

# User Experience Review Results Example: Medical Web Application

## Example Overview

In this example, a medical web application was reviewed. This expert review was the first step to a larger redesign effort. Based on the results of this review, the product was redesigned and usability testing of the new design is planned. The results of the user experience review were delivered in Word and PowerPoint.. This deck was used in conjunction with an oral presentation.

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Prepared for (client name)

# USABILITY REVIEW FINDINGS



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# Project Overview

- Goal: Conduct a usability review of *<product>*
- Usability review explained
  - Often called a heuristic review
  - Product evaluated against
    - Commonly accepted user interface standards
    - User tasks & goals
    - Business goals
    - User domain and computer knowledge
  - Issues identified & recorded
  - Recommendations developed



# Evaluation Focus

- Areas of focus
  - Target users
    - Clinic employees
    - Business office employees
  - Design goals
    - Shift responsibility to users
    - Soften the edges
  - Little to no user training
    - Intuitive, easy to learn UI
    - Ample user assistance
    - Descriptive labels & headings



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= recommendation



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# Current Home Page

The screenshot shows a dashboard with several sections. Red circles highlight the following elements:

- 1**: The "Home" dropdown menu in the top navigation bar.
- 2**: The "Commercial" and "Non-Commercial" counts in the Metrics section.
- 2**: The "Open Work Items" count in the right-hand sidebar.
- 1**: A summary bar at the bottom of the page stating "200 CLAIMS HAVE BEEN BILLED FOR YOUR FACILITIES IN THE LAST SIX MONTHS" with a progress bar.

The dashboard includes sections for Metrics, New / Visiting Patients, Registration Details, Frequently Used, Open Work Items, Updates to Reggie, System Updates, and Insurance Coverage.

1

Numbers correspond to issue numbers in the following slides

# Home Page Findings

1. Primary user goal lacks explanation & motivators

💡 Redesign the home page header to provide more:

- Explanation
- Feedback on progress towards goal
- Motivating content



# Home Page Findings



## Suggested redesign

(see slide notes for an explanation of each letter area)

**F** Register A Patient

**A** Welcome, Jill!

**B** Select a facility to work with: All My Facilities

**H** You have Field Office access level. [Change level](#)

**C** Live Queue Status  
Use this area to see how your facilities are progressing towards clearing patients from the queue

Number of patients in queue: **25**

Longest wait in queue: **45 days** [View](#)

Average wait in queue: **6 days**

Facilities with lowest average: Lakewood, CO 4 days  
Arlington, TX 4 days  
Burlingham, MN 5 days

Your facilities have a **90%** billing success rate in the last 6 months

**D**

Successful: 180 (90%)  
Failed: 20 (10%)

**E** Queue Summary [i](#)

Commercial Denials: 21 Non-Commercial Denials: 14  
Commercial Holds: 21 Non-Commercial Holds: 14  
Incomplete Registrations: 22 [View](#)  
Missing Insurance Cards: 12 [View](#)

**G** Patient information for: **Culver City Clinic & San Bruno Clinic**



# Home Page Findings

## 2. Terminology & Section headings need rethinking

- Identical headings are used to describe different content
  - “New / Visiting Patients” on Home Page = last 7 days
  - “New / Visiting Patients” on Work Page = last 30 days
- Different headings are used to describe the same information

| Open Work Items                      |    |
|--------------------------------------|----|
| <a href="#">All</a>                  | 25 |
| <a href="#">New / Visiting</a>       | 1  |
| <a href="#">Registration Denials</a> | 5  |
| <a href="#">Pre-Registration</a>     | 4  |
| <a href="#">Insurance</a>            | 6  |
| <a href="#">Verification</a>         | 2  |
| <a href="#">Authorization</a>        | 0  |
| <a href="#">Requested Reviews</a>    | 2  |
| <a href="#">Committed Documents</a>  | 5  |

| Choose A Queue                       |    |
|--------------------------------------|----|
| <a href="#">All</a>                  | 25 |
| <a href="#">New / Visiting</a>       | 1  |
| <a href="#">Registration Denials</a> | 5  |
| <a href="#">Pre-Registration</a>     | 4  |
| <a href="#">Insurance</a>            | 6  |
| <a href="#">Verification</a>         | 2  |
| <a href="#">Authorization</a>        | 0  |
| <a href="#">Requested Reviews</a>    | 2  |
| <a href="#">Committed Documents</a>  | 5  |

