Rijuven

Healthcare at any point of care...

CLINIC IN A BAG

A smart telemedicine solution for:

- Empowering primary healthcare
- Addressing last mile health care challenges
- Instant deployment of Satellite or Telemedicine centers at any point of care
- Health screening during Pre & Post Covid situations

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Smart Telemedicine Platform

CLINIC IN A BAG

An initiative of Rijuven for empowering primary healthcare

INTRODUCTION

Rijuven Medicare India Pvt. Ltd., a partner company of Rijuven Corp, USA., (www.Rijuven.com) established in 2012, is a team of Medical professionals, Biomedical and Software engineers involved in Research & Development, Medical devices innovation, Mobile medical and software solutions embedded with Artificial Intelligence on Cloud for Tele-medicine, m-health and Remote Patient Monitoring.

THE NEED FOR CARE EXTENSION

With worldwide increases in patient populations and lack of improvement in health status, health organizations and governments are struggling to provide adequate care and to reduce ER visits, hospitalizations and other high cost events. Health providers are exploring new ways to extend care to homes, rural and urban communities and offices.

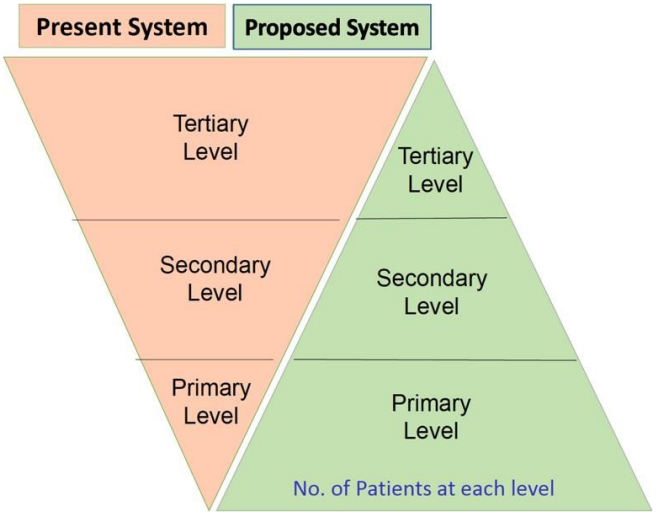
THE SOLUTION - RIJUVEN PRIMARY CARE PLATFORM

Rijuven's Primary Care Platform (CLINIC IN A BAG) provides clinicians with plug and play infrastructure to perform comprehensive medical exams at any point of care. The platform leverages the ubiquity of mobile technology, enabling clinicians to remotely diagnose patients in real time. Rijuven's cloud based EMR and telemedicine capabilities connect distributed care teams, facilitating efficient patient management and care planning from anywhere in the world. The value proposition of the proposed system vis a vis present primary healthcare system can be summarized as below:

80% OF HEALTHCARE NEEDS CAN BE MET AT PRIMARY LEVEL

Empowering Primary and Preventive healthcare will reduce disease burden on tertiary level and creates ....

A HEALTHY SOCIETY



Rijuven's CLINIC IN A BAG democratizes healthcare by improving the examination process, facilitating remote patient monitoring and assessment and increasing access to low cost, high quality care.

CARDIOSLEEVE: A RIJUVEN'S INNOVATION

Rijuven's patented and US FDA cleared stethoscope add-on device 'CardioSleeve' with Rijuven's 'CLINIC IN A BAG' is a comprehensive cloud-based health screening medical kit to examine vitals, Covid-19 screening, heart failure analysis, lung, liver, kidney, diabetes, lipid panel, and cancer screening at any point of care.

Unique features

- ✓ 3-lead ECG: Instant reports
- ✓ Digital Auscultation: Instant reports
- ✓ Murmur detection up to 180 bpm
- ✓ Identify Pathological murmurs
- ✓ Heart failure analysis: Instant reports

Patented

CLINIC IN A BAG: A CLINIC WITHOUT WALLS

HEALTH SCREENING BY CILINIC IN A BAG:

VITALS	BP, Heart rate, Blood Oxygen, Temperature, Height, Weight, BMI
Covid-19	Point of Care tests deploying ICMR Certified Antigen or Antibody kits
CARDIAC	Digital Auscultation, 3-lead ECG, Cardiac Function (Heart Failure screening), 24X7 Heart monitor (Cardiac Telemetry)
LUNG	Spirometry (Asthma, COPD, Chronic bronchitis etc.)
ENT	Otoscope
LAB WORK	Blood Glucose, Lipid Panel, Urinalysis
IMAGING	Breast Screening, Visual examination
RAPID TESTS	Troponin, Typhoid, Malaria, Dengue, Chikungunya, HIV etc., and as required

WHY CLINIC IN A BAG ...

Rijuven's 'CLINIC IN A BAG' is a comprehensive medical kit that contains Rijuven's US FDA cleared & Patented CardioSleeve, other point of care medical devices, point of care tests for Covid-19 and cloud technology… integrated to offer Primary & Preventive healthcare at any point of care:

VITALS . HEART . LUNG . LIVER . KIDNEY . LAB WORK . IMAGING . EMR

'CLINIC IN A BAG' allows for quick and cost-effective implementation of medical support services for:

- ✓ Primary care & management
- ✓ Chronic care & management
- ✓ Acute care & management
- ✓ Remote patient monitoring
- ✓ Transitional care (post-operative, etc.)
- ✓ Population health monitoring and reporting
- ✓ Large scale emergency / disaster medical support

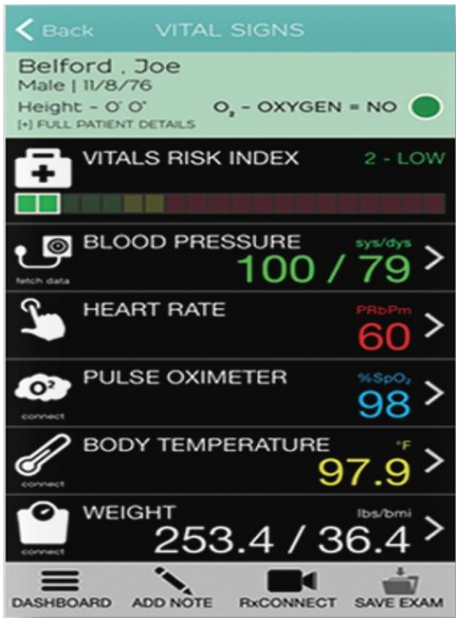
Utilising the power of Artificial Intelligence for Primary Healthcare

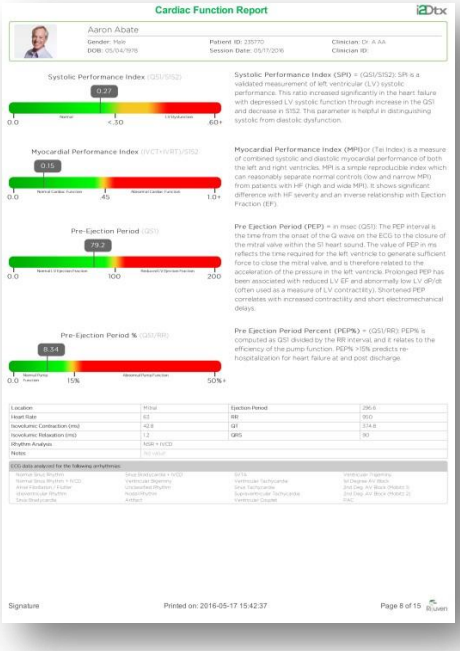
Rijuven's revolutionary SMART TELEMEDICINE is an innovative telemedicine concept that empowers Primary and Preventive Healthcare at the grassroots level with on-the-spot Covid-19 screening, health data analysis and reports, Electronic Medical Records (EMR) and Medical Intelligence.

CLINIC IN A BAG generates instant reports with health data analysis and color coding. This helps any kind of healthcare professional to understand patient's health status on-the-spot for a quick medical decision and treatment.

Healthcare Professionals authorized to login Rijuven-Doctor's portal can review Patient's digital health reports securely and can make a diagnostic decision remotely.

Report samples generated by 'CLINIC IN A BAG' are attached as Annexure-1.





CLINIC IN A BAG: ROLE IN COVID -19 MANAGEMENT

To ensure continuity of care to the existing patients and also address clinical needs of the new patients; effectively, efficiently, with emphasis on timely intervention, RIJUVEN is privileged to propose an integrated "Tailored Tele-Medicine Program". This program complements the services of Ministry of Health & Family Welfare and other relevant agencies of the Government as a structured program / service in their portfolio.

