Cronos UI Design

PROPOSAL

---By Flo.w Consulting

DEA 4700 Applied Ergonomic Methods

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INTRODUCTION

Overview
• CRONOS Health Application developed to address concerns in the Emergency Room

Project Objective
• Create a user-centered interface that will allow its users to complete the tasks efficiently and promote effortless collaboration with others
Current interface
• Want to balance functionality and ease of use

Project Goals
• Streamlined architecture
• Seamless order and patient interchange
• Seamless patient handoff

Design Priorities
• Use of Android conventions to expedite learnability
• Consistency across the interface for intuitive navigation and flow
Restructure navigation

10

4

main categories
5 important Icons
### Patient Info:

- **POTTER, HARRY**  
  Headache, heart failure  
  - 1 delayed  
  - 2 pending

- **GRANGER, HERMIONE**  
  Stomach Pain  
  - 3 delayed

- **WEASLEY, RON**  
  Scarlet Fever  
  - 10 pending

- **POTTER, ALBUS-SEVERUS**  
  Cold

- **Location:** EDA  
  **Admitted:** 3/12/2012  5:32PM

- **DELAYED ORDER**
  - X-Ray > Chest  
    Machine Backlogged

- **PENDING ORDERS**
  - Blood Test > Arm
  - Exam > Leg

- **COMPLETED ORDERS**
  - Add New Order  
  - See History
Create New Order

- Allows for multiple patients
- Allows for multiple orders
Tasks

- patients

- POTTER, HARRY (M, 18)
  - X-Ray Ready
  - ERA

- POTTER, HARRY (M, 18)
  - Bring Water
  - ERA

- GRANGER, HERMIONE (F, 17)
  - Check at 3PM
  - LOB
• My tasks (event + To-do)

- Bring Umbrella
- Check Files
- 3/12/12, 1PM Meeting in Lobby
- 3/14/12, 8AM Proposals in Atrium
Tasks

• History
Alerts

3

2 levels

CRITICAL ALERTS

☐ CARDIAC ARREST
Potter, Harry 3:52PM

☐ ALLERGIC REACTION
Weasley, Ron 8:24AM

WARNINGS

☐ LOW LEVEL DRUG ALLERGY
Granger, Hermione 1:36PM
Alerts

• Critical Alerts
  o Vibrate + Pop-up + Red alert button
  o Silence + Resolve

• Warnings
  o Vibrate + Orange alert button
  o Reminder vibrate if not resolved
Handoff

• Why
  – on paper is messy, error prone
  – unnecessary hassle

• Tabs
  – Cleaner, less clutter
  – Easier to understand organization

• Results
  – Higher patient safety
  – Higher ER throughput
Handoff Process

Leaving Doctor:
- Menu
- Handoff
- Select All
- Transfer
- Pick Doctor
- OK

Incoming Doctor:
- Menu
- Handoff
- Incoming Tab
- Select All
- Accept

← Transferring

Accepting →
Summary

- Simplified information architecture
- Improved consistency across the interface
- Increased flexibility in order placement and patient handoff processes
- Increased capability to prevent errors
- Addition of multimodal functionality
FUTURE WORK

Areas for future exploration
• Improved order classification
• Seamless call and messaging functions
• Enhanced visualization of patient history
• Reliable clinical decision support

User testing with ER physicians
• Eye-tracking study
• Usability questionnaires
Any Questions?