- Queue list on Home Page      Queue list on Work Page

# Home Page Findings

## Define terms

-  Queue – the list of incomplete pending and active patient registrations
-  Patient Registrations – constitute the queue
-  Clear the queue – the act of removing registrations from the queue

## Consider using the following section headers

### Home Page

- Queue Summary  
(*was metrics*)
- New / Visiting Patients  
(in next 7 days)
- New Registration Denials
- Frequently Used
- View Queue by...
  - New / Visiting Patients  
(last 30 days)
  - New Registration Denials
  - Pre-Registration Issues
  - Insurance Issues
  - Verification Issues
  - Authorization Issues
  - Requested Reviews
  - Recent Committed Documents

### • Work Page

- View Queue by...
  - Recent / Visiting Patients  
(last 30 days)
  - Registration Denials
  - Pre-Registration Issues
  - Insurance Issues
  - Verification Issues
  - Authorization Issues
  - Requested Reviews
  - Recent Committed Documents
- System Updates
- View Preferences

# Home Page Findings

- 💡 Provide information pop-ups for sections that may need more explanation

The screenshot shows a user interface element titled "New / Visiting Patients (in next 7 days)". Below the title is a list of three patients: Bartal, Owen; Jones, Bobby; and Villari, John. Each patient name is preceded by a colored dot (green, orange, and red respectively). To the right of the patient names, the word "Facility" is partially visible. An information pop-up is overlaid on the right side of the list, containing the text: "Displays new, visiting, and restart patients scheduled to start within the next 7 days at the facility(ies) selected."

| New / Visiting Patients (in next 7 days) |                          |
|--|--------------------------|
| ● <a href="#">Bartal, Owen</a>           | Facility                 |
| ● <a href="#">Jones, Bobby</a>           | Facility                 |
| ● <a href="#">Villari, John</a>          | Facility Start: 11/22/00 |

**i New / Visiting Patients**  
Displays new, visiting, and restart patients scheduled to start within the next 7 days at the facility(ies) selected.



# Home Page Findings

- 💡 Provide information pop-ups for sections that may need more explanation

**Queue Summary**

Commercial Denials: 1  
Commercial Holds: 1  
ns: 22 [View](#)  
ds: 12 [View](#)

**Queue Summary**

**Commercial:** Denials received from non-government payors.

**Non-Commercial:** Denials received from Medicare, Medicaid, Tricare/Champus, etc.

**Current Denials:** The current number of new and pending registration-related denials summarized by the number of denials with Benefits, Authorization, and Registration reasons for the facility(ies) selected.

**Holds:** The current number of held claims for the facility(ies) selected.

**Missing Insurance Cards:** The current number of missing insurance cards for the facility(ies) selected.

**Incomplete Registrations:** The number of patients for the facility(ies) selected that have incomplete registrations. This counts of all the patients that have Pre-Registration, Insurance, Verification, Authorization, or Denial issues. Each patient is counted only once even if they are showing in more than one queue.