A tailor-made Tele-medicine Program can effectively answer the following challenges in this model:

- A Medic can capture all key clinical parameters of Patients and set-up a video consultation with Doctors when needed
- Patient can connect with Doctor from comfort of his community /PHCs without a need to travel
- All past reports / prescriptions / clinical data can be shared by patients
- Lowering visits to hospital can reduce cost of care / treatment
- Globally validated Platform, encrypted & secured for Asynchronous / Synchronous consultation
- Tele - consultation at fraction of price, from Doctor in same Hospital
- With checks and balances, audit mechanisms are in place to measure the outcome or impact

- High percentage of patients return back for second Tele-consultation
- Patients can remotely connect with a specialist and share all clinical parameters for quality treatment

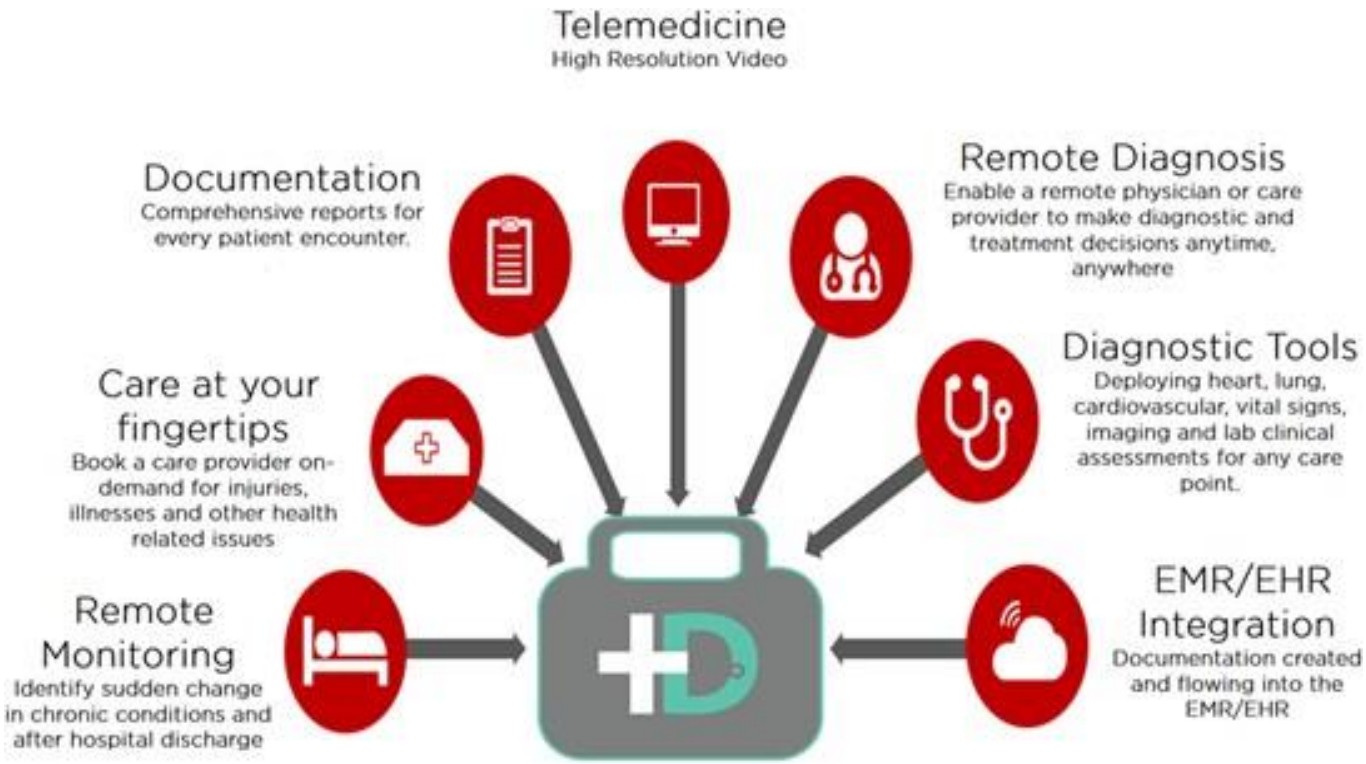
CLINIC IN A BAG: ROLE IN HEALTH SCREENING FOR NCDs DURING COVID

It is a challenge to manage COVID-19 and continuing care for noncommunicable diseases (NCDs) during the outbreak.

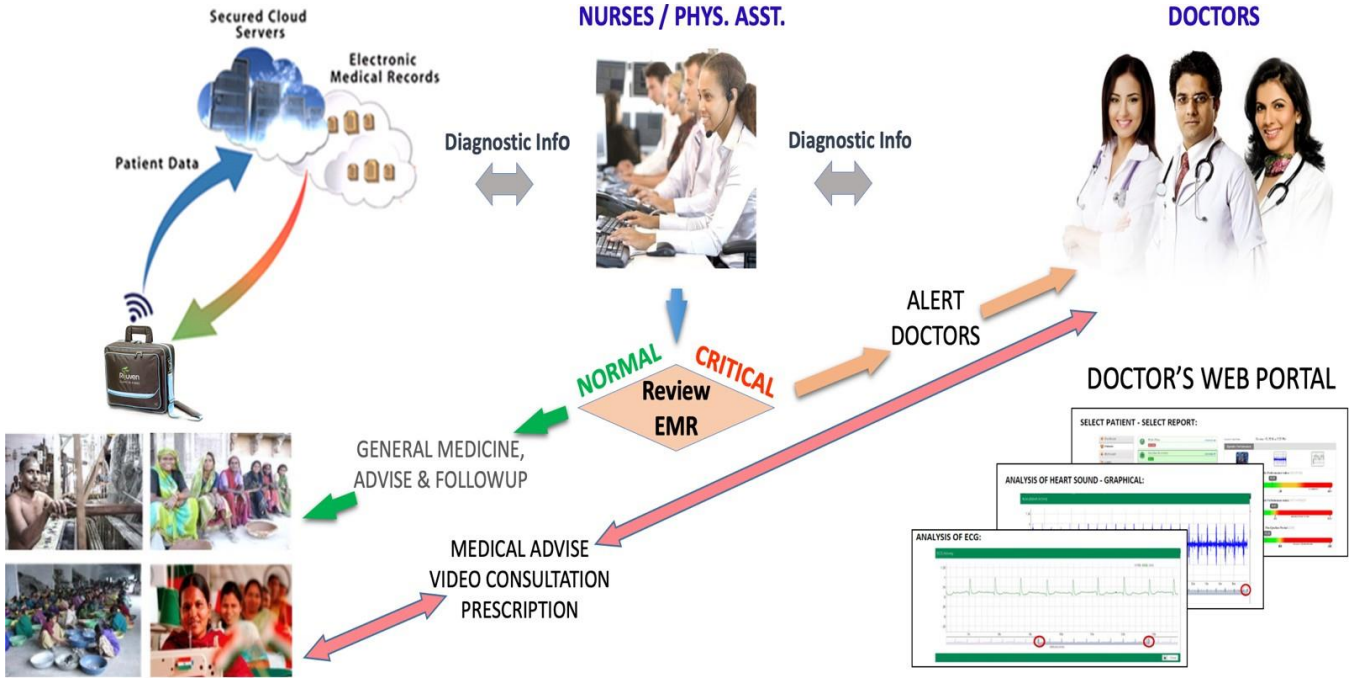
When there is widespread community transmission of COVID-19, provision of services to individuals with NCDs must be weighed against the risk of their exposure to coronavirus. WHO recommends continuation of essential health services with focus on the care of individuals with NCDs. For people living with NCDs, the impact of Covid-19 includes disruptions in access to health services at a critical time, given their higher risk for Covid-19 as well as need for continuous care to manage their condition.

To control Covid-19 effectively it is obvious to manage health of NCD population effectively and safely to prevent Covid-19 disease spread to the people living with NCDs, their caregivers and ultimately the public and healthcare professionals.

