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Documatic

A Medical Documentation Tool Generator

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3/1/2017

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Introduction to Documatic

What is Documatic?

Documatic is a web application that medical providers can use to quickly and easily create Epic Documentation tools such as lists, phrases and texts.

What are the System Requirements?

Documatic's generated tools make use of 2 base Epic SmartLists that are specific to each Epic implementation. The user creating the tools in Documatic needs to know only the IDs of these 2 lists. Base lists need only be created once. All other on-the-fly lists use these two as a base.

Are there restrictions to use of these tools?

Any organization or health provider may use these tools freely for documentation within their health record. These tools are offered under GNU public license terms for medical record documentation.

Fpnotebook.com is the source of the tool information. As I am both author/owner of Fpnotebook.com, I allow this information to be used without restriction as a part of medical documentation. Users of this information, must find Fpnotebook harmless without liability for errors or omissions in the medical reference material or generated documentation tools (see fpnotebook.com for disclaimer). You may also not use these tools to re-create medical reference material similar to the fpnotebook.com website.

How do I set-up the Epic Tools?

The instructions found here are also described in another pdf document named “Documatic – Setting up base Epic SmartLists”. Both the document you are currently reading as well as the “Setting-up Epic” document are available via link from within the Documatic’s Help Window. Documatic is available at Fpnotebook.com.

Step 1: Create two smart lists

Create one base list for multiple select lists (in this example, 130715, figure 1) and one for single select lists (in this example, 130716, figure 2). At Fairview Health Systems, in Minneapolis, the multi and single lists reside in POC10 at 129099 and 129100, and in Production at 130751, 130752 respectively.

Each base list must contain at least one item. Due to Epic copyright restrictions, screen shots are not shown.

In the SmartList Editor, create an entry similar to the following (and record the auto-generated IDs e.g 130715):

- Name: BlankBaseMulti
- Selection: Multiple Select
- Connection Logic: Paragraph
- List Items (under selection column)
 - ****Deselect any of the following that do not apply****

In the SmartList Editor, create an entry similar to the following (and record the auto-generated IDs e.g 130716):

- Name: BlankBaseSingle
- Selection: Single Select
- List Items (under selection column)
 - ****Choose one of the following****

Step 2: Create a Smart Phrase or Text


The Documatic program creates lists, phrases and texts. The Documatic program uses the base lists created above to generate documentation tools. The following description shows how to do this manually. The example figure has been removed due to Epic copyright restriction. In this example, Documatic generated content, a TIMI Score, is pasted into an Epic Smart Phrase text box.

The TIMI Score example smart phrase has 2 components:

1. The first component is labeled “Criteria (one point for each of 7 possible):”. The criteria list in this example uses the multi-select list (130715). The list format is {:**130715**::"Age 65 years old or older", "Aspirin Used in the last 7 days" ...}. The list is created on the fly -without having to create new lists in Epic. Using this method, the multiple selection list must default to all chosen, and users need to deselect what does not apply.
2. The second component is labeled “Interpretation (2 week subsequent risk of death, myocardial infarction or need for revascularization):”. In this example, the interpretation list uses the single-select list (130716), with options of “Score 0-1: 4.7% risk”, “Score 2: 8.3% Risk”...

Getting Started: A Screen Shot Walk Through of the Documatic


Working with source information



The screenshot shows the Documatic interface with a green 'Menu' bar at the top. Below it are two main sections: 'Source' on the left and 'Destination' on the right. The 'Source' section has a 'Web' button and a 'Text' button. Below these is a browser-like interface with a URL bar containing 'http://www.fpnotebook.com/index'. The 'Destination' section has a 'File' button and a text area with the placeholder text 'The text will be generated from the input file'. Navigation arrows are visible at the bottom of each section.

1. Screen Layout

The screen can be divided into 3 sections: Menu bar, source and destination. We'll start in the source section at screen left.




This close-up screenshot focuses on the 'Source' section. It shows the 'Web' and 'Text' buttons. A red arrow points to the 'Web' button. Below the buttons is a browser interface with a URL bar containing 'http://www.fpnotebook.com/index'. Navigation arrows are visible at the bottom of the section.

2. Source

The source information can be web content or pasted plain text. We'll begin with web content. Click the black button with the globe icon.

