

DEPARTMENT OF VETERANS AFFAIRS

Grassroots Innovation

VHA Innovation Program (10P7I)

VA118-12-C-0067

Remote Veterans Apnea Management Portal (REVAMP)

Monthly Progress Report

January 5, 2013

Intellica

Improving Healthcare Through Intelligent Computer Applications

REVAMP

Project Management

Meetings/Deliverables:

- 12/6/12 ReVAmp Technical Interchange Meeting
- 12/13/12 ReVAmp Technical Interchange Meeting
- 12/20/12 ReVAmp Technical Interchange Meeting
- 12/27/12 ReVAmp Technical Interchange Meeting
- 12/28/12 Delivery of REVAMP Initial Prototype

ReVAmp Software Status

- 99% Demographics Page
- 99% Treatment Tree
- 99% Encounter / Progress notes
- 99% Graphic HUB completed showing
- 99% Machine data import process
- 99% Diagnosis List
- 99% Content Management
- 99% Secure messaging
- 99% Patient questionnaires
- 99% Administration Screen
- 99% Patient Portal
- 99% Patient Notifications
- 99% System Development

User Experience

Demonstration during 12/6/12 meeting (Patient Demographics, CPAP Machine, Graphs, Questionnaires, Case Management)

Demonstration during 12/20/12 meeting (New Format Questionnaires)

Demonstration during 12/27/12 meeting (Patient Demographics, Note, Questionnaires, Education)

