



MEIYU HEALTH CENTER

## HEALTH EXAMINATION REPORT

### Personal Information

Name	DEMO-005
I.D. Number	DEMO-005
Gender	Male
Date of Birth	1959/07/10
Age	64
Date of Exam	2024/05/19
Exam Package	Customized Package

Physician \_\_\_\_\_

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## Summary & Suggestions

### 01. Diagnosis :

Impression: Mild obesity

Evidence-Based on: BMI of 28.1 kg/m<sup>2</sup>, Body weight of 78.90 kg, Body fat percentage of 24.30%, Waist circumference of 92 cm

Interpretations and Suggestions: Mild obesity is associated with a higher risk of several chronic diseases. It is important to aim for a slow and steady weight loss through a balanced diet and regular physical activity. Consider consulting a nutritionist for personalized dietary advice.

### 02. Diagnosis :

Impression: Stage 1 Hypertension

Evidence-Based on: Systolic blood pressure of 143 mmHg, Diastolic blood pressure of 91 mmHg

Interpretations and Suggestions: Stage 1 hypertension increases the risk of cardiovascular diseases. Limiting salt intake, maintaining a healthy weight, and regular monitoring of blood pressure are crucial. Discuss with your doctor whether medication might be needed to control your blood pressure.

### 03. Diagnosis :

Impression: Beta-Thalassemia Minor

Evidence-Based on: RBC of  $6.8 \times 10^6/\mu\text{L}$ , MCV of 63.8 fl, MCH of 18.5 pg/cell

Interpretations and Suggestions: Beta-thalassemia minor often doesn't require treatment but monitoring for possible anemia symptoms is recommended. Avoid routine iron supplements without evidence of iron deficiency.

### 04. Diagnosis :

Impression: Eosinophilia

Evidence-Based on: Eosinophils at 9.30%

Interpretations and Suggestions: Eosinophilia can indicate allergic reactions, parasitic infections, or other causes. It is advisable to see an allergist or immunologist for further evaluation and possible allergy testing.

### 05. Diagnosis :

Impression: Indirect hyperbilirubinemia

Evidence-Based on: Total Bilirubin at 1.8 mg/dL, Indirect Bilirubin at 1.5 mg/dL

Interpretations and Suggestions: Further evaluation is necessary to determine the cause of

elevated bilirubin. Possibilities include Gilbert's syndrome, hemolysis, or liver dysfunction. Consultation with a hepatologist may be beneficial.

06. Diagnosis :

Impression: Prediabetes

Evidence-Based on: Glucose AC of 104 mg/dL, HbA1C of 6.2%

Interpretations and Suggestions: Prediabetes indicates a high risk of developing diabetes.

Lifestyle modifications including diet and exercise are crucial. Regular follow-up with glucose and HbA1c testing every 6 months is recommended.

07. Diagnosis :

Impression: Hyperlipidemia

Evidence-Based on: Total Cholesterol of 227 mg/dL, LDL-C of 150 mg/dL

Interpretations and Suggestions: Elevated cholesterol increases the risk of cardiovascular disease. Dietary changes, weight management, and possibly lipid-lowering medication after discussing with your healthcare provider are recommended.

08. Diagnosis :

Impression: Increased risk for atherosclerosis

Evidence-Based on: T-Chol/HDL-Chol ratio of 5.2

Interpretations and Suggestions: To reduce the risk of atherosclerosis, focus on lifestyle modifications such as increasing physical activity, quitting smoking if applicable, and managing dietary fat intake. Regular monitoring of lipid profile is essential.

09. Diagnosis :

Impression: Hyperuricemia

Evidence-Based on: Uric acid level of 9.6 mg/dL

Interpretations and Suggestions: High uric acid levels can lead to gout and kidney stones.

Limit intake of high-purine foods and alcohol. Adequate hydration and follow-up blood tests are suggested.

10. Diagnosis :

Impression: Hyperthyroidism

Evidence-Based on: TSH of 0.02 uIU/ml, Free T4 of 1.98 ng/dl

Interpretations and Suggestions: Hyperthyroidism can lead to significant health issues if untreated. A referral to an endocrinologist is recommended for further evaluation and treatment options.

11. Diagnosis :



Impression: Nasopharyngeal Narrowing

Evidence-Based on: Clinical observation during ENT consultation

Interpretations and Suggestions: Nasopharyngeal narrowing can affect breathing and swallowing. Further assessment by an ENT specialist is needed to determine the cause and treatment options.

## 12. Diagnosis :

Impression: Left Kidney Calcification

Evidence-Based on: Abnormal ultrasound of the kidney showing calcification points in the left kidney.

Interpretations and Suggestions: This indicates previous kidney damage or infection, leading to calcification. It is important to monitor kidney function and manage blood pressure and blood sugar to prevent further damage. Stay well-hydrated and schedule a follow-up with a nephrologist for ongoing assessment and management strategies.

## 13. Diagnosis :

Impression: Diastolic Dysfunction

Evidence-Based on: Abnormal echocardiogram indicating left ventricular diastolic dysfunction.

Interpretations and Suggestions: Diastolic dysfunction is a condition where the heart's ability to relax and fill with blood is impaired. This can be managed by controlling blood pressure, possibly adjusting medication if you have hypertension, and managing other cardiovascular risk factors. Implementing lifestyle changes such as regular physical activity and a heart-healthy diet is beneficial. Further evaluations by a cardiologist are necessary to tailor treatment and monitor the condition.

## 14. Diagnosis :

Impression: Valve Regurgitation

Evidence-Based on: Abnormal echocardiogram showing mild regurgitation in the mitral, pulmonary, and tricuspid valves.

Interpretations and Suggestions: Even minimal valve regurgitation deserves attention to monitor for potential progression. Regular follow-up with echocardiograms to assess valve function over time is recommended. Engage in heart-healthy lifestyle practices and manage other cardiovascular risk factors. Consult with a cardiologist for more specific recommendations and potential treatment options.

## 15. Diagnosis :

Impression: Multinodular Goiter with Cystic Changes

Evidence-Based on: Ultrasound of the thyroid showing multiple nodules with cystic changes in the left thyroid.

Interpretations and Suggestions: The presence of multiple nodules with cystic changes warrants periodic monitoring through ultrasound to detect any changes in size or characteristics of the nodules. Thyroid function tests should be conducted to evaluate thyroid hormone levels. Consultation with an endocrinologist is important for further assessment and to decide if any nodules require biopsy based on their growth or symptoms.

#### 16. Diagnosis :

Impression: Nodular Thyroid Disease

Evidence-Based on: Ultrasound of the thyroid showing a nodular goiter in the right thyroid.

Interpretations and Suggestions: Like the multinodular goiter, this condition also needs monitoring over time with ultrasound and thyroid function tests to ensure the nodules do not adversely affect thyroid function. An endocrinological evaluation is crucial, and a biopsy may be considered based on nodule growth or associated symptoms.

#### 17. Diagnosis :

Impression: Atherosclerosis of the Aortic Arch

Evidence-Based on: Abnormal chest X-ray showing aortic arch calcification.

Interpretations and Suggestions: Aortic arch calcification is indicative of atherosclerosis, a buildup of plaque that can narrow the arteries and increase cardiovascular disease risk. Managing blood pressure, cholesterol, and other cardiovascular risk factors is critical. A cardiology consultation is recommended for a comprehensive cardiovascular risk assessment and management plan.

#### 18. Diagnosis :

Impression: Cervical Spondylosis

Evidence-Based on: Abnormal cervical X-ray showing intervertebral disc narrowing, osteophytes, and ligament calcification.

Interpretations and Suggestions: Management focuses on relieving pain and maintaining neck mobility. Nonsteroidal anti-inflammatory drugs (NSAIDs), physical therapy, and lifestyle modifications to reduce strain on the neck are important. In some cases, referral to a spine specialist for further evaluation and treatment planning may be necessary, including the possibility of surgery for severe symptoms or nerve involvement.

