



Jen Maxted

Case Study – Cerner Surgical Scheduling

Surgical Scheduling

ABOUT THE PROJECT

Cerner had a robust existing scheduling platform, but lacked the ability to schedule for a surgical setting. Surgical scheduling existed in a legacy platform but needed to be uplifted in addition to have multiple features added.



Research Methods



Field Studies

5 facilities, 13 participants, 3 different cities.

My role: observe and ask questions.



Interviews

Stakeholders within Cerner and previous users.

My role: gather info and iterate, iterate, iterate.



Usability Testing

3 rounds of testing, over a dozen participants.

My role: create prototypes, make changes based on results.



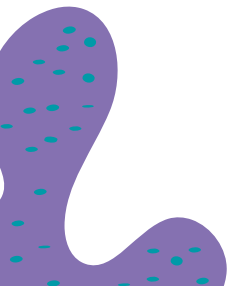
Field Study Quotes



"Things change quickly on the day of surgery. **I need the system to be more flexible.**"

"A lot of **these fields aren't big enough** to see the procedure names."

"If the code information changes, I'm not able to modify it. **I have to go back and start all over!**"





Field Study Takeaways



- The order in which the system places patients in the day needs to be determined by **age and conditions that might be impacted by fasting**.
- Users are **consistently using paper** back-ups. Trust in the system is low.
- **Many users have “cheats”** like creating a fake room to book patients in because the system isn’t able to easily overbook.
- There are a lot of **moving parts**. Surgical schedulers have to take into account the room, surgeon(s), multiple procedures, and specialized equipment.
- **Pre-admission testing** needs to be built into the scheduling process.

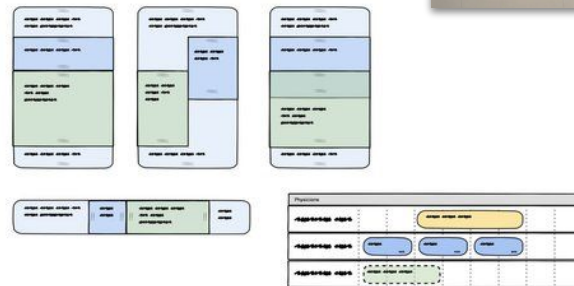
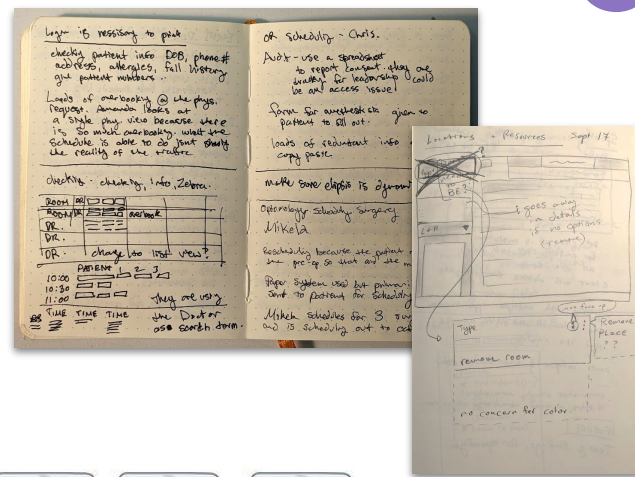




Stakeholder Interviews

I interviewed internal subject matter experts that have been working in surgery, and not specifically scheduling. I also had some follow up calls with the original participants to gain clarity.

Fortunately I had a lot of access to some very experienced SMEs. I was able to apply a massive amount of feedback to the design process.





Usability Testing

We tested several rounds of prototypes. The first concentrated on the initial part of the workflow. The other 2 included the entire workflow including a drag and drop component.

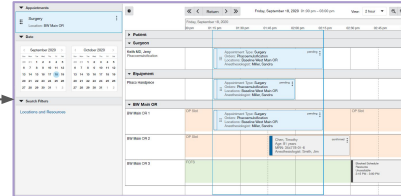
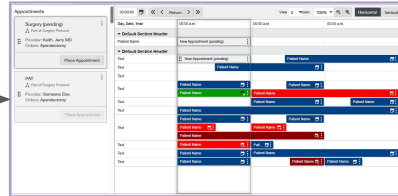
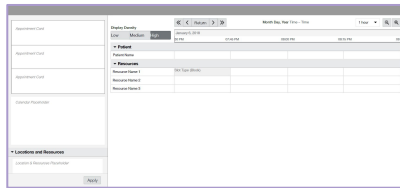


Usability Testing



I worked closely with the HF resource and the stakeholders while writing the script and building the prototype. Users had some pretty noticeable task failures, which gave us the opportunity to make updates and run additional rounds of testing.

The biggest challenge in testing was getting enough participants. Schedulers are already specialist and surgical specialist have additional training and often years of experience.





Outcome

The UI and new features went into development in 2021. Having the ability to do an extensive discovery process was vital.

The final product can schedule multiple aspects of a surgical case at once. It also gives the user flexibility and clarity which was lacking in the legacy product.



Thank you!

If you have additional questions,
please reach out!

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Experience

Principal UX/UI Designer

Banjo Health, Remote
April 2022 (current employer)

User Experience Lead

Cerner Corporation, Kansas City, MO
November 2021 to April 2022

Senior User Experience Designer

Cerner Corporation, Kansas City, MO
March 2019 to November 2021

User Experience Designer

WellSky (Formerly Medware), Lenexa, KS
December 2014 to September 2018



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