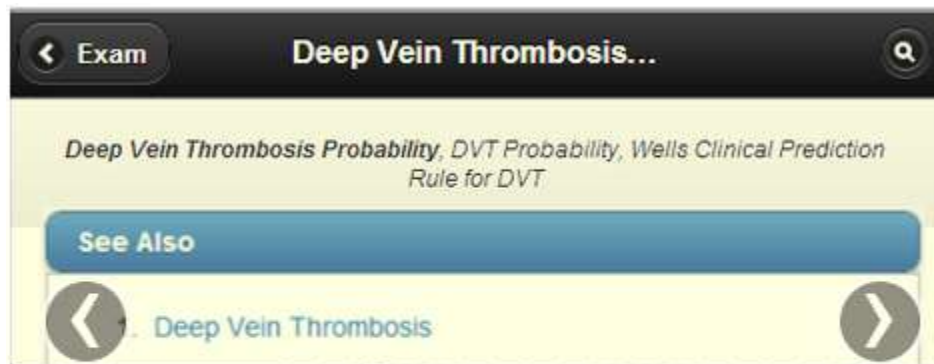
Source Browser for Web Content



The screenshot shows a mobile application interface titled "Browser" with the instruction "Navigate to your source and then click import." Below this is a preview of the "FPnotebook" website. The website has a navigation bar with "top", "FPnotebook", "Contents", "About", and "Legal". A search bar is visible. A callout box highlights three items: "Cardiovascular Medicine Book", "Dentistry Book", and "Dermatology Book". Below the preview, there are left and right navigation arrows and a series of dots indicating the current page.

3a. Source Browser Overview

The browser opens with the mobile version of fpnotebook.com. Use the Table of contents or search terms to find the topic of interest.



The screenshot shows a mobile application interface for a specific topic. The title bar includes a back arrow, the word "Exam", and the topic name "Deep Vein Thrombosis..." with a search icon. Below the title bar, the text reads "Deep Vein Thrombosis Probability, DVT Probability, Wells Clinical Prediction Rule for DVT". A blue button labeled "See Also" is present. Below the button, there are left and right navigation arrows and a series of dots. The text "Deep Vein Thrombosis" is visible below the arrows.

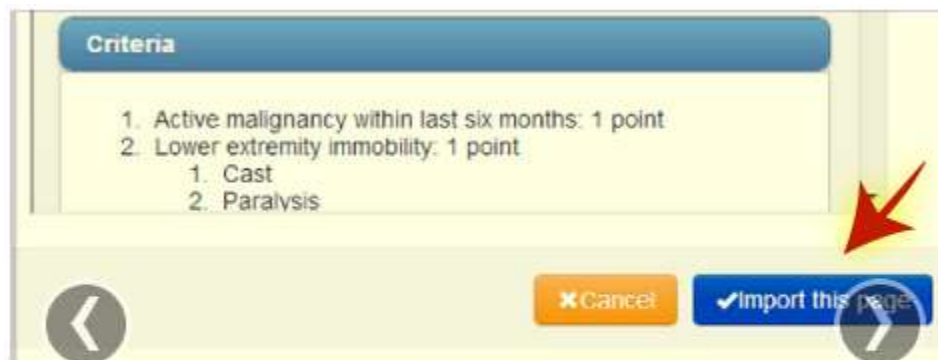
3b. Source Browser Limitations

Only fpnotebook topic pages will serve as usable source outlines (not books or chapters in the TOC).



