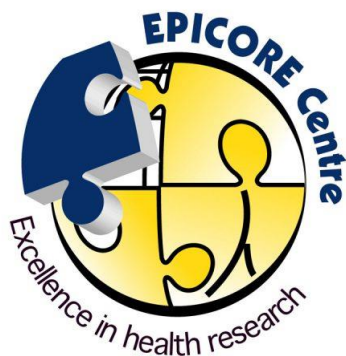




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## USER MANUAL



## 1. Study Registration

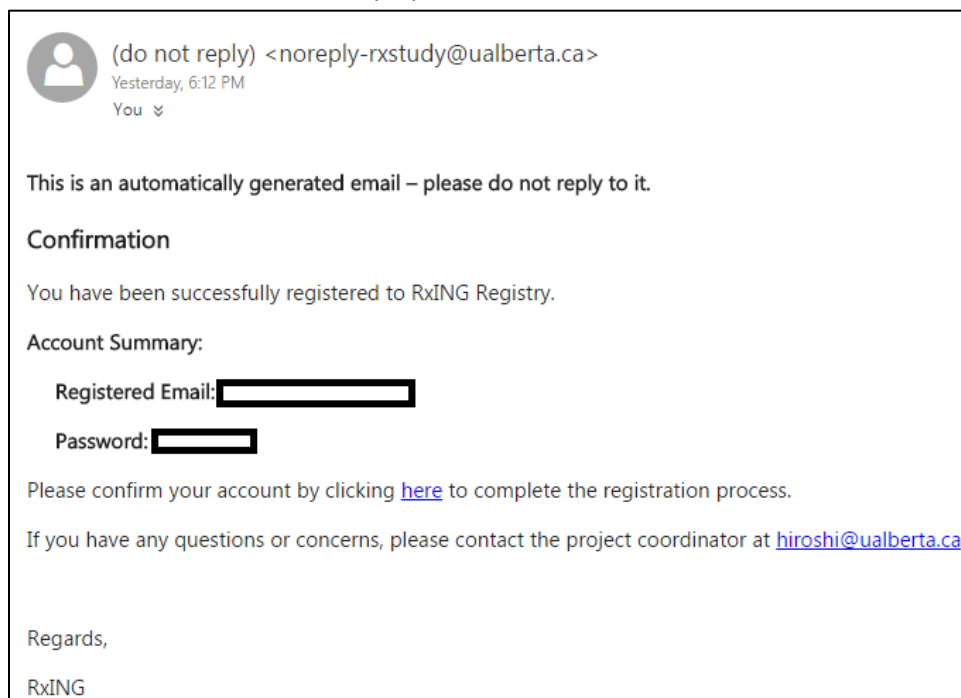
Diabetic patients are more susceptible to experiencing cardiovascular events, but this can be minimized with control of blood glucose levels and other risk factors (blood pressure, blood lipid levels, etc.). By facilitating patient discussion, documentation, risk calculation and progress tracking, the RxING Practice Tool enables pharmacists to provide improved patient care and empowers patients to take control of their health.

More information can be found on the RxING Practice Tool site (<https://www.epicore.ualberta.ca/home/rxing>), including protocol documents, consent forms and guided videos. For any other inquiries, please contact us by email at [hiroshi@ualberta.ca](mailto:hiroshi@ualberta.ca)

To gain access to the Practice Tool, provide the study team with your preferred email address. This address will be used to create the pharmacy account within the RxING system. It may be preferable for there to be a single pharmacy-wide account to ensure continuity of care when multiple pharmacists are utilizing the Practice Tool.

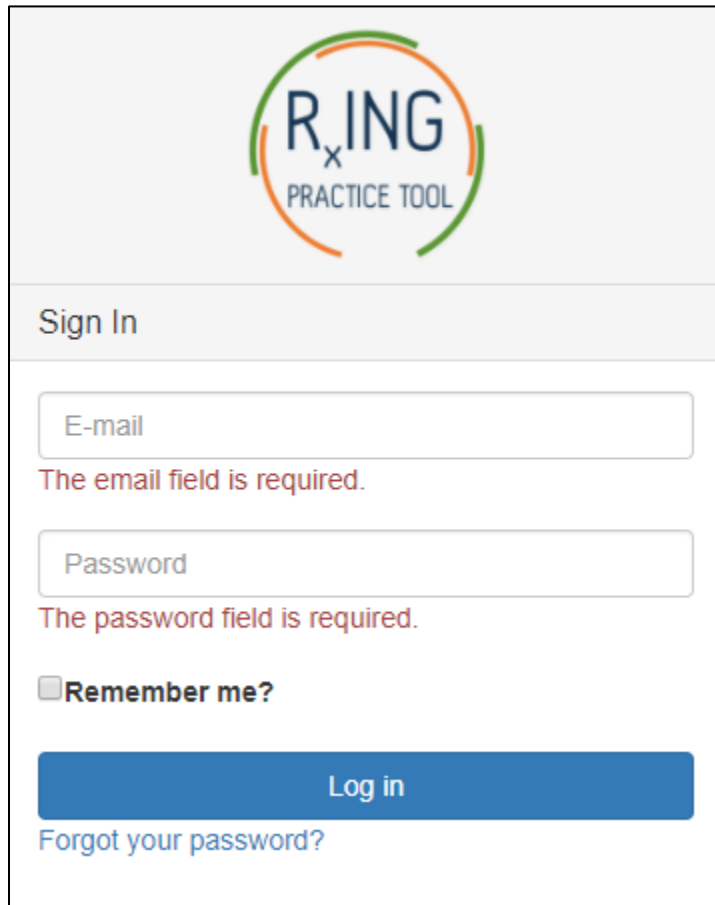
## 2. Confirm Registration Email

You will receive an email with the account information (registered email and password) from [noreply-rxstudy@ualberta.ca](mailto:noreply-rxstudy@ualberta.ca). Please follow the instructions in the email to complete the registration process. The email might go into your spam/junk folder, so please check that folder too. If you do not receive the confirmation email within 2 days, please contact [hiroshi@ualberta.ca](mailto:hiroshi@ualberta.ca).



### 3. Login

Once you complete the registration process, proceed to the RxING login page (<https://www.epicore.ualberta.ca/rxing/>) and login with the email address and password that you received in the confirmation email.