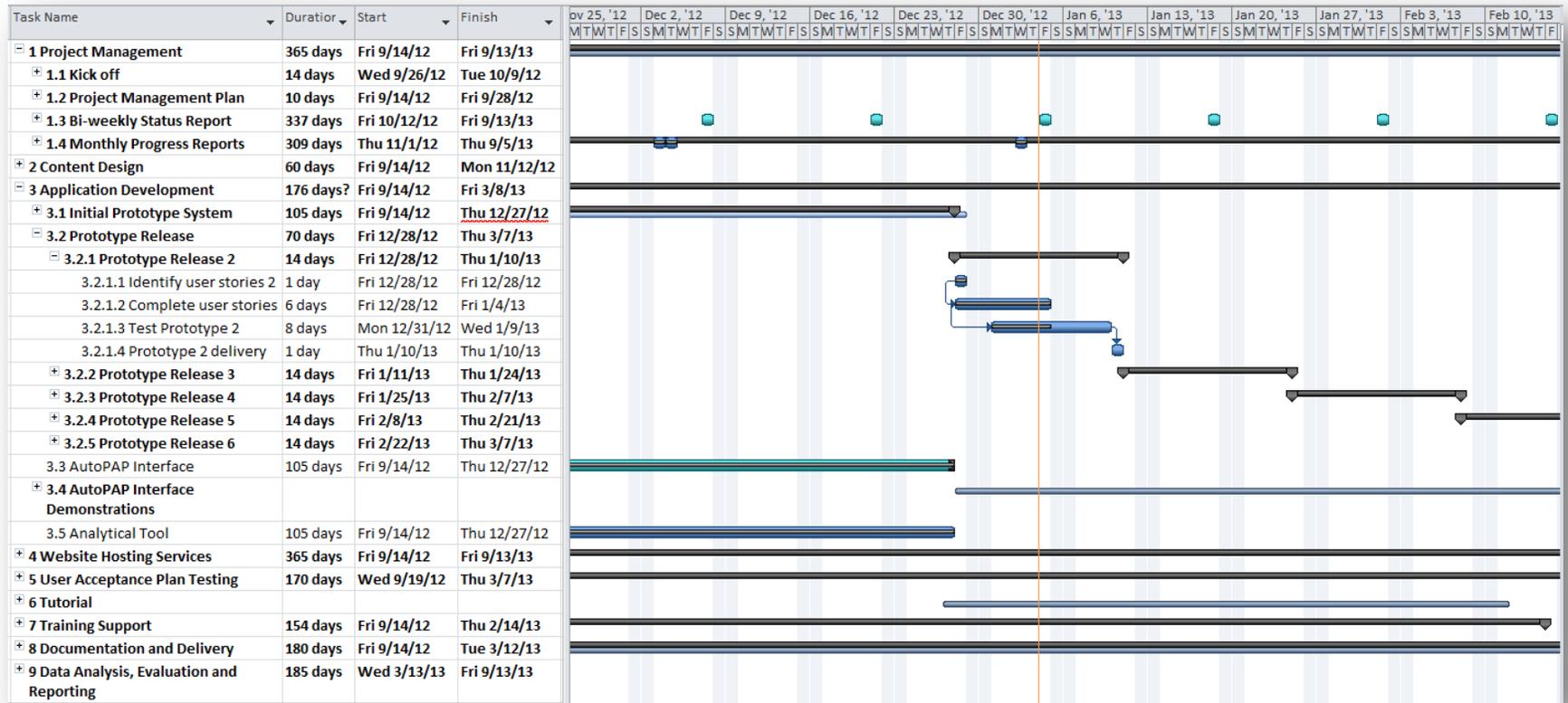
Gantt

User Acceptance Testing Report 02/07/2013

Planned Accomplishments

- 1/5/13 Monthly Report
- 1/9/13 Analytic Tool Setup
- 1/10/13 Interface Demo
- 1/10/13 Second Prototype Delivery
- 1/24/13 Third Prototype Delivery

Overall Project Plan



Currently Here

Critical Path Activities – Status as of 31 December 2012

- Kickoff - Complete
- User Stories/Requirements – Complete
- Set up AutoPAP Data Exchange - In Progress
- Veteran-facing Portal development - In Progress
- VA-facing Portal development - In Progress
- AutoPAP Interface development - In Progress
- Analytical Tool development - In Progress (set up being finalized)
- User Acceptance Testing - In Progress
- Final Prototype - TBD
- Data Collection - TBD
- Data Analysis, Evaluation, Reporting - TBD
- Final Delivery – TBD

Project Plan Development of Second Prototype

Task Name	Duration	Start	Finish	Dec 23, '12					Dec 30, '12					Jan 6, '13								
				S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
3.2.1 Prototype Release 2	14 days	Fri 12/28/12	Thu 1/10/13																			
3.2.1.1 Identify user stories 2	1 day	Fri 12/28/12	Fri 12/28/12																			
3.2.1.2 Complete user stories	6 days	Fri 12/28/12	Fri 1/4/13																			
3.2.1.3 Test Prototype 2	8 days	Mon 12/31/12	Wed 1/9/13																			
3.2.1.4 Prototype 2 delivery	1 day	Thu 1/10/13	Thu 1/10/13																			

Currently Here



Improving Healthcare Through *Intelligent Computer Applications*



Open Action Item Summary

Action Item	Owner	Due Date	Status
Follow up with Philips to receive sample data.	Intellica- Mr. Craig Rebo	11/15/2012	Complete - Intellica received sample data. Data was not realistic, but served for setting up system.
Follow up on contract modification.	VA- Mr. Blake Henderson	ASAP	Not Complete - Mr. Henderson will let Intellica know if the VA makes any decision.
Coordinate to get de-identified real data from Philips for testing.	Intellica- Ms. Marisol Smith	1/27/2013	Not Complete – Intellica will contact Philips to verify what needs to be done.

Risk/Issue Tracker

Severity:

Low:  Moderate:  Significant:  Severe: 

Trend:

Steady:  Improving:  Deteriorating: 

Severity	Focus Area	Risk/Issue Description	Last Update	Mitigation Path	Trend	Owner
	AutoPAP interface	ResMed and Philips receive the CPAP data from the patient. Intellica needs access to this data.	12/31/12 Probability: L Impact: H	Communicating with ResMed and Philips regarding method of accessing data. Communicating with VA regarding agreements between the companies and VA.		Mr. Craig Rebo
	AutoPAP interface	Patient data will be received and needs to be matched to patient records. At times a patient may change machines.	12/31/12 Probability: L Impact: H	Communicating with ResMed and Philips to know how data can be identified. Incorporating fields in patients' records to ensure data is linked correctly.		Mr. Craig Rebo

Compilation of TIM Minutes for December

Technical Interchange Meeting Minutes

From

Thursday, 06 December 2012

Topics Covered:

REVAMP Application items accomplished to date

- 99% Demographics Page
- 99% Treatment Tree
- 90% Encounter / Progress notes
- 99% Graphic HUB completed showing
- 75% Machine data import process
- 99% Diagnosis List
- 99% Content Management
- 99% Secure messaging
- 85% Patient questionnaires
- 99% Administration Screen
- 95% Patient Portal
- 90% Patient Notifications – missing wiring the end of assessment, CPAP Data.
- 0% Questionnaire welcome text banner for each follow-up type

- 50% System Development – waiting for the installation of the EMC2 enterprise storage. EMC2 Installation done – waiting for configuration

Agenda Items / The Project's Progress

1. Intellica is making progress on the three parts of the application for the initial prototype:
 - a. VA-facing Portal
 - b. Veteran-facing Portal
 - c. Interface
2. Intellica will keep the status of items at 99% until they have gone through several debugging cycles.
3. Mr. Craig Rebo has been working on the interface.
 - a. The interface will be working in the background.
 - b. Companies will SFTP files to a directory in the server; the interface will be watching for the files and then, when available, process the file, move it to the database, and save the original file.
 - c. If desired, the interface can work with SD card in the future as well.
4. Intellica will deliver on December 27 a website where the VA can log on and try out the application.
5. VA (Mr. Henderson) will try to contact Intellica tomorrow (Friday, December 7) regarding the contract modification.

Demo

1. Clinical Concepts (VA-facing Portal):
 - a. User can click on the bar in the graph and view patients that are included in that number.
2. Patient Demographics:
 - a. Patient will be able to edit demographics in Veteran- facing portal in a screen similar to the screen on the VA-facing portal.
 - b. The race options listed are the ones used VA-wide.
 - c. A Veteran-facing portal account has to be created in the Patient Demographics in the VA-facing portal for a patient to be able to log on to the Veteran-facing portal.
3. CPAP Machine:



- a. Intellica and VA need to think about how to link the patient data to the patient account.
 - b. Currently, Veterans receive the machine one of two ways:
 - i. Veteran picks it up at the VA.
 - ii. The handling of the machine is contracted out, and the VA never sees the machine.
 - c. SSN cannot be used as the link.
 - d. Currently, patients with Philips are given a unique code for first name and last name.
 - i. The code is used to make an account on Encore by VA provider or Home Health Care provider.
 - ii. VA would have to give Home Health Care provider code.
 - e. The old ResMed requires first and last name fields, could use codes as well if the new ResMed does as well.
 - f. Intellica can modify the application so it will advise if the code is a duplicate or already in use.
4. Graphs:
- a. Intellica added a view with graphics one above the other, but has not deleted the previous option.
 - b. Intellica requested that VA let them know which view they want as default for the graph hub (the view with all three graphs, or just the Treatment Adherence graph).
 - c. There are several Questionnaire with scores attached to them. Intellica added a drop down to the Questionnaire data graph area so that the number of Questionnaire data that can be displayed is no longer limited.
5. Questionnaires:
- a. All of the questionnaires are in the application.
 - b. Intellica will send the list of questionnaires on the application to Dr. Kuna to review.
 - c. VA can let Intellica know if any questionnaire or group (e.g. 1 month follow up) need to be removed/added/modified.
 - d. The eligibility questionnaire can be removed. This can be done over the phone prior to creating the account.
 - e. A meeting can be set up, if desired, for Intellica to go over all of the questionnaires in the Veteran facing portal.
 - f. There is logic that allows for flags to be triggered, but the text for the flags is not there. Intellica received the text from VA and will be adding it.
6. Case Management:
- a. Intellica added a Case Management page where the provider can see a list of all the patients and where they are in the process.

- b. The patients' names will be links that can be clicked on to be taken to the individual patient's events tab.
- c. Intellica can add filters to the Case Management page.
- d. VA mentioned it would be nice to be able to link dates to events and see what is past due.

