The Role of Micro-Surveys to Support Agile Software Development

FedCASIC

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Agenda

• Background
  • VA Pharmacy
  • Agile / HCD
• Methods
  • Micro Surveys / Data Calls
• Results
• Conclusion
• Questions
VA Mail Order Pharmacy

- A system of seven highly automated pharmacies; rated “among the best” in customer satisfaction by J.D. Power U.S. Pharmacy Study.

- Processed 119.7 million outpatient prescriptions in fiscal year 2016.

- Provided approximately 80% of all VA outpatient prescriptions to Veteran patients.

- Processed 470,000 prescriptions daily; each work day over 330,000 Veterans receive a package of prescriptions in the mail.
• VA maintains a fleet of Mobile Pharmacy vehicles to assist Veterans, VA staff, as well as civilians during major emergencies.

• These self-contained vehicles can be up and running within a few hours to function as an outpatient pharmacy capable of delivering life-saving pharmaceuticals to Veterans.
Current VA Pharmacy system

Test patient data
Integrating Human Centered Design into Agile Processes

*Human Centered Design*
Future VA Pharmacy system - Advanced Medication Platform (AMPL)

Questions:

• How to best organize allergy/ADR information?
• How to best organize vital signs information?
Human Centered Design Methods and Deliverables

Possible deliverables:
- User/organisational req.
- User wish list
- Scenarios and personas
- User journeys/stories
- UX requirements

Possible methods:
- Surveys, interviews
- Discussion, focus groups
- Competitor analysis
Human Centered Design Methods and Deliverables

Constraint: **Must take less than 10 minutes of Pharmacy staff time**

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Method: 10 min Micro-Surveys
<table>
<thead>
<tr>
<th>Micro-Surveys / VA Data Calls</th>
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</thead>
<tbody>
<tr>
<td><strong>1. Allergies/ADRs</strong></td>
</tr>
<tr>
<td>- 3 demographic questions</td>
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<td>- 2 topic related questions (w/comments)</td>
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<td><strong>2. Vitals</strong></td>
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<td>- 3 demographic questions</td>
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<td>- 4 topic related questions (w/comments)</td>
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<td><strong>3. Vitals – metric/Imperial</strong></td>
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<td>- 4 demographic questions</td>
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<td>- 7 topic related questions (w/comments)</td>
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## Micro-Surveys / VA Data Calls

<table>
<thead>
<tr>
<th>Question</th>
<th>Pages / Questions</th>
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<tbody>
<tr>
<td>1. Allergies/ADRs</td>
<td>5 pages / 5 questions</td>
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<tr>
<td>2. Vitals</td>
<td>5 pages / 7 questions</td>
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<tr>
<td>3. Vitals – metric/Imperial</td>
<td>6 pages / 11 questions</td>
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</tbody>
</table>
Rate example question

4. The data elements listed below represent existing pharmacy related information that could originate from one or from multiple sources, (i.e. local, remote and DoD, or other non VA locations). For your convenience, a definition has been included for each data element.

- Please rate the importance of each of the data elements in the context of viewing a patient's allergy/ADR history in the patient profile.

- Rate each item using a scale of 1-5 where 1 is the most important and 5 is the least important information.

<table>
<thead>
<tr>
<th>CAUSATIVE AGENT / REACTANT (The substance to which the patient had a reaction such as Penicillin or Ragweed)</th>
<th>1- Very important</th>
<th>2- Fairly important</th>
<th>3- Important</th>
<th>4- Slightly important</th>
<th>5- Not important</th>
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<tr>
<td>CHART MARKED (The person who indicated that this causative agent has been included in the patient chart)</td>
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<td>COMMENTS (Comments entered about the patient's reaction)</td>
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<td>FACILITY/SOURCE (The name of the facility or source of the allergy/ADR information such as STN 655)</td>
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<td>INGREDIENTS (List of drug ingredients to which the patient had reactions for this causative agent)</td>
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<td>MECHANISM (Indicates the nature of the reaction such as allergy, pharmacologic and unknown)</td>
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5. Below are the data elements you listed as very important in the last section. Please rank these in the order that you would like to see them displayed/listed (when reviewing a patient’s allergy ADR information in the patient profile).

If there are more than 10 data elements listed, please only rank the 10 most important ones. If you have fewer than 10 data elements listed, please ignore the extra columns.

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<thead>
<tr>
<th>Data Element</th>
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Results
Rating results

Most important allergy data

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Answered: 72  Skipped: 4

What order?
- Causative agent
- Signs/Symptoms
- Severity
- Mechanism
- Ingredients
- Comments
Resulting Design - List view

Pharmacy Staff Ranking:
- Causative agent
- Signs/Symptoms
- Severity
- Mechanism
- Ingredients *
- Comments *

Design:
- Standard term
- Causative agent
- Signs/symptoms
- Observed/historical (Severity)
- Mechanism
- Reactant type
- Origination date/time
- Facility
Results Summary

• Good participation rates (55-80 responses)
• Quick feedback from Pharmacy staff
• Insights in comments
• May need to bridge the gap (feedback => design)
Conclusion

• Data calls (Micro-surveys) with as few as 3 demographic and 2 topic questions can obtain valuable feedback from users

• Ideally, topics have a narrow focus

• Rate and rank questions were especially useful, but take users longer to complete than multiple choice or text comments
Questions

Contact us:
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Danielle Kato, (danielle.kato@va.gov)