#### 19. Diagnosis :

Impression: Lumbar and Thoracic Spine Anomalies

Evidence-Based on: Abnormal X-rays showing spondylolisthesis, vertebral fractures, disc narrowing, and osteophyte formation in the lumbar and thoracic spine.



Interpretations and Suggestions: This combination of spine issues requires comprehensive management to address pain, prevent further deterioration, and maintain function. Physical therapy geared towards strengthening and flexibility exercises, pain management strategies, and possibly evaluation for surgical intervention in severe scenarios are advised. Regular follow-ups with a specialist in orthopedics or spine disorders are critical to adjust management plans as needed.

## 20. Diagnosis :

### Comprehensive summary

You are currently managing several health issues, most notably mild obesity with a BMI of 28.1, indicating a need for lifestyle adjustments in diet and exercise. Your condition of stage 1 hypertension and prediabetes both suggest immediate lifestyle modifications and possibly medications to control blood pressure and blood sugar levels, which are critical to prevent cardiovascular disease and diabetes. Beta-thalassemia minor, eosinophilia, and indirect hyperbilirubinemia require monitoring but are not immediately life-threatening. Your elevated uric acid level points towards a risk for gout and kidney stones, necessitating dietary adjustments. The diagnosis of hyperthyroidism will likely require referral to an endocrinologist for further management. Nasopharyngeal narrowing, left kidney calcification, and abnormalities within your cardiovascular system, including diastolic dysfunction and valve regurgitation, require specialist evaluations and ongoing monitoring. Your multinodular goiter and nodular thyroid disease necessitate monitoring for potential changes in thyroid function. The presence of atherosclerosis in the aortic arch and various spine anomalies underline the importance of managing cardiovascular risk factors and seeking specialist advice for spine management. Overall, your health conditions call for a multidisciplinary approach, including lifestyle changes, monitoring, and possibly medication, under the guidance of various healthcare professionals.

## Nutrition Instructions

### Diet Suggestions:

- Prioritize a whole-food, plant-based diet rich in fruits, vegetables, whole grains, and legumes to manage weight, blood pressure, and blood sugar levels.
- Incorporate lean proteins like fish and poultry, and limit red meat and processed foods to manage hyperlipidemia and hyperuricemia.
- Choose foods high in potassium to help manage hypertension.
- Limit salt intake to less than 1500 mg per day to support blood pressure control.
- Avoid high-purine foods such as red meat, organ meats, and certain types of seafood to reduce uric acid levels.
- Opt for foods rich in omega-3 fatty acids, such as salmon, to support heart health.
- Reduce consumption of simple sugars and refined carbohydrates to manage prediabetes and obesity.

### Supplement Recommendations:

- A multivitamin tailored to your age and sex may help fill any nutritional gaps without providing excess iron, given your beta-thalassemia minor.
- Fish oil supplements, for the omega-3 fatty acids EPA and DHA, may benefit heart health but consult with your doctor due to your lipid profile and cardiovascular concerns.
- Vitamin D, especially if your lifestyle or geographical location limits sun exposure, to support overall health, but consult with your healthcare provider for appropriate dosing.
- Magnesium, which may help with blood pressure control and heart health. Again, check with your physician for the appropriate dose.

### Lifestyle Medicine Suggestions:

- Adopt a whole-food, plant-predominant eating pattern to address obesity, hypertension, hyperlipidemia, and prediabetes. Focus on incorporating a variety of fruits, vegetables, whole grains, and legumes into your meals.
- Engage in regular physical activity. Aim for at least 150 minutes of moderate aerobic exercise per week, such as brisk walking, cycling, or swimming, along with muscle-strengthening activities on two or more days a week. This will help manage weight, blood pressure, and cardiovascular health.
- Ensure restorative sleep by establishing a regular sleep schedule, creating a relaxing bedtime routine, and making your sleeping environment comfortable and free of distractions. Aim for 7-9 hours of sleep per night.
- Manage stress effectively through mindfulness practices, meditation, yoga, or deep-breathing exercises. These methods can help lower blood pressure and improve overall well-being.
- Avoid risky substances including tobacco and limit alcohol intake, as these can exacerbate several of your conditions including hypertension, hyperuricemia, and liver health.
- Foster positive social connections by maintaining relationships with friends and family. Support groups for specific health conditions can also provide emotional support and valuable information for managing your health.
- Stay well-hydrated, particularly to manage hyperuricemia and kidney health. Aim for at least 8-10





glasses of water a day, more if you are active or it's hot.

- Schedule regular follow-ups with your healthcare team to monitor your conditions and adjust treatments as necessary. Collaboration with a dietitian can provide personalized dietary advice to meet your health needs.



## Personal and Family History

### Chief complaint

No discomfort symptoms in the past three months.

### Past medical history

Personal history of diseases: Hypertension, Periodontal disease

Medication and supplement history: Anti-hypertensive drugs, Antihyperlipidemics, Aspirin, Vitamin AB-complex, vitamins, Vitamin C, Vitamin E, Fish Oil, Probiotics, Coenzyme Q10

### Family history

Nasopharyngeal carcinoma (NPC)

### Lifestyle habits (Smoking, drinking and betel chewing history)

Smoking habits in the past month: Never smoked.

Drinking habits in the past month: Abstain from alcohol.

Betel nut chewing habits in the past six months: No betel nut chewing.

Coffee consumption habits: Yes.

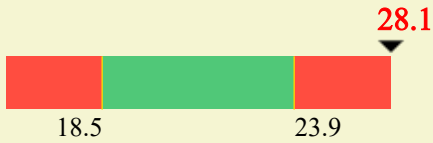
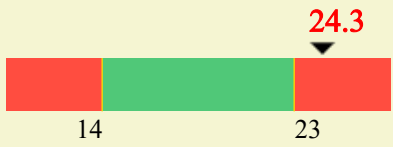
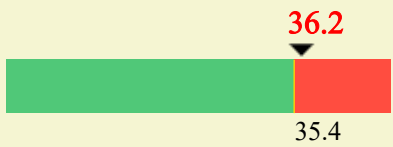
Average weekly working hours in the past six months: 48

Average weekly working hours in the past one month: 42, daily working hours: 6

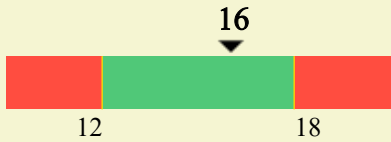
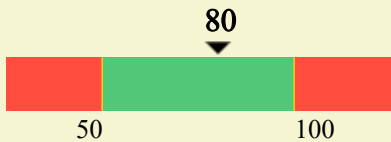
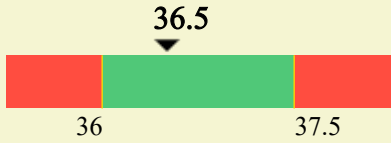
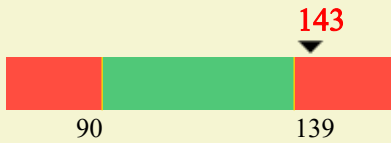
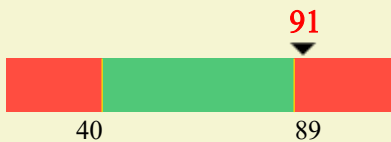
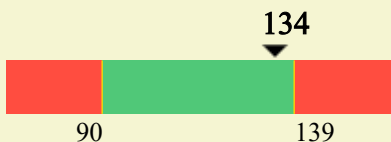
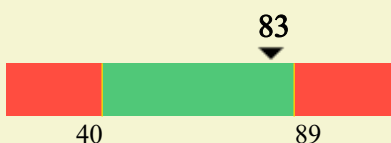
Weekday sleep duration: Average daily sleep hours: 7



