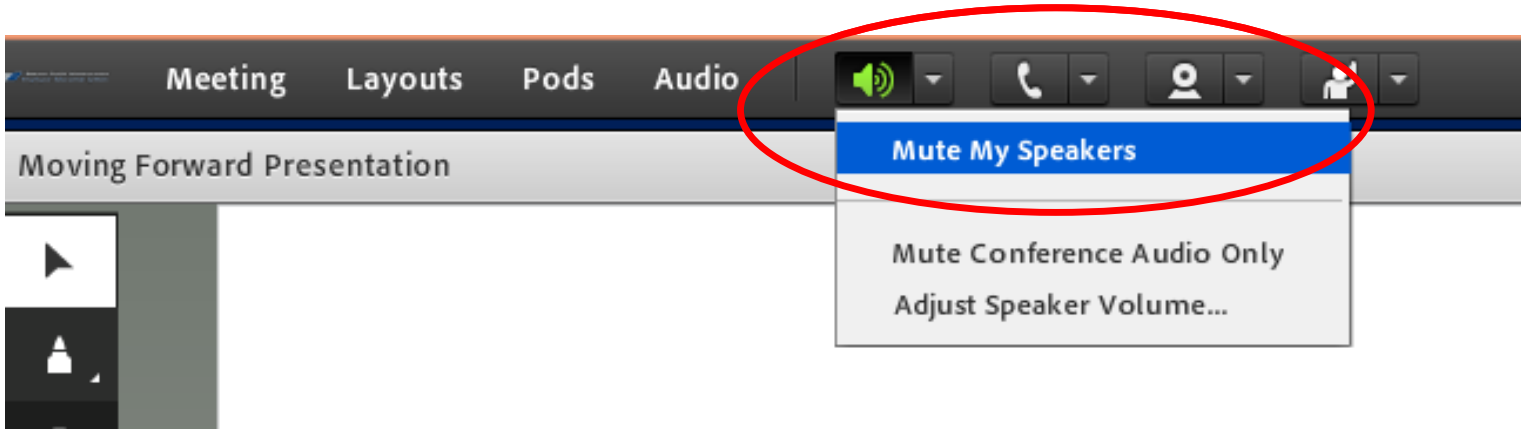
Please remember to mute your speakers.



VA Mobile Discussion Series

For audio, please dial in using VANTS:
1-800-767-1750 pc: 32523#

Thank you for joining. We will begin shortly.

VA | U.S. Department of Veterans Affairs
Veterans Health Administration
Office of Connected Care

U.S. Department of Veterans Affairs

Genetic Diagnostic Testing (GDx) System

VA Mobile Discussion Series

October 26, 2017

Dr. Michael Icardi, National Director of VA Pathology and Laboratory Medicine Science

Dr. Julie Lynch, Nurse Research Scientist at VA Informatics and Computing Infrastructure

OVERVIEW OF PRESENTATION

- Background
- What is the GDx mobile application
- Why is there a need for this application
- The role of precision medicine in care of Veterans
- Functionality of GDx App
- Why the VA is positioned to be a leader in delivery of precision medicine

BACKGROUND – INCEPTION OF GDX APP

- Started in 2012 as a post doctoral research project supported by VA national clinical leadership, especially by Dr. Icardi, National Director of Pathology
- By 2014, we were getting monthly data feeds for nearly all clinical genetic test results.
- However, after 3 failed attempts to obtain funding from ORD, in May 2014, we submitted a 1-page concept page on the Connected Health web site. Less than 30 days later, we got an email saying that Connected Health was interested.