The image shows the RxING Practice Tool login page. At the top is the RxING logo, which consists of the text 'RxING' in a large, dark blue font, with 'PRACTICE TOOL' in a smaller, dark blue font below it. The logo is flanked by two curved lines, one green and one orange. Below the logo is a light gray header bar with the text 'Sign In' in a dark gray font. Underneath the header bar are two input fields. The first field is labeled 'E-mail' and has a red error message below it that says 'The email field is required.' The second field is labeled 'Password' and has a red error message below it that says 'The password field is required.' Below the password field is a checkbox labeled 'Remember me?'. At the bottom of the form is a blue button with the text 'Log in' in white. Below the button is a link that says 'Forgot your password?' in a blue font.

**RxING**  
PRACTICE TOOL

Sign In

E-mail

The email field is required.

Password

The password field is required.

☐ Remember me?

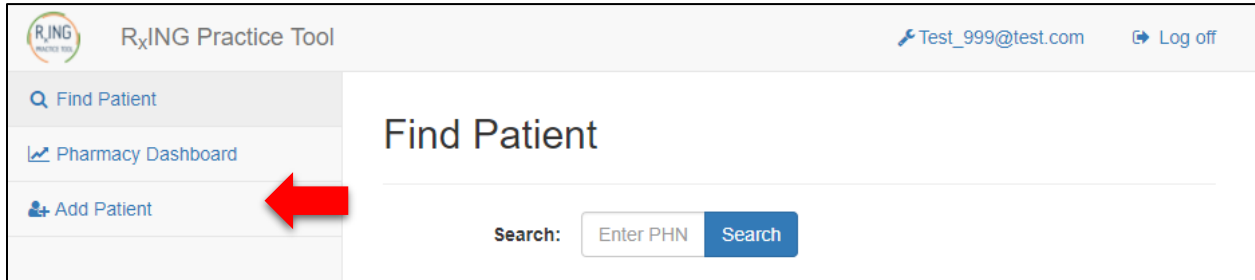
Log in

[Forgot your password?](#)

Upon successful login, you will be redirected to the Home Page ([Find Patient](#)).

## 4. Patient Enrollment

To add a new patient, please click on *Add Patient* in the left sidebar.



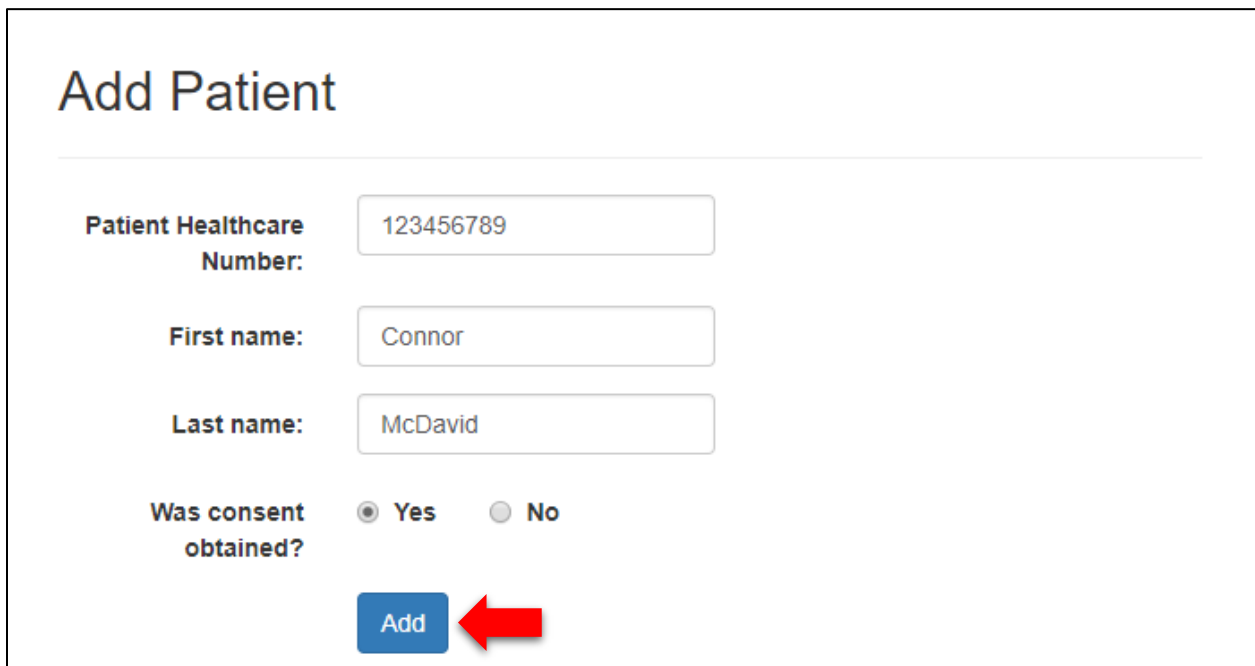
RxING Practice Tool

Test\_999@test.com Log off

Find Patient

Search: Enter PHN Search

The Add Patient page contains entry boxes for **Patient Healthcare Number**, **First/Last Name** and **Consent**. Please enter all the required information, then click *Add* to enroll the patient. **If no consent is obtained, subsequent pages for that patient will not be accessible and no information can be collected.** Information and consent forms for patients can be found on the RxING Practice Tool site.



Add Patient

Patient Healthcare Number: 123456789

First name: Connor

Last name: McDavid

Was consent obtained? ☒ Yes ☐ No

Add

Once the patient is added, you will be redirected to the Demographics page. A **Patient ID** will be automatically assigned for that patient.

## 5. Demographics

Please complete all the required information as described below.

**Date of Birth.** Patient's date of birth. The date format is dd/MMM/yyyy (eg. 30/Jan/1950).

**Sex.** Patient's biological sex.

**Ethnicity.** Patient's reported ethnicity. Select that all apply. Patient may have one or more ethnicities.

**Patient Status.** Whether a patient is just starting their diabetes management under your care, or whether the patient is continuing management.

### Demographics

**Patient ID:** 9

**Date of birth:**

**Age:**

**Sex:** ☒ Male ☐ Female

**Ethnicity (check all that apply):**

- ☐ Aboriginal / First Nations
- ☐ Arab
- ☐ Black
- ☒ Caucasian
- ☐ Hispanic
- ☐ South-Asian (Indian, Pakistani, Sri Lankan, Bangladeshi)
- ☐ Other Asian (Oriental)
- ☐ Other

**Patient Status:** ☒ New ☐ Already managed

Clicking the *Save* button will redirect you to the [Visit](#) page.