3c. Source Browser Limitations

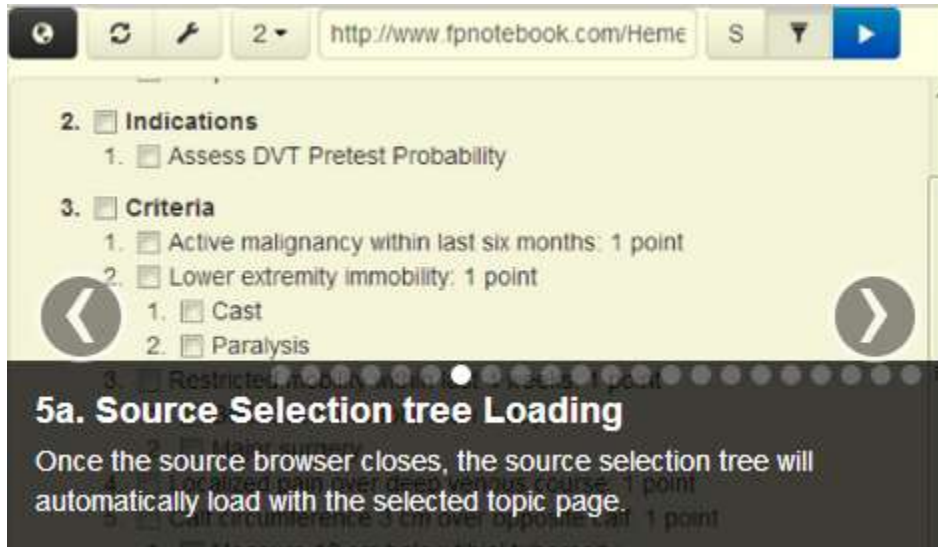
Web Browsers limit the source to "same server" (i.e. fpnotebook.com), so external sites (e.g. emedicine) can not be used in the "Web" Tab.



4. Source Browser Page Selection

Click the button in the lower right corner to use the selected page as source information

Source Selection Tree for Web Content

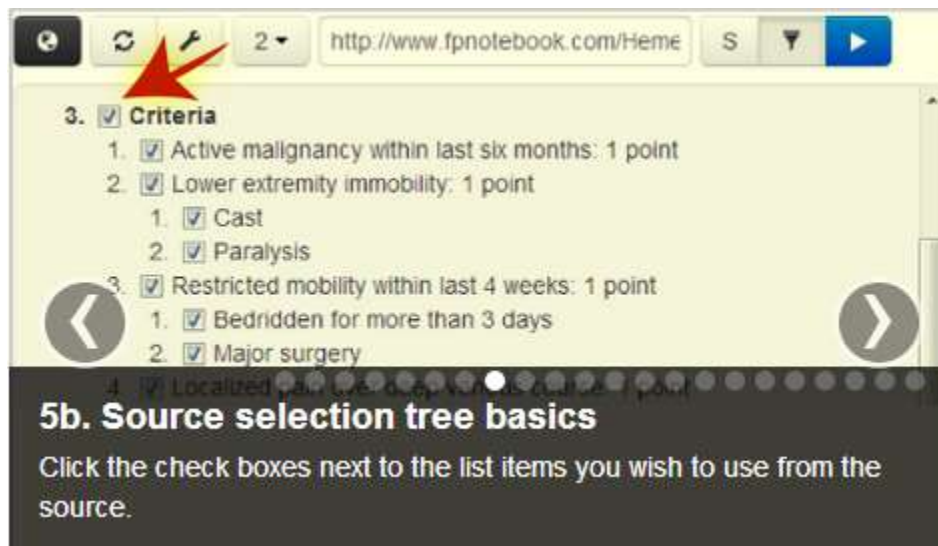


A screenshot of a web browser window showing a source selection tree. The browser's address bar displays "http://www.fpnotebook.com/Heme". The page content includes a list of criteria under the heading "3. Criteria":

- 1. Active malignancy within last six months: 1 point
- 2. Lower extremity immobility: 1 point
 - 1. Cast
 - 2. Paralysis
- 3. Restricted mobility within last 4 weeks: 1 point

Below the list is a dark grey banner with the text:

5a. Source Selection tree Loading
Once the source browser closes, the source selection tree will automatically load with the selected topic page.




A screenshot of a web browser window showing the same source selection tree as in the previous image. A red arrow points to the "Criteria" heading. The criteria are now selected with checkmarks:

- 3. **Criteria**
 - 1. Active malignancy within last six months: 1 point
 - 2. Lower extremity immobility: 1 point
 - 1. Cast
 - 2. Paralysis
 - 3. Restricted mobility within last 4 weeks: 1 point
 - 1. Bedridden for more than 3 days
 - 2. Major surgery

Below the list is a dark grey banner with the text:

5b. Source selection tree basics
Click the check boxes next to the list items you wish to use from the source.