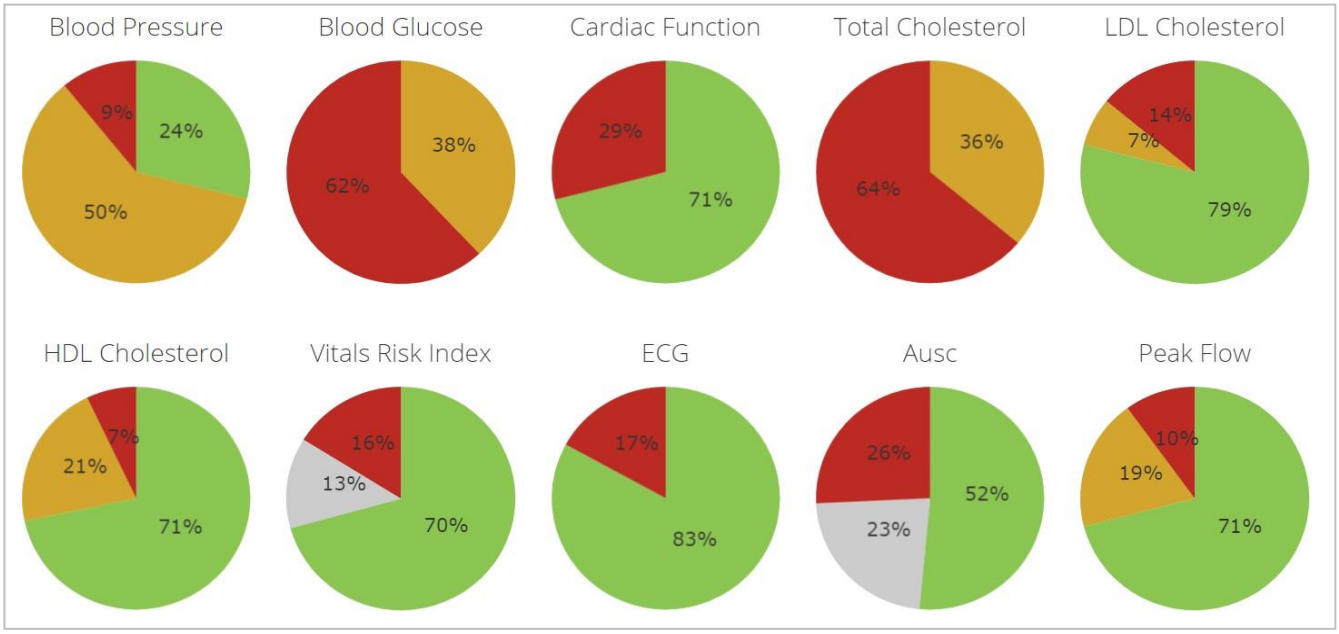
'CLINIC IN A BAG' plays a crucial role in safe management of health check-ups of regular populace and especially populace with chronic NCD at their doorstep to avoid their exposure to Covid environment.



STREAMLINED HEALTHCARE DELIVERY MODEL



HEALTH STATISTICS: To identify critical patients & health statistics of a group



PATIENT REPORTS: Patients reports showing abnormalities at surface level

Reviewed	Patient	Alerts
✓	**Name:** Rajagopal Reddy kasireddy **ID:** 1234	PEP: 170.67 · VRI: 10 · BP: 221/102 · ECG: SVC · HR: 94 · Ausc: Undetermined
✓	**Name:** AA BB **ID:** AA_BB_1234	SPO2: Abnormal · PEF: 2.36 · ECG: PVC · FVC: 1.94 · Ausc: Normal · FEV1%: 90.0
✓	**Name:** dasaratha ramayya bitra **ID:** 1235	VRI: 10 · BP: 169/94 · ECG: SinTachy + IVCD · HR: 119 · PEP: 0 · Ausc: Undetermined
✓	**Name:** Sanju Ju **ID:** 140108220	BP: 165/93 · Ausc: Pathological · ECG: SinTachy + IVCD · HR: 113 · VRI: 0
✓	**Name:** Madhu Nambiar **ID:** aqw	VRI: 10 · BP: 163/89 · Ausc: Pathological · PEP: 103.33 · HR: 59 · ECG: NSR+IVCD

CLINIC IN A BAG: BENEFITS TO STAKEHOLDERS

Rijuven's advanced SMART TELEMEDICINE concept democratizes healthcare by improving the examination process, facilitating remote patient monitoring and assessment and increasing access to low cost, high quality care. SMART TELEMEDICINE benefits all stakeholders and help

BENEFITS TO THE COMMON MAN

- ✓ Healthcare at the doorsteps of the rural masses living in remote areas
- ✓ Reduced visits to specialty hospitals for long term follow-up for the aged and terminally ill patients.
- ✓ Close and regular monitoring of individual's health creates a healthy society & increases productivity

BENEFITS TO THE MEDICAL PROFESSIONALS

- ✓ Easy to use, treat & monitor patients remotely
- ✓ Reduce burden and save medical professionals time
- ✓ Instant reports with analysis improve better diagnosis and decision making
- ✓ Patient history and trend analysis helps in quick and timely follow-up of patients

BENEFITS TO THE HOSPITALS

- ✓ Significant reduction in unnecessary visits & hospitalization for specialized care at tertiary hospitals
- ✓ Earlier discharge of patients leading to shorter length of stay in hospitals
- ✓ Increase in the scope of services without creating physical infrastructure in remote hospitals

BENEFITS TO THE GOVERNMENT

- ✓ Medical facilities to the doorsteps of a common man elevates community morale
- ✓ Development of rural facilities can hold migration of rural population to urban areas
- ✓ Boosts healthcare accessibility, Conducive working conditions, Suitable physical environment for growth and personal health for productivity in the social spectrum as well as the economic spheres.
- ✓ PHMI (Public Health Medical Intelligence) at fingertips for effective preventive care, disease epidemic mitigation, Medical supplies distribution and negotiation with Insurance companies.
- ✓ Centralized management of all public EMR (Electronic Medical records)
- ✓ Decentralized healthcare management

SCOPE FOR COLLABORATION:

Clinic in a Bag can be used as a potential tele-medicine product for providing quality healthcare to the underserved and residents of difficult to reach topographies. Some of the key departments and agencies working in development sector who can utilize the solution is as below:

✓ ***Health and Family Welfare*** o *Primary Health Centers* o *Covid Management Cells* o *Door to door Health Screening* o *NCD Camps* o *Maternal Health*	✓ ***Panchayti Raj & Rural Development*** o *Screening of women Self Help Groups* o *Village level Health Screenings* o *Vulnerable sections (safai karamchari, mining & other hazardous industries)*
✓ ***Social Justice & Empowerment*** o *Backward areas* o *Tribal areas* o *Elderly & specially abled population*	✓ **Defence & Security** o Troops deployed at border and remote locations o Disaster management o Relief operations
✓ ***CSR initiatives***	✓ **Labour Welfare**

ACCREDITATIONS:

RECOGNITIONS & AWARDS

FINALIST AMONG 200 COMPANIES
"PHILIPS INNOVATION CHALLENGE 2016"

Annexure - 1

Health Summary Report

July 22, 2019

DOB: xx/xx/xxxx

Rijuven

Vitals
Auscultation
3-Lead ECG
Cardiac Function
Spirometry
Blood Glucose
Lipid Panel
Urinalysis
Ear Exam
Breast Screening

Patient Vitals Report

Gender: Female
DOB:

Patient ID:
Session Date: 07/22/2019

Clinician:
Clinician ID:

Vitals Risk Index: - Good

2

On Oxygen: N/A

Level of Consciousness: Alert, No Pain

Blood Pressure

128/85 Sys/Dys

Sys/Dys				
	-	-	-	-
	-	-	-	-

Heart Rate

84 PRbpm

BPM				
	-	-	-	-
	-	-	-	-

Pulse Oximetry

99 %SpO_2

%SpO_2				
	-	-	-	-
	-	-	-	-

Temperature

97.79 ^{o}F

^{o}F				
	-	-	-	-
	-	-	-	-

Height

60.00 inches

inches				
	-	-	-	-
	-	-	-	-

Weight

109.13 lbs.

