new construction

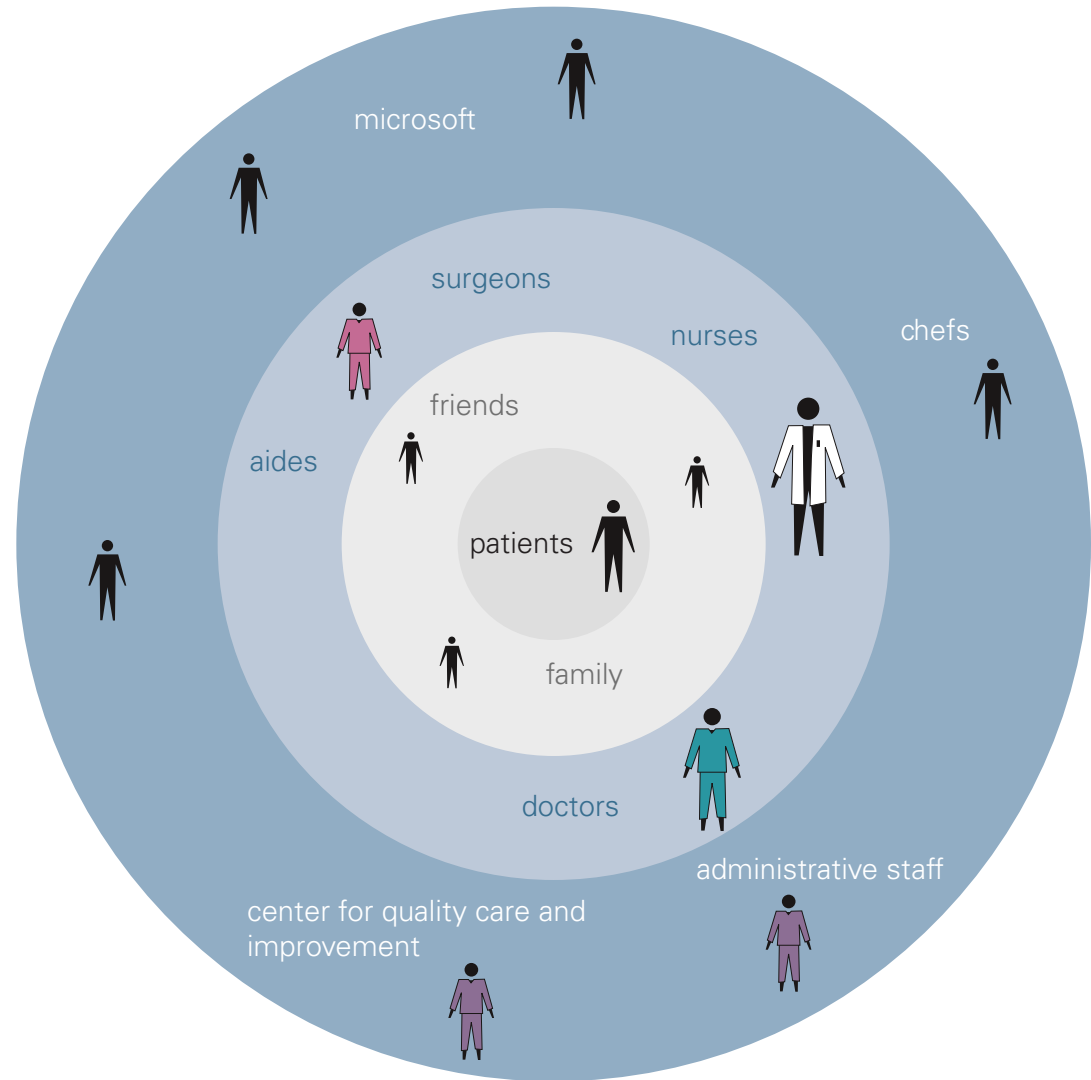
Has given back more than \$288 million to services, charity & uncompensated care

Why UPMC?

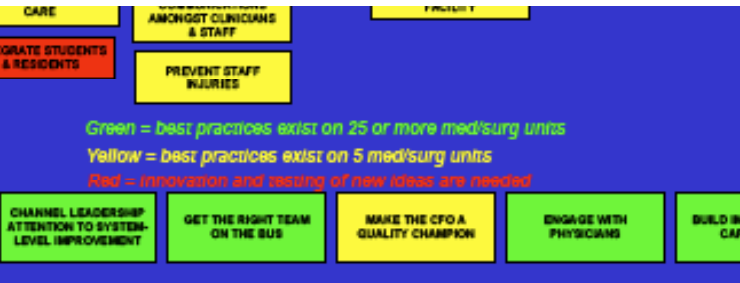
One of the wealthiest, best-known hospitals in the region

Patient loyalty

Stakeholder map



Current health care initiatives



UPMC (through the Center for Quality Improvement)

Electronic Health Records & Positive Patient Identification.