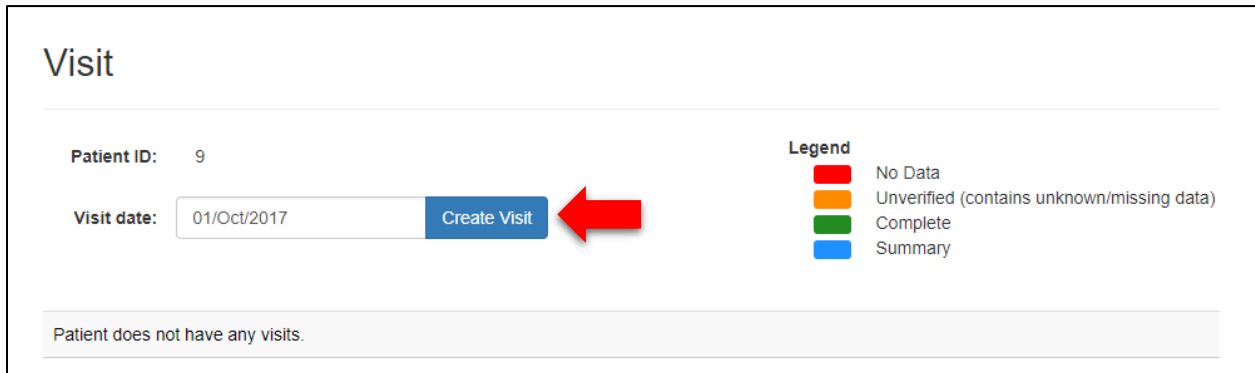
If you want to edit the demographics information, go to the Find Patient page (by clicking on *Find Patient* in the left sidebar), find the correct patient and click *Demographics* to the right of their name.

Patient ID		Patient Healthcare Number	First Name	Last Name	Date of Consented	Consent		
<a href="#">Edit</a>	9	123456789	Connor	McDavid	28/Sep/2017 09:53 AM	Yes	<a href="#">Demographics</a>	<a href="#">Visit</a> 1



## 6. Schedule Visit

To schedule a visit, enter the **Visit Date**, then click *Create Visit* to gain access to the data forms.



Visit

Patient ID: 9

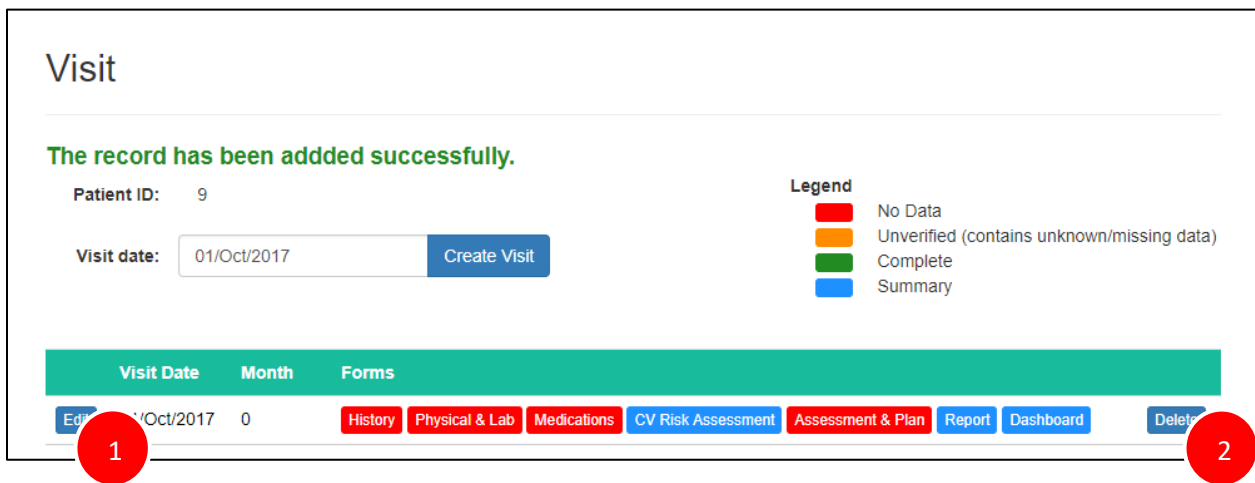
Visit date: 01/Oct/2017 [Create Visit](#)

Legend

- No Data
- Unverified (contains unknown/missing data)
- Complete
- Summary

Patient does not have any visits.

Once the visit is created, it will appear in the visit table. Subsequent visits will be sorted chronologically.



Visit

The record has been added successfully.

Patient ID: 9

Visit date: 01/Oct/2017 [Create Visit](#)

Legend

- No Data
- Unverified (contains unknown/missing data)
- Complete
- Summary

Visit Date	Month	Forms
<a href="#">Edit</a> 01/Oct/2017	0	<a href="#">History</a> <a href="#">Physical &amp; Lab</a> <a href="#">Medications</a> <a href="#">CV Risk Assessment</a> <a href="#">Assessment &amp; Plan</a> <a href="#">Report</a> <a href="#">Dashboard</a> <a href="#">Delete</a>

- 1) If you made a mistake with the **Visit Date**, please select *Edit* and change the date.
- 2) If you wish to delete the visit entirely, please select *Delete*. **Be aware that by deleting the visit, all information that belongs to that visit will be deleted.**

If you ever want to return to the Visit page, go to the Find Patient page (by clicking on *Find Patient* in the left sidebar), find the correct patient and click *Visit* to the right of their name.

Patient ID	Patient Healthcare Number	First Name	Last Name	Date of Consented	Consent	
<a href="#">Edit</a> 9	123456789	Connor	McDavid	28/Sep/2017 09:53 AM	Yes	<a href="#">Demographics</a> <a href="#">Visit</a> <a href="#">1</a>

**IMPORTANT NOTE: Avoid creating a follow-up visit before completing all the forms in the current visit.**

# 7. Practice Tool Forms: History, Physical & Lab, Medications, CV Risk Assessment, Assessment & Plan, and Report

As shown above, the Forms column of the Visit table contains forms and reports that are part of the patient care and data collection processes. Clicking on its button will redirect you to its entry or report page. These forms include **History, Physical & Lab, Medications, CV Risk Assessment, Assessment & Plan, Report** and **Dashboard**.

You can complete the forms in any order (**History, Physical & Lab, Medications, Assessment & Plan**), but the summary reports (**CV Risk Assessment, Report, Dashboard**) require the forms to be completed first.