7. Events:

- a. VA would like for reminders to fill out questionnaires to go out 3 days prior to follow up phone call.
- b. It would be nice if the patient would receive a text message if they have not completed the questionnaires that are due for the follow up call.
- c. Follow up date will be entered by the nurse/provider so they can be sure the patient is available on that date.
- d. Intellica requested clarification regarding wording in the contract for creating automated reminders.
 - i. VA would like the flexibility of adding an event such as a 2 week follow up call with automated reminders attached to it.
 - ii. Intellica will finish the contract requirements for initial prototype and will then brainstorm how to best add this ability to the application.

Technical Interchange Meeting Minutes

From

Thursday, 13 December 2012

Topics Covered:

The Project's Progress

6. Intellica is working on the data transfer from files and it is going well.
7. VA had suggested that a patient be assigned a certain code to link the data to the patient. This is the approach Intellica is using.
8. The analytic tool is being set up from an open source system, Piwik.
9. Scoring the MAP has been easier than expected.

Contract

1. Intellica sent an email to Mr. Henderson regarding an IP related contract modification that had been previously discussed.
2. Mr. Henderson forwarded the email to the Contracting Officer (CO).
3. Intellica believes the current code would benefit the users more, have a lot more flexibility moving forward.
4. Intellica will meet the project requirements with a nice application either way.
5. The two options are to:
 - a. Add modification to contract
 - b. Redo part of the application so it can be Open Source completely.
6. Intellica needs to know soon in order to be able to work on the application accordingly.
7. Mr. Henderson will email the contracting specialist and try to get a response (if paragraph will be added to contract or not) by COB tomorrow.

Other

1. Please add Jose Lago and Jeff Fisher to the list of invitees for meetings (email list for meeting invitations/reminders).
2. The website address www.revamp.com is already in use. The VA will think about what address they would like to use for the portal.
3. Intellica will look into whether or not getting a .gov site is an option. If using the .gov option consideration must be taken regarding the .com counterpart of the address.
4. The next meeting will be next Thursday (12/20/12).

Technical Interchange Meeting Minutes

From

Thursday, 20 December 2012

Topics Covered:

REVAMP Application items accomplished to date

- 99% Demographics Page
- 99% Demographics Page
- 99% Treatment Tree
- 90% Encounter / Progress notes
- 99% Graphic HUB completed showing
- 99% Machine data import process
- 99% Diagnosis List
- 99% Content Management
- 99% Secure messaging
- 85% Patient questionnaires
- 99% Administration Screen
- 85% Patient Portal (new questionnaires)
- 90% Patient Notifications – missing wiring the end of assessment, CPAP Data, days prior notification.
- 0% Questionnaire welcome text banner for each follow-up type
- 0% CSV of questionnaire data
- 99% System Development

Agenda Items / The Project's Progress

10. Application Domain:

- a. Intellica can get it and transfer it to VA.
- b. The name REVAMP has a trademark for the clothing industry; it may not affect the health industry.
- c. VA is fine with a temporary domain selected by Intellica.
- d. The domain that was agreed upon, that will be used, is revamp.intellica.com.* *Following the meeting it was determined that revamp.intellica.com was not usable; revamp.intellica.us will be used as a suitable replacement.

11. Intellica decided to move forward while waiting on the decision regarding the IP paragraph contract modification.

- a. Questionnaires are being added in a new format.
- b. Other modifications are being done to the application to continue to meet the project requirements but modified in case the IP paragraph does not get added.

12. The notification for days prior is being set to 3 days, but VA can change their mind later if they feel it should be a different period of time and Intellica can modify it accordingly.

13. The patient machine data coming in is already CSV format. It was agreed that it is ok to leave it as it is for the requirement related to CSV data export.

14. A data access agreement between Intellica and ResMed was signed on December 19.

Demo

1. New format patient questionnaires:

- a. For initial prototype, patient is taken to a list of questionnaires at the beginning and in between each questionnaire.
- b. For a subsequent prototype, the process will be more automated.
- c. Questions are all displayed on one page.

2. After the Initial Prototype is delivered on December 28 VA will provide Intellica feedback on the layout of the questionnaires.

3. VA asked how they will be able to provide feedback on the layout of the questionnaires on the application.

- a. It can be done through screen shots and comments making reference to the questionnaires.