Information moves with the patient

attempts to make all health care professionals aware to decrease “harmful medication events that happen as a result of mismatched information at the bedside”



Mayo Clinic SPARC Innovation Center

Space designed by IDEO and Steelcase, to foster innovation and good health care practices

Service-oriented innovation, using industry-developed processes



Past efforts in patient empowerment

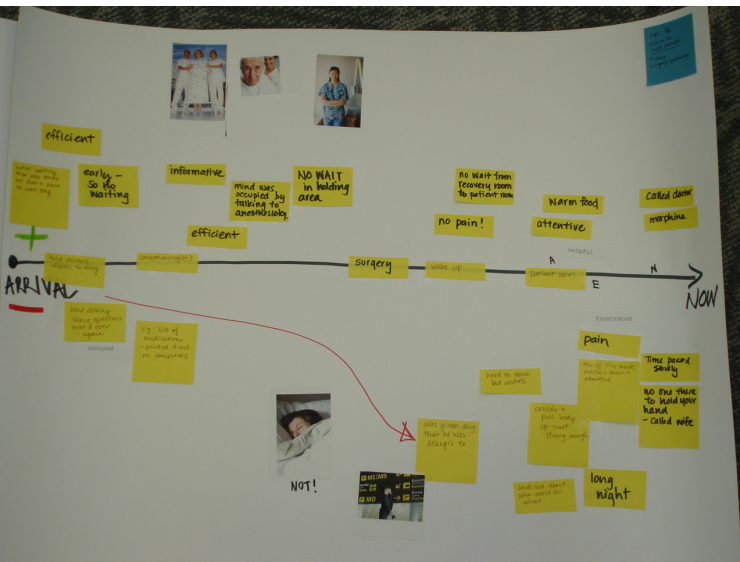
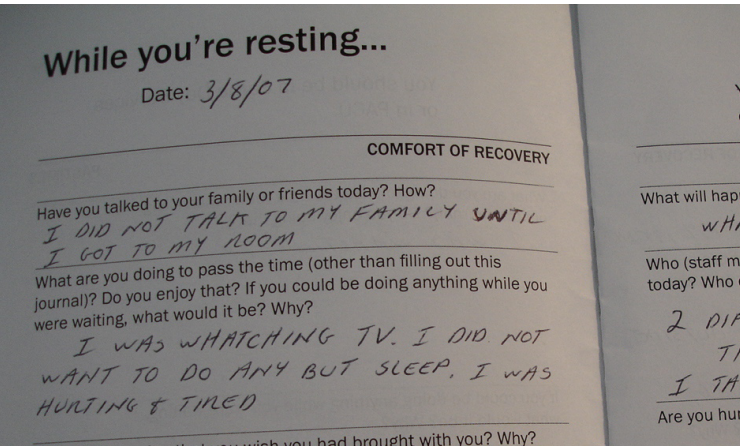


Regarding patient empowerment: increasing patient possibilities to learn about their injury and recovery

“Collaborative Articulation in Healthcare Settings –Towards Increased Visibility, Negotiation and Mutual Understanding” by Hillgren and Linde

Primary research

- Staff surveys (5)
- Collages (3)
- Interviews (7)
- Journal studies (26)