Forms

History

Physical & Lab

Medications

CV Risk Assessment

Assessment & Plan

Report

Dashboard

The buttons follow a color scheme, as explained below.

Legend

No Data

Unverified (contains unknown/missing data)

Complete

Summary

**RED** indicates that the form has had no data entered.

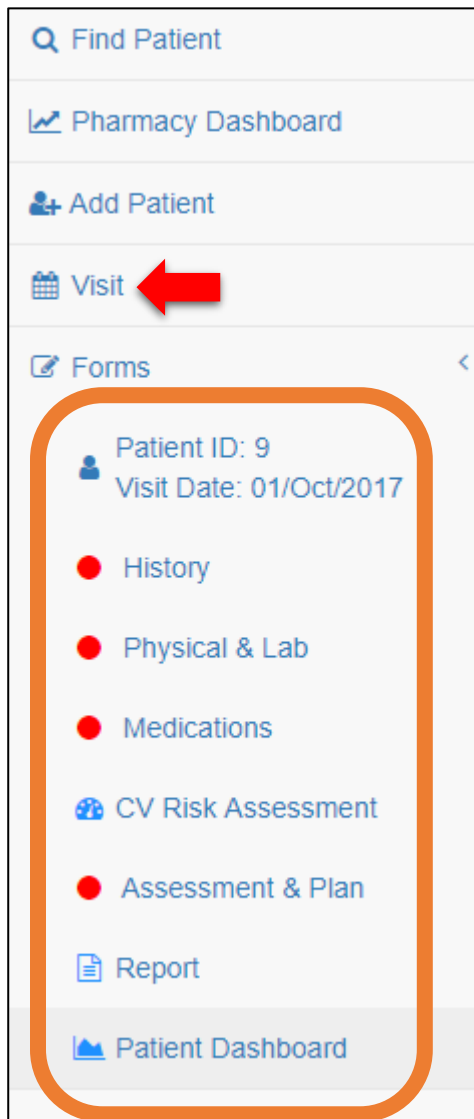
**ORANGE** indicates that the form contains entry fields with ‘Not Available’ or ‘Unknown’.

**GREEN** indicates that the all entry fields in the form have been filled and submitted.

**BLUE** indicates that it is a summary report that has no data entry fields.



Note that once you have entered a form, you can switch between them from the left sidebar. You can also return to the Visit page by clicking *Visit*, also in the left sidebar.



## 8. History

**History** Selecting *History* from the *Forms* menu gives access to **Medical History**, **Family History**, and **Economic Data (Baseline)**. Please complete all the required information, then click *Save & Submit* to save the information. Once you successfully save the information, a message indicating that the data was saved successfully will appear. Its icon will turn from **RED** to **GREEN/ORANGE**.

**History**

Patient ID: 9  
Visit Date: 01/Oct/2017

**The record has been saved successfully.**

Medical History

Diabetes type: ☒ type 1 ☐ type 2

Year of Diabetes Diagnosis:  ☐ Unknown

Diabetes duration (years):

Chronic Kidney Disease: ☐ Yes ☒ No ☐ Unknown

High Blood Pressure: ☐ Yes ☒ No ☐ Unknown

Dyslipidemia: ☐ Yes ☒ No ☐ Unknown

## 9. Physical & Lab

### Physical & Lab

Selecting *Physical & Lab* from the *Forms* menu gives access to the **Physical & Lab Assessment**. Please complete all the required information, then click *Save & Submit* to save the information. Once you successfully save the information, a message indicating that the data was saved successfully will appear. Its icon will turn from **RED** to **GREEN/ORANGE**.

### IMPORTANT NOTES:

- 1) If the fields **Weight, Height, Systolic Blood Pressure, %HbA1c, Total Cholesterol and HDL** are left as 'Value Not Available', a 'Needed for CV Risk Calculation' message will appear adjacent to them.
- 2) At the bare minimum, a CV Risk Calculation requires a value for **Weight, Height and Systolic Blood Pressure**. If they are not added, an error message will appear.
- 3) If no measured value exists for the other risk factors, insert a placeholder value and its effects on CV Risk Assessment can be evaluated with the interactive sliders, alongside other risk factors (See Section 11).

## 10. Medications

### Medications

Medication under the *Forms* menu will give access to **Current Medication List**, **Medication Adherence**, **Adverse Events**, and **Vaccinations**.

### Add/Edit/Delete Medication

Please add all relevant medications by typing it in and selecting from the list. **Only medications treating hyperglycemia, dyslipidemia, hypertension and other cardiovascular diseases are available.**

Current Medication (Diabetes, Hypertension, Dyslipidemia, Vascular disease)

Click "add" button to add a new medication and click "delete" to delete/undelete the medication in the table.  
Yellow row indicates the medication is not permanently saved yet.  
Red row indicates the medication is not permanently removed yet.

Medication	Dose	Frequency	Stop
<input type="text" value="Please select..."/>	<input type="text"/>	<input type="text" value="QD"/>	<input type="button" value="Add"/>
Metformin			
Methyldopa			
Metolazone			
Metoprolol			

Then enter its dose and frequency. Recommended dosing regimens are available for each listed medication. Once all fields are entered for 1 medication, press *Add*.

Current Medication (Diabetes, Hypertension, Dyslipidemia, Vascular disease)

Click "add" button to add a new medication and click "delete" to delete/undelete the medication in the table.  
Yellow row indicates the medication is not permanently saved yet.  
Red row indicates the medication is not permanently removed yet.

Medication	Dose	Frequency	Stop
<input type="text" value="Metformin"/>	<input type="text" value="500"/> mg	<input type="text" value="BID"/>	<input type="button" value="Add"/>

Medication Adherence

Recommendation [close]  
Name : Metformin  
Min dose : 250 mg  
Max dose : 3000 mg  
Frequency: QD/BID/TID

If you want to edit the medication, dose and/or frequency, it must be deleted and added again.

Current Medication (Diabetes, Hypertension, Dyslipidemia, Vascular disease)

Click "add" button to add a new medication and click "delete" to delete/undelete the medication in the table.  
Yellow row indicates the medication is not permanently saved yet.  
Red row indicates the medication is not permanently removed yet.