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# Current Service Page

The screenshot shows a web application interface for a 'Current Service Page'. The interface includes a navigation bar with 'Home', 'Work', and 'Help' links. Below the navigation bar, there is a 'Work' dropdown menu with a 'Choose A Facility' option, highlighted with a red circle labeled '3'. The main content area is divided into several sections:

- Choose A Queue:** A list of queues with 'All' selected, highlighted with a red circle labeled '4'. Other queues include 'New / Visitors', 'Registration Details', 'Pre-Registration', 'Insurance', 'Verification', 'Authorization', 'Requested Review', and 'Completed Documents'.
- Sort This Queue:** A section with a 'Sort By Last Name' dropdown, highlighted with a red circle labeled '4'. It also includes 'Show All ICR Types' and 'Show 10 Patients Per Page' dropdowns, and an 'Update' button.
- Table of Patients:** A table listing patients with columns for patient name, facility start date, queue date, and status. The table is highlighted with a red circle labeled '5'. The status column includes icons for 'Pre-Registration', 'Verification', 'Registration Details', 'Insurance', and 'Authorization'. The 'Registration Details' status for the patient 'Kirk, Dan' is highlighted with a red circle labeled '6'.

At the bottom of the page, there is a summary section titled '200 CLAIMS HAVE BEEN BILLED FOR YOUR FACILITIES IN THE LAST SIX MONTHS'. It includes a bar chart showing 'Successful: 188 (94%)' and 'Failed: 12 (6%)'. The footer contains 'Home | Work | Help | Register A Patient' and a star icon.

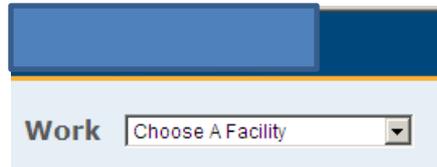
1

Numbers correspond to issue numbers in the following slides

# Service Page Findings

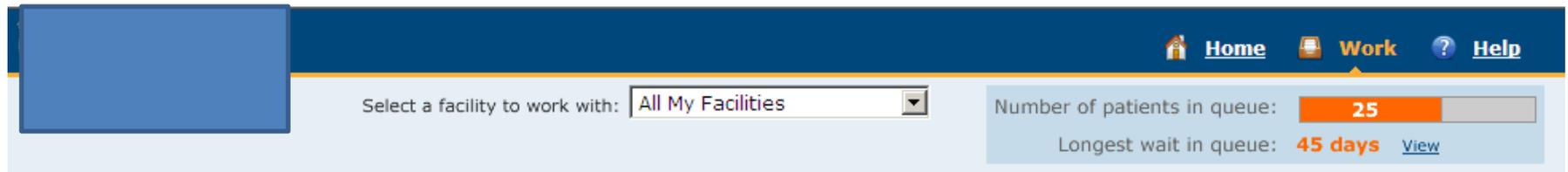
## 3. Page header issues

- Page title or menu label?