From: Blendell, Lynn (Madeline)
Sent: Thursday, June 12, 2014 4:17 PM
To: Lynch, Julie; Frisbee, Kathleen L. (SES EQV); Riera, Robert (WB&B)
Cc: Grant, Kelly (SMS); Grant, Kelly
Subject: VA GDx: clinical genetic testing App - discusiion

Julie and Kathy we do have interest in this app and have some questions

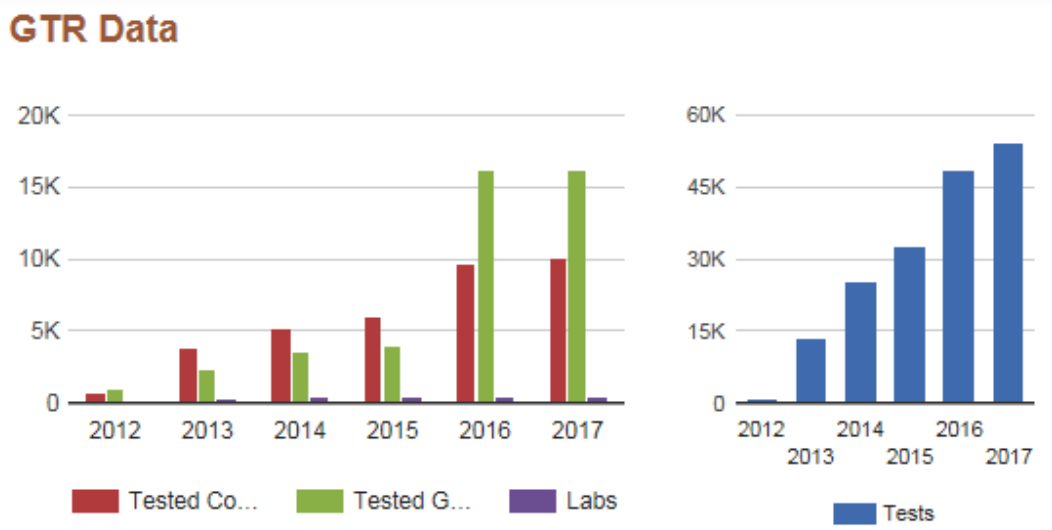
WHAT IS THE GDX APP?

- GDx App for Veterans:
  - View genetic and genomic test results
  - Review information about GDx testing

- GDx App for Care Teams:
  - Provides access for interpretation of GDx testing in clinical settings
  - Data for the application comes directly from the laboratories performing the tests via HL7 messages containing the results of the genomic lab tests
  - Search for a patient and view lab tests results you have ordered for that patient

WHY IS A GDX NEEDED?

- Substantial growth in use of clinical genetic tests, across a wide range of conditions.
- Appropriate use can improve health outcome of Veterans