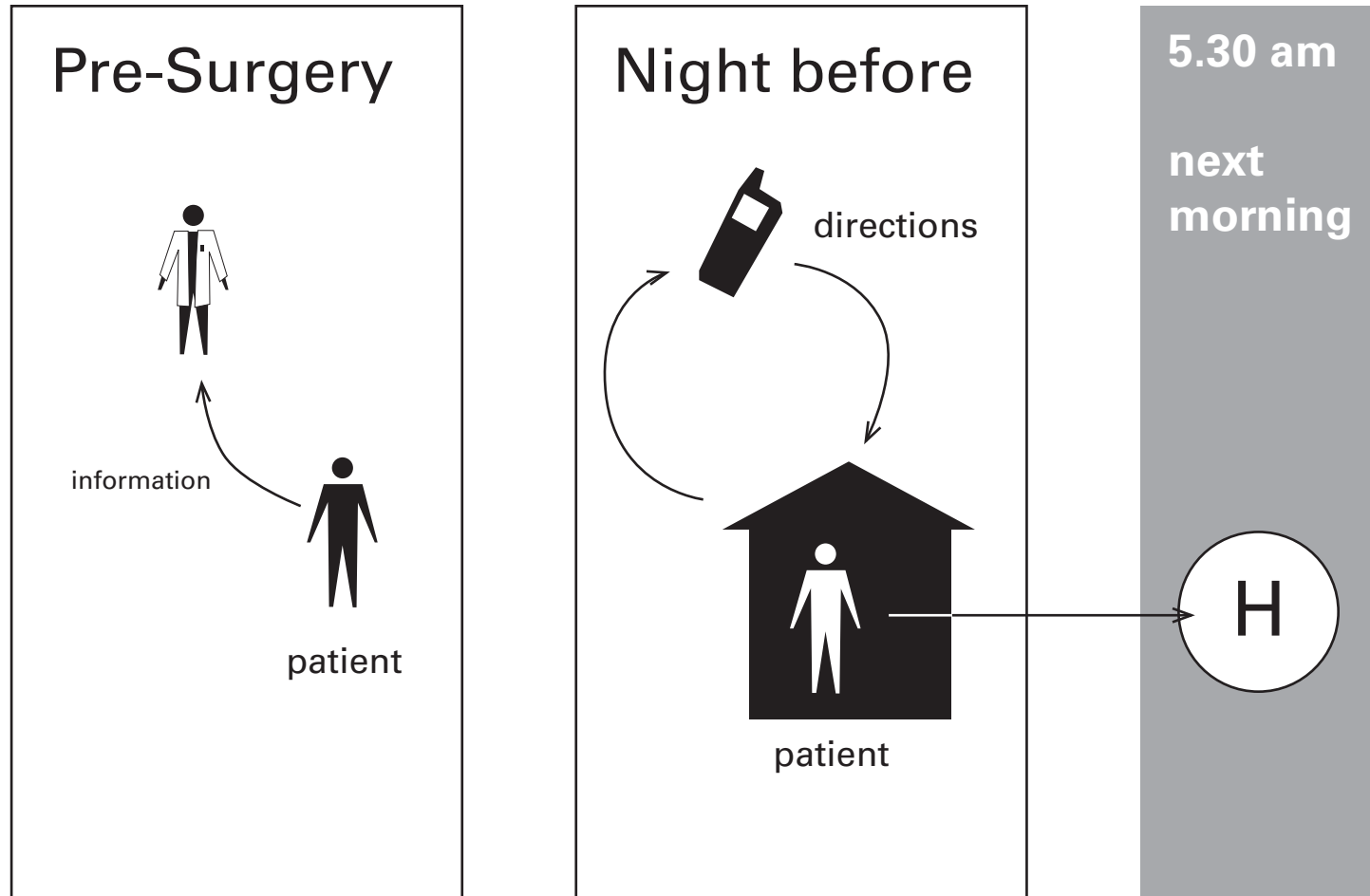


Orthopedic Patient Research

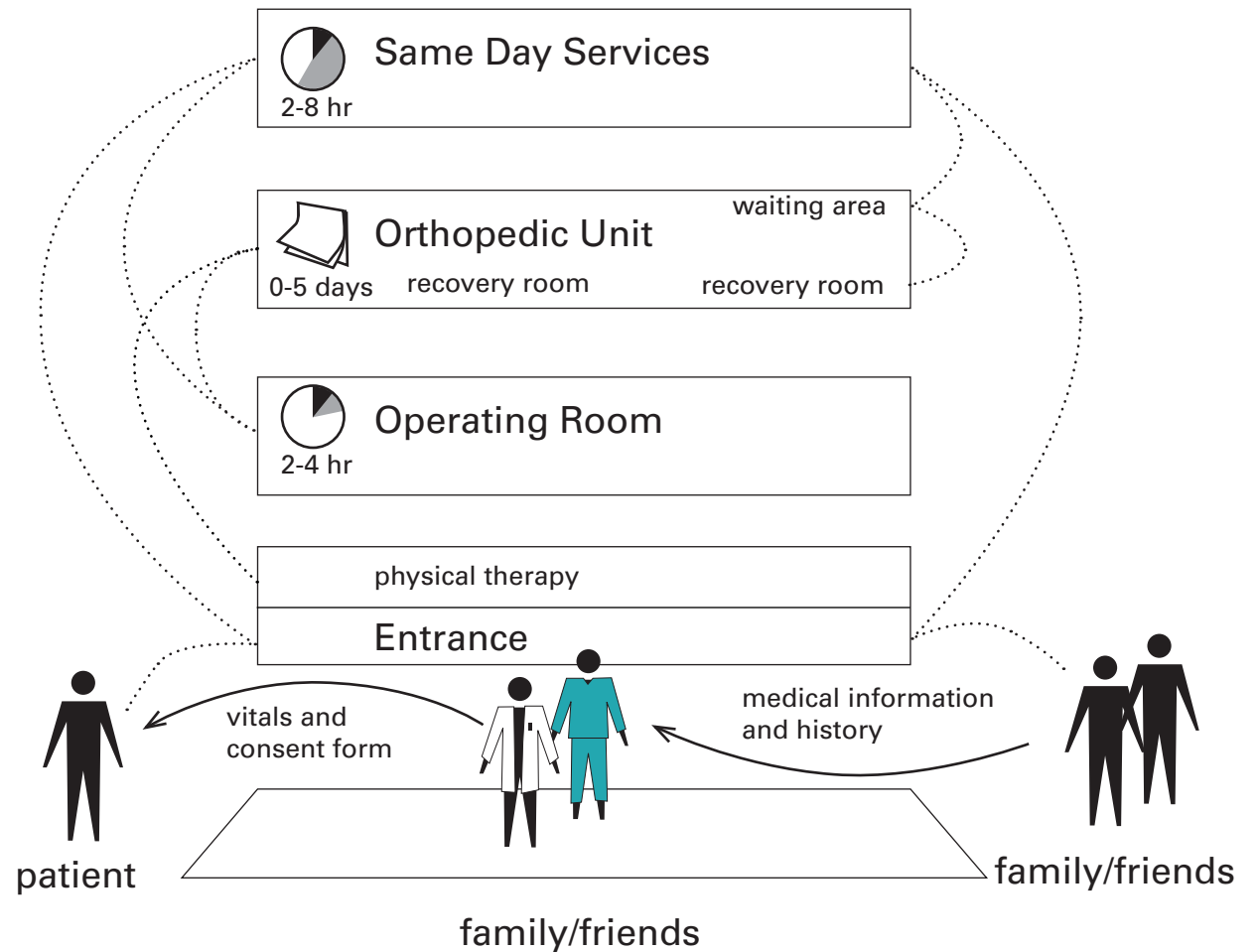
Team epic | March 2007