- Motivating elements missing on this page as well

💡 Redesign Work page header with these issues in mind



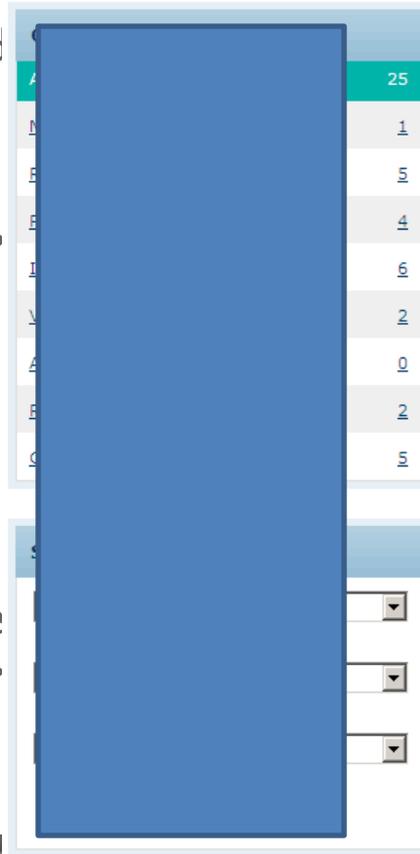
# Service Page Findings

## 4. Queues, filters and sort features need clarification

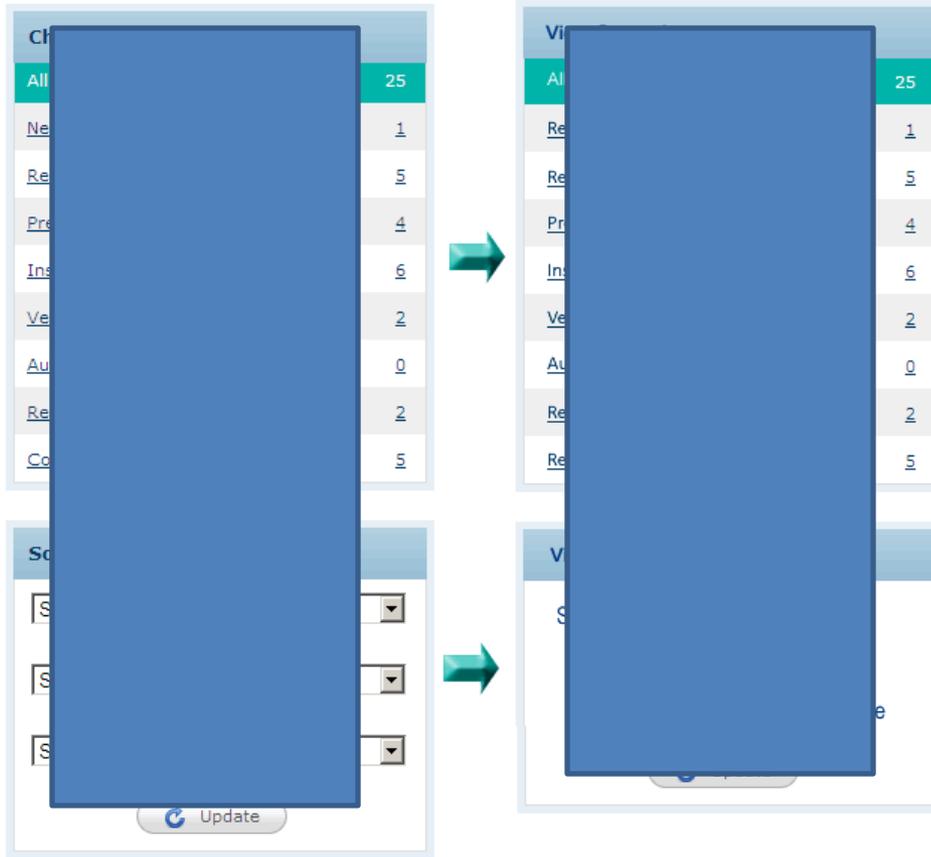
More than 1 queue implied

These are filters →

Not all of these options are  
sort options →  
Boolean logic is advanced



# Service Page Findings



- Rename & reorganize
  - ← One queue viewed different ways
  - ← Expanded filter names
  - ← Generic section header
  - ← Sort separate from filters
  - ← No Boolean logic

# Service Page Findings

- 💡 Visually link filter selection to filter list
- 💡 Define filter



# Service Page Findings

5. Time since last refresh importance is not explained & button functionality is hidden

Screen shot shown here

Redesign suggestion shown here

- 💡 Give 3D appearance to suggest click-ability
- 💡 Add on-screen instruction
- 💡 Tell users when it's time, don't make them figure it out



# Service Page Findings

6. **X's** may be oppressive and daunting
- X = Error, implies fault
  - Rather, it's incomplete or a To Do

|  |  |  |
|--|--|--|
|  <a href="#">Bartal, Owen</a><br>Facility Start: 08/11/08<br>Queue Date: 02/11/08   |  Pre-Registration<br> Verification<br> Registration Denials       |  Insurance<br> Authorization     |
|  <a href="#">Bartal, Owen</a><br>Facility Start: 08/11/08<br>Queue Date: 02/11/08   |  Pre-Registration<br> Verification<br> Registration Denials       |  Insurance<br> Authorization     |
|  <a href="#">Bartal, Owen</a><br>Facility Start: 08/11/08<br>Queue Date: 02/11/08   |  Pre-Registration<br> Verification<br> Registration Denials    |  Insurance<br> Authorization    |
|  <a href="#">Bartal, Owen</a><br>Facility Start: 08/11/08<br>Queue Date: 02/11/08 |  Pre-Registration<br> Verification<br> Registration Denials |  Insurance<br> Authorization |