## Physical Analysis

Vital Signs			
Exam Item	Result	Unit	Range Ref.
Body Height	66	inches	
<b>66 inches</b>	Height measurement is a simple yet crucial parameter in assessing growth patterns and potential disorders. Abnormally tall stature may indicate gigantism, often caused by excessive growth hormone, while significantly short stature could suggest dwarfism, which may result from various genetic or endocrine conditions.		
Body Weight	173.9	lbs	
<b>173.9 lbs</b>	Weight measurement is a fundamental aspect of health assessment, indicating nutritional status and potential health risks. Overweight status can signal an increased risk of conditions like cardiovascular disease, diabetes, and joint problems, while low body weight might indicate malnutrition or underlying health issues such as eating disorders or chronic illnesses.		
Body Mass Index	28.1	/	BMI 18.5~23.9
	Body Mass Index (BMI) is a key indicator of body weight relative to height, used to categorize individuals as underweight, normal weight, overweight, or obese. A high BMI points towards overweight or obesity, increasing the risk of chronic diseases like diabetes, heart disease, and joint problems. Conversely, a low BMI may indicate undernutrition or other health issues.		
Body Fat Composition	24.3	%	Male 14~23; Female 17~27
	Body fat composition assessment is crucial for understanding overall health, particularly in evaluating obesity or malnutrition. Increased body fat is associated with higher risks of cardiovascular diseases, diabetes, and certain cancers, while low body fat can indicate malnutrition or underlying health issues.		
Waist Circumference	36.2	inches	Male 35.4; Female 31.5
	Waistline measurement is a vital indicator of health, particularly for assessing obesity and related health risks. An increased waist circumference is often associated with a higher risk of metabolic disorders, cardiovascular diseases, and type 2 diabetes, reflecting central obesity. Conversely, a very low waist circumference might indicate undernutrition or other health concerns.		
Hip Circumference	38.2	inches	
<b>38.2 inches</b>	Hipline measurement is a valuable health assessment tool, particularly in determining body fat distribution. An increased hip circumference may indicate a higher amount of subcutaneous fat, often associated with lower risk of metabolic complications compared to abdominal fat. Conversely, a low hip circumference could suggest insufficient body fat, potentially leading to health issues.		



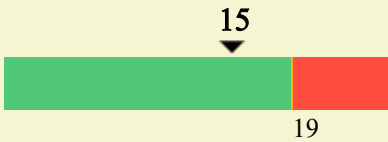

Breath Rate	16	Times/Min	12~18 Times/Min
			
Pulse Rate	80	Times/Min	50~100 Times/Min
	Pulse rate measurement is essential in cardiovascular assessment. Tachycardia, or a rapid pulse rate, can indicate conditions such as fever, dehydration, or heart disease. Bradycardia, or a slow pulse rate, may suggest underlying cardiac issues, electrolyte imbalances, or effects of certain medications. However, pulse rate must be interpreted within the context of overall health, activity level, and other clinical findings, as various physiological and pathological factors can influence it.		
Body Temperature	36.5	°C	36~37.5 °C
	Body temperature measurement is crucial for detecting abnormalities. Elevated temperature may indicate infections, autoimmune diseases, or tumor fevers, signaling a systemic response. Conversely, low body temperature could suggest infections or hypothermia, indicating potential exposure or metabolic disorders.		
Systolic BP-Left	143	mmHg	<140
	Systolic blood pressure measurement is vital for cardiovascular health assessment. Elevated systolic pressure suggests hypertension, a risk factor for heart disease, stroke, and kidney problems. Conversely, low systolic pressure indicates hypotension, which can signal underlying conditions like dehydration, heart problems, or endocrine disorders.		
Diastolic BP-Left	91	mmHg	<90
	Diastolic blood pressure measurement is critical for assessing cardiovascular health. High diastolic pressure may indicate hypertension, associated with increased risk of heart disease, stroke, and kidney issues. Low diastolic pressure can suggest hypotension, potentially indicating dehydration, blood loss, or heart conditions.		
Systolic BP-Right	134	mmHg	<140
	Systolic blood pressure measurement is vital for cardiovascular health assessment. Elevated systolic pressure suggests hypertension, a risk factor for heart disease, stroke, and kidney problems. Conversely, low systolic pressure indicates hypotension, which can signal underlying conditions like dehydration, heart problems, or endocrine disorders.		
Diastolic BP-Right	83	mmHg	<90
	Diastolic blood pressure measurement is critical for assessing cardiovascular health. High diastolic pressure may indicate hypertension, associated with increased risk of heart disease, stroke, and kidney issues. Low diastolic pressure can suggest hypotension, potentially indicating dehydration, blood loss, or heart conditions.		

**Physical Examination**

Exam Item	Result	Unit	Range Ref.
Physical Exam - Skin	Normal		Normal
Physical Exam - HEENT	Normal		Normal
Physical Exam - Neck	Normal		Normal
Physical Exam - Chest/Lungs	Normal		Normal
Physical Exam - Breast	Normal		Normal
Physical Exam - Heart/Vascular	Normal		Normal
Physical Exam - Abdomen	Normal		Normal
Physical Exam - Genitalia/Hernia	Normal		Normal
Physical Exam - Rectal	Normal		Normal

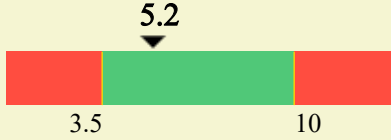
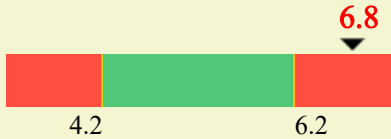
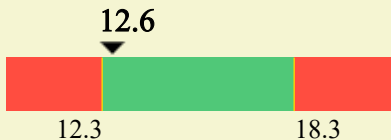
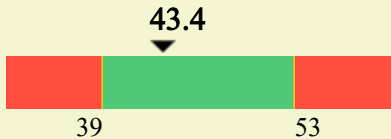


## Vision & Hearing Screen

Visual Acuity and Intraocular Pressure Screening		
Item	Result	Range Ref.
VA-left	-	0.7
VA-right	-	0.7
Wear Eyeglasses-left	0.9	0.7
Wear Eyeglasses-right	0.8	0.7
Ishihara Test for Color Vision	Normal	
IOP-left	15	<20
		
IOP-right	15	<20
		

Hearing Screening	
Item	Result
40db,500HZ,Left ear	Normal
40db,1000HZ,Left ear	Normal
40db,2000HZ,Left ear	Normal
40db,4000HZ,Left ear	Normal
40db,500HZ,Right ear	Normal
40db,1000HZ,Right ear	Normal
40db,2000HZ,Right ear	Normal
40db,4000HZ,Right ear	Normal

## Hematology Screening

Complete Blood Count			
Item	Result	Range Ref.	Unit
WBC	5.20	3.50~10.00	10e3/UL
<div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <p>The White Blood Cell (WBC) count is a crucial laboratory test used to assess the body's immune response and detect conditions such as infections, leukemia, and myelodysplasia. Elevated WBC counts may indicate bacterial infections, leukemia, or physical stress, while reduced counts can suggest viral infections, liver cirrhosis, or compromised immune function. While valuable for identifying leukopenia (low WBC) and leukocytosis (high WBC), this test has limitations and should be interpreted in conjunction with clinical findings and other diagnostic tests.</p> </div> </div>			
RBC	6.8	M:4.20~6.20 F:3.70~5.50	10e6/UL
<div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <p>The Red Blood Cell (RBC) count is a vital test for evaluating anemia, polycythemia, and overall red blood cell loss. High RBC counts can be indicative of conditions such as polycythemia vera, dehydration, or chronic cardiopulmonary diseases, while low counts may signal anemia, leukemia, malnutrition, or pregnancy. This test is essential for diagnosing and monitoring these conditions. However, its accuracy can be compromised by the presence of cold agglutinins, which may lead to falsely low RBC counts.</p> </div> </div>			
Hb	12.6	M:12.3~18.3 F:11.3~15.3	g/dl
<div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <p>The Hemoglobin (Hb) test is crucial for assessing anemia, blood loss, hydration status, polycythemic conditions, and treatment efficacy. Elevated Hb levels may indicate high erythropoietin activity, dehydration, or heavy smoking, while low levels often suggest anemia, leukemia, or chronic infections. Despite its clinical significance, the test's accuracy can be affected by hyperlipemic plasma, particularly in conditions like Fredrickson and Lees types I and V with chylomicronemia, or extremely high white blood cell counts. These factors may falsely elevate hemoglobin results, necessitating correction through specialized laboratory techniques.</p> </div> </div>			
Hct	43.4	M:39.0~53.0 F:33.0~47.0	%
<div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <p>The Hematocrit (Hct) test measures the proportion of red blood cells in blood, playing a vital role in diagnosing and monitoring conditions like anemia, polycythemia, and hydration status. Elevated hematocrit levels can be seen in situations with increased erythropoietin activity, dehydration, or heavy smoking. Conversely, low hematocrit levels may indicate anemia, leukemia, or chronic infections. This test is instrumental in evaluating blood loss, anemia severity, and the body's response to treatments for these conditions.</p> </div> </div>			