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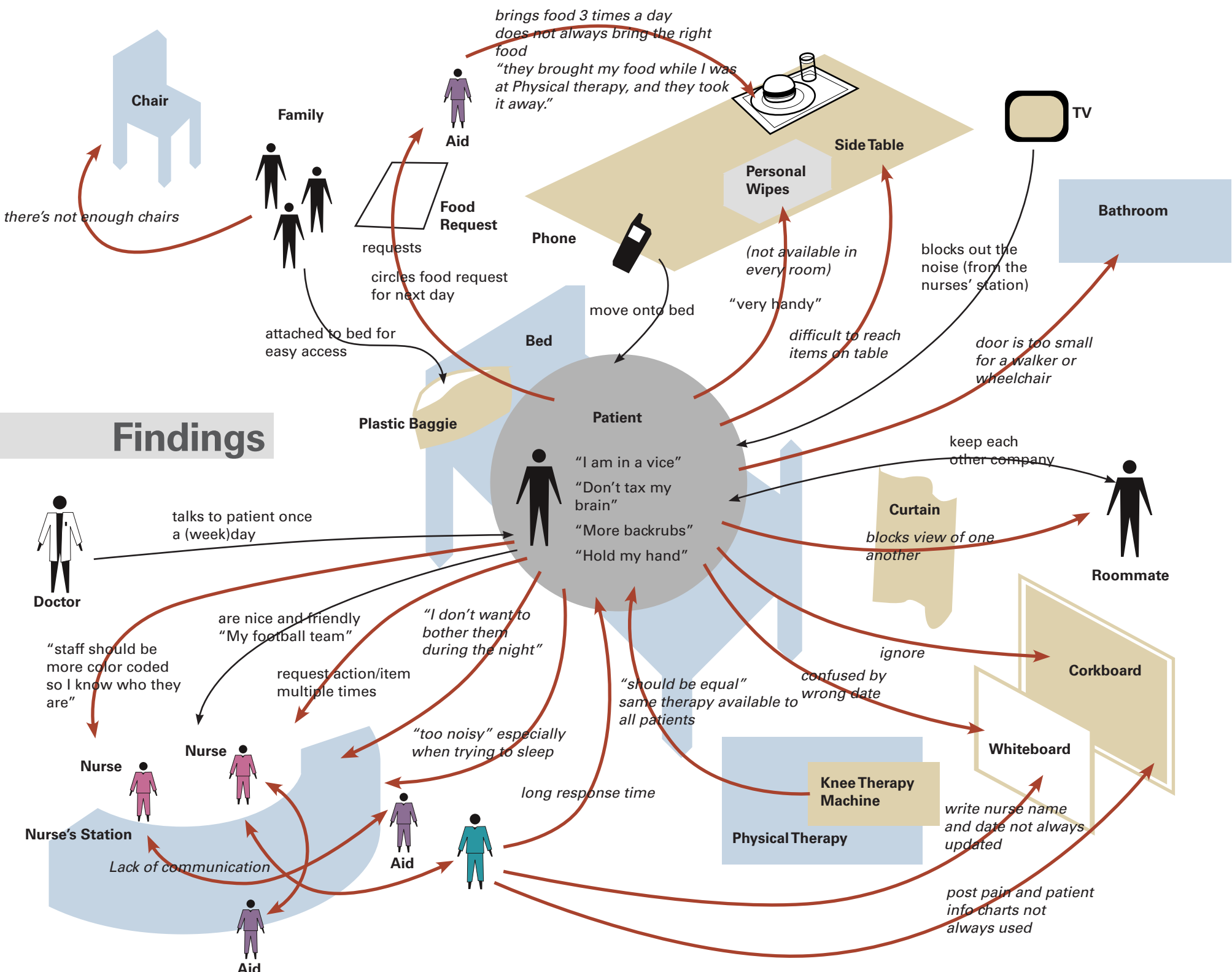
Flow of patient journey (pre-surgery)