# Service Work Page Findings



Empty check boxes



Pencil rather than tools

|   |  |   |   |
|---|--|---|---|
| <p>● <a href="#">Bartal, Owen</a><br/>Facility Start: 08/11/08<br/>Queue Date: 02/11/08</p> | <p><input type="checkbox"/> Pre-Registration<br/><input type="checkbox"/> Verification<br/><input type="checkbox"/> Registration Denials</p> | <p><input checked="" type="checkbox"/> Insurance<br/><input type="checkbox"/> Authorization</p> | <p> <a href="#">Complete Registration</a></p>  |
| <p>● <a href="#">Bartal, Owen</a><br/>Facility Start: 08/11/08<br/>Queue Date: 02/11/08</p> | <p><input type="checkbox"/> Pre-Registration<br/><input type="checkbox"/> Verification<br/><input type="checkbox"/> Registration Denials</p> | <p><input checked="" type="checkbox"/> Insurance<br/><input type="checkbox"/> Authorization</p> | <p> <a href="#">Complete Registration</a></p>  |
| <p>● <a href="#">Bartal, Owen</a><br/>Facility Start: 08/11/08<br/>Queue Date: 02/11/08</p> | <p><input type="checkbox"/> Pre-Registration<br/><input type="checkbox"/> Verification<br/><input type="checkbox"/> Registration Denials</p> | <p><input checked="" type="checkbox"/> Insurance<br/><input type="checkbox"/> Authorization</p> | <p> <a href="#">Complete Registration</a></p>  |
| <p>● <a href="#">Bartal, Owen</a><br/>Facility Start: 08/11/08<br/>Queue Date: 02/11/08</p> | <p><input type="checkbox"/> Pre-Registration<br/><input type="checkbox"/> Verification<br/><input type="checkbox"/> Registration Denials</p> | <p><input checked="" type="checkbox"/> Insurance<br/><input type="checkbox"/> Authorization</p> | <p> <a href="#">Complete Registration</a></p> |



# Service Page Findings



Use a progress bar-like design

– No red

|  |   |
|--|---|
| ● <a href="#">Bartal, Owen</a> Facility Start: 08/11/08 Queue Date: 02/11/08 |   |
| Pre-Registration Verification Registration Details Insurance Authorization   |  <a href="#">Complete Registration</a> |
| ● <a href="#">Bartal, Owen</a> Facility Start: 08/11/08 Queue Date: 02/11/08 |   |
| Pre-Registration Verification Registration Details Insurance Authorization   |  <a href="#">Complete Registration</a> |
| ● <a href="#">Bartal, Owen</a> Facility Start: 08/11/08 Queue Date: 02/11/08 |   |
| Pre-Registration Verification Registration Details Insurance Authorization   |  <a href="#">Complete Registration</a> |
| ● <a href="#">Bartal, Owen</a> Facility Start: 08/11/08 Queue Date: 02/11/08 |   |
| Pre-Registration Verification Registration Details Insurance Authorization   |  <a href="#">Complete Registration</a> |