Medication	Dose	Frequency	Stop
Metformin	500 mg	BID ▾	<input type="checkbox"/> [delete]
<input type="text" value="Metformin"/>	<input type="text" value="1000"/> mg	BID ▾	<input type="button" value="Add"/>

Recommendation [close]

Name : Metformin  
Min dose : 250 mg  
Max dose : 3000 mg  
Frequency: QD/BID/TID

Medication Adherence

#### IMPORTANT NOTES:

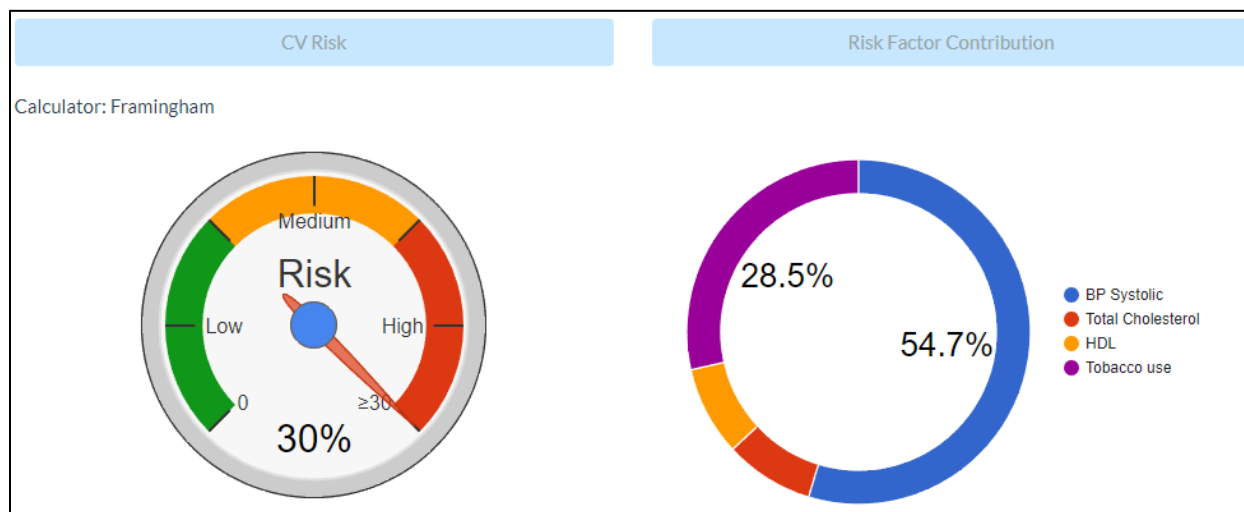
- 1) Any changes on the medication table will not be saved until *Save & Submit* is selected.
- 2) Assessment & Plan will auto-populate medication list with **Current Medication(s)** from the Medication page. Please try to complete Medication before doing Assessment & Plan.

Please complete all the required information, then click *Save & Submit* to save the information. Once you successfully save the information, a message indicating that the data was saved successfully will appear. Its icon will turn from **RED** to **GREEN/ORANGE**.

## 11. CV Risk Assessment

### CV Risk Assessment

Click on *CV Risk Assessment* to access the CV Risk Assessment. The cardiovascular (CV) risk, defined as likelihood of a (non)-fatal coronary heart disease or stroke in 10 years, will be automatically calculated based on information entered.



Furthermore, the calculator is interactive and the patients can see the impact of controlling certain risk factors on overall CV risk in real time by using the sliders.

A variety of validated CV risk calculators are incorporated into the RxING Practice Tool. The one that will be used will vary from patient to patient, based on their individualized risk factors. The CV Risk Assessment page will also look different from calculator to calculator. These include:

Framingham (BMI); if only **Weight**, **Height** and **Systolic Blood Pressure** are entered.

The figure shows the input form for the Framingham (BMI) calculator. It includes fields for Patient ID, Visit Date, and Calculator (Framingham). The main input fields are BP Systolic (mmHg) set to 140, BP treated (YES), Weight (kg) set to 65, CVD history (NO), and Tobacco use (YES). A Print button is located at the bottom.

Framingham (Lipid Battery); if only **Weight, Height, Systolic Blood Pressure, Total Cholesterol** and **HDL** are entered.

Risk Factors

Patient ID:

Visit Date:

Calculator: Framingham

BP Systolic (mmHg): 140

BP treated: YES

Total Cholesterol (mmol/L): 5

HDL (mmol/L): 1

CVD history: NO

Tobacco use: YES

Print

UK Prospective Diabetes Study (UKPDS); if only **Weight, Height, Systolic Blood Pressure, %HbA1c, Total Cholesterol** and **HDL** are entered.

Risk Factors

Patient ID:

Visit Date:

Calculator: UKPDS

BP Systolic (mmHg): 140

Total Cholesterol (mmol/L): 5

HDL (mmol/L): 1

Tobacco use: YES

HbA1c (%): 10

Print

Secondary Manifestations of ARterial Disease (SMART); if previous history of **Vascular Disease, Weight, Height, Systolic Blood Pressure, Total Cholesterol, HDL** and **eGFR** are entered.

Risk Factors

Patient ID:

Visit Date:

Calculator: SMART

BP Systolic (mmHg): 140

Total Cholesterol (mmol/L): 5

HDL (mmol/L): 1

Tobacco use: YES

eGFR (ml/min/1.73 m<sup>2</sup>) 100

hs-CRP (mg/dL) 0.22

Print

High Sensitivity C-Reactive Protein (hs-CRP) is a laboratory marker of inflammation and is used to predict the cardiovascular risk. If your patient has a value for this biomarker, adjust the slider accordingly to view the effect on cardiovascular risk. If your patient has not had it tested, leave it at the default value of 0.22 mg/dL.



## 12. Assessment & Plan

### Assessment & Plan

*Assessment & Plan* under *Forms* redirects to Patient Goal and Treatment Plan.

**Patient Goals** to be discussed are elicited from the patient, do not need to pertain to their healthcare and can be more personal.

Be aware that sections that appear will be individualized to that patient, based on their CV risk contributors. These sections include: **Diabetes**, **Hypertension**, **Dyslipidemia**, and **Current Tobacco Use**.

After selecting a target value for the patient regarding their **Diabetes**, **Hypertension** and/or **Dyslipidemia** conditions, if the previously entered **Measured Value** does not meet it, an **Action** menu will appear. This menu outlines the typical interventions that a pharmacist will consider during a consultation.

