

ehrgonomic

Health Design Challenge

November 30, 2012

Submission by John Healy and Gabriel Diaz

Design Goals

Our design puts the patient first, with a focus on three major areas:

Usability

- Most often used information above the fold
- Exportable to calendar
- Easy filtering

Readability

- Spaced for at-a-glance reading
- Details expandable

Accessibility

- Responsive design
- Print view expands all details

Patients First

We created ehrgonomic to help patients better understand and use their medical records, while also improving the provider experience and minimizing errors.

Usability

Current information on medicines and appointments are above the fold and exportable to a calendar to help patients manage their care. History items are combined into a single filterable section for easy reference.

Readability


Spacing and text density are designed for at-a-glance viewing, with details in expandable panels. Sections may be toggled or filtered using simple checkboxes.

Accessibility

Responsive layout displays easily on desktops, tablets and phones, and in response to changes in text size. Printed view automatically expands all details so all information is present.

Main View

Desktop and Tablet



NAME OF PATIENT

Personal Information

Gender: Female
Birthday: March 7, 1960 (Age 52)
Language Spoken: English
Marital Status: Married
Religious Affiliation: Christian
Ethnicity: Asian

Sections

- ☒ Medicines
- ☒ Appointments
- ☒ History
- ☒ Allergies
- ☒ Test Results

Contact Information

Patient

Provider

Guardian

Questions? Help

Medical Record

Get Reminders Print

If you have had an allergic reaction to codeine, stop taking it right away and call your doctor!

Medicines

| Date | Medicine | Dose |
|---|-------------------------------------|-------------------------|
| ▼ March 28, 2012 | Acetaminophen with codeine (Liquid) | 2 puffs, 1 time per day |
| Details | | More Information |
| Instructions: 2 puffs once a day Prescribed by: Ashby Medical Center | | WebMD |
| ▶ December 10, 2003 | Indomethacin (Tablet) | 50 mg, 2 times per day |

Appointments

| Date | Plan |
|---------------------|--|
| ▶ December 3, 2012 | Office consultation: Consultation with Dr. George Potomac for Asthma |
| ▶ December 3, 2012 | Sputum Culture (No additional instructions) |
| ▶ December 15, 2012 | Chest X-Ray (No additional instructions) |

History

Show: ☒ Immunizations | ☒ Encounters | ☒ Problems | ☒ Procedures

Date Range: All ▼

| Date | Type | Summary |
|------------|--------------|-----------------------------|
| ▶ May 2004 | Immunization | Influenza virus vaccine, IM |

Main View

Desktop

Organization

All personal and contact information is in the sidebar. Sections of the record can be toggled on and off with simple checkboxes.

Ordering

Warnings, medications and appointments are at the top for easy, repeated access (see previous page). History and allergies are placed below (view at right).



Mobile View

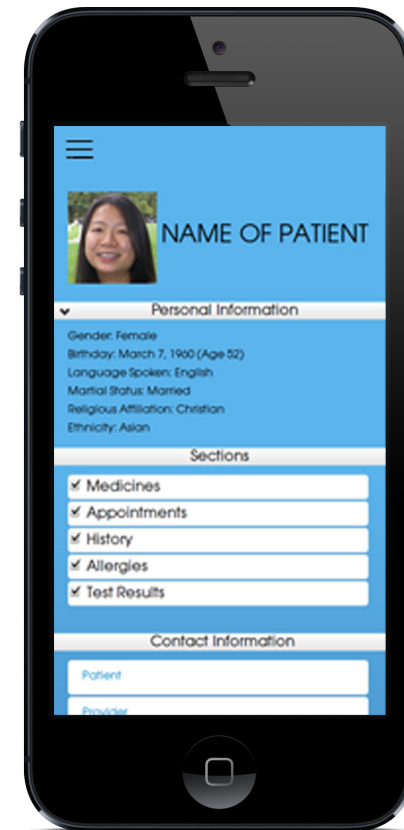
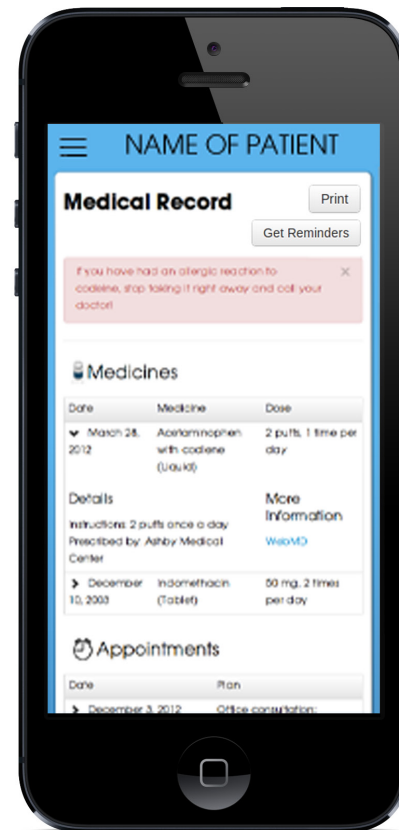
On the go and in the operating room

Responsiveness

Mobile layout retains the same style while collapsing patient info into a menu. Tables are limited to three columns to be readable in portrait mode.