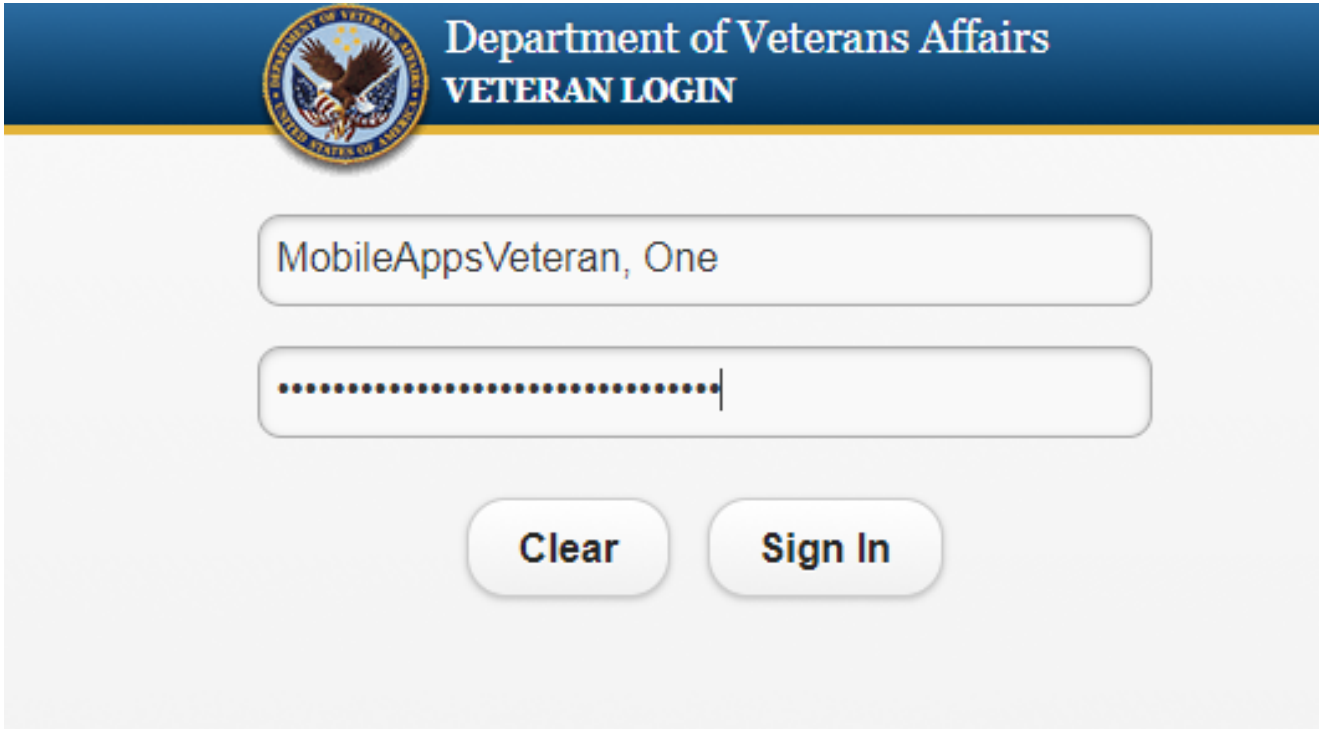


- Inappropriate use will increase costs of care and contribute to worse health outcomes for Veterans.
- Increased complexity for patients and providers. Who should be tested? What do the results mean? What treatments should be used based on test results?
- Structured data is needed for clinical decision support tools

THE ROLE OF PRECISION MEDICINE IN VA CARE

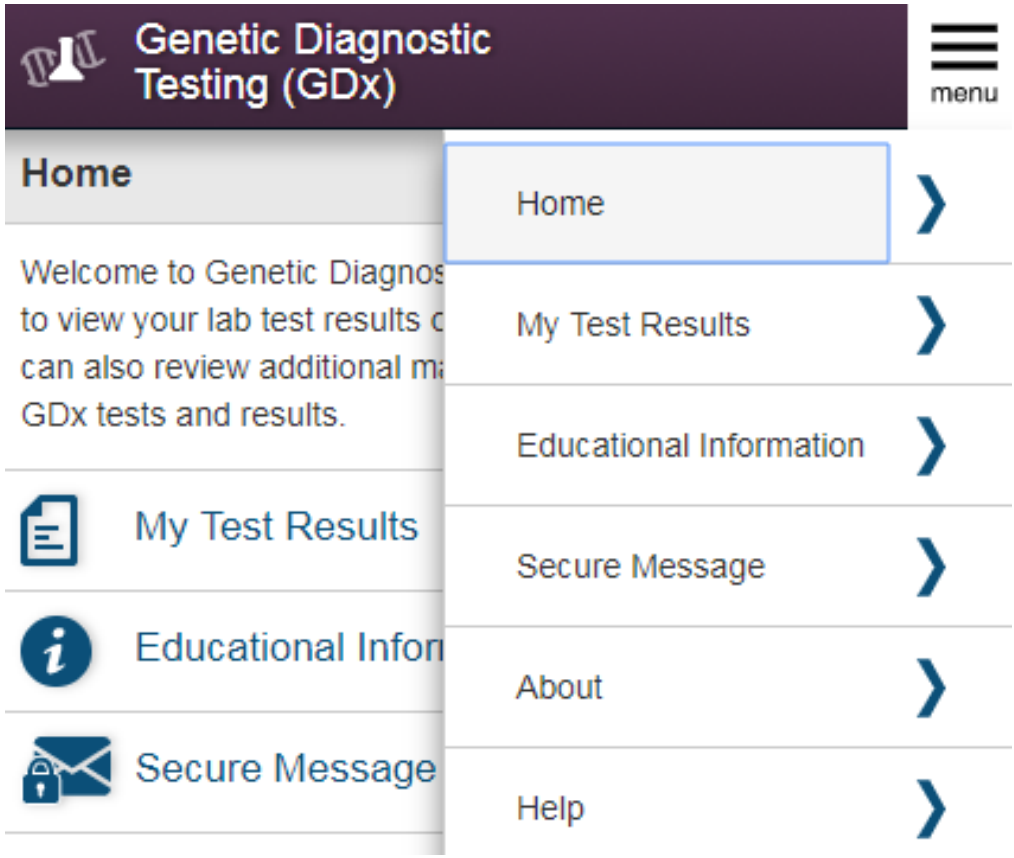
- There are several clinical conditions that are common among Veterans where clinical practice guidelines recommend genetic testing
  - Tumor genetic testing is now standard of care for several cancers. Veterans now have access to next generation sequencing through the VA's Precision Oncology.
  - Hereditary genetic testing is becoming important for Veterans with breast, ovarian, pancreatic, and prostate cancers. BRCA mutations identify Veterans who will respond to specific FDA-approved medications.
  - Important innovations in the treatment of Hepatitis C is greatly improving health outcomes for Veterans. However, for Veterans who do not respond to treatment, it is important to identify genetic changes in the virus that facilitate resistance.
  - Pharmacogenetic testing may help identify the most effective treatments for Veterans suffering from depression or post traumatic stress disorder.

