

Patient Note Engine Demonstration

Richard Rathe, MD :: NBME :: October 17, 2006

<http://eval.medinfo.ufl.edu/pnote/demo/>

Summary Points

The PNE is a general purpose, web-based program for collecting structured data from clinical encounters.

It will adapt to almost any setting: simulations, computer-based cases, clinical vignettes within traditional examinations, and standardized or real patient encounters.

The simplified user interface consists of just four elements: tabs, outlines, headings, and input slips. The latter are customizable “mini-forms” embedded in the page and available on demand.

Authoring consists of a brief case outline, and a series of reusable lists. For example, to create a slip for “Other Symptoms” the outline might contain the line:

```
slip symptoms  select  Other Symptoms
```

This tells the program to create a slip at that point, using the “symptoms” list with the “select” slip type (pull down menus), under the heading “Other Symptoms.”

In addition to radio buttons, checkboxes, and pull down menus, the PNE supports a “fuzzy search” slip type. This is particularly useful for selecting items from long lists, a list of 1000 diagnoses for example.

Users progress from left to right through a variable number of tabs. Progressive disclosure of material is possible by means of optional “stop” tags. When a stop is reached, the program will prompt the user to confirm that they are finished with the prior material before proceeding.

The base PNE supports text, images, and multiple choice questions. With specific plug-ins it is possible to embed most multi-media types that are commonly found on the Web: audio, video, streaming media, Flash, Zoomify, etc.

Each case is a single web page. Interactivity is managed using the Ajax communication paradigm. This creates a more responsive and natural user experience without time consuming “page flips.”

The PNE is 100% XHTML/CSS standards compliant. It will run on any modern browser or operating system without modification, activeX controls, or plug-ins. The server side elements are written in PHP5, which also runs on all platforms. The final version will use MySQL for data management.

Patient Note Engine :: Sample Screen Shots

Selecting the chief complaint. Note the inactive tabs with a stop at Hx PI...

Case 11: Gerald McCann **Jane Doe 9:26**

CC **Hx PI** **PM Hx** **M C Quest** **Diff Dx** **Work Up** **Summary**



A 72yo male presents to the emergency department of a community hospital. His vital signs are R 90, R 20, BP 145/90, T 36° C.

Chief Complaint

<input type="radio"/> Abdominal Distention	<input type="radio"/> Abdominal Injury	<input type="radio"/> Abdominal Mass
<input type="radio"/> Abdominal Pain	<input type="radio"/> Abnormal Bleeding	<input type="radio"/> Abnormal Bruising
<input type="radio"/> Acne	<input type="radio"/> Anxiety	<input type="radio"/> Back Pain
<input type="radio"/> Bites and Stings	<input type="radio"/> Blood in Stool	<input type="radio"/> Blurry Vision
<input type="radio"/> Chest Injury	<input checked="" type="radio"/> Chest Pain	<input type="radio"/> Choking
<input type="radio"/> Confusion	<input type="radio"/> Constipation	<input type="radio"/> Cough

Selecting results from a fuzzy search. Note only one stop remains for Work Up...

Case 11: Gerald McCann **Jane Doe 8:00**

CC **Hx PI** **PM Hx** **M C Quest** **Diff Dx** **Work Up** **Summary**

Working Diagnosis

Results for 'asthma' (A235)...

<input type="radio"/> acute and unspecified renal failure	<input type="radio"/> acute myocardial infarction	<input type="radio"/> asthma
<input type="radio"/> asthma, chronic obstructive asthma	<input type="radio"/> asthma, extrinsic asthma	<input type="radio"/> asthma, asthma, unspecified
		<input type="radio"/> asthma, intrinsic asthma

Select an Item Above or Revise Your Search...