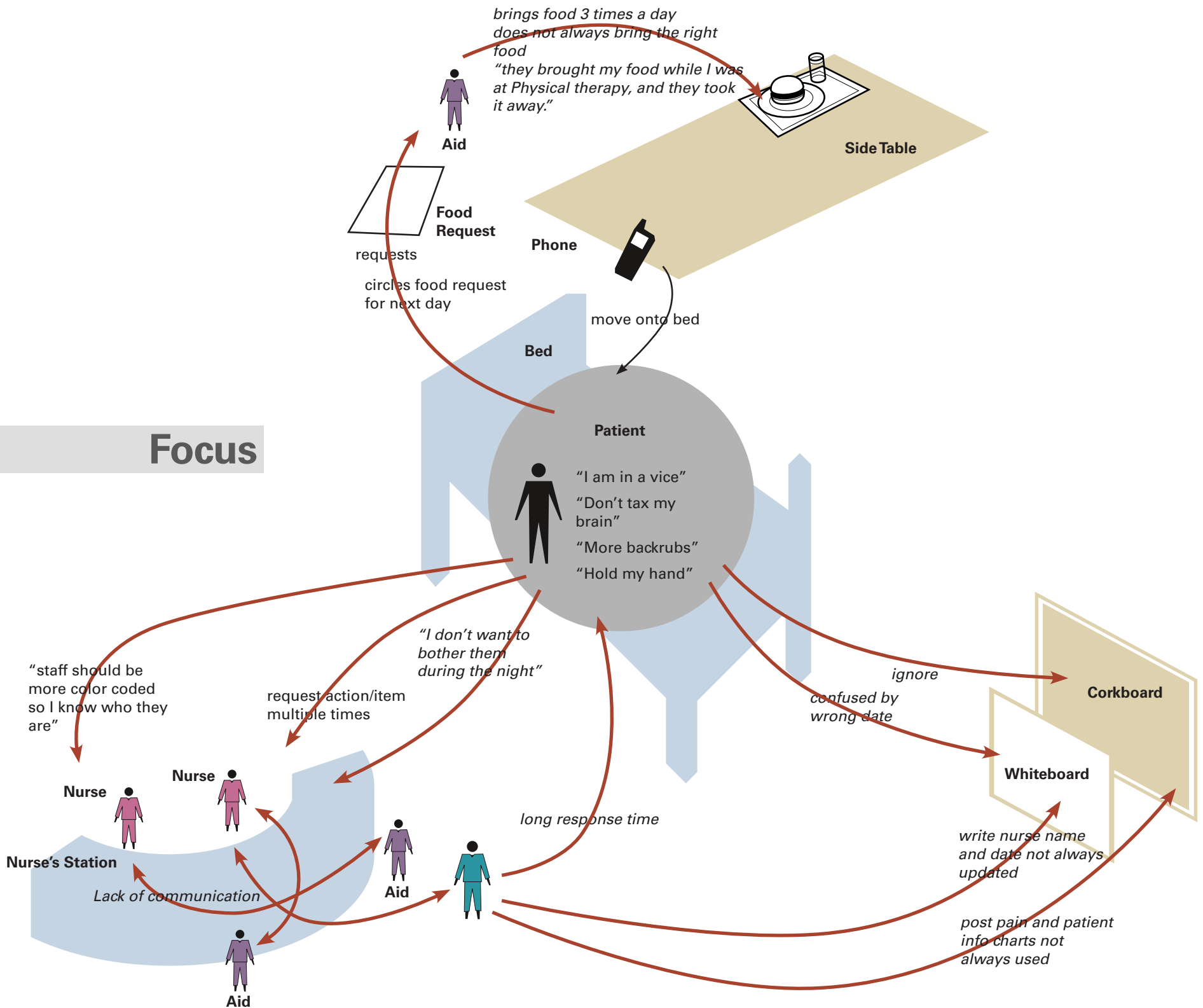
Flow of Patient (Surgery to Discharge)