**Actions**

- ☒ Educate patient, family members and caregivers about the condition and the prescribed treatment
- ☒ Improve adherence
  - ☐ Involve other health care professionals and work-site healthcare providers
  - ☐ Encourage the patient to become more involved and monitor his/her condition at home regularly
  - ☐ Assess adherence to therapy at each encounter with the patient
  - ☐ Working with the patient to associate taking medications with daily habits
  - ☐ Simplify treatment regimens
- ☒ Lifestyle education and advice
  - ☐ Diet
  - ☐ Exercise
  - ☐ Alcohol
- ☒ Laboratory Assessment
- ☒ Medication changes

Medication	Dose	Frequency	Stop	Action
<input type="text" value="Please select..."/>	<input type="text"/>	QD	<input type="radio"/> Prescribed <input type="radio"/> Recommended	<input type="button" value="Add"/>
- ☒ Referral
  - ☐ Family physician
  - ☐ Specialist
  - ☐ Nurse practitioner
  - ☐ Dietician
  - ☐ Other
- ☒ Follow up

If the **Measured Value** does meet the target, a **Controlled** message will appear instead.

Measured value: 1.50

**Controlled**

A different **Target** and **Action** menu will appear for patients that are current smokers.

Target: ☐ Tobacco cessation ☒ Tobacco reduction ☐ Patient is not ready to discuss tobacco use at this visit

**Actions**

- ☒ Discuss available options for tobacco cessation
- ☒ Set a quit date
- ☒ Nicotine replacement therapy
  - ☐ Gum
  - ☐ Patches
  - ☐ Lozenges
  - ☐ Inhalers
  - ☐ Nasal spray
- ☒ Pharmacological therapy
  - ☐ Bupropion
  - ☐ Varenicline
- ☒ Referral
  - ☐ Family physician
  - ☐ Tobacco cessation program
  - ☐ Other

If no **Measured Value** is available to be entered on the Physical & Lab page, the following message will appear. Please consider selecting **Laboratory Assessment** as an **Action**, if applicable.

Condition: Diabetes

Measured value: [please enter the value on the Lab page]

Target HbA1c: ☐ HbA1c ≤ 6.5% ☐ HbA1c ≤ 7% ☒ 7.1 ≤ HbA1c ≤ 8.5%

**Actions**

- ☐ Educate patient, family members and caregivers about the condition and the prescribed treatment
- ☐ Improve adherence
- ☐ Lifestyle education and advice
- ☒ Laboratory Assessment
- ☐ Medication changes
- ☐ Referral
- ☐ Follow up

Please complete all the required information, then click *Save & Submit* to save the information. Once you successfully save the information, a message indicating that the data was saved successfully will appear. Its icon will turn from **RED** to **GREEN/ORANGE**.

**You will then be prompted to schedule a follow-up visit.**

## Assessment & Plan

Patient ID: 9  
Visit Date: 01/Oct/2017



**The record has been saved successfully. Please schedule for the follow-up visit in the Visit page.**

Patient Goal

**Goal:**

Make it to the NHL.

## 13. View Report

### Report

The visit will be summarized into Report, available under Forms. Report is a printer-friendly summary of the patient's **Goal(s)**, **CV Risk**, **Assessment(s)** and **Treatment Plan(s)**. Please be sure to schedule and record the follow-up visit for the patient.

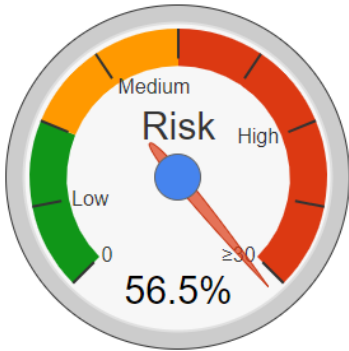
## Report

**Patient Name:** Connor McDavid  
**Patient ID:** 9  
**Patient Goal:** Make it to the NHL.

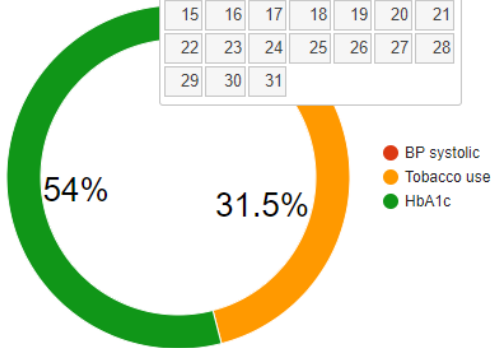
**PHN:** 123456789  
**Visit Date:** 01/Oct/2017  
**Follow-Up Visit Date:**