LOGIN (GDX APP FOR VETERANS)



Enter DS Logon Level 2 (Premium) Account credentials.

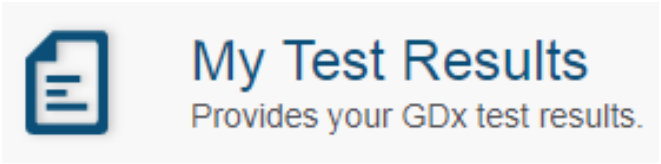
HOME SCREEN (GDX APP FOR VETERANS)



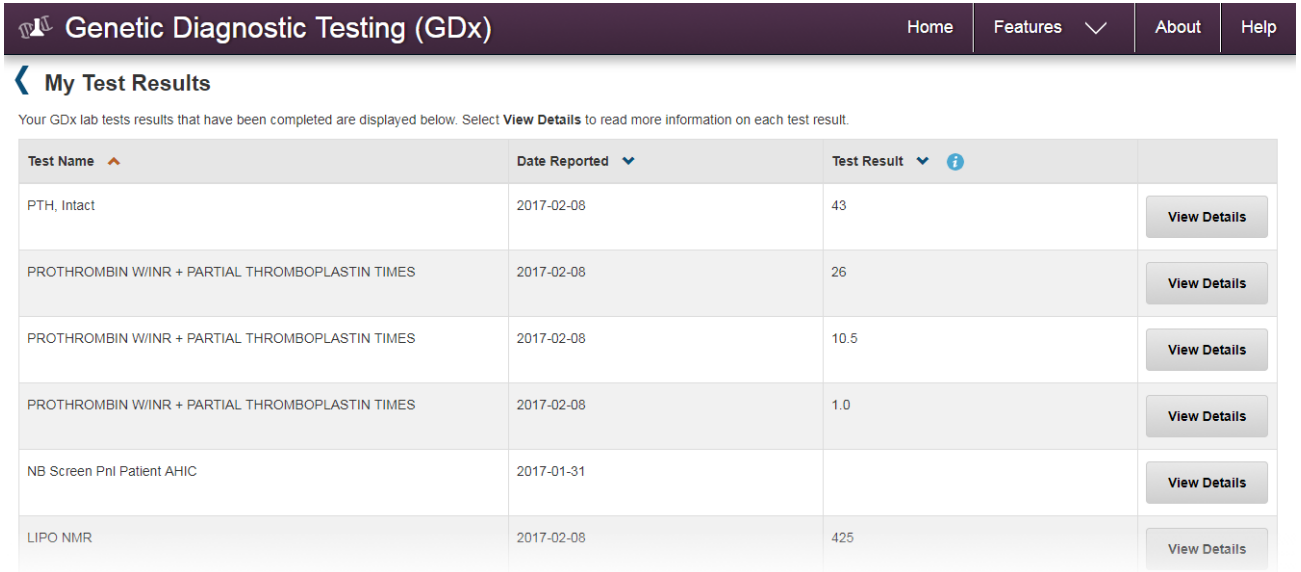
Access the app's main features by tapping the feature on the Home screen or in the menu:

- My Test Results
- Educational Information
- Secure Messaging

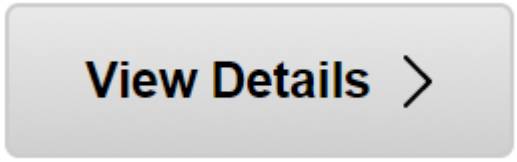
TEST RESULTS (GDX APP FOR VETERANS)



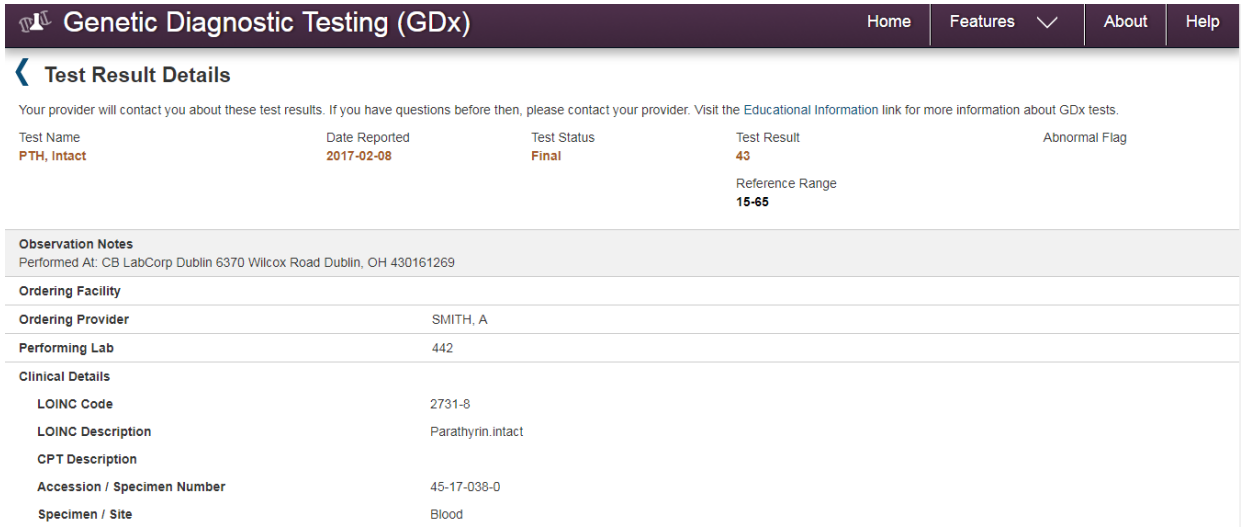
Tap **My Test Results**, and view genetic diagnostic testing results, including the reference range for the test and clinical implications.