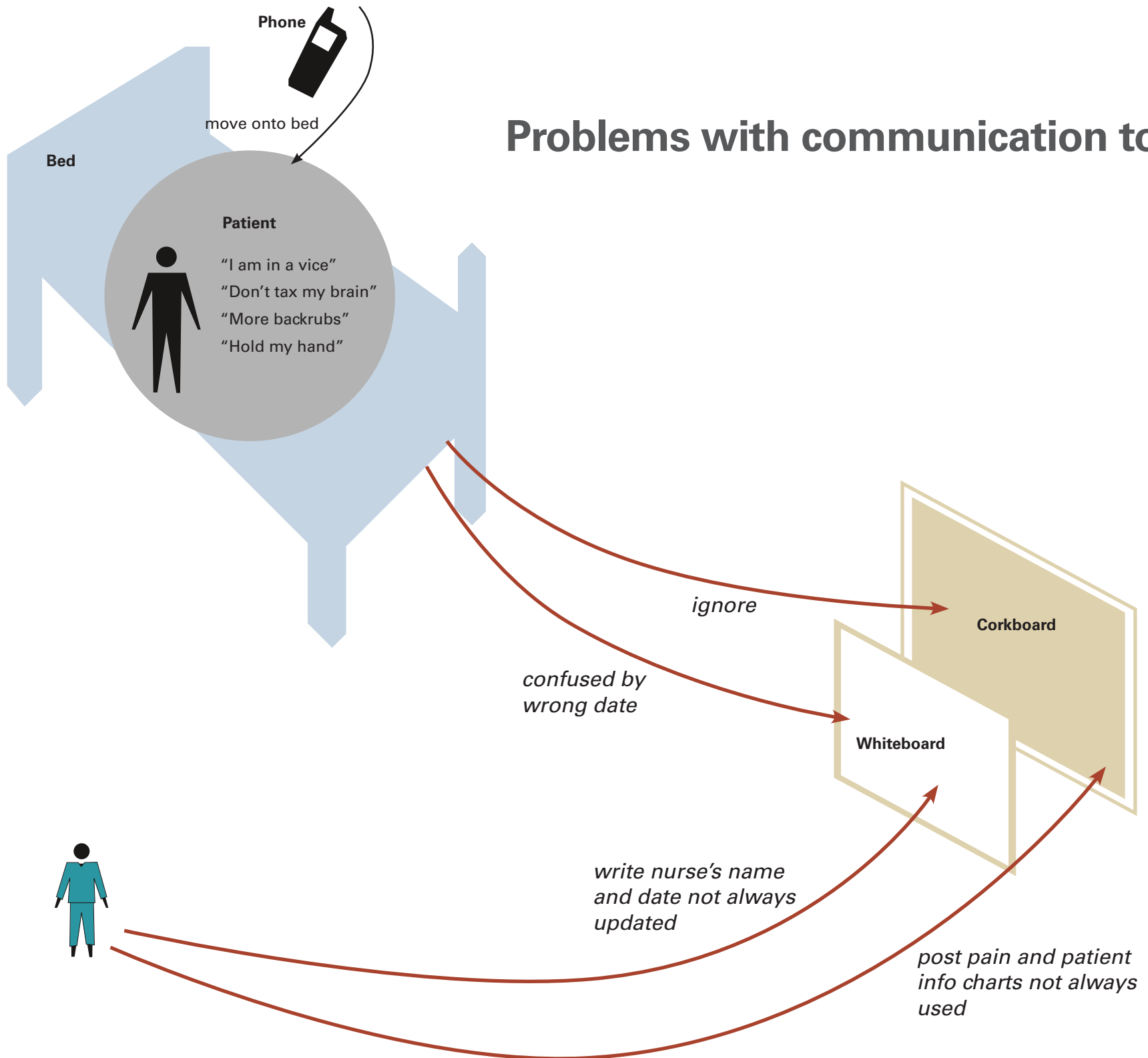
Findings



Focus



Problems with communication tools



Phone

move onto bed

Bed

Patient



"I am in a vice"
"Don't tax my brain"
"More backrubs"
"Hold my hand"