Complete Blood Count			
Item	Result	Range Ref.	Unit
MCV	63.8	80.0~100.0	fL
	The Mean Corpuscular Volume (MCV) test, an essential component of a complete blood count, measures the average size of red blood cells. High MCV values can indicate pernicious anemia, folic acid deficiency, or liver disease, while low MCV is associated with conditions like iron deficiency anemia, thalassemia, or lead poisoning. MCV values also assist in guiding medication and chemotherapy decisions, making it a valuable tool in clinical practice.		
MCH	18.5	26.0~34.0	pg
	The Mean Corpuscular Hemoglobin (MCH) test evaluates the average amount of hemoglobin per red blood cell, crucial for assessing overall health and hematologic disorders. Elevated MCH levels can suggest conditions like pernicious anemia, folic acid deficiency, or liver disease. In contrast, low MCH values are often indicative of iron deficiency anemia or thalassemia.		
MCHC	29.0	30.0~36.0	g/dl
	The Mean Corpuscular Hemoglobin Concentration (MCHC) test measures the average concentration of hemoglobin in a given volume of red blood cells and is vital for assessing various hematologic conditions. High MCHC values can indicate hereditary spherocytosis, whereas low MCHC is commonly seen in conditions like iron deficiency anemia and thalassemia.		
Platelet	271	150~450	10e3/UL
	The Platelet count test is essential for diagnosing and monitoring bleeding disorders, thrombocytopenia, leukemia, and the effects of chemotherapy. Elevated platelet levels can indicate conditions like polycythemia vera, chronic leukemia, myelodysplasia, chronic infections, and tuberculosis. Conversely, low levels are seen in splenomegaly, purpura, autoimmune diseases, infections, and aplastic anemia. It's crucial for evaluating bleeding symptoms, such as purpura and petechiae, and for assessing the efficacy of treatments like platelet transfusions and steroids. However, inaccuracies can arise from clumping, platelet satellitism, or the presence of fragmented cells, leading to false counts.		
Neutro	54.1	39~74	%
	The Neutrophil count test, particularly significant in calculating the Neutrophil to Lymphocyte Ratio (NLR), is a key biomarker for detecting inflammation and infection. High neutrophil counts often indicate bacterial infections or tissue inflammation, while low counts can be associated with viral infections or liver cirrhosis.		
Lymphocytes	31.5	19~48	%
	The Lymphocyte count is integral for assessing immune response, especially when analyzing the Neutrophil to Lymphocyte Ratio (NLR). Elevated lymphocyte levels are typically seen in viral infections, healing tuberculosis, rubella, mumps, pertussis, and lymphoblastic leukemia. Conversely, a low lymphocyte ratio can indicate a weakened immune response.		




Complete Blood Count			
Item	Result	Range Ref.	Unit
Monocytes	4.8	2~10	%
		<p>The Monocyte count test is crucial for identifying various infectious and inflammatory conditions. Elevated monocyte levels can be indicative of acute tuberculosis, protozoal infections, subacute bacterial endocarditis, and monocytosis, and are often seen during the resolution phase of infections. Conversely, a low monocyte ratio may suggest a compromised immune response.</p>	
Eosinophils	9.3	0~7	%
		<p>The Eosinophil count test is key for diagnosing and monitoring allergic reactions, asthma, parasitic infections, and certain hematologic disorders. Elevated eosinophil levels are commonly associated with allergies, parasitic infestations, tuberculosis, brucellosis, collagen diseases, Hodgkin disease, myeloproliferative diseases, and acute hypereosinophilic syndrome. They can also increase in conditions like angioneurotic edema, dermatitis, and Addison's disease. Conversely, reduced eosinophil counts may indicate Cushing's syndrome, cortisone therapy, hormone-secreting tumors, and acute or chronic inflammation.</p>	
Basophils	0.3	0~1.5	%
		<p>Basophil count, an important component of a complete blood count, is essential for diagnosing and monitoring allergic reactions and certain hematologic conditions. Elevated basophil levels are typically seen in cases of allergies, cachexia, and chronic granulocytic leukemia, indicating an active immune response or a myeloproliferative disorder. A low basophil ratio, on the other hand, might be less clinically significant but could still reflect variations in immune status.</p>	

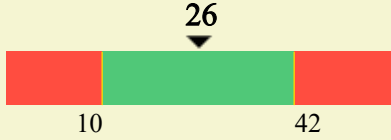

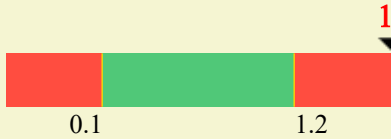

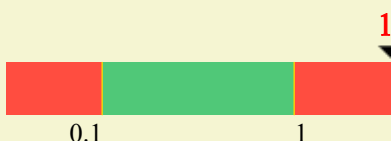
Coagulation Profile			
Item	Result	Range Ref.	Unit
PT	10.8	9.4~12.5	Sec
		<p>The Prothrombin Time (PT) test is crucial for evaluating the extrinsic coagulation system, particularly in detecting deficiencies in coagulation factors II, V, VII, X, and fibrinogen. High PT values may indicate a bleeding tendency, severe liver disease, deficiency in certain coagulation factors, or vitamin K deficiency. It is widely used for monitoring warfarin anticoagulant therapy. However, its sensitivity to minor deficiencies in single factors is limited. PT results can be affected by heparin, lupus anticoagulants, and antithrombin anticoagulants like hirudin and argatroban, potentially leading to inaccuracies in reflecting the true anticoagulation level. In such cases, a chromogenic factor X assay is recommended for more accurate monitoring.</p>	



### Coagulation Profile

Item	Result	Range Ref.	Unit
APTT	33.0	28.0~40.0	Sec
 <p>The Activated Partial Thromboplastin Time (aPTT) test is an important measure of the intrinsic and common pathways of coagulation, indicating use of anticoagulants, and deficiencies in coagulation factors. Elevated aPTT can point to conditions such as coagulation factor deficiencies, liver disease, and use of anticoagulants, while low levels are less clinically significant. Although sensitive to intrinsic pathway deficiencies, aPTT is less so for factor X, V, prothrombin, and fibrinogen. It's complicated by numerous conditions affecting heparin bioavailability and response, with lupus anticoagulants extending aPTT, suggesting the use of heparin anti-Xa assay for more accurate monitoring in certain clinical scenarios.</p>			

## Biochemistry Examination

Liver Function Test			
Item	Result	Range Ref.	Unit
SGOT	26	10~42	U/L
 <p>Serum Glutamic-Oxaloacetic Transaminase (SGOT), also known as Aspartate Aminotransferase (AST), is an enzyme that, when elevated, suggests potential damage to organs such as the liver or heart. Conditions such as hepatitis, liver cirrhosis, hepatoma, and myocardial infarction can result in high SGOT levels. Conversely, low levels may occur with vitamin B6 deficiency or uremia. While SGOT is a useful marker for hepatocellular diseases, it is less sensitive than other enzymes like alkaline phosphatase and gamma-glutamyl transferase (GGT) for diagnosing biliary obstruction.</p>			
SGPT	24	10~40	U/L
 <p>Serum Glutamic Pyruvic Transaminase (SGPT), also known as Alanine Aminotransferase (ALT), is a key enzyme in diagnosing liver injury, more specific to the liver than AST (SGOT) and more sensitive to hepatocyte injury than biliary obstruction. Elevated SGPT levels can indicate various conditions, including viral hepatitis, fatty liver, and myocardial infarction. While useful in detecting liver diseases and monitoring for drug-induced hepatitis, its elevation can also occur in non-hepatic conditions such as heart failure and muscle injuries. However, hemolysis can falsely increase measured levels, and it is less sensitive to alcoholic liver disease compared to AST.</p>			
Total Bilirubin	1.8	0.1~1.2	mg/dl
 <p>Total Bilirubin is a crucial indicator of hepatic function and hemolysis. Elevated levels can point to liver pathologies such as hepatitis, cirrhosis, neoplasia, or biliary obstruction, as well as hemolytic diseases and inherited disorders like Gilbert's and Crigler-Najjar syndromes. High bilirubin may also accompany heart failure, alcoholism, and conditions like infectious mononucleosis. While low total bilirubin is generally of less concern, the test's interpretation requires correlation with other liver function tests and clinical context, as isolated bilirubin elevations can occur in benign conditions like Gilbert's syndrome.</p>			
Direct Bilirubin	0.3	0~0.5	mg/dl
 <p>Direct Bilirubin measurement is vital for assessing liver and biliary tract function. High levels typically indicate cholestatic liver disease, potentially due to biliary obstruction, hepatitis, cirrhosis, or neoplastic conditions. It also rises with certain drug reactions and in inherited conditions such as Dubin-Johnson and Rotor syndromes, although usually below 5 mg/dL in these cases. While low levels are generally not clinically significant, elevated Direct Bilirubin necessitates further investigation to pinpoint the exact cause of liver or biliary pathology.</p>			
Indirect Bilirubin	1.5	0.1~1.0	mg/dl
 <p>Indirect Bilirubin levels are indicative of pre-hepatic processes or conditions affecting bilirubin metabolism before liver conjugation. Elevated levels often suggest hemolytic diseases, where there is increased breakdown of red blood cells, or inherited disorders like Gilbert's syndrome and Crigler-Najjar syndrome, which affect bilirubin processing. It can also be raised in hepatic conditions such as hepatitis and systemic issues like heart failure. Low levels of indirect bilirubin are usually not a clinical concern.</p>			

Liver Function Test			
Item	Result	Range Ref.	Unit
Total Protein	6.6	6.0~8.5	g/dl
		<p>Total Protein tests are essential for evaluating nutritional status and investigating causes of edema. Elevated levels may indicate dehydration, hyperproteinemia, or conditions like multiple myeloma, whereas low levels can suggest chronic liver disease, nephrotic syndrome, malnutrition, or chronic infection. While helpful, the total protein level alone lacks specificity; further diagnostic clarity is often achieved through analyzing protein fractions via serum protein electrophoresis or immunodiffusion to assess individual proteins like immunoglobulins, which can offer more detailed insights into the underlying pathology.</p>	
Albumin	3.8	3.5~5.3	g/dl
		<p>Albumin, the predominant serum protein, plays a key role in maintaining oncotic blood pressure and evaluating nutritional status. High albumin levels can be a sign of dehydration or hyperproteinemia, while low levels are often indicative of chronic liver disease, nephrotic syndrome, malnutrition, or chronic infections. It's instrumental in assessing conditions causing proteinuria and edema, where levels below 2.0-2.5 g/dL can be significant. As a "negative" acute phase reactant, albumin decreases with acute inflammation, and its low values correlate with increased morbidity and prolonged hospital stays.</p>	
Globulin	2.8	2.0~3.6	g/dl
		<p>Globulin levels are indicative of a variety of bodily functions and pathologies, with high levels often associated with conditions such as dehydration, multiple myeloma, chronic infections, or liver cirrhosis. Low globulin levels can suggest malnutrition, immunodeficiency, or renal diseases where proteins are lost. Globulins include various groups like immunoglobulins and acute phase reactants, hence, specific globulin fractions often need to be examined for a more detailed understanding of the underlying condition.</p>	
ALK-P	49	34~120 Child >300	U/L
		<p>Alkaline Phosphatase (ALK-P) is a crucial enzyme in diagnosing liver and bone diseases. Elevated levels can indicate biliary tract obstruction, liver conditions (such as hepatitis and tumors), bone diseases, and hyperparathyroidism. Low ALK-P levels are less common and typically not of significant concern. However, interpreting ALK-P results can be challenging when used in isolation, as elevations can stem from multiple sources.</p>	
γ-G.T.	14	M:<73;F:<38	U/L
		<p>Gamma-Glutamyl Transferase (γ-GT) is a key enzyme in diagnosing liver and biliary diseases. Elevated levels are indicative of conditions like alcoholic hepatitis, fatty liver, pancreatitis, drug-induced hepatitis, and biliary obstruction, making it particularly sensitive to biliary tract issues. While low levels are generally not a concern, γ-GT's utility has limitations. It can be influenced by medications like acetaminophen and may not significantly increase in lymphoma without hepatic involvement. High alkaline phosphatase with normal γ-GT doesn't completely exclude liver disease. Additionally, in cancer evaluations, γ-GT can yield normal results in progressive disease or elevated levels in the absence of tumors, hence it should be interpreted cautiously and in the context of other clinical findings.</p>	

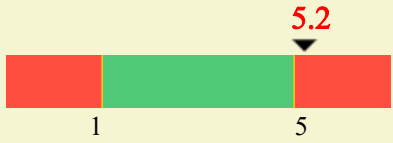
Pancreatic Function Test			
Item	Result	Range Ref.	Unit
Amylase	78	30~115	U/L
		<p>Amylase testing is essential for diagnosing and managing acute or chronic pancreatitis, pancreatic cancer, and other gastrointestinal disorders. Elevated levels typically indicate acute pancreatitis, pancreatic trauma, or obstruction in the pancreatic or salivary ducts. Amylase is used in differentiating causes of abdominal pain, including acute pancreatitis and surgical emergencies like gastrointestinal perforation. However, its specificity is limited: factors like oxalate, citrate, and hypertriglyceridemia can affect results. Notably, about 20% of acute pancreatitis cases may not show elevated amylase. Also, serum amylase can be elevated in conditions like renal failure, alcoholism, pregnancy, and diabetic ketoacidosis without indicating pancreatic pathology. Urinary amylase levels may persist longer than serum levels and can be a more reliable indicator in some cases.</p>	

Diabetes Screening			
Item	Result	Range Ref.	Unit
Glucose AC	104	70~100	mg/dl
		<p>Fasting blood glucose (Glucose AC) testing is crucial for diagnosing diabetes mellitus and evaluating carbohydrate metabolism disorders. Elevated levels can indicate diabetes, chronic pancreatitis, or vitamin B1 deficiency, while low levels may suggest insulinoma, liver diseases, hypopituitarism, hypoadrenocorticism, or central nervous system disorders. This test is key in diagnosing hypoglycemia, evaluating acidosis and ketoacidosis, and assessing conditions like dehydration and coma. However, blood glucose levels can be influenced by various factors, including diet, medication, and physiological stress, necessitating careful interpretation in the context of clinical symptoms and other diagnostic tests.</p>	
HbA1C	6.2	4.0~6.0	% of Hb
		<p>Hemoglobin A1c (HbA1c) testing is pivotal for evaluating long-term glycemic control in patients with diabetes, diagnosing diabetes, and identifying individuals at risk for prediabetes. High HbA1c levels indicate poor blood glucose control over the past 3 months, while lower levels suggest better glycemic control. However, HbA1c should be interpreted alongside other diagnostic information and clinical evaluations, as it's not a substitute for daily blood glucose monitoring. Results can be affected by conditions that shorten erythrocyte lifespan, such as hemolytic anemia, sickle cell trait, pregnancy, or chronic blood loss, potentially leading to falsely low HbA1c values.</p>	
AC Insulin	8.2	3.0~25.0	mU/L
		<p>The AC Insulin test is valuable for assessing a patient's endogenous insulin production, reflecting beta cell function in the pancreas. It is particularly useful in distinguishing between the body's own insulin production and injected insulin in patients with diabetes. This test is performed using a 2-site electrochemiluminescent immunoassay on the Roche platform and is highly specific for human insulin. However, it's crucial to note that this assay does not react with several insulin analogs used in diabetes treatment. Therefore, its effectiveness varies depending on whether the patient is receiving exogenous insulin and the type of insulin used.</p>	

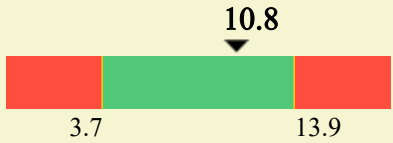
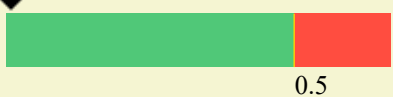


Lipid Disorder Screening			
Item	Result	Range Ref.	Unit
Triglyceride	128	<150	mg/dl
		<p>Triglyceride testing is essential in evaluating lipid metabolism and identifying risk factors for atherosclerotic disease. Elevated levels may indicate hyperlipidemia, alcoholism, biliary tract obstruction, diabetes mellitus, pancreatitis, arteriosclerosis, hypothyroidism, nephrotic syndromes, or genetic hyperlipoproteinemias. It's crucial for diagnosing chylomicronemia and in calculating LDL cholesterol, though this calculation becomes unreliable when triglycerides exceed 800 mg/dL. Factors like estrogen therapy, pregnancy, and certain medications like thiazide diuretics and <math>\beta</math>-adrenergic blockers can also increase triglyceride levels.</p>	
Total Cholesterol	227	$\leq$ 200	mg/dl
		<p>Cholesterol testing is vital for assessing lipid status and identifying metabolic disorders. Elevated cholesterol levels may indicate hyperlipidemia, nephrotic syndrome, obstructive jaundice, diabetes mellitus, or arteriosclerosis, and can be influenced by endocrine disorders, liver or renal disease. Low cholesterol levels could signify malnutrition, trauma, cancer, infection, digestive system disease, or an inherited LDL or HDL deficiency. Hormonal imbalances, hypothyroidism, hyperthyroidism, severe liver disease, and pregnancy also impact cholesterol levels. Despite some controversy, high cholesterol is generally associated with increased risk of atherosclerosis, coronary artery disease, and myocardial infarction.</p>	
HDL-Cholesterol	44	$\geq$ 40	mg/dl
		<p>High-Density Lipoprotein Cholesterol (HDL-Cholesterol) is crucial for cardiovascular health assessment. Elevated HDL-Cholesterol, often associated with regular exercise, is protective against coronary heart disease and reduces atherosclerotic disease risk. Conversely, low HDL-Cholesterol levels, particularly when coupled with high triglycerides, significantly increase the risk of obesity, diabetes mellitus, ischemic heart disease, and stroke. Monitoring HDL-Cholesterol is therefore important in evaluating and managing cardiovascular health, with therapeutic strategies increasingly focusing on raising HDL-Cholesterol levels to mitigate cardiovascular disease risk.</p>	
LDL-Cholesterol	150	<130	mg/dl
		<p>Low-Density Lipoprotein Cholesterol (LDL-Cholesterol) is a key factor in assessing coronary heart disease (CHD) risk. Elevated levels, often seen in conditions like hypothyroidism, nephrotic syndrome, diabetes mellitus, and hyperlipoproteinemia, are associated with increased CHD risk. Low levels can indicate malnutrition, trauma, surgery, cancer, infection, or hepatobiliary gastrointestinal disease. Direct LDL measurement is particularly useful in nonfasting patients or when fasting triglycerides exceed 400 mg/dL, where calculations like the Friedewald formula may be inaccurate. However, LDL values may be less diagnostic in liver disorders due to altered lipid metabolism. NCEP guidelines recommend LDL as the primary index for CHD risk assessment, but patient classification should be based on serum or serum-equivalent values, considering potential interferences and specific conditions affecting lipid metabolism.</p>	

### Lipid Disorder Screening

Item	Result	Range Ref.	Unit
T-Chol/HDL-Chol	5.2	1~5.0	
 <p>The Total Cholesterol to High-Density Lipoprotein Cholesterol (T-Chol/HDL-Chol) ratio is an important indicator in evaluating the risk of coronary artery disease (CAD). A high ratio suggests a higher risk of CAD and is commonly seen in hyperlipidemia, while a low ratio is considered more favorable. This ratio is particularly useful in assessing individuals with a family history of atherosclerosis or hyperlipidemia, especially those under 40 years of age, who are considered at 'premature' risk. However, its interpretation can be complicated in patients with obstructive liver disease, which may lead to lipoprotein abnormalities. Also, it's important to note that LDL cholesterol calculations are unreliable when triglyceride levels exceed 800 mg/dL.</p>			

### Inflammatory Markers

Item	Result	Range Ref.	Unit
Homocysteine	10.8	3.7-13.9	umol/L
 <p>Homocysteine testing is an important tool for evaluating the risk of heart disease and stroke. Elevated homocysteine levels can indicate a higher risk of acute myocardial infarction and are often associated with deficiencies in vitamins B6, B12, and folic acid. Therefore, this test is useful in screening patients potentially at risk for cardiovascular events. However, it's important to note that while homocysteine levels are influenced by vitamin status, the test is not designed to diagnose deficiencies in folate or vitamin B12.</p>			
HS-CRP	0.007	<0.500	mg/dl
 <p>High Sensitivity C-Reactive Protein (HS-CRP) testing is a valuable tool in assessing the risk of cardiovascular and peripheral vascular diseases. Elevated HS-CRP levels are indicative of acute myocardial infarction, ischemic tissue necrosis, infection, or acute inflammation. While HS-CRP can complement other markers in cardiovascular risk assessment, its increases are nonspecific and can reflect a variety of disease processes. Interpretation of HS-CRP levels requires a complete clinical history, taking into account any recent tissue injury, infections, or inflammation that might elevate CRP levels.</p>			

Cardiac Enzymes			
Item	Result	Range Ref.	Unit
LDH	160	120~246	U/L
		<p>The Lactate Dehydrogenase (LDH) test is a general indicator of cellular damage, as LDH is released into the bloodstream when cells are injured or destroyed. It's particularly useful in diagnosing conditions like acute myocardial infarction, hemolytic anemia, renal disease, and lymphoma. However, its effectiveness depends on timely testing during an acute myocardial infarction, and it's important to note that the expected LD1:LD2 flip may not occur in all patients, sometimes just showing an increase in LD1.</p>	
CPK	184	M:24~190; F:24~170	U/L
		<p>The Creatine Phosphokinase (CPK) test is essential for diagnosing acute myocardial infarction, muscle damage, and conditions like hypothyroidism, malignant hyperthermia syndrome, muscular dystrophy, myocarditis, and rhabdomyolysis. CPK levels can significantly elevate in Duchenne muscular dystrophy and in muscular stress-related conditions such as polymyositis and dermatomyositis. However, its reliability is influenced by several factors: intramuscular injections and physical exercise can increase CPK levels; levels may not elevate until 6 hours post-acute myocardial infarction and return to normal within 48-72 hours. Low CPK might indicate decreased muscle mass or be affected by factors like pregnancy, steroid therapy, and alcoholic liver disease.</p>	

Gout Screening			
Item	Result	Range Ref.	Unit
Uric acid	9.6	M:2.4~7.0; F:2.0~6.0	mg/dl
		<p>Uric acid testing is key in diagnosing and managing gout, renal failure, leukemia, psoriasis, starvation, and other wasting conditions. It's also used to monitor patients on cytotoxic drugs. While elevated uric acid levels are a common marker for these conditions, not all individuals with hyperuricemia develop gout. Thus, an increased uric acid level alone doesn't confirm a gout diagnosis. In treatment, the goal is to maintain uric acid levels below 6 mg/dL to dissolve existing crystals and prevent new ones from forming, essential in managing conditions related to uric acid imbalances.</p>	

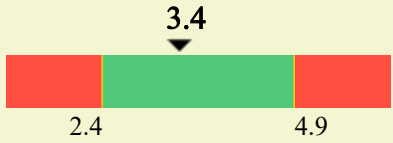


Renal Function Test			
Item	Result	Range Ref.	Unit
BUN	14.5	8.0~23.0	mg/dl
		<p>The Blood Urea Nitrogen (BUN) test is a crucial indicator of renal health, useful in diagnosing renal insufficiency, failure, and other conditions like congestive heart failure, dehydration, and effects of certain drugs. Elevated BUN levels can signify chronic renal diseases like glomerulonephritis, acute renal failure, decreased renal perfusion, urinary tract obstructions, severe heart failure, dehydration, and gastrointestinal bleeding. It is particularly effective in monitoring hemodialysis and therapy for severe azotemia. However, BUN alone is not fully reliable; it's best evaluated alongside creatinine levels. In conditions like prerenal and postrenal azotemia, BUN increases more than creatinine, but factors like dehydration and acidosis can affect its levels.</p>	
Creatinin	1.01	0.50~1.30	mg/dl
		<p>Serum creatinine is a vital test for assessing kidney function, useful in diagnosing conditions like uremia, renal failure, urinary tract obstruction, and various muscle diseases. Elevated creatinine levels can indicate amyotrophic lateral sclerosis, dermatomyositis, myasthenia gravis, muscular dystrophies, trauma, and even in cases of starvation. Creatine synthesis, and thus serum creatinine levels, may be stimulated by factors such as methyltestosterone use, hyperthyroidism, diabetic acidosis, and the postpartum period.</p>	
eGFR	78.80	>60	mL/min/1.73m <sup>2</sup>
		<p>The estimated Glomerular Filtration Rate (eGFR) is a critical measure for assessing kidney function, particularly in diagnosing and managing renal insufficiency, uremia, and renal failure. It's calculated using the CKD-EPI 2021cr equation without a race coefficient, aligning with recommendations for a more inclusive and accurate assessment. eGFR is more precise than 24-hour urine collections for creatinine clearance and is instrumental in staging chronic kidney disease (CKD) according to the K/DOQI classification. However, its accuracy diminishes in patients with extreme muscle mass variations, unusual diets, or conditions affecting creatinine secretion or elimination. In such cases, additional tests like cystatin C are recommended for a more accurate evaluation of kidney function.</p>	
Microalbumin	14.94	<20	mg/L

Electrolytes			
Item	Result	Range Ref.	Unit
Na	142	132~146	meq/L
		<p>Sodium (Na) levels are essential for assessing electrolyte and acid-base balance, as well as water balance in the body. High sodium levels may indicate dehydration, nephritis, or the use of certain cathartics like Fleet. On the other hand, low sodium can be seen in conditions like liver cirrhosis, syndrome of inappropriate antidiuretic hormone secretion (SIADH), congestive heart failure, and diarrhea. This makes the sodium test crucial for diagnosing dehydration and monitoring water intoxication.</p>	
K	3.9	3.5~5.5	meq/L
		<p>Potassium (K) testing is crucial for evaluating electrolyte balance, acid-base balance, and managing conditions like renal diseases, acidosis, cardiac arrhythmias, and diabetes mellitus ketoacidosis. Elevated potassium levels can indicate hemolysis, uremia, acidosis, renal failure, or dehydration, while low levels may occur in chronic nephritis, prolonged vomiting or diarrhea, alkalosis, or due to certain medications. It's essential in monitoring diuretic therapy, intravenous therapy, and conditions like alcoholism with delirium tremens, muscular weakness, and gastrointestinal diseases. However, potassium levels can be affected by factors like dietary intake, loss due to diarrhea or vomiting, or cell uptake in alkalosis.</p>	
Cl	105	99~109	meq/L
		<p>Chloride (Cl) testing is vital for assessing electrolyte balance, acid-base balance, and water balance in the body. High chloride levels are often associated with conditions like nephritis syndrome, hypernatremia, dehydration, renal tubular acidosis, and excessive saline infusion. Conversely, low chloride levels may indicate issues like diarrhea, vomiting, inadequate salt intake, overhydration, congestive heart failure, syndrome of inappropriate ADH secretion, and certain diuretic therapies. While chloride levels generally parallel sodium levels, they can provide specific insights in differential diagnoses of acidemias and alkalemias, and in conditions like hyperparathyroidism and metabolic alkalosis.</p>	
Ca	9.2	8.3~10.6	mg/dl
		<p>Calcium (Ca) testing is essential in diagnosing and managing conditions such as hyperparathyroidism, vitamin D intoxication, renal failure, renal stones, hypoparathyroidism, osteomalacia, and nephrotic syndrome. It's particularly useful in evaluating patients with symptoms like coma, pancreatitis, gastrointestinal issues, nephrolithiasis, polydipsia, polyuria, and azotemia, and in cases of multiple endocrine adenomatosis. However, the accuracy of calcium measurements can be compromised by anticoagulants like sodium citrate, EDTA, and NaF potassium oxalate, which need to be considered when interpreting results.</p>	



## Electrolytes

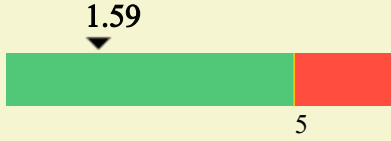
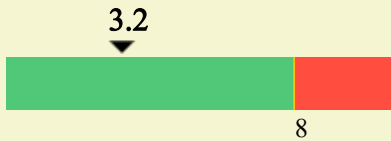
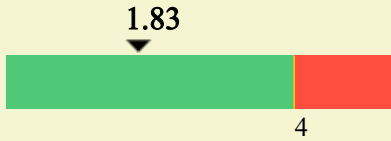
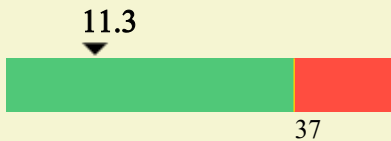
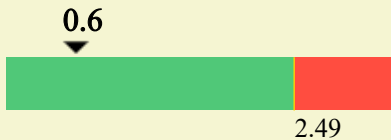
Item	Result	Range Ref.	Unit
P	3.4	2.4~4.9	mg/dl
 <p>Phosphorus (P) testing is crucial for diagnosing and managing conditions like hypoparathyroidism, vitamin D intoxication, renal failure, and the effects of certain cathartics. Low phosphorus levels, which can be seen in osteomalacia, malnutrition, nephrotic syndrome, and vitamin D deficiency, have significant clinical implications. Hypophosphatemia can affect red blood cells, heart function, respiratory muscles, immune responses, and central nervous system, leading to symptoms like weakness, tremors, coma, and even seizures. It can also cause joint stiffness, myopathy, renal stones, and glucose metabolism issues. Severe hypophosphatemia has a notable mortality rate, highlighting the importance of prompt diagnosis and management.</p>			



## Serology and Immunology Examination

Viral Hepatitis Screening			
Item	Result	Range Ref.	Unit
Anti-HAV IgG	12.70(+)	<1.00	S/CO
<b>12.70(+) S/CO</b>	The Anti-HAV IgG test is pivotal for assessing immunity against the hepatitis A virus (HAV), either due to vaccination or past infection. Presence of these antibodies indicates previous exposure to HAV or successful vaccination, conferring lifelong immunity and protection against reinfection. The absence of Anti-HAV IgG antibodies suggests a lack of prior exposure or vaccination against hepatitis A.		
HBsAg	<0.10(-)	<1.00, Negative	Index
<b>&lt;0.10(-) Index</b>	The Hepatitis B surface antigen (HBsAg) test is critical for diagnosing acute or chronic hepatitis B virus (HBV) infection and screening pregnant women to prevent perinatal transmission. The presence of HBsAg indicates an active HBV infection, either acute or chronic. However, a negative result doesn't rule out hepatitis B, especially during the "core window" phase, where HBsAg may no longer be detectable but anti-HBs antibodies haven't developed yet. In this phase, both anti-HBc tests are usually positive, with anti-HBc IgM being a specific marker for acute HBV infection.		
Anti-HBs	>1000.0(+)	<8.0: No antibodies; ≥8.0, <12.0: Uncertain; ≥12.0: Presence of antibodies	mIU/mL
<b>&gt;1000.0(+) mIU/mL</b>	The Anti-Hepatitis B surface antibodies (Anti-HBs) test is crucial for assessing immunity against the Hepatitis B virus (HBV), either following infection or vaccination. The presence of Anti-HBs indicates immune response to HBV, and its levels are used to determine the need for vaccination or the success of vaccination in achieving protective immunity. However, the presence of Anti-HBs doesn't completely rule out active hepatitis B infection or guarantee protection against all HBV subtypes, as rare cases of concurrent HBsAg and Anti-HBs have been reported. Additionally, false-positive results can occur in individuals who have received blood transfusions or plasma components, complicating the interpretation in such cases.		
Anti-HCV	0.13(-)	<0.8 : Negative >1.0 : Positive 0.8~1.0 : Inconclusive	Index
<b>0.13(-) Index</b>	The Anti-Hepatitis C Virus (Anti-HCV) test is instrumental in diagnosing HCV infection. A positive result indicates past or present infection with the hepatitis C virus. It's a crucial aid in the clinical diagnosis of viral hepatitis C. However, this test is not approved for screening blood or plasma donors and its accuracy may be limited in specific populations. Its performance characteristics have not been established for immunocompromised or immunosuppressed patients, in cord blood samples, or in patients under the age of 2 years, which may affect the reliability of results in these groups.		



Tumor Marker Screening			
Item	Result	Range Ref.	Unit
CEA	1.59	<5.0	ng/ml
		<p>Carcinoembryonic Antigen (CEA) testing is primarily used for monitoring and managing cancer, especially colorectal carcinoma. Elevated CEA levels may suggest colorectal, gastric, pancreatic, lung cancers, or liver cirrhosis, and can also be influenced by smoking. However, it's not recommended for general cancer screening, as normal CEA levels don't rule out malignancy. Additionally, false readings may occur in patients treated with monoclonal mouse antibodies or those with rare immunoassay interferences.</p>	
$\alpha$ -FP	3.2	<8.1	ng/ml
		<p>Alpha-Fetoprotein (<math>\alpha</math>-FP) testing is crucial in the management of testicular cancer, particularly nonseminomatous types. Elevated <math>\alpha</math>-FP levels are associated with liver conditions (like chronic hepatitis, cirrhosis, and cancer) and germ cell tumors. In testicular cancer, it's used alongside serum hCG for monitoring and determining treatment effectiveness, with changes in <math>\alpha</math>-FP levels indicating therapy response or cancer progression. Additionally, false results may occur in patients treated with monoclonal mouse antibodies.</p>	
PSA	1.83	<4.0	ng/ml
		<p>Prostate-Specific Antigen (PSA) is a key marker in prostate cancer screening and management. Elevated PSA levels can indicate prostate cancer or benign prostatic hyperplasia, while a negative result typically suggests the absence of significant prostate disease. PSA is produced by normal, hyperplastic, and cancerous prostate tissue. It aids in assessing prostate cancer risk, staging, post-treatment monitoring, and managing recurrence. Additionally, PSA levels alone cannot definitively confirm or exclude prostate cancer.</p>	
CA199	11.3	<37	U/ml
		<p>CA 19-9 is a tumor marker primarily used to monitor gastrointestinal, pancreatic, liver, and colorectal malignancies. Elevated levels may indicate pancreatic, biliary tract, colorectal, gastric cancers, or conditions like chronic hepatitis and endometriosis. However, its use in early detection of pancreatic carcinoma is limited. Elevated CA 19-9 can also result from cholestasis. False results may occur in patients treated with monoclonal mouse antibodies.</p>	
SCC	0.6	<2.5	ng/ml
		<p>Squamous Cell Carcinoma Antigen (SCC) testing is primarily used in the monitoring and management of squamous cell carcinomas, especially in cancers of the lung, esophagus, anus, and head and neck. Elevated levels of SCC antigen are often indicative of these cancers, aiding in the diagnosis, treatment monitoring, and detection of recurrence. However, a negative result does not conclusively rule out these cancers.</p>	

Tumor Marker Screening			
Item	Result	Range Ref.	Unit
EB VCA IgA	0.5	Negative < 0.8 0.8 Borderline < 1.1 Positive 1.1	Ratio
		<p>The Epstein-Barr Virus IgA (EBV-IgA) test is useful in detecting past or present infections with EBV, commonly associated with conditions like nasopharyngeal carcinoma and infectious mononucleosis. A positive result indicates exposure to EBV, but it's important to note that the test is qualitative, not quantitative; the level of antibodies doesn't correspond to the severity or stage of the disease. Interpretation of EBV-IgA results should not be done in isolation but rather in conjunction with other clinical data and patient symptoms for an accurate diagnosis.</p>	
CA72-4	2.5	<6.9	U/ml
		<p>CA72-4 is a tumor marker primarily used in the detection and monitoring of various cancers, including gastric, colorectal, pancreatic, lung, ovarian, and breast cancer. Elevated levels of CA72-4 can indicate the presence of these malignancies. However, it's important to note that a negative result doesn't conclusively rule out cancer. The use of CA72-4 as a sole diagnostic tool is limited; it should be interpreted in conjunction with other diagnostic procedures and clinical assessments for a more accurate evaluation of the presence and progression of cancer.</p>	
CYFRA 21-1	0.63	<3.3	ng/ml
		<p>CYFRA 21-1 is a tumor marker predominantly associated with non-small cell lung cancer, including lung adenocarcinoma, large cell lung cancer, and squamous cell lung cancer. Elevated levels of CYFRA 21-1 can suggest the presence or progression of these lung cancer subtypes. However, a negative result does not definitively exclude lung cancer. The test's utility primarily lies in its role in monitoring disease progression and response to therapy rather than as a standalone diagnostic tool.</p>	
NSE	10.34	<16.3	ng/ml
		<p>Neuron-Specific Enolase (NSE) is a valuable marker for detecting and monitoring neuroendocrine tumors (NETs), especially in cases of small cell lung cancer (SCLC), neuroblastoma, pheochromocytoma, and certain epithelial cancers. Elevated NSE levels suggest the presence or progression of these tumors. However, it's important to note that the FDA has not cleared or approved NSE for these diagnostic purposes. Moreover, hemolysis can lead to falsely elevated NSE levels due to its high concentration in erythrocytes, necessitating careful interpretation of results, especially in the presence of blood sample hemolysis.</p>	

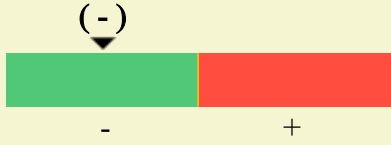
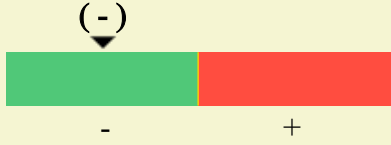