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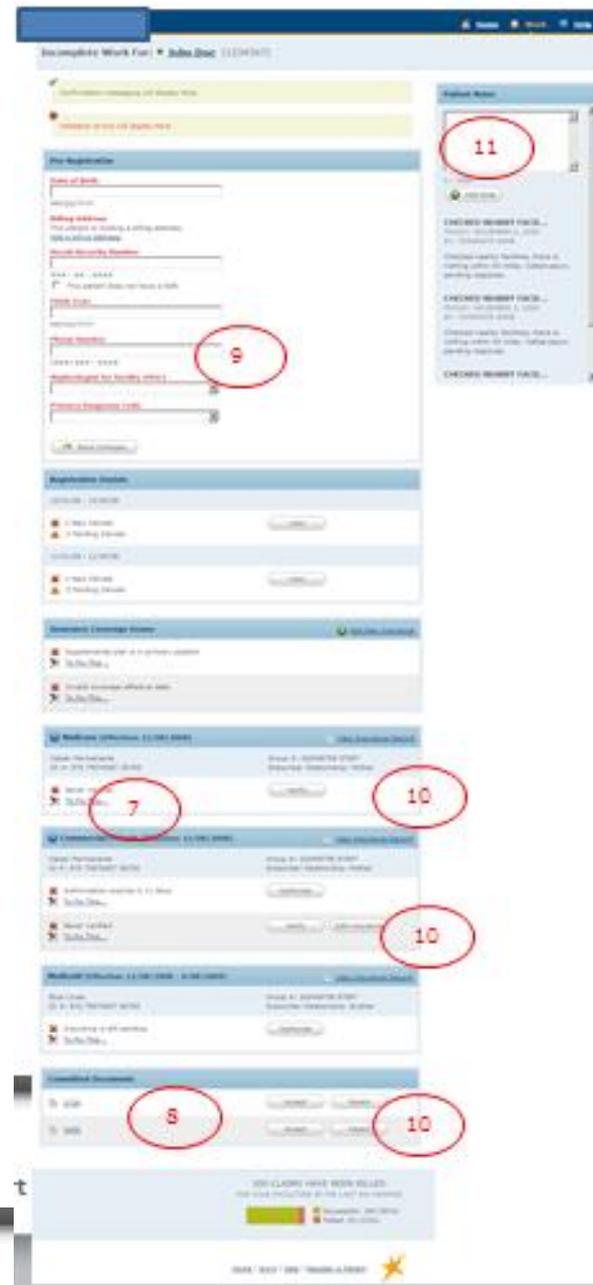
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# Current Patient Page



1

Numbers correspond to issue numbers in the following slides

# Patient Page Findings

7. “Mark as Pending” – confusing to users?

💡 If so, add a information pop-up explaining the menu and options

Screen shot shown here



# Patient Page Findings

8. History icons are not meaningful & look similar to patient icons



- 💡 Replace icons with text
- 💡 Use a different color circle if icons are kept

Redesign shown here

# Patient Page Findings

*Remainder of section removed for example brevity*



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# Help, Tooltips & Errors

- Help

- 💡 Add a list of product-specific and industry standard terms for new users

- Tooltips

- 💡 Expand icon tooltips to add clarity



Visiting ⇨ Visiting Patient



Active ⇨ Active Patient



Pending ⇨ Pending Patient



Inactive ⇨ Inactive Patient



No Problem ⇨ No Problems



Problem ⇨ Unresolved Problems



Pending Problem ⇨ Pending Problems



Coverage Icon ⇨ Primary Insurance, Secondary Insurance or Tertiary Insurance



# Help, Tooltips & Errors

- Errors

- System error messaging could use slight improvements:

- “An error has occurred in the <product> system. The development team has been notified. Please try again later or contact the Help Desk for assistance and reference error ID #####.”

-  Include Help Desk phone number

-  Emphasize numbers for easier reference

- “An error has occurred in the <product> system. The development team has been notified. Please try again later or contact the Help Desk at **800-555-5555** for assistance and reference error ID **#####.**”



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# Next Steps

- Make as many design changes recommended as possible
- Conduct clinic and business office users work observation & interviews
  - Work flow
  - User's experience and understanding
    - Domain knowledge
    - Computer knowledge
  - Observe constraints
    - Environmental
    - Memory
    - Other

# Next Steps (cont.)

- Conduct usability testing
  - Include both user types
  - Include current and new users
  - Focus on transitions from RNG to classic and back
- Public website
  - Usability review
  - User survey
  - Re-design
- All these activities fall well within our expertise and can be discussed further

# Q & A