TEST RESULT DETAILS (GDX APP FOR VETERANS)

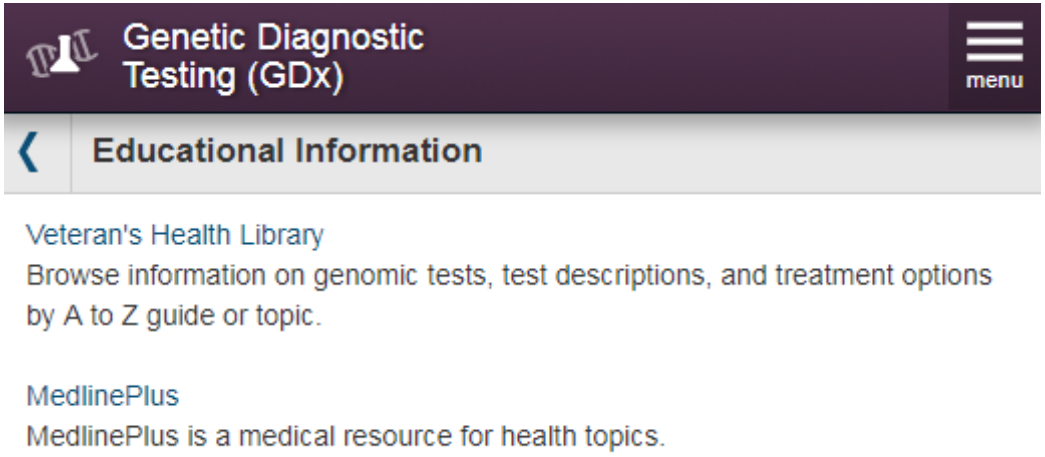


Tap **View Details**, and you will see the details of the test including observational notes, ordering facility, ordering provider, performing lab, clinical details and specimen comments.



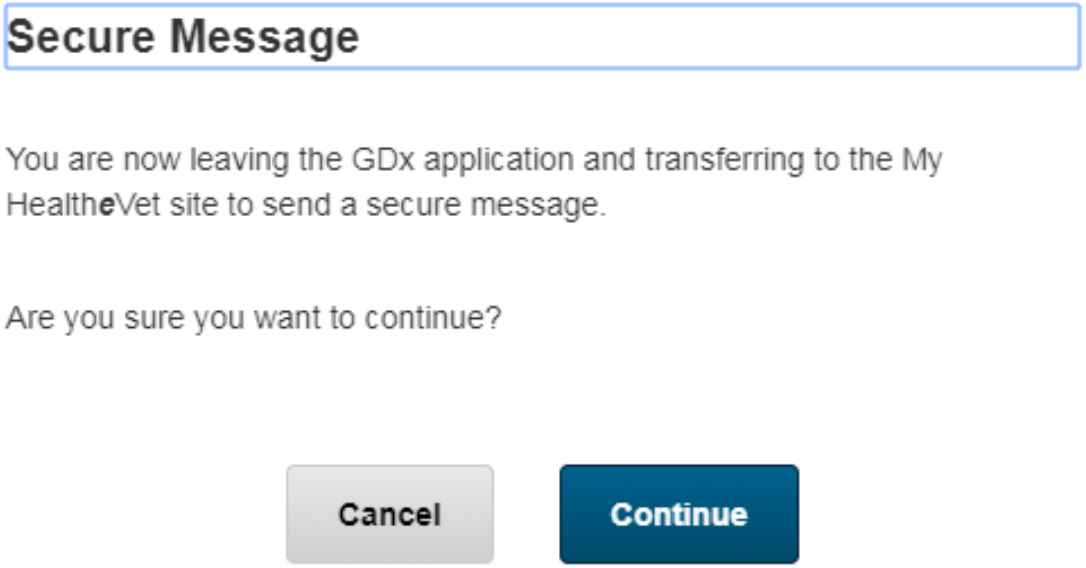
EDUCATIONAL INFORMATION (GDX APP FOR VETERANS)

Tap **Educational Information**, and browse information on genomic tests, test descriptions and treatment options. Also link to MedicinePlus.