CV Risk

Calculator: UKPDS



56.5%



54% 31.5%

- BP systolic
- Tobacco use
- HbA1c

Oct 2017

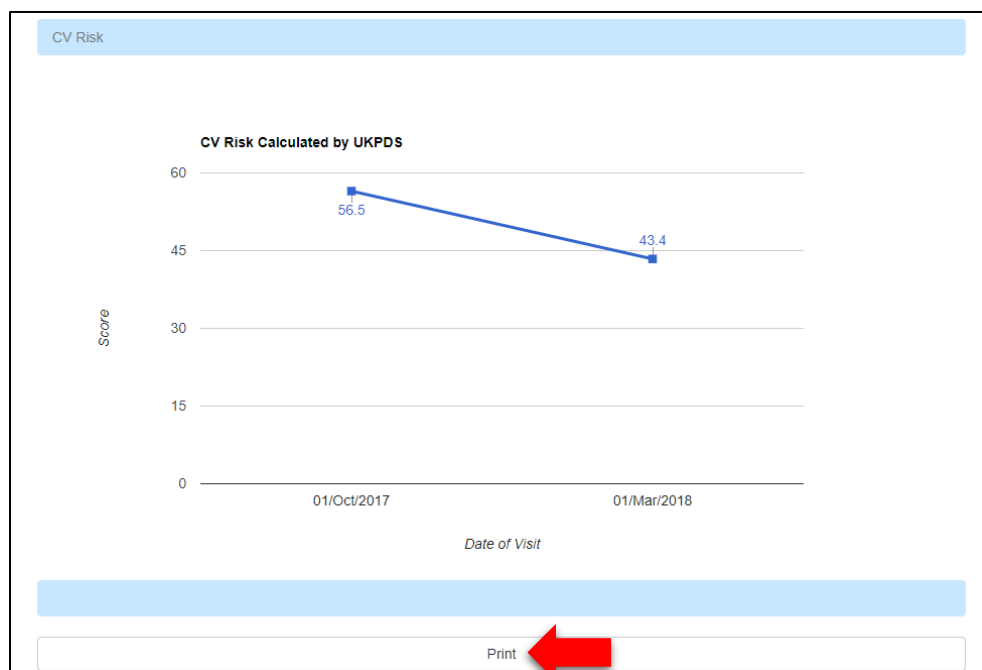
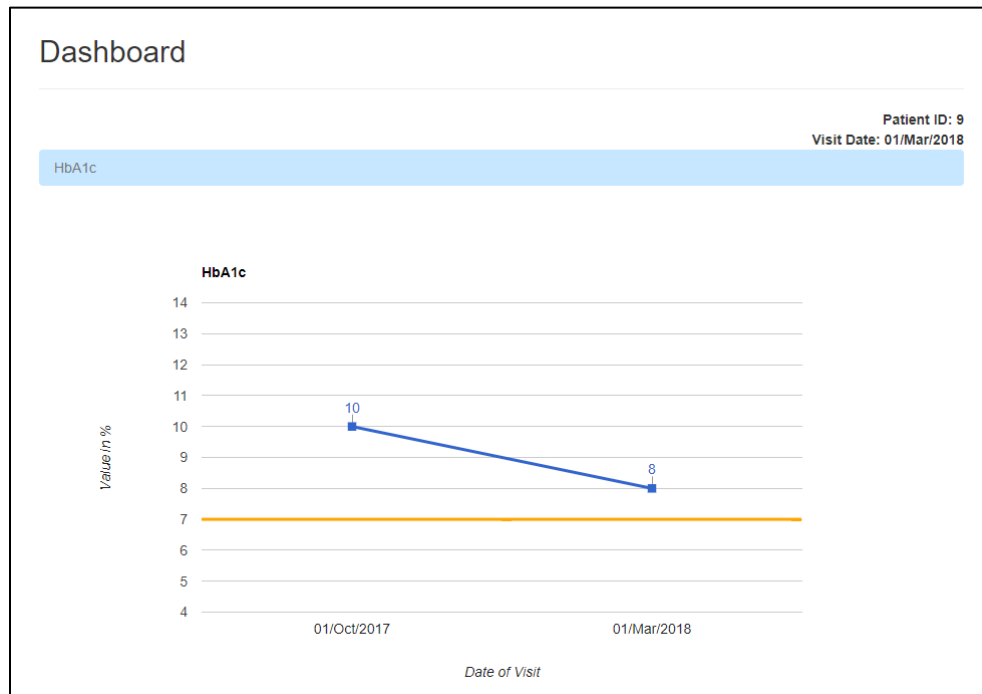
Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

You can print the report summary for your patient by pressing *Print* at the bottom of the form.

## 14. View Dashboard

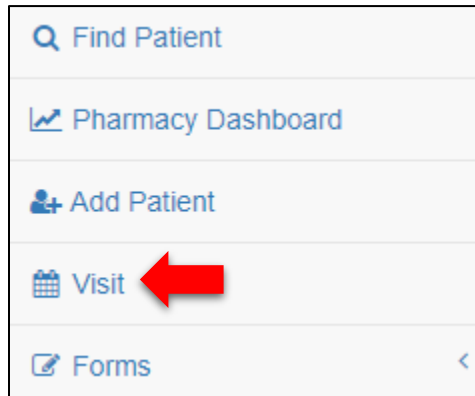
### Dashboard

*Dashboard*, found under *Forms*, offers a graphical representation of %HbA1c and CV Risk for each patient over time, based on data entered over multiple visits. It can be also printed for your patient by selecting *Print*. **Please be aware that data points are generated from visits once every 3 months.**

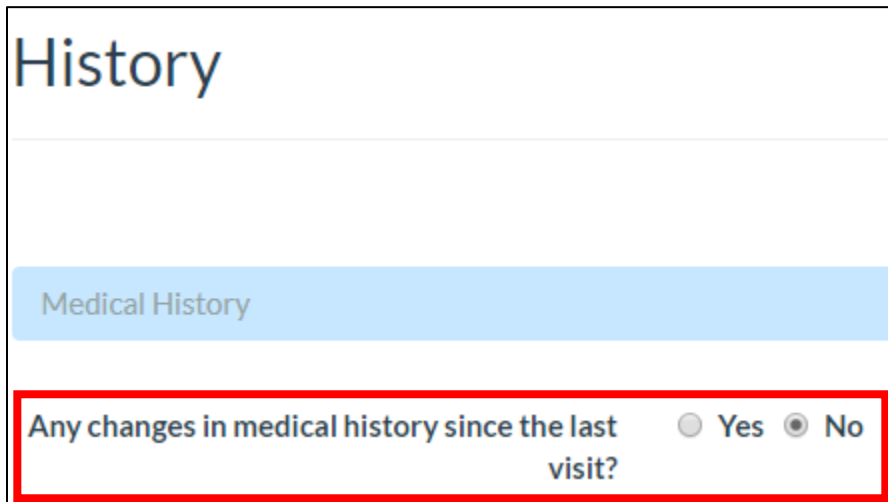


## 15. Schedule a Follow-Up Visit

Click on the *Visit* button in the left sidebar to start scheduling your follow-up visit.

