

Meeting with Susan, Shelley, and Joe

Minutes

2/15/08

SUSAN CHRISTIE MARTIN IS THE DIRECTOR OF THE CENTER FOR QUALITY IMPROVEMENT AND INNOVATION AT UPMC. AT FRIDAY MORNING I HAD A MEETING WITH HER, SHELLEY, AND JOSEPH T. SAMOSKY AT THE CENTER FOR QUALITY IMPROVEMENT AND INNOVATION IN PITTSBURGH. JOE IS THE DIRECTOR OF THE SIMULATION RESEARCH AND DEVELOPMENT CENTER AT UPMC AND DIRECTOR OF WISER (THE PETER M. WINTER INSTITUTE FOR SIMULATION EDUCATION AND RESEARCH). AFTER I GAVE A PRESENTATION ABOUT MY BACKGROUND AND ABOUT THE WAY I WOULD LIKE TO ORGANIZE THE PROJECT, WE DISCUSSED THE POSSIBILITIES FOR ME FULFILLING MY PLANS, AND I WAS CONNECTED TO THE RESPONSIBLE PEOPLE AT THE CENTER FOR QUALITY IMPROVEMENT AND INNOVATION.

After the presentation we talked about the 'redesign of an oxygen tank' project that had been carried out a couple of years ago, and Shelley's assumption that this project had had a much more technical approach was confirmed. Also, as it turned out there had been some ideas for attaching cards to the tanks, that contained information about the tank's use (within the so-called 'ticket to ride' project), but up until now there has not been an effort yet to approach the problem from a (service) design point of view.

The project will deal with tanks in all the different situations of use. Usually, people that are transported from their hospital rooms or wards, to and from an operating room of some kind, get hooked off the oxygen wall system and hooked onto a mobile device. There is a special 'respiratory unit' in the hospital that is responsible for refilling the tanks. A normal tank has a capacity of about 4 hours and a normal transport would take say 30 minutes. However, there's a lot of variation in these transport times. There are longer distance journeys, and sometimes the patient is left waiting somewhere until the room becomes available. In some cases the patient in the meantime gets connected to the wall system again. In case the patient doesn't get connected to the wall again, it is critical to be sure to not leave him or her there for a time longer than the tank can facilitate. There should also be some kind of a warning system that makes sense: not some sort of loud alarm that goes off when the tank is empty or a tank that tells 'I will become empty in 5...4...3...' etc. when the patient is all alone in a hallway. Instead, the tank should either find the most suitable person to communicate that it is time for replacement - with an appropriate amount of time left, or be able to 'listen' to a member of the hospital staff telling him when connecting him to a patient how long he or she needs the tank, as to be able to 'answer' whether or not there is still enough oxygen for that. It should be taken into account that there is a lot of noise in some parts of the transport process, so every sensory modality has to be considered as a way of communicating.

At the start of the project, all stakeholders should be identified. Not only the patient and nurse, but also the respiratory team plays a role in the tank usage. It may be necessary to deliver three 'stories':

- the 'story of the tank' in which the tank is followed from acquisition, through patient contacts and refills, to its final destination;
- the 'story of the patient' in which the patient is followed from the start of the complaints until dismissing from the hospital;
- the 'story of the nurse' in which the nurse is followed on a normal working day, that involves patient transport.

The company that manufactures the tanks is called 'Praxis Air'. Joe knows of another kind of device that doesn't store oxygen, but instead filters the oxygen out of the outside air. This device is still quite new and still very expensive. There are also smaller devices, that are used inside the hospital. They are called 'compressors' and are actually a sort of purses that patients carry around their waists as small oxygen supplies.

Joe is the director of the 'WISER' simulation center that has simulation rooms, equipped with cameras, for people to test prototypes of new products. He invites me to a tour around the facility, after which I can use it to test my eventual prototype. In that case it will not be necessary to go through the almost impossible procedure of getting approval to take and use recognizable photos and video recordings of the patients, which would probably take until April, if it would succeed at all. I am advised to only take pictures from the neck down as to avoid this procedure, and still have material to use in my presentations. I will still have to set up a consent form for the patients to sign. I am free to film and take pictures of the nurses, if they personally agree to this. The project doesn't need IRB approval of either the University of Pittsburgh or CMU, since it can be considered 'quality measuring' instead of research in which there is patient (skin) contact.

After the discussion round Susan introduces me to Deborah Pesanka, an Improvement Specialist at the Center, who will help me get around at the Presbyterian, a UPMC branch that is very open to this kind of innovation and therefore suitable for my research. She helps me fill in a UPMC badge application form and tells me that she will communicate my visit plans schedule around the hospital. Shelley mentions a Pittsburgh conference on service design for hospitals on Friday 22nd, that I am welcome to attend. I make an appointment to meet Deborah the next Wednesday morning, and agree to be present at a so-called 'CQI2' meeting between people involved in various UPMC innovation projects, the next Thursday. Joe will mail me to make an appointment for a WISER tour.