lbs.				
	-	-	-	-
	-	-	-	-

BMI

21.3

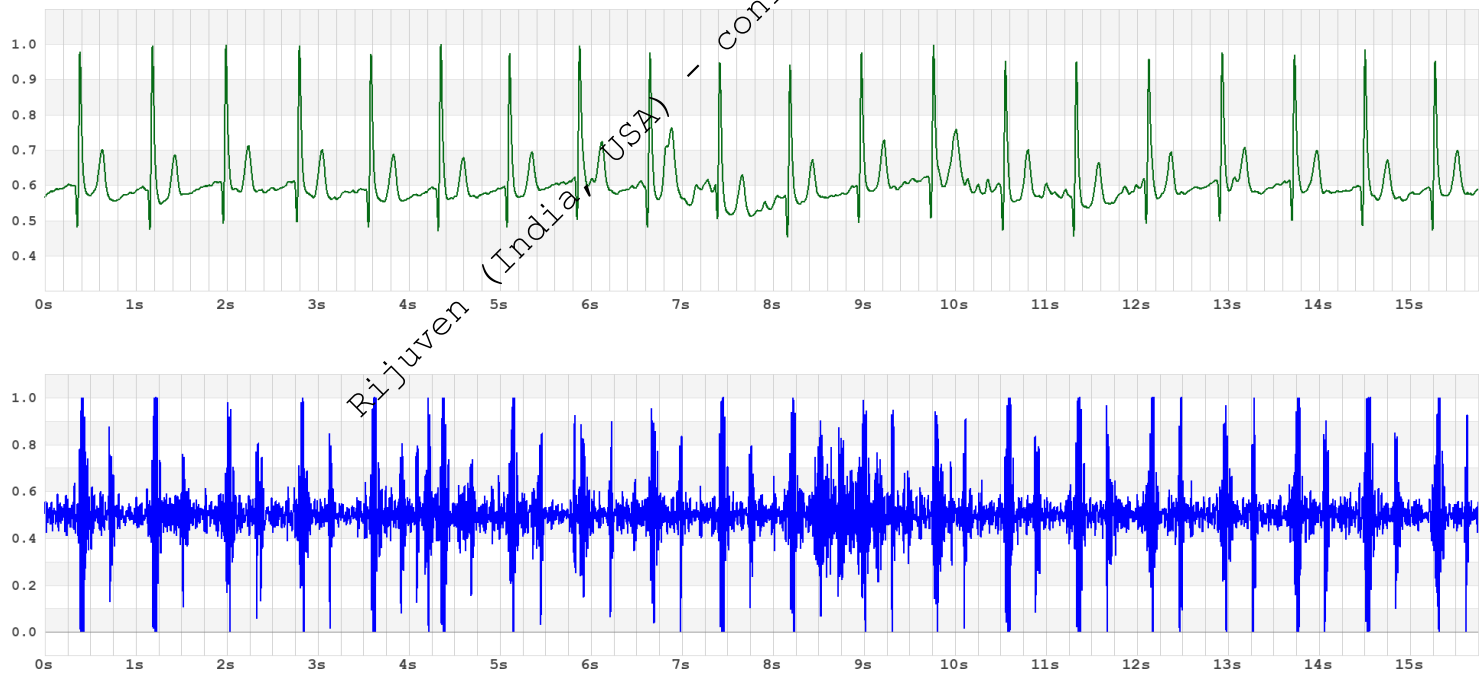
	-	-	-	-
	-	-	-	-

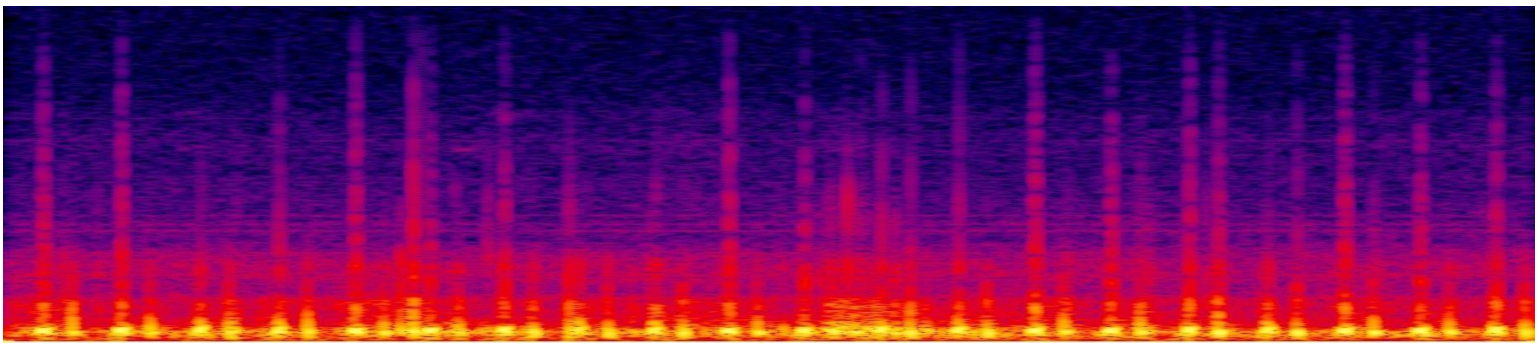
Patient Auscultation Report

Gender: Female	Patient ID:	Clinician:
DOB:	Session Date: 07/22/2019	Clinician ID:

Aortic

Murmur Analysis	Normal (87% confidence)	Posture	supine
Heart Rate (bpm)	76	QTc interval	423
Systole (ms)	239	Diastole (ms)	407
RR interval	783.65 ± 19.37	PR interval	*No value*
QRS interval	106	QT interval	390
Rhythm Analysis	SINUS RHYTHM		
Notes	*No value*		





ECG data analyzed for the following arrhythmias:

Patient Auscultation Report

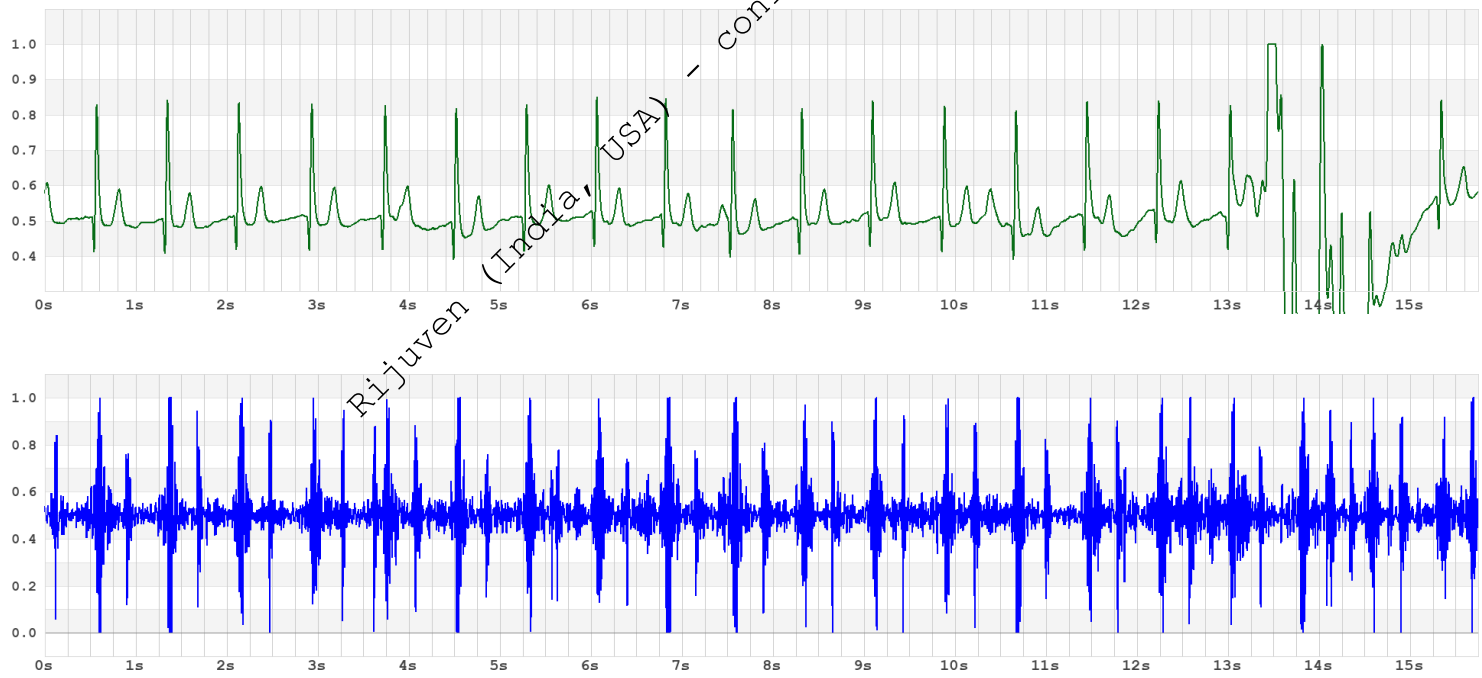
Gender: Female
DOB:

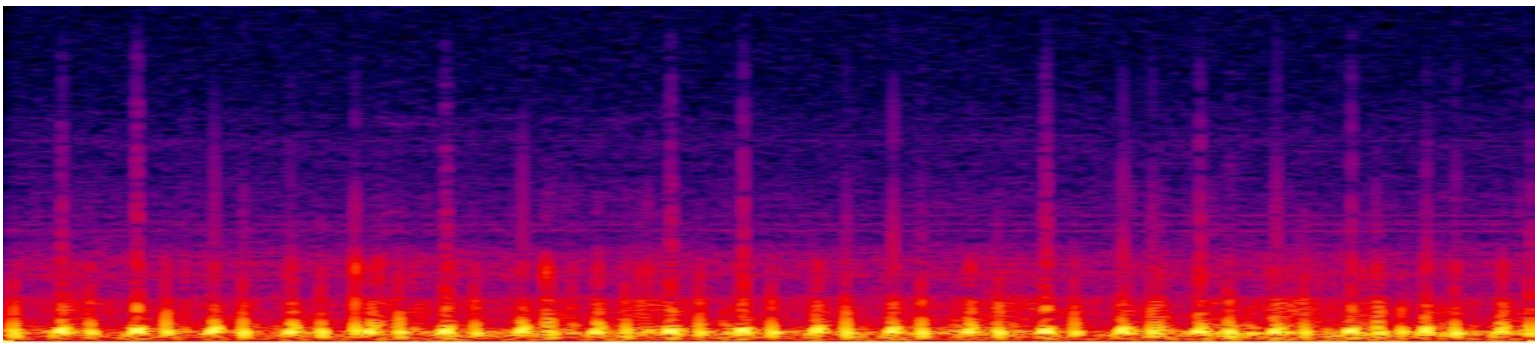
Patient ID:
Session Date: 07/22/2019

Clinician:
Clinician ID:

Pulmonary

Murmur Analysis	Pathological (89% confidence)	Posture	supine
Heart Rate (bpm)	77	QTc interval	414
Systole (ms)	247	Diastole (ms)	404
RR interval	782.38 ± 14.29	PR interval	*No value*
QRS interval	106	QT interval	380
Rhythm Analysis	SINUS RHYTHM		
Notes	*No value*		





ECG data analyzed for the following arrhythmias:

Patient Auscultation Report

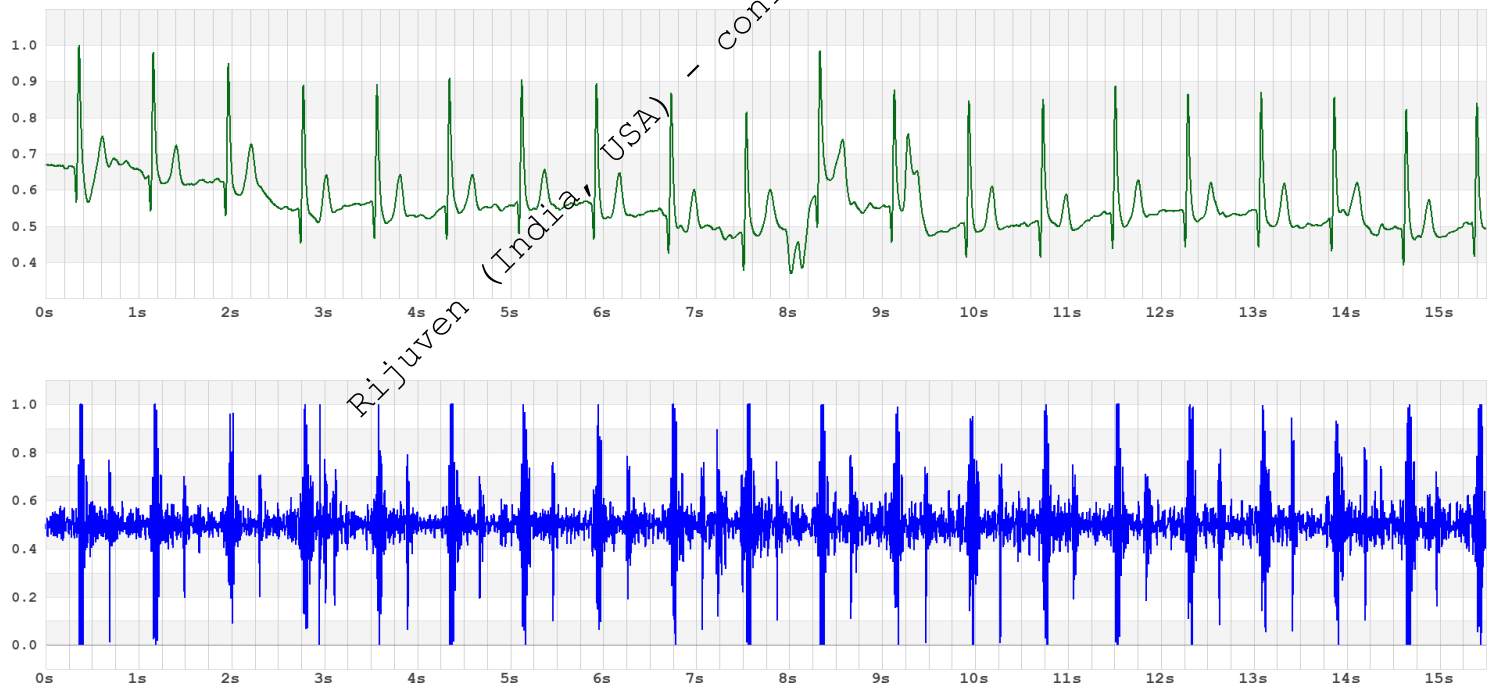
Gender: Female
DOB:

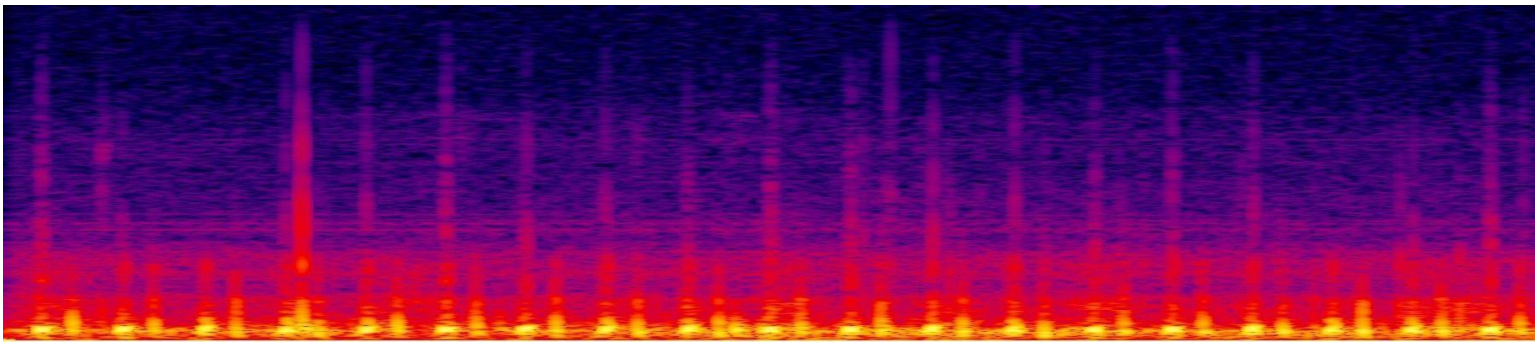
Patient ID:
Session Date: 07/22/2019

Clinician:
Clinician ID:

Tricuspid

Murmur Analysis	Pathological (74% confidence)	Posture	supine
Heart Rate (bpm)	75	QTc interval	421
Systole (ms)	245	Diastole (ms)	418
RR interval	792.79 ± 13.34	PR interval	*No value*
QRS interval	106	QT interval	390
Rhythm Analysis	SINUS RHYTHM		
Notes	*No value*		





ECG data analyzed for the following arrhythmias:

Patient Auscultation Report

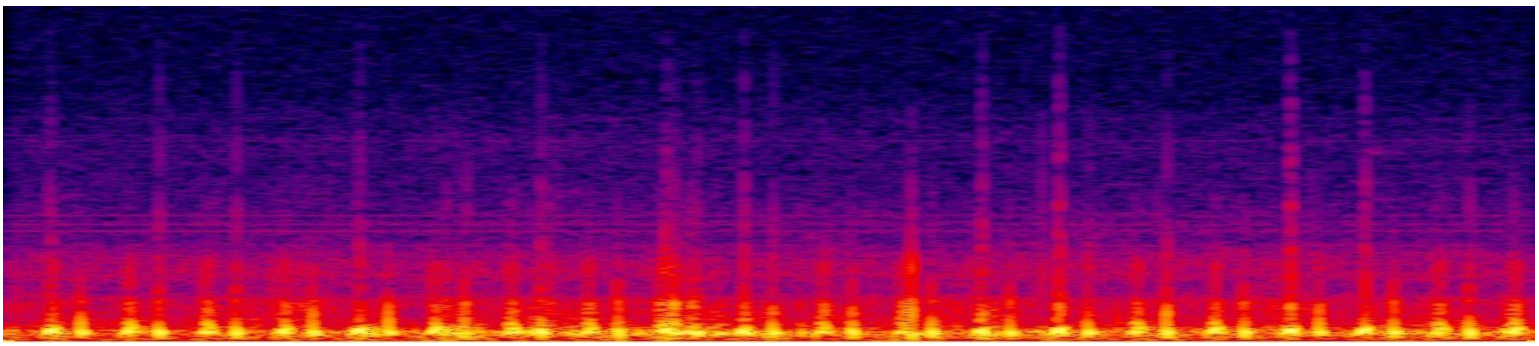
Gender: Female
DOB:

Patient ID:
Session Date: 07/22/2019

Clinician:
Clinician ID:

Mitral

Murmur Analysis	Normal (86% confidence)	Posture	supine
Heart Rate (bpm)	62	QTc interval	405
Systole (ms)	237	Diastole (ms)	415
RR interval	794.73 ± 21.75	PR interval	*No value*
QRS interval	106	QT interval	400
Rhythm Analysis	SINUS RHYTHM		
Notes	*No value*		