SECURE MESSAGING (GDX APP FOR VETERANS)

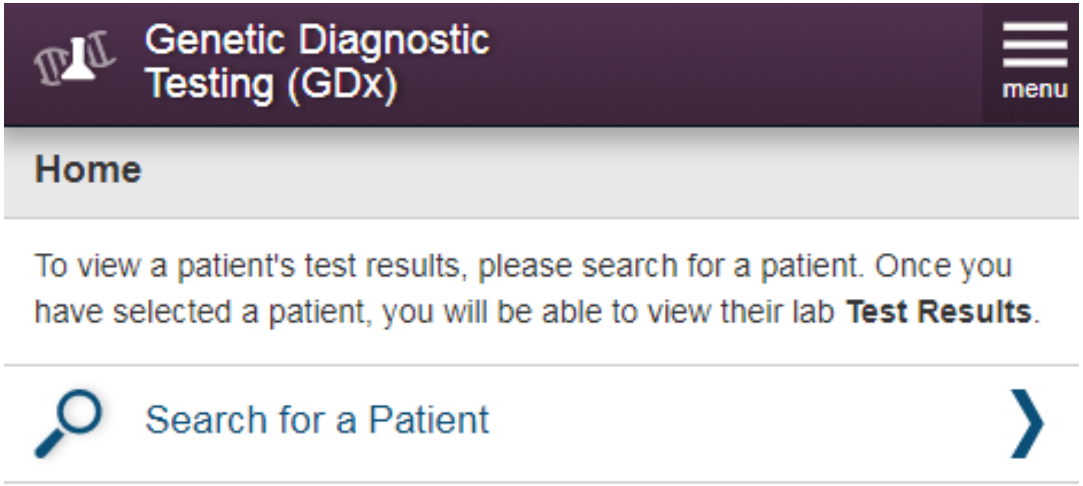
Tap **Secure Message**, and link to My Health***e***Vet where you can securely message your care team.



LOGIN (GDX APP FOR CARE TEAMS)

Enter VistA credentials and station number.

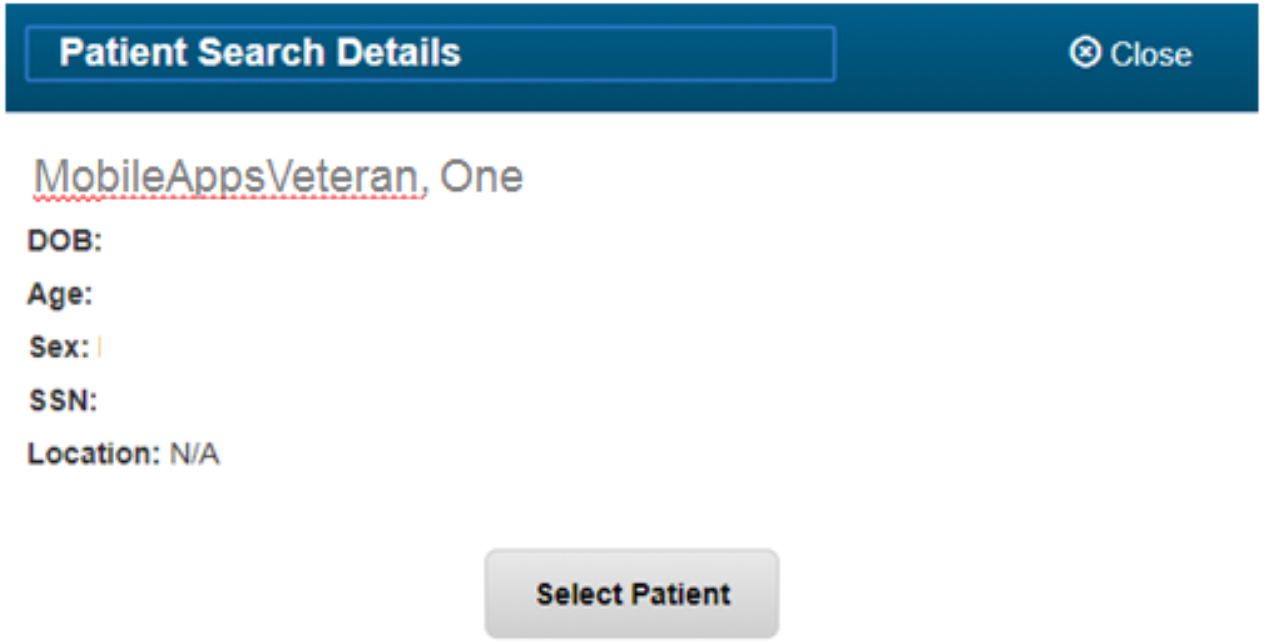
HOME SCREEN (GDX APP FOR CARE TEAMS)