4. The name of the analytic tool that will be used is Piwik.



Delivery of Prototype/After Prototype delivery

1. Intellica will deliver the initial prototype on December 28.
2. All requirements will be addressed in the initial prototype, along with extras such as the providers note. VA commented that having a provider note is helpful to make the system more complete.
3. Intellica will talk with VA regarding testing after the 28th. Intellica can generate data, but it might be better to have data that is closer to what actual data will look like.
4. Between December 28 and the delivery of the finalized system in March, Intellica will continue testing the application and adding the other features that were not part of the contract (e.g. Clinical Concepts).
5. Intellica is really interested in hearing feedback regarding the application when in use.

Other

1. The contract mod has been submitted (to Ms. Kennedy) and VA (Mr. Henderson) will let Intellica know if they hear any news.
2. The next meeting will be December 27.
 - a. Deployment will be discussed.
 - b. Ideas on how to test with near real data will be discussed.
3. Intellica commented that there is a gadget called Fitbit that is advertised to track activity and sleep. There are other similar items in the market. This type of device could potentially interact with REVAMP.

Technical Interchange Meeting Minutes

From

Thursday, 27 December 2012

Topics Covered:

REVAMP Application items accomplished to date

- 99% Demographics Page
- 99% Treatment Tree
- 99% Encounter / Progress notes
- 99% Graphic HUB completed showing
- 99% Machine data import process
- 99% Diagnosis List
- 99% Content Management
- 99% Secure messaging
- 99% Patient questionnaires
- 99% Administration Screen
- 99% Patient Portal (new questionnaires)
- 99% Patient Notifications
- 99% Questionnaire welcome text banner for each follow-up type
- 99% CSV of questionnaire data
- 99% System Development



Improving Healthcare Through *Intelligent Computer Applications*



Agenda Items / The Project's Progress

15. All parties are still waiting on a possible contract modification.
16. Scoring algorithm: Information is needed to ensure correctness.
17. Mr. Lago stated that he received the email about the domain name that the VA is getting and he said that it will be finalized later.
18. Mr. Lago told Dr. Kuna that Intellica will be available to train him next week and suggested that Dr. Kuna have someone else be trained as well so that person can train others in the VA clinic.

Demonstration / Feedback

5. Mr. Lago went over how to enter the patient's demographics.
6. When selecting the type of Continuous Positive Airway Pressure (CPAP) machine, Mr. Lago suggested that the application be modified to display the machine serial number along with the patient's name and phone number associated with that machine.
7. Demonstrated Assessments –
 - a. After the submit button is clicked following questionnaire completion, inadvertently skipped questions are highlighted in yellow and are required to be completed.
 - b. For the para-somnia questionnaire, Dr. Kuna suggested adding verbiage, for clarification, regarding which response applies to the patient.
 - c. Demonstrated how the instructions and the questionnaires will be displayed in Spanish with the click of the En Española (In Spanish) button.
 - d. The patient's height will repopulate after the initial input but the patient must enter their weight each time they complete their assessments due to weight increase or decrease over the course of treatment.
8. Education Features –
 - a. The instructional videos will work better once the application is moved from the development server to the production server.
9. There is a need to MAP and discern both the amount of sleep and sleep frequency.
10. Demonstrated the Note –
 - a. By February, the note will populate the provider's and/or patient's responses dynamically from the database.

11. There will be a single patient as well as a multi-patient view within the application.
12. The patient eligibility feature will be removed from the application. Eligibility to participate in the sleep clinic's treatment program is determined by clinic personnel outside of and prior to accessing the REVAMP application.

Delivery of Prototype/After Prototype Delivery

6. Intellica will deliver the initial prototype on December 28th. Mr. Craig Rebo will handle the technical coordination.
7. Along with the prototype delivery, Intellica will deliver a Requirement Application Comparison - Initial Prototype document and an attachment showing screen shots of the application for comparison and reference.
8. Intellica will work with the VA regarding training on the prototype after the 28th.

Other

4. The contract mod has been submitted (to Ms. Kennedy) and VA (Mr. Henderson) will let Intellica know if they hear any news.
5. The next meeting will be January 3rd.
 - a. The prototype deployment and training will be discussed.