ECG data analyzed for the following arrhythmias:

Patient ECG Report

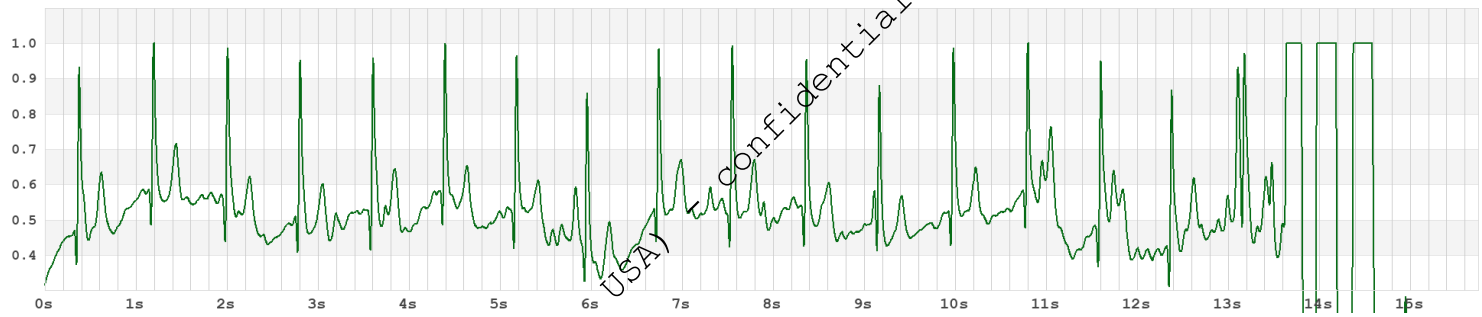
Gender: Female
DOB:

Patient ID:
Session Date: 07/22/2019

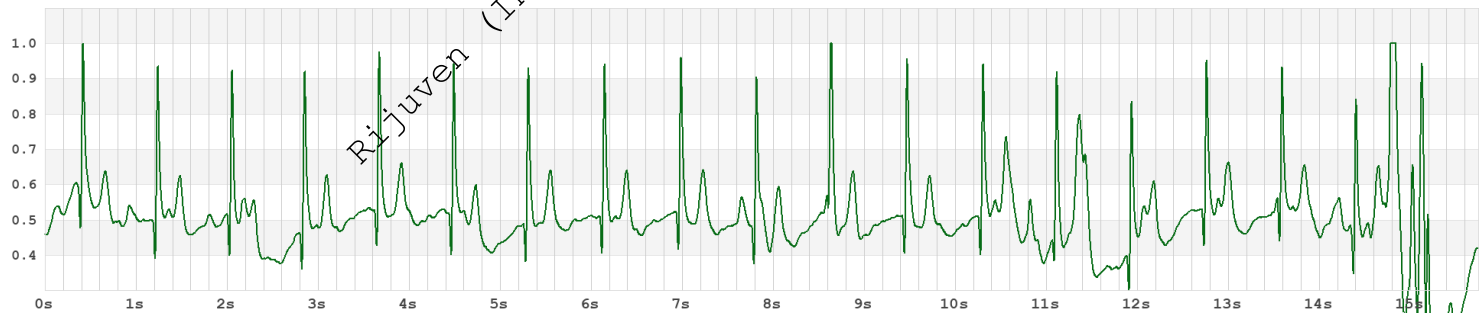
Clinician:
Clinician ID:

HR (bpm)	RR Int. (ms)	PR Int. (ms)	QRS Int. (ms)	QT Int. (ms)	QTc (ms)
76	788	250	170	422	457
Rhythm Analysis: NSR+IVCD (NSR + IVCD @ 0.8s , ARTIFACT @ 3.3s)					
Notes	*No value*				

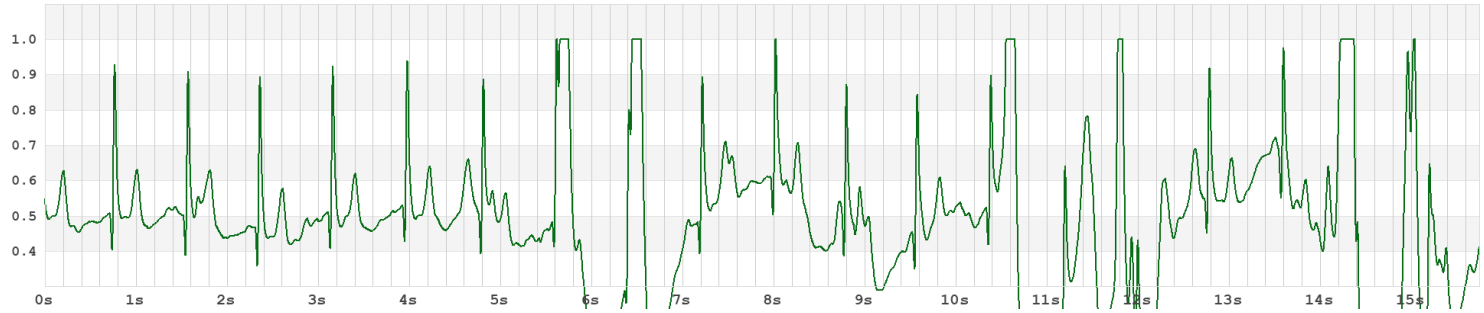
Lead 2



Lead 3



Lead 1

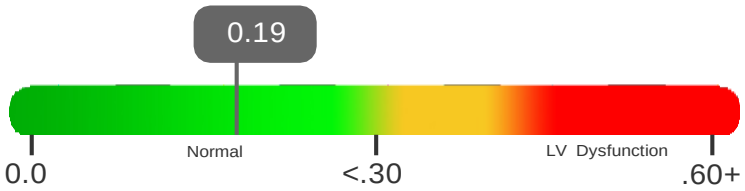


ECG data analyzed for the following arrhythmias:

Cardiac Function Report

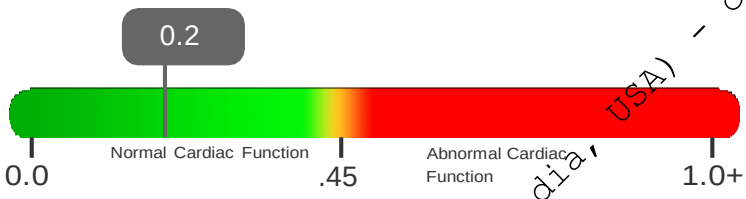
Gender:	Patient ID:	Clinician: Dr.
DOB:	Session Date: 07/22/2019	Clinician ID:

Systolic Performance Index (QS1/S1S2)



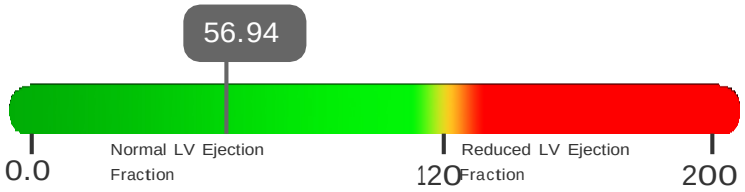
Systolic Performance Index (SPI) = (QS1/S1S2): SPI is a validated measurement of left ventricular (LV) systolic performance. This ratio increased significantly in the heart failure with depressed LV systolic function through increase in the QS1 and decrease in S1S2. This parameter is helpful in distinguishing systolic from diastolic dysfunction.

Myocardial Performance Index (IVCT+IVRT)/S1S2



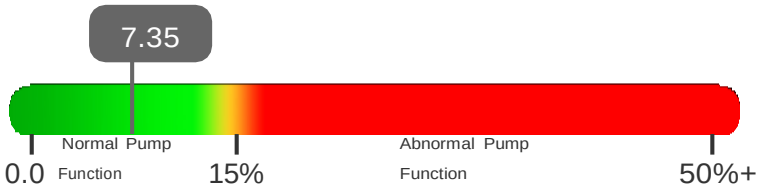
Myocardial Performance Index (MPI) or (Tei Index) is a measure of combined systolic and diastolic myocardial performance of both the left and right ventricles. MPI is a simple reproducible index which can reasonably separate normal controls (low and narrow MPI) from patients with HF (high and wide MPI). It shows significant difference with HF severity and an inverse relationship with Ejection Fraction (EF).

Pre-Ejection Period (QS1)



Pre-Ejection Period (PEP) = in msec (QS1): The PEP interval is the time from the onset of the Q wave on the ECG to the closure of the mitral valve within the S1 heart sound. The value of PEP in ms reflects the time required for the left ventricle to generate sufficient force to close the mitral valve, and is therefore related to the acceleration of the pressure in the left ventricle. Prolonged PEP has been associated with reduced LV EF and abnormally low LV dP/dt (often used as a measure of LV contractility). Shortened PEP correlates with increased contractility and short electromechanical delays.

Pre-Ejection Period % (QS1/RR)



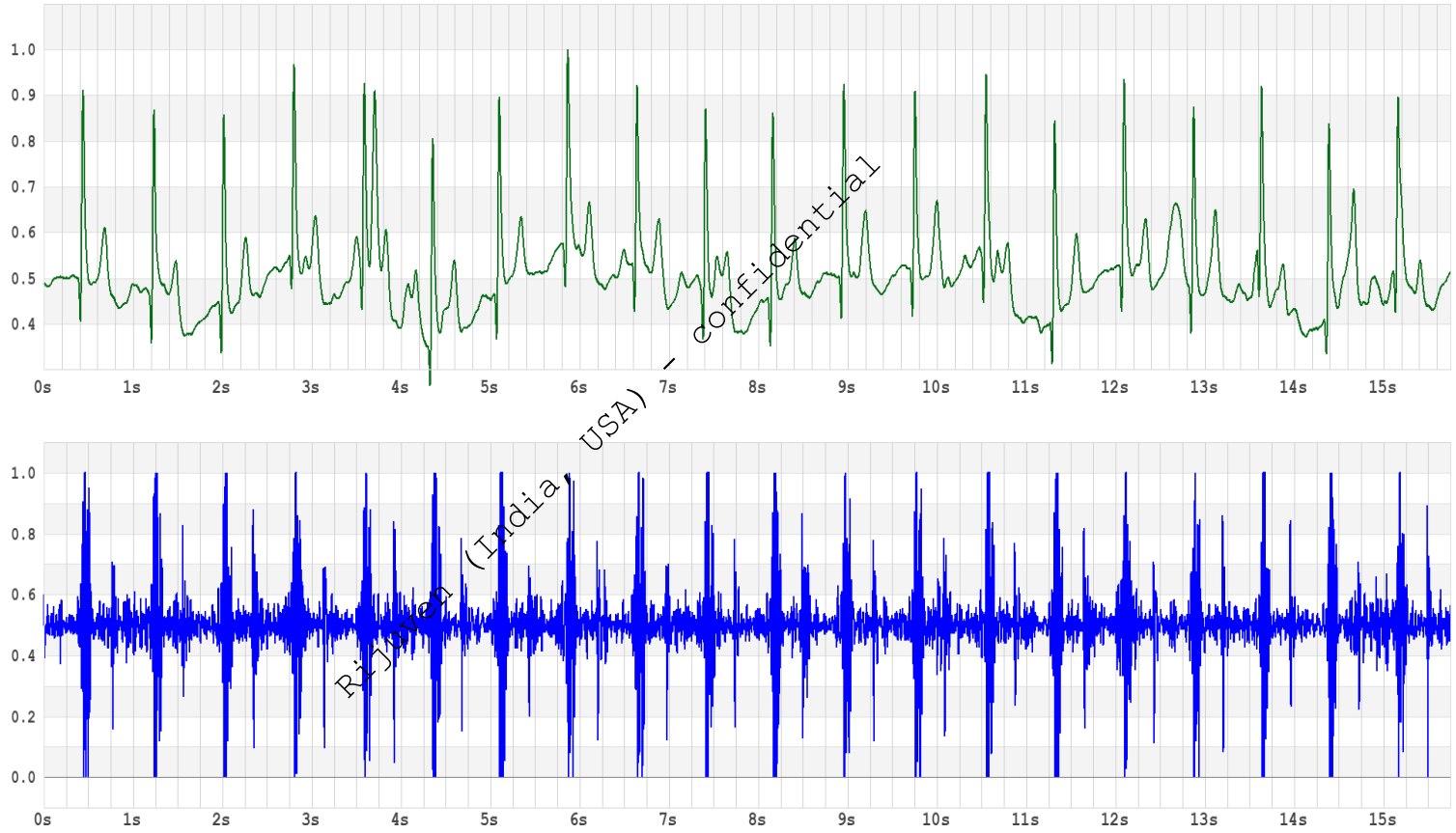
Pre Ejection Period Percent (PEP%) = (QS1/RR): PEP% is computed as QS1 divided by the RR interval, and it relates to the efficiency of the pump function. PEP% >15% predicts re-hospitalization for heart failure at and post discharge.

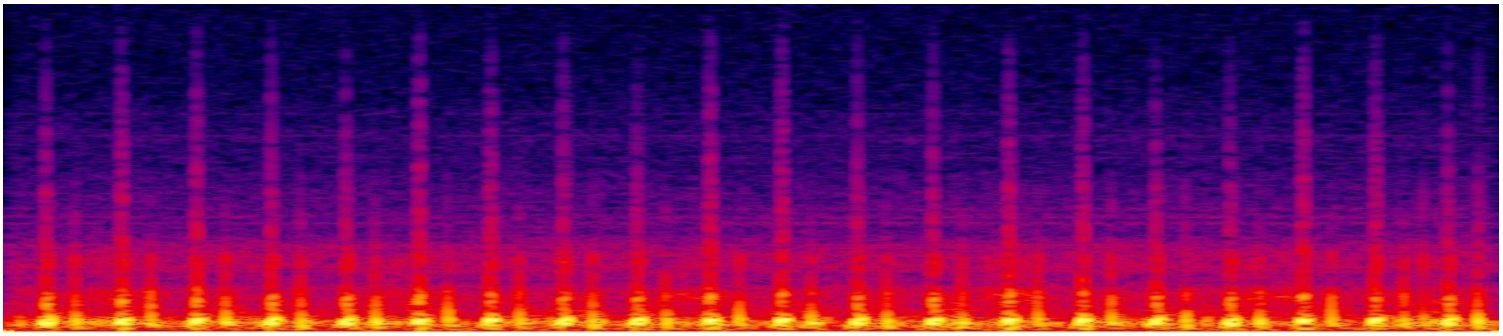
Location	Mitral	Ejection Period	305.51
Heart Rate	77	RR	774.25

Cardiac Function Report

Gender:	Patient ID:	Clinician: Dr.
DOB:	Session Date: 07/22/2019	Clinician ID:

Cardiac Function - Mitral Waveform





Patient Spirometry Report

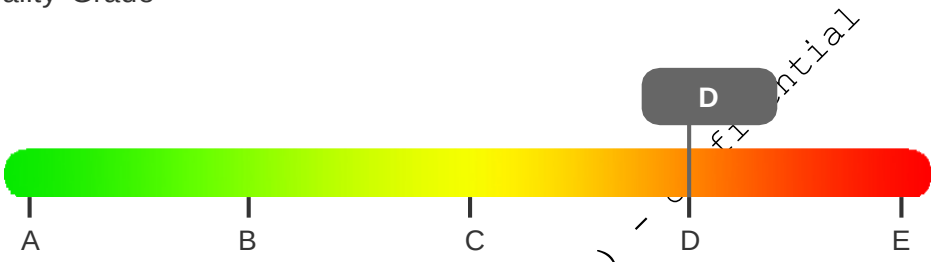
Gender:	Patient ID:	Clinician:
DOB:	Session Date:	Clinician ID:

Exam Details

Peak Flow

Height 60.00

Quality Grade



Flow Volume Loop

Parameters	Predicted	Actual	% Predicted
FVC (L)	4.57	4.58	100
FEV1 (L)	3.73	3.86	103
FVC1% (L)	0.0	84.0	0
PEF (L/s)	10.42	9.83	94

Test Notes

Patient Blood Glucose Report

Gender:	Patient ID:	Clinician:
DOB:	Session Date:	Clinician ID:

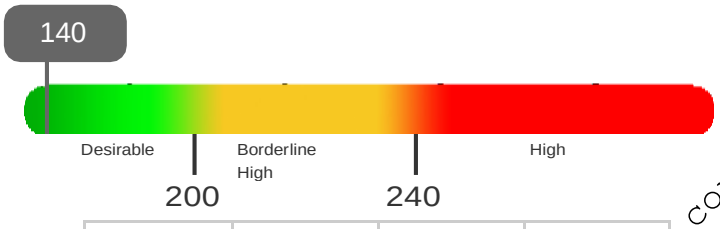
126 mg/dl

mg/dl	-	-	-	-
	-	-	-	-
Type	Post meal	-	-	-

Patient Lipid Panel Report

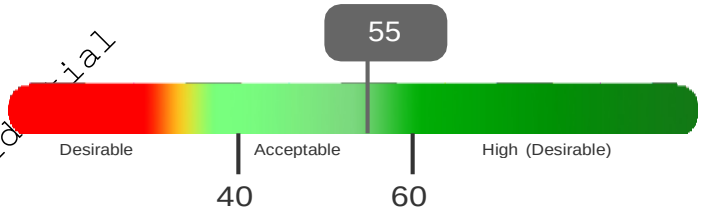
Gender:
DOB:
Patient ID:
Session Date: 07/22/2019
Clinician: Dr.
Clinician ID:

Total Cholesterol



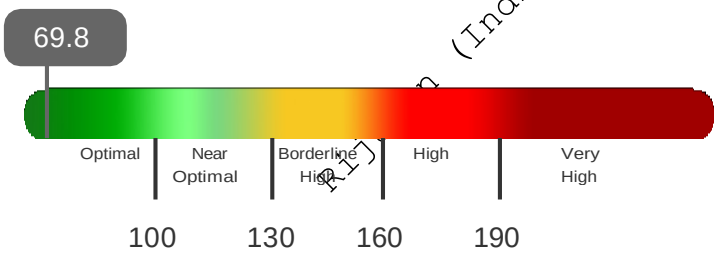
mg/dl				
	-	-	-	-
	-	-	-	-

HDL



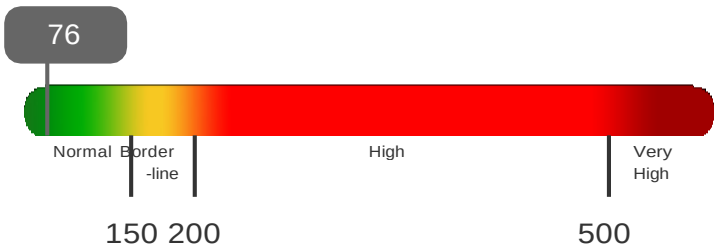
mg/dl				
	-	-	-	-
	-	-	-	-

LDL



mg/dl				
	-	-	-	-
	-	-	-	-

Triglycerides



mg/dl				
	-	-	-	-
	-	-	-	-

Glucose

126 mg/dl

mg/dl				
	-	-	-	-
	-	-	-	-

Non-HDL

85 mg/dl

mg/dl					
	-	-		-	-
	-	-		-	-

Total Cholesterol / HDL Ratio

2.55
(Post Meal)

LDL/HDL Ratio

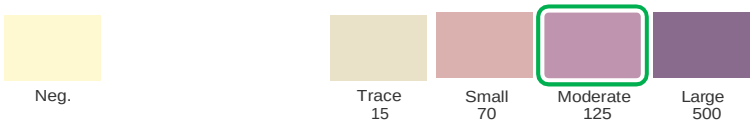
1.27
(Post Meal)

	-	-	-	-
	-	-	-	-

Patient Urinalysis Report

Gender:
DOB:
Patient ID:
Session Date: 07/22/2019
Clinician: Dr.
Clinician ID:

Leukocytes Moderate 125 cacells/µl



Nitrite

If either nitrites or leukocyte esterase - a product of white blood cells - is detected in your urine, it may be a sign of a urinary tract infection.

Urobilino 64++ µmol/l

A small amount of urobilinogen is normally found in urine, but significant amounts suggest that further assessment for red blood cell breakdown or liver disease is indicated

Protein 3.0+++ g/l

Low levels of protein in urine are normal. Small increases in protein in urine usually aren't a cause for concern, but larger amounts may indicate a kidney problem.

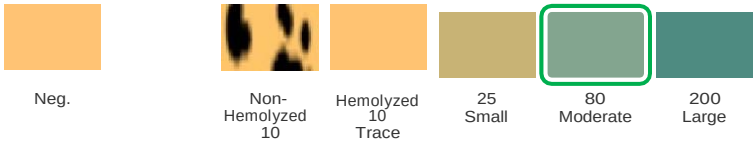
pH 7.0

The pH level indicates the amount of acid in urine. Abnormal pH levels may indicate a kidney or urinary tract disorder.

Patient Urinalysis Report

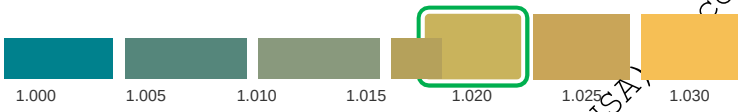
Gender:
DOB:
Patient ID:
Session Date: 07/22/2019
Clinician:
Clinician ID:

Blood 80 Moderate cacells/µl



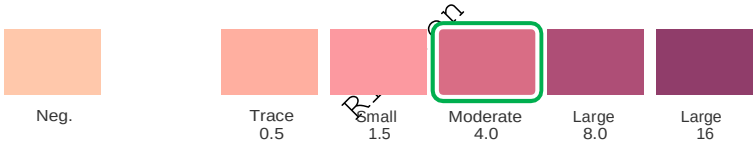
Blood in your urine requires additional testing — it may be a sign of kidney damage, infection, kidney or bladder stones, kidney or bladder cancer, or blood disorders.

Specific Gravity 1.020



A measure of concentration, or specific gravity, shows how concentrated particles are in your urine. Higher than normal concentration often is a result of not drinking enough fluids.

Ketone Moderate 4.0

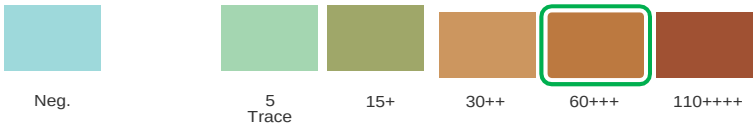


As with sugar, any amount of ketones detected in your urine could be a sign of diabetes and requires follow-up testing.

Bilirubin Large 100 µmol/l

Bilirubin is a product of red blood cell breakdown. Normally, bilirubin is carried in the blood and passes into your liver, where it's removed and becomes part of bile. Bilirubin in your urine may indicate liver damage or disease.

Glucose 60+++ mmol/l



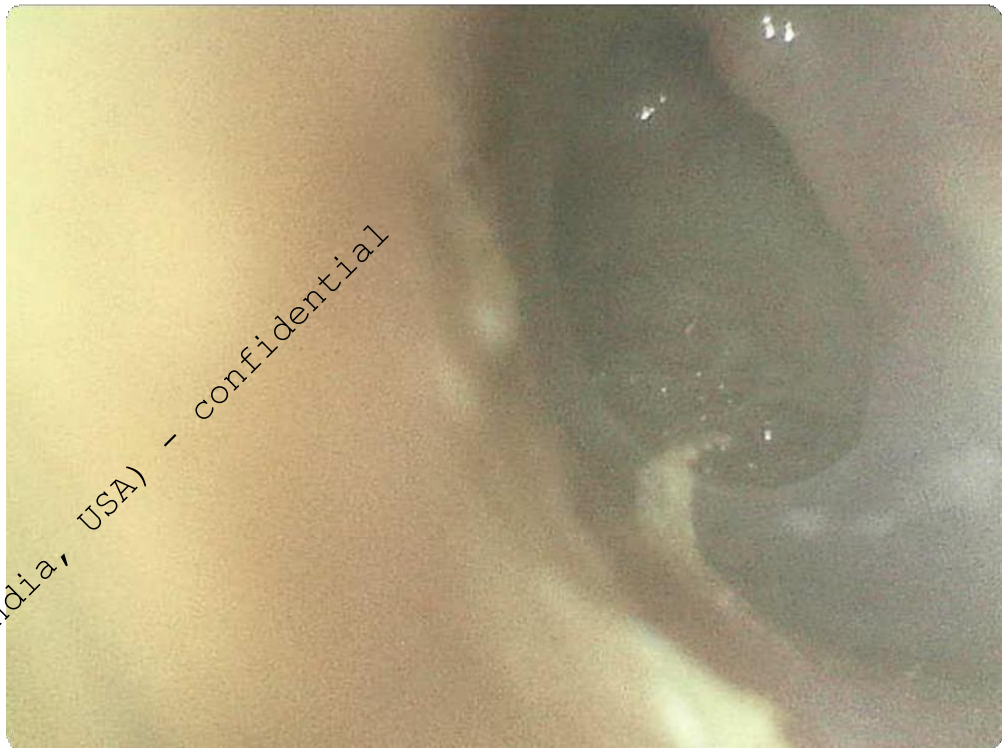
Normally the amount of sugar (glucose) in urine is too low to be detected. Any detection of sugar on this test usually calls for follow-up testing for diabetes.

Notes

Patient Visual Exam Report

Gender:	Patient ID:	Clinician: Dr.
DOB:	Session Date: 07/22/2019	Clinician ID:

Date: July 22, 2019
Notes: Left ear



Date: July 22, 2019
Notes: Right ear

Patient Visual Exam Report

Gender:	Patient ID:	Clinician: Dr.
DOB:	Session Date: 07/22/2019	Clinician ID:

Date: July 22, 2019
Notes: Right-normal breast with veins

Date: July 22, 2019
Notes: Left-normal breast with veins