Pulmonary Embolism (PE) Computer Decision Tool

Session 2 (PE Dx)

Participant ID……………………

Task 1

Q2_1_1 Thank you for participating in this study!

We will ask you questions about tasks that you performed with the aid of a computer decision support tool that we designed to help assess the risk of pulmonary embolism (PE). For now, we will call this PE Dx.

For each of the statements below, indicate your level of agreement.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

1. Overall, I am satisfied with the ease of completing this task in this scenario
2. Overall, I am satisfied with the amount of time it took to complete this task.
3. Overall, I am satisfied with the support information (on-line help, messages, documentation) when completing this task.

Q2_1_2. The following questions deal with the workload that you may have experienced in the task you just performed. Please indicate on each of the following six scales your overall experience of workload.

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
</tr>
</thead>
</table>

1. **Mental demand.** How much mental activity was required to perform this task (thinking, deciding, calculating, remembering, looking, searching, etc…)?

2. **Physical demand.** How much physical activity was required to perform this task (e.g., navigating, scrolling, clicking, etc.)?

3. **Temporal demand.** How much time pressure did you feel due to the rate or pace at which the tasks or task elements occurred?

4. **Effort.** How hard did you have to work (mentally and physically) to accomplish your level of performance?

5. **Performance.** How satisfied are you with your performance at this task?

6. **Frustration level.** How insecure, discouraged, irritated, stressed and annoyed versus secure, gratified, content, relaxed and complacent do you feel about this task?
Task 2

Q2_2_1 For each of the statements below, indicate your level of agreement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overall, I am satisfied with the ease of completing this task in this scenario</td>
<td>□️ 1</td>
<td>□️ 2</td>
<td>□️ 3</td>
<td>□️ 4</td>
<td>□️ 5</td>
</tr>
<tr>
<td>2. Overall, I am satisfied with the amount of time it took to complete this task.</td>
<td>□️ 1</td>
<td>□️ 2</td>
<td>□️ 3</td>
<td>□️ 4</td>
<td>□️ 5</td>
</tr>
<tr>
<td>3. Overall, I am satisfied with the support information (on-line help, messages, documentation) when completing this task.</td>
<td>□️ 1</td>
<td>□️ 2</td>
<td>□️ 3</td>
<td>□️ 4</td>
<td>□️ 5</td>
</tr>
</tbody>
</table>

Q2_2_2 The following questions deal with the workload that you may have experienced in the task you just performed. Please indicate on each of the following six scales your overall experience of workload.

1. **Mental demand.** How much mental activity was required to perform this task (thinking, deciding, calculating, remembering, looking, searching, etc…)?

2. **Physical demand.** How much physical activity was required to perform this task (e.g., navigating, scrolling, clicking, etc.).

3. **Temporal demand.** How much time pressure did you feel due to the rate or pace at which the tasks or task elements occurred?

4. **Effort.** How hard did you have to work (mentally and physically) to accomplish your level of performance?

5. **Performance.** How satisfied are you with your performance at this task?

6. **Frustration level.** How insecure, discouraged, irritated, stressed and annoyed versus secure, gratified, content, relaxed and complacent do you feel about this task?
Task 3

Q2_3_1 For each of the statements below, indicate your level of agreement.

1. Overall, I am satisfied with the ease of completing this task in this scenario
2. Overall, I am satisfied with the amount of time it took to complete this task.
3. Overall, I am satisfied with the support information (on-line help, messages, documentation) when completing this task.

Q2_3_2 The following questions deal with the workload that you may have experienced in the task you just performed. Please indicate on each of the following six scales your overall experience of workload.

1. **Mental demand.** How much mental activity was required to perform this task (thinking, deciding, calculating, remembering, looking, searching, etc…)?

2. **Physical demand.** How much physical activity was required to perform this task (e.g., navigating, scrolling, clicking, etc.)?

3. **Temporal demand.** How much time pressure did you feel due to the rate or pace at which the tasks or task elements occurred?

4. **Effort.** How hard did you have to work (mentally and physically) to accomplish your level of performance?

5. **Performance.** How satisfied are you with your performance at this task?

6. **Frustration level.** How insecure, discouraged, irritated, stressed and annoyed versus secure, gratified, content, relaxed and complacent do you feel about this task?
Task 4

Q2_4_1 For each of the statements below, indicate your level of agreement.

1. Overall, I am satisfied with the ease of completing this task in this scenario

\[
\begin{array}{cccc}
& 1 & 2 & 3 & 4 & 5 \\
\hline
\text{Strongly disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Somewhat disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Neither agree nor disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Somewhat agree} &\quad &\quad &\quad &\quad &\quad \\
\text{Strongly agree} &\quad &\quad &\quad &\quad &\quad \\
\end{array}
\]

2. Overall, I am satisfied with the amount of time it took to complete this task.

\[
\begin{array}{cccc}
& 1 & 2 & 3 & 4 & 5 \\
\hline
\text{Strongly disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Somewhat disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Neither agree nor disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Somewhat agree} &\quad &\quad &\quad &\quad &\quad \\
\text{Strongly agree} &\quad &\quad &\quad &\quad &\quad \\
\end{array}
\]

3. Overall, I am satisfied with the support information (on-line help, messages, documentation) when completing this task.

\[
\begin{array}{cccc}
& 1 & 2 & 3 & 4 & 5 \\
\hline
\text{Strongly disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Somewhat disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Neither agree nor disagree} &\quad &\quad &\quad &\quad &\quad \\
\text{Somewhat agree} &\quad &\quad &\quad &\quad &\quad \\
\text{Strongly agree} &\quad &\quad &\quad &\quad &\quad \\
\end{array}
\]

Q2_4_2 The following questions deal with the workload that you may have experienced in the task you just performed. Please indicate on each of the following six scales your overall experience of workload.