3. Criteria

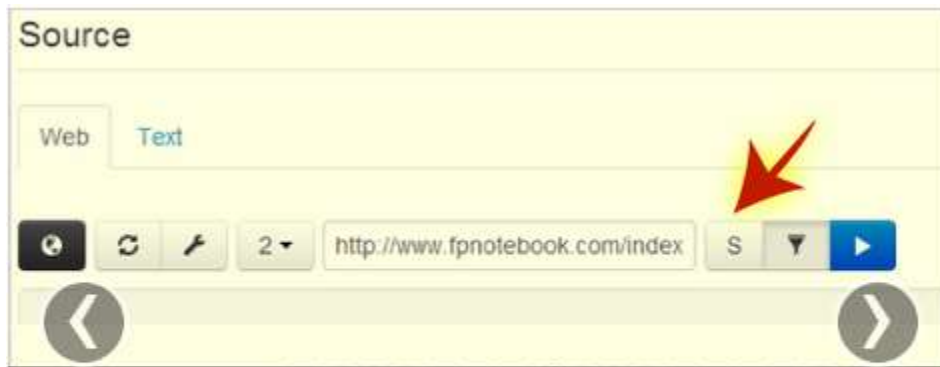
- Active malignancy within last six months: 1 point
- Lower extremity immobility: 1 point
 - Cast
 - Paralysis
- Restricted mobility within last 4 weeks: 1 point
 - Bedridden for more than 3 days
 - Major surgery

4. Localized

5c. Source Selection tree depth

The source menu bar has a button to choose the levels of depth that will be selected with each clicked check box.

Choosing Single or Multiple Selection Lists



Source

Web Text

6a. Single or Multiple Select lists

The M-S toggle button allows you to output the selected lists to either Single (S) Select Lists or Multiple (M) Select lists

Lists

Default List Type Single-Select List Multi-Select List

ID-SingleSelectList 130752

ID-MultiSelectList 130751

6b. Setting Single or Multiple Select list IDs

The option dialog allows users to insert which IDs to use for the Single and Multiple Select Lists in their specific Epic Installation.

Source Filters

Source

Web Text


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7a. Filters

The filter button (right arrow when off) allows for custom processing of the list output.

Source

Web Text



7b. Filters Off (Right Arrow button)

When filters are off, each outline level of selected items are processed to a different list

The screenshot shows a browser toolbar with a red arrow pointing to the right arrow button. The address bar contains the URL 'http://www.fpnotebook.com/index'. Below the toolbar is a dark grey bar with a white dot in the center of a row of dots.

Filters

Filter Type

- Level1
 - Level2
 - Level3

Level1

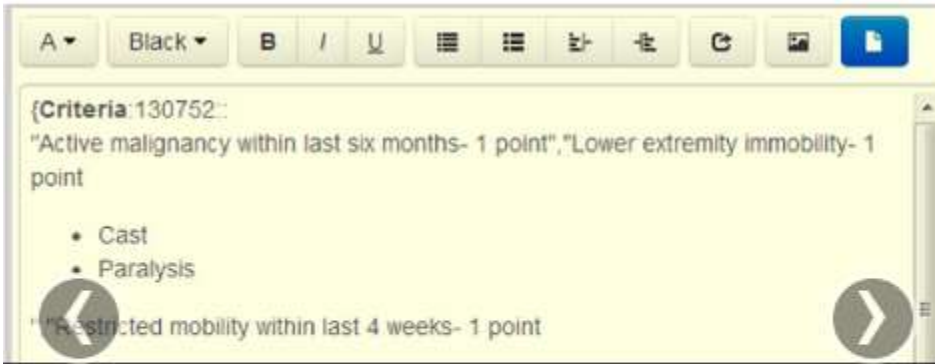
- Level2 (level3)
- Level2 (level3)

7c. Filters On (Filter button)

When filters are on, the various selected item levels are processed based on the selected template in the options dialog

The screenshot shows a 'Filters' dialog box with a tree view of levels. Below the tree view is a dark grey bar with a white dot in the center of a row of dots.