Full-Featured

All filtering and collapsing features remain, and all data is present. There is no need to view a "desktop version" or learn a new "mobile version" - they are one and the same.



History

Simplicity

The four components of the medical history are visually distinguished by color while being unified in a single module.

Sortability

The module can be filtered by type and date, making a complete immunization record or a three-year history a click away.

Education

Expanded details section provides an approved definition of medical terms and links to peer-reviewed information.

See the forest **and** the trees

History

Show: ☒ Immunizations | ☒ Encounters | ☒ Problems | ☒ Procedures

Date Range: All ▼

| Date | Type | Summary |
|--|---|------------------------------------|
| ▶ May 2004 | Immunization | Influenza virus vaccine, IM |
| ▶ April 2003 | Immunization | Tetanus and diphtheria toxoids, IM |
| ▶ March 28, 2008 | Encounter | ED Visit for Ankle Sprain |
| ▶ September 28, 2005 | Encounter | Gall Bladder Surgery |
| ▶ March 21, 2005 | Encounter | Labor and Delivery |
| ▶ October 28, 2004 | Encounter | ED Visit for Acute Cholecystitis |
| ▶ March 28, 2008 | Problem | Ankle Sprain |
| ▼ September 28, 2005 | Problem | Cholecystitis |
| Details | More Information | |
| Status: Resolved | Cholecystitis: Inflammation of the gall bladder. | |
| Comments: Surgery postponed until after delivery | Read More: CDC | |
| ▶ September 28, 2005 | Procedure | Laparoscopic Cholecystectomy |
| ▶ March 22, 2005 | Procedure | Cesarian Section |

Test Results

Focus on **results**

Consistency

Results are displayed as a table to keep a consistent look and feel throughout the record. This section is filterable the same way as the History section.

Impact

Results are shown in red and bold if they are outside the target range. Green is avoided for normal results due to colorblindness.

Emphasis

Scales are not used in order to keep focus on binary test results (Normal / Not Normal).

Test Results

Show: ☒ Lipid Panel | ☒ Urinalysis | ☒ Blood Count

Date Range: All ▼

Lipid Panel - November 2005

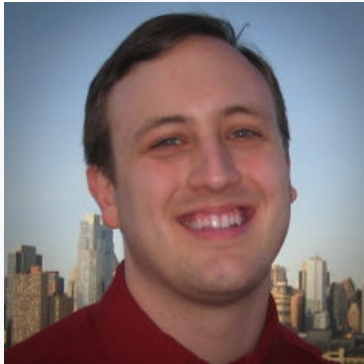
| Item | Value | Result |
|----------------------|-----------|-------------------------------------|
| Cholesterol | 240 MG/DL | High (Target: Under 200) |
| Triglyceride | 202 MG/DL | High (Target: Under 150) |
| HDL | 43 MG/DL | Normal |
| Cholesterol, Non-HDL | 76 MG/DL | Normal |
| LDL | 241 MG/DL | Normal |

Lipid Panel - November 2003

| Item | Value | Result |
|----------------------|-----------|--------|
| Cholesterol | 180 MG/DL | Normal |
| HDL | 60 MG/DL | Normal |
| Triglyceride | 112 MG/DL | Normal |
| Cholesterol, Non-HDL | 76 MG/DL | Normal |
| LDL | 149 MG/DL | Normal |

Team

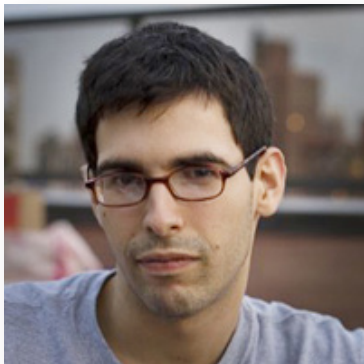
Ehrgonomic Project Team



John Healy

John Healy is a project manager and web developer for Atto, a New York-based web consultancy. John Healy majored in Bioengineering at the Massachusetts Institute of Technology. He previously spent two years as the technical founder of Access Clean Energy, a startup dedicated to improving access to wind and solar power for residential customers. He has also worked on Gigi, an integrated health-care management platform that connects doctors to their patients online.

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Gabriel Diaz

Gabriel Diaz is the Founder and CEO of Atto Consulting. Gabriel oversees teams of designers and developers while building web applications for clients. He is also the founder of Tech Startup Pizza Night, a monthly networking event designed to bring together founders, developers and investors. Gabriel majored in psychology and studio art at Yale University. He spent 2 years in financial services consulting prior to becoming Atto's managing partner.

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