1. **Mental demand.** How much mental activity was required to perform this task (thinking, deciding, calculating, remembering, looking, searching, etc…)?

2. **Physical demand.** How much physical activity was required to perform this task (e.g., navigating, scrolling, clicking, etc.)?

3. **Temporal demand.** How much time pressure did you feel due to the rate or pace at which the tasks or task elements occurred?

4. **Effort.** How hard did you have to work (mentally and physically) to accomplish your level of performance?

5. **Performance.** How satisfied are you with your performance at this task?

6. **Frustration level.** How insecure, discouraged, irritated, stressed and annoyed versus secure, gratified, content, relaxed and complacent do you feel about this task?

\[
\begin{array}{cccc}
\text{Low} & & & \\
\text{High} & & & \\
\hline
\hline
\end{array}
\]
Task 5

Q2_5_1 For each of the statements below, indicate your level of agreement.

1. Overall, I am satisfied with the ease of completing this task in this scenario

2. Overall, I am satisfied with the amount of time it took to complete this task.

3. Overall, I am satisfied with the support information (on-line help, messages, documentation) when completing this task.

Q2_5_2 The following questions deal with the workload that you may have experienced in the task you just performed. Please indicate on each of the following six scales your overall experience of workload.

1. **Mental demand.** How much mental activity was required to perform this task (thinking, deciding, calculating, remembering, looking, searching, etc...)?

2. **Physical demand.** How much physical activity was required to perform this task (e.g., navigating, scrolling, clicking, etc.)?

3. **Temporal demand.** How much time pressure did you feel due to the rate or pace at which the tasks or task elements occurred?

4. **Effort.** How hard did you have to work (mentally and physically) to accomplish your level of performance?

5. **Performance.** How satisfied are you with your performance at this task?

6. **Frustration level.** How insecure, discouraged, irritated, stressed and annoyed versus secure, gratified, content, relaxed and complacent do you feel about this task?
After Session Questionnaire

Q2_6_1 Based on your experience, please rate how confident you are in the following aspects of dealing with this medical problem. Please use the following scale: 1 Very low confidence, 2 Low confidence, 3 Average confidence, 4 High confidence and 5 very high confidence.

<table>
<thead>
<tr>
<th>How much confidence do you have in:</th>
<th>1 No confidence</th>
<th>2 A little confidence</th>
<th>3 Some confidence</th>
<th>4 A lot of confidence</th>
<th>5 A great deal of confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>... to <strong>correctly identify the information in the EHR</strong> that you need to assess the risk of PE? (1)</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
<tr>
<td>... to <strong>correctly assess</strong> the risk of a PE? (2)</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
<tr>
<td>...to <strong>reach the correct decision</strong> regarding the clinical/diagnostic pathway? (3)</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
<tr>
<td>... to <strong>diagnose or rule out</strong> PE? (4)</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
<td>☐ 4</td>
<td>☐ 5</td>
</tr>
</tbody>
</table>
The next questions are about your satisfaction with the system (Healthlink / EPIC in combination with the Computer Decision Support (PE Dx) you just used to perform the 5 tasks (assessing the risk of PE))

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overall, I am satisfied with how easy it is to use this system</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>It was simple to use this system</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I can <strong>effectively</strong> complete my work using this system</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I am able to complete my work <strong>quickly</strong> using this system</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I am able to <strong>efficiently</strong> complete my work using this system</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I feel comfortable using this system</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>It was easy to learn to use this system</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I believe I became productive quickly using this system</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Whenever I make a mistake using the system, I recover easily and quickly</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>It is easy to find the information I needed</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>The information provided for the system is easy to understand</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The information is effective in helping me complete the tasks and scenarios</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The organization of information on the system screens is clear</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>The interface of this system is pleasant</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I like using the interface of this system</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>This system has all the functions and capabilities I expect it to have</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Overall, I am satisfied with this system</td>
<td></td>
</tr>
</tbody>
</table>
Q2_6_3 How do you like the computer decision support tool (PE Dx) that we designed and that you have been using during these 5 tasks to assess the risk of PE as compared to online PE calculators such as MD Calc?

PE Dx is...

☐ 1 Much better (1)
☐ 1 Moderately better (2)
☐ 1 Slightly better (3)
☐ 4 About the same (4)
☐ 5 Slightly worse (5)
☐ 6 Moderately worse (6)
☐ 7 Much worse (7)

Q2_7_1 What is your gender?

☐ 1 Male (1)
☐ 2 Female (2)

Q2_7_1 How old are you?

☐ 1 24 years or younger
☐ 2 25-29
☐ 3 30-34
☐ 4 35-39
☐ 5 40-44
☐ 6 45-49
☐ 7 50-54
☐ 8 55-59
☐ 9 60 years older

Q2_8_0 Thank you for your participation!