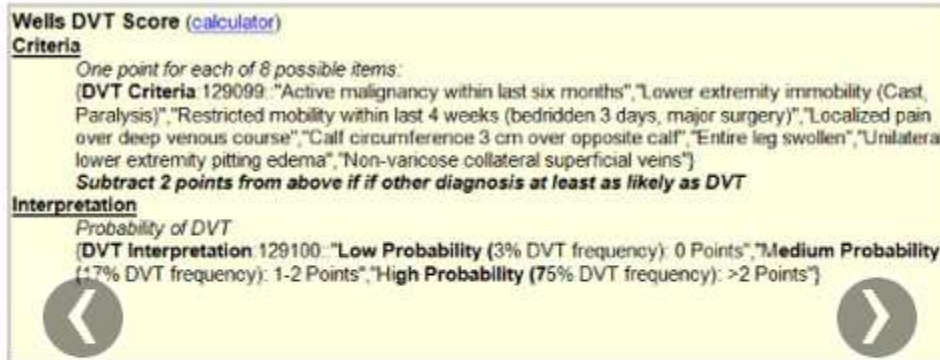
Filter Templates



A screenshot of a web application interface showing a filter template. At the top is a toolbar with icons for text formatting (font color, bold, italic, underline, list, link, unlink, undo, redo) and a blue document icon. Below the toolbar, the text reads: "{Criteria: 130752: "Active malignancy within last six months- 1 point", "Lower extremity immobility- 1 point". Below this, there is a bulleted list: "• Cast", "• Paralysis". Below the list, the text reads: "Restricted mobility within last 4 weeks- 1 point". The interface includes left and right navigation arrows and a scroll bar on the right.

7d. Filter Template for list sub-levels

Filter templates allow sub-levels to be output to bulleted lists or enclosed in parentheses.



A screenshot of a web application interface showing a filter template for a decision calculator. The text reads: "Wells DVT Score ([calculator](#))". Below this, the text reads: "Criteria". Below "Criteria", the text reads: "One point for each of 8 possible items: (DVT Criteria 129099: "Active malignancy within last six months", "Lower extremity immobility (Cast, Paralysis)", "Restricted mobility within last 4 weeks (bedridden 3 days, major surgery)", "Localized pain over deep venous course", "Calf circumference 3 cm over opposite calf", "Entire leg swollen", "Unilateral lower extremity pitting edema", "Non-varicose collateral superficial veins)". Below this, the text reads: "Subtract 2 points from above if other diagnosis at least as likely as DVT". Below this, the text reads: "Interpretation". Below "Interpretation", the text reads: "Probability of DVT (DVT Interpretation 129100: "Low Probability (3% DVT frequency): 0 Points", "Medium Probability (17% DVT frequency): 1-2 Points", "High Probability (75% DVT frequency): >2 Points)". The interface includes left and right navigation arrows and a scroll bar on the right.

7e. Filter Templates

Filter templates can also output a group of lists for different uses such as giving decision calculators (e.g. Well's Score) a consistent look.

Plain, raw Text as Source Information



Source

Web Text

S ▶

List item 1
List item 2
List item 3

8. Plain Text

Plain text can be used as a source from within the 'Text' tab. Each line will be converted to a new row in a single list.

Processing Source Information



Source

Web Text


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9. Go, Run, Play

Clicking the play button will process the source selected items into the destination window.

Using the Generated Tools

Editing and formatting the text output




The screenshot shows a rich text editor with a toolbar at the top containing icons for font color (A), background color (Black), bold (B), italic (/), underline (U), bulleted list, numbered list, indent, outdent, undo, redo, and a blue copy icon. The text area contains the following content:

{Criteria: 130752::
"Active malignancy within last six months- 1 point", "Lower extremity immobility- 1 point
point
• Cast
• Paralysis
"Restricted mobility within last 4 weeks- 1 point

Navigation arrows are visible on the left and right sides of the text area.

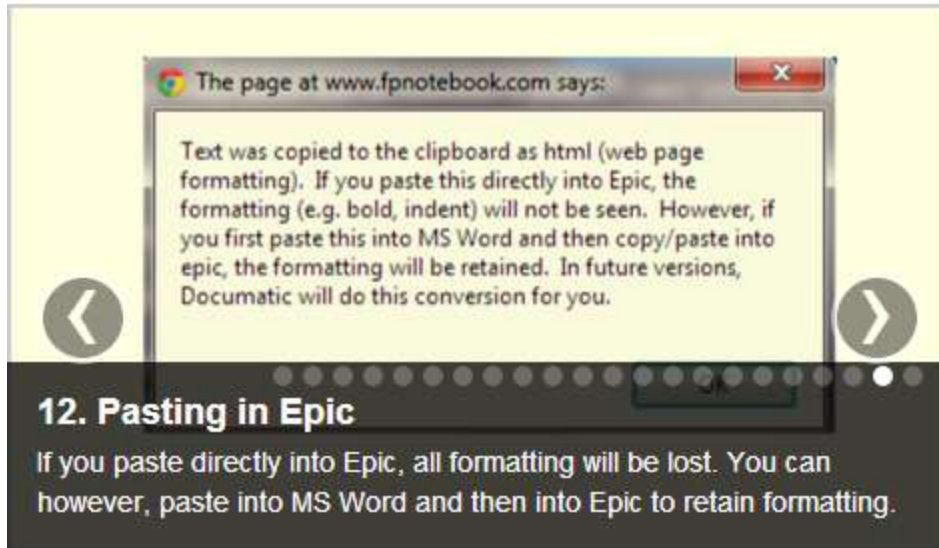
10. Destination Editing
The Destination box is a rich text editor, allowing for text modification and formatting.

Copying the generated tools to clipboard



The screenshot shows the 'Destination' text editor with the word 'Epic' in the input field. A red arrow points to the blue copy icon in the toolbar. The toolbar also includes icons for font color (A), background color (Black), bold (B), italic (/), underline (U), bulleted list, numbered list, indent, outdent, undo, redo, and a blue copy icon.

11. Copying to clipboard
The copy button (far right, blue) places the text from the editor onto the clipboard. Ctrl-A (select all) and CTRL-C (Copy) will do the same.



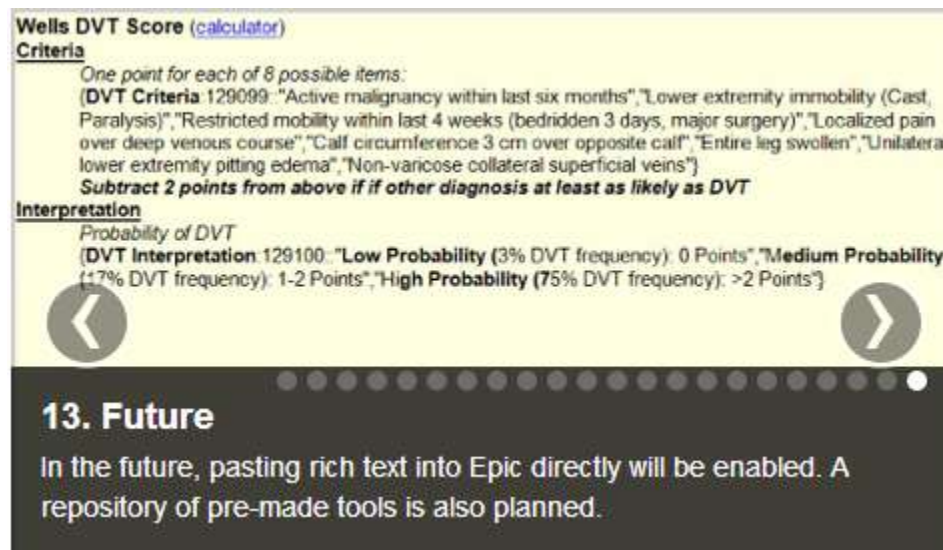
The page at www.fpnotebook.com says:

Text was copied to the clipboard as html (web page formatting). If you paste this directly into Epic, the formatting (e.g. bold, indent) will not be seen. However, if you first paste this into MS Word and then copy/paste into epic, the formatting will be retained. In future versions, Documatic will do this conversion for you.

12. Pasting in Epic

If you paste directly into Epic, all formatting will be lost. You can however, paste into MS Word and then into Epic to retain formatting.

Coming soon...



Wells DVT Score ([calculator](#))

Criteria

One point for each of 8 possible items:
(**DVT Criteria** 129099: "Active malignancy within last six months", "Lower extremity immobility (Cast, Paralysis)", "Restricted mobility within last 4 weeks (bedridden 3 days, major surgery)", "Localized pain over deep venous course", "Calf circumference 3 cm over opposite calf", "Entire leg swollen", "Unilateral lower extremity pitting edema", "Non-varicose collateral superficial veins")

Subtract 2 points from above if if other diagnosis at least as likely as DVT

Interpretation

Probability of DVT
(**DVT Interpretation** 129100: "Low Probability (3% DVT frequency): 0 Points", "Medium Probability (17% DVT frequency): 1-2 Points", "High Probability (75% DVT frequency): >2 Points")

13. Future

In the future, pasting rich text into Epic directly will be enabled. A repository of pre-made tools is also planned.