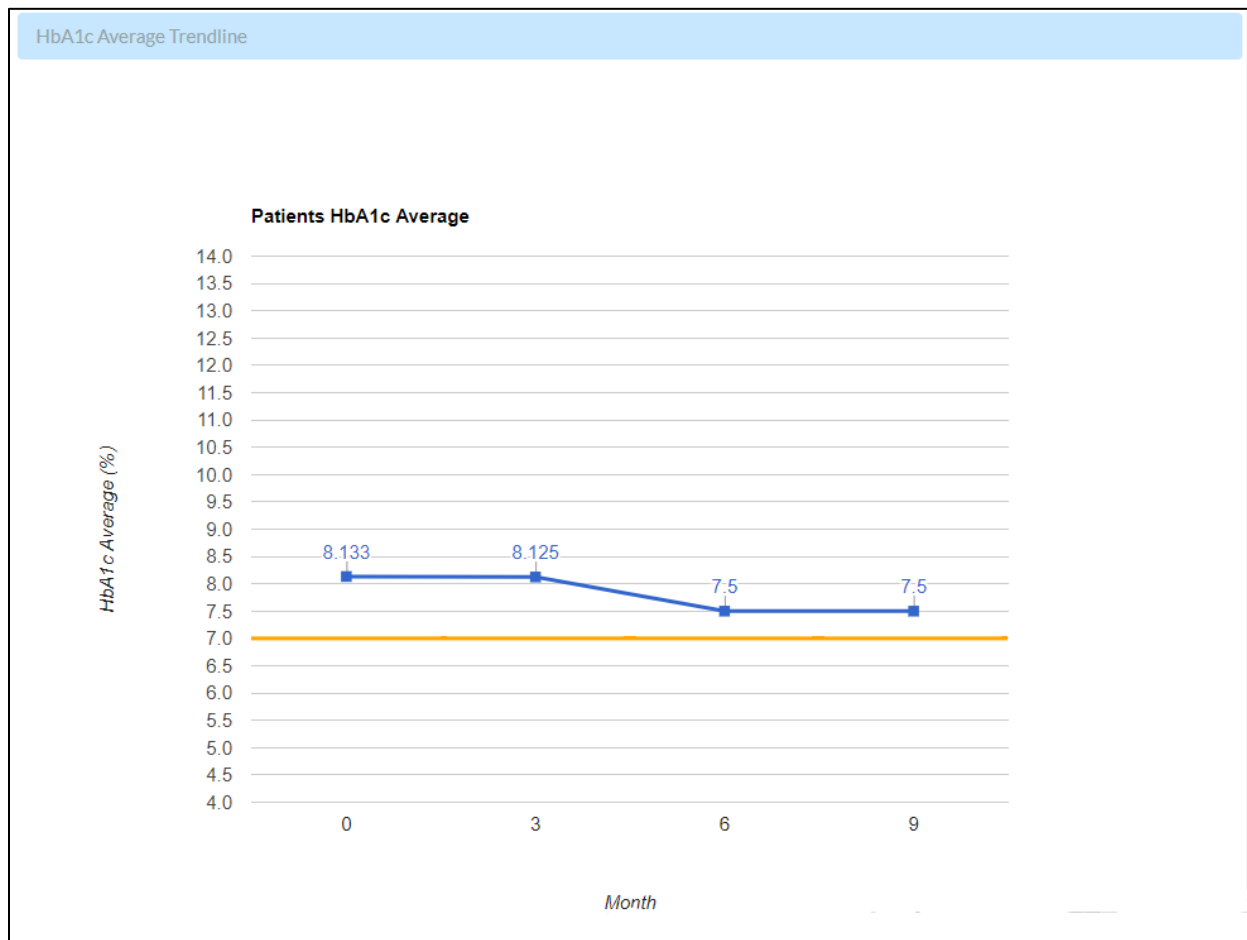
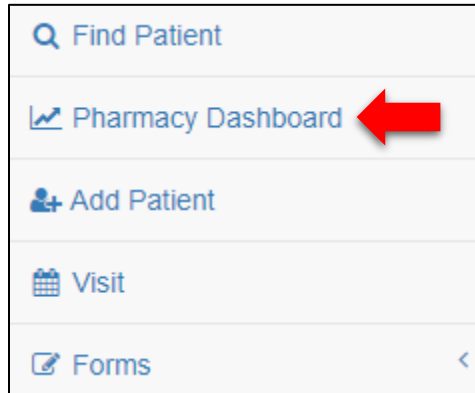


For subsequent visits, the History, Physical & Lab and Medication pages will be auto-populated based on the previous visit. A prompt will appear at the top of each section, asking whether changes have occurred since the last visit. If Yes is selected, then the entry fields can be modified; if No, then the entry fields will remain locked.

A screenshot of the 'History' section of the application. The title 'History' is at the top. Below it is a light blue bar labeled 'Medical History'. At the bottom, a red-bordered box contains a prompt: 'Any changes in medical history since the last visit?' followed by two radio buttons. The 'Yes' button is unselected, and the 'No' button is selected.

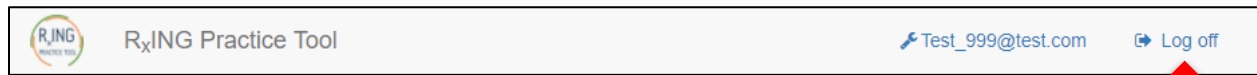
## 16. Pharmacy Dashboard

The Pharmacy Dashboard, found in the left sidebar, offers an account wide look at the average %HbA1c of all patients. This tool can be used to track changes over time, in 3 month intervals.



## 17. Logging Off

Select *Log Off* in the top right corner of the header to sign out from the Practice Tool. Upon successful log off, users are presented with Login page.



## 18. Account Maintenance

If you would like to change your password, click your email address with the wrench in the top right corner of the header. Then click *Change* to initiate the process and complete the form as instructed.



### Manage Account

Change your account settings

---

Password: [\[Change\]](#)

### Manage Password

Change Password Form

---

**Current password**

**New password**


**Confirm new password**

[Change Password](#)



If you forget your password, click *Forgot your password?* on the login screen, provide your email address and follow the instructions to reset your password.



**Sign In**

E-mail


The email field is required.

Password

The password field is required.

☐ Remember me?

**Log in**

[Forgot your password?](#) 

## Forgot your password?

Email

**Email Link**

[Go back to login](#)

# Checklist:

## Startup

- ☐ Confirm registration email
- ☐ Login
- ☐ Enroll patient

## Demographics

- ☐ Access *Demographics* page
- ☐ Complete demographics
- ☐ Update demographics

## Visit

- ☐ Access *Visit* page
- ☐ Create baseline visit
- ☐ Edit visit date
- ☐ Delete a visit
- ☐ Create follow-up visit
- ☐ Access *Forms* menu

## History

- ☐ Access *History* page
- ☐ Complete history information

- ☐ Edit history information

## Physical & Lab

- ☐ Access *Physical & Lab Assessment* page
- ☐ Complete physical & lab assessment information
- ☐ Edit physical & lab assessment information

## Medication

- ☐ Access *Medication* page
- ☐ Complete medication information, including add/edit/delete medication
- ☐ Edit medication information

## CV Risk Assessment

- ☐ Access *CV Risk Assessment* page
- ☐ Manipulate risk factor values

## Assessment & Plan

- ☐ Access *Assessment & Plan* page
- ☐ Complete patient goal(s) and treatment plan(s)
- ☐ Edit patient goal(s) and treatment plan(s)

## **Report**

☐ [Access \*Report\* page](#)

☐ [Print report](#)

## **Dashboard**

☐ [Access \*Dashboard\* page](#)

## **Pharmacy Dashboard**

☐ [Access \*Pharmacy Dashboard\* page](#)

## **Account Management**

☐ [Change your password](#)

☐ [Reset your password](#)