ignore

Corkboard

confused by wrong date

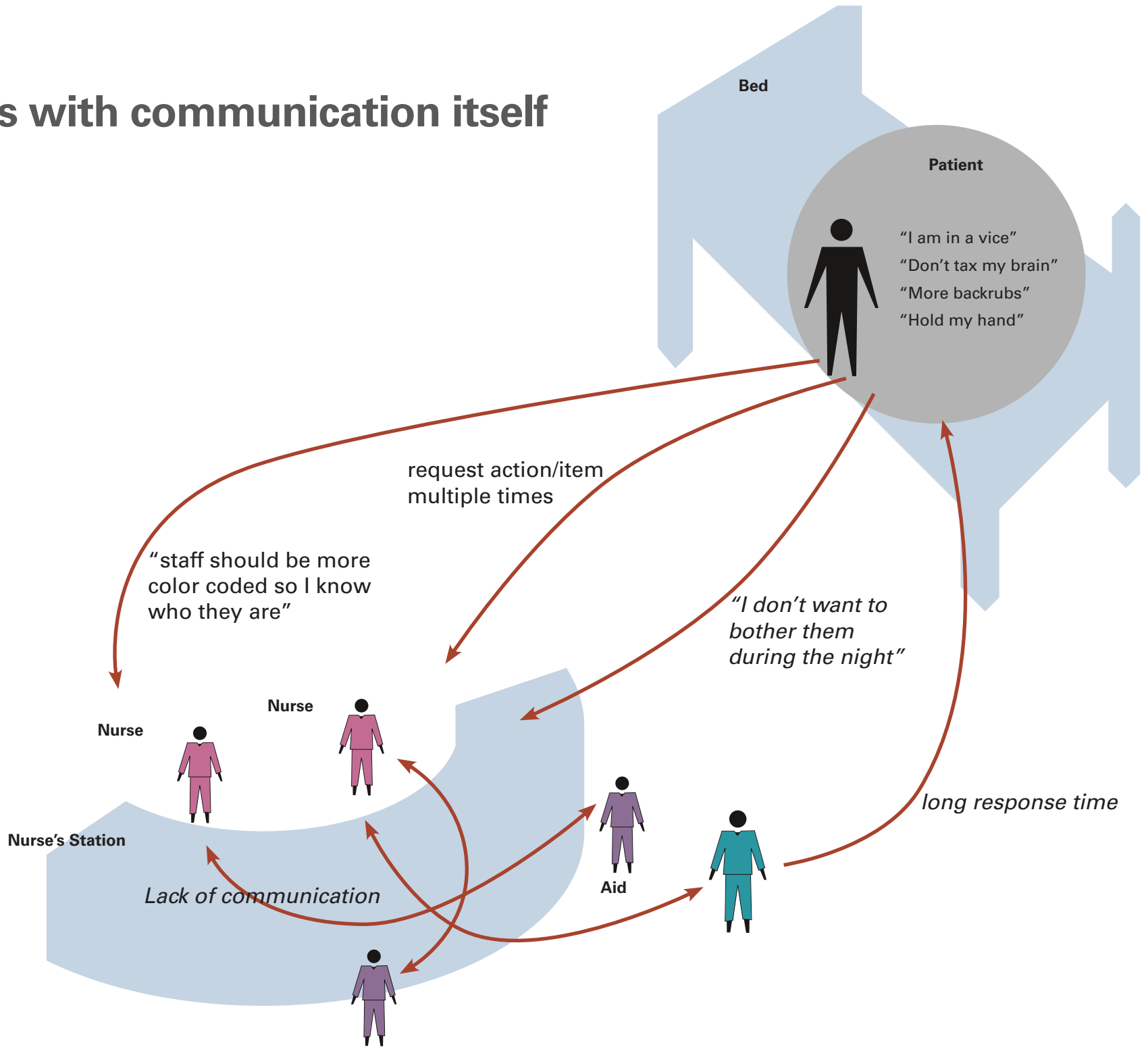
Whiteboard

write nurse's name and date not always updated

post pain and patient info charts not always used

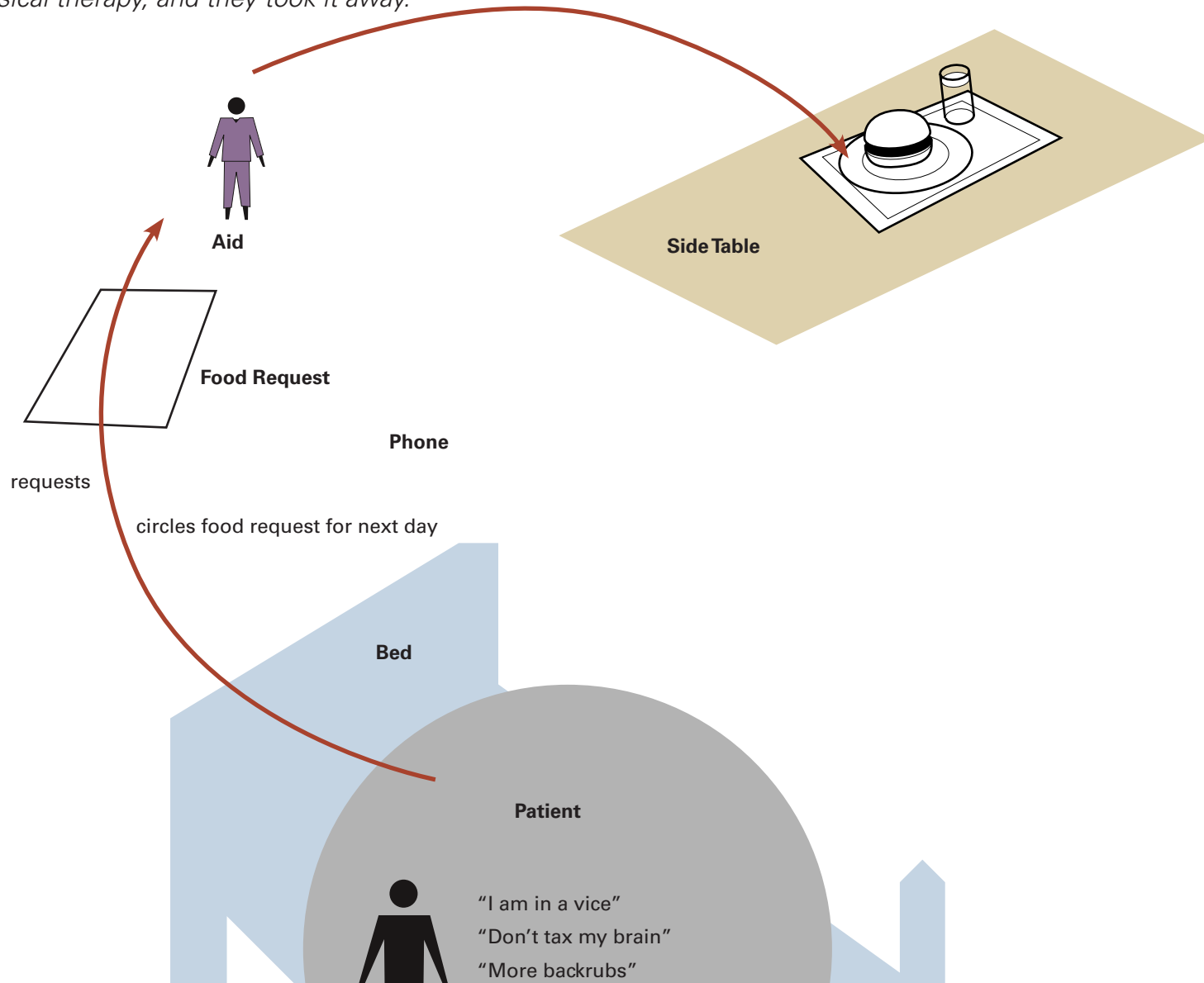


Problems with communication itself

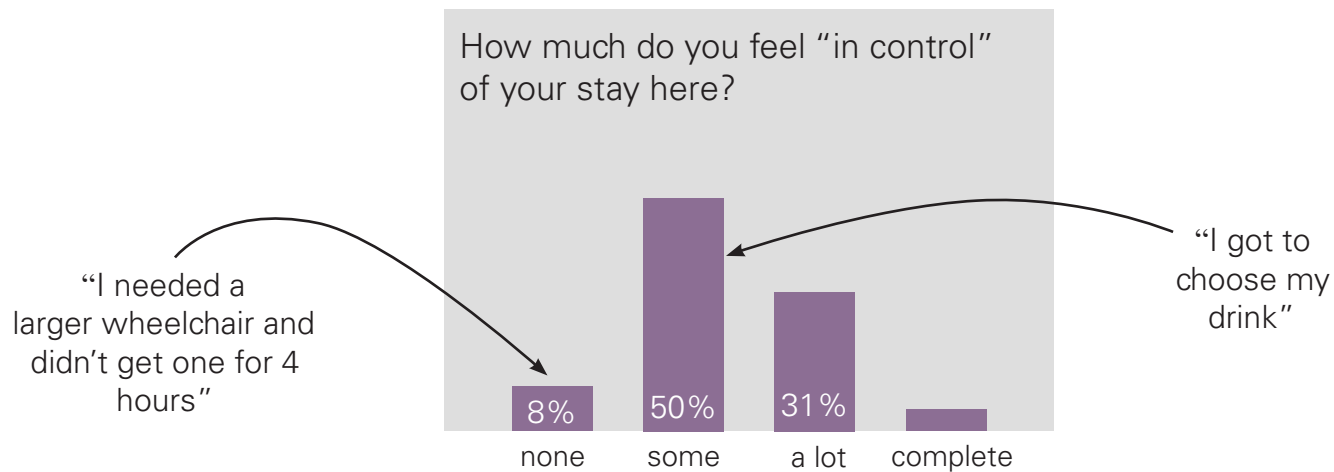
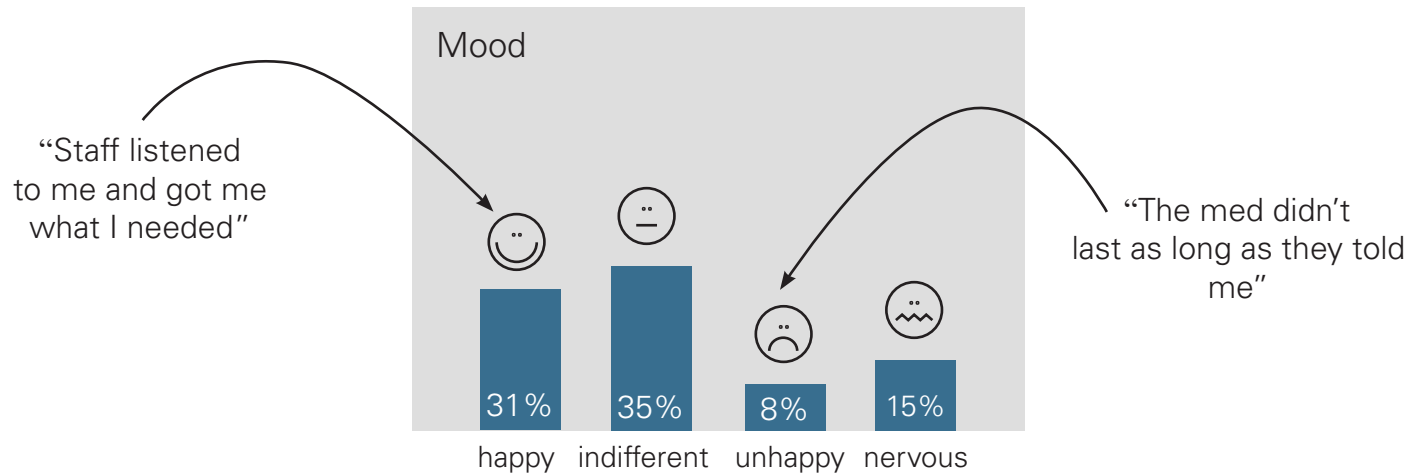


Problems with communication follow-through

*brings food 3 times a day
does not always bring the right food
"they brought my food while I was at
physical therapy, and they took it away."*



What the patients said...



Key insights



Patients feel in control when they receive what they've requested (EPIC journal study)

Patients often don't receive feedback of their requests

Patients feel that requesting more help from staff is "bothersome" - especially during the night (EPIC interviews)

Patients have hazy memory, especially when in a drug-induced state - have problems remembering what has been told to them

Design implications

Enhance communication from patients to staff in the recovery room:

- allow patient to see feedback from staff efforts
- allow patient to feel comfortable requesting for help
- let patient know who is coming into the room
- try to have everything in one place (avoid reaching)
- provide recollection cues rather than having to recall (e.g., date)

Direction

Bedside communication “hub” for patients to make requests

Allow patients to make direct requests rather than simply hitting a call button

Allow patient requests to be seen and acknowledged by any hospital staff