Tap the blank Search Patient bar and search by:

- Full Social Security Number (SSN)
- Last name
- First and last names
- First initial of last name and last four digits of SSN

PATIENT SEARCH (GDX APP FOR CARE TEAMS)



After you find the patient you're looking for, tap **Select Patient**. You will be taken to the Test Results screen.

VIEW TEST RESULTS (GDX APP FOR CARE TEAMS)

Test Name	Date Reported	Test Result	Reference Range	LOINC Code	LOINC Description	
PTH, Intact	2017-02-08	43	15-65	2731-8	Parathyrin.intact	View Details
PROTHROMBIN W/INR + PARTIAL THROMBOPLASTIN TIMES	2017-02-08	26	22-34	14979-9	PTT	View Details
PROTHROMBIN W/INR + PARTIAL THROMBOPLASTIN TIMES	2017-02-08	10.5	9.0-11.5	5902-2	PT	View Details
PROTHROMBIN W/INR + PARTIAL THROMBOPLASTIN TIMES	2017-02-08	1.0	0.9-1.1	6301-6	INR	View Details
NB Screen Pnl Patient AHIC	2017-01-31			NBS PDF Report		View Details

- On the Test Results screen, you can:
  - View genetic and genomic test results
  - Sort tests by the name, date reported, results, reference range, Logical Observation Identifiers Names and Codes (LOINC) and LOINC Description

SEE TEST RESULT DETAILS (GDX APP FOR CARE TEAMS)

Tap **View Details** to see the test name, date reported, test status, test results, reference range and the number of abnormal flags on the test results and much more.

Test Name	Date Reported	Test Status	Test Result	Abnormal Flag
PTH, Intact	2017-02-08	Final	43 Reference Range 15-65	

Performing Lab	442 Order Number: 45-17-038-0043 Requisition Number: 03843062770
Principal Result Interpreter	
Assistant Result Interpreter	
Ordering Facility	Ordering Provider: SMITH, A
Accession / Specimen Number	45-17-038-0
Accession Date	2017-02-07
CPT Code	
LOINC Code	2731-8: Parathyrin.intact
Observation Method	
Equipment Instant Identifier	
Observation Notes Performed At: CB LabCorp Dublin 6370 Wilcox Road Dublin, OH 430161269	
Specimen / Site	Blood Collection Volume: Units: pg/mL Draw Date: 2017-02-07
Specimen Comments	

THE VA IS POSITIONED TO BE A LEADER IN DELIVERY OF PRECISION MEDICINE

- The Office of Connected Care Programs will become crucial components in delivery of precision medicine
  - The National Genomic Medicine program relies on Tele-Health technologies so that Veterans in the most remote areas have access to genetic counseling and genetic testing
  - The explosion in genetic testing requires programs such as My Health***e***Vet and VA Mobile to provider Veterans and VA clinicians with access to clinical information, education, and the ability to obtain patient reported outcomes
- Through its Million Veteran Program, the VA is a leader in discovery of novel genetic variants associated with disease.
- Investment in molecular laboratory informatics, is expanding the capacity for VA laboratories to conduct more clinical genetic tests within VA labs

THANK YOU

What future topics would you like to discuss?

Let us know by providing feedback at this link:

https://www.surveymonkey.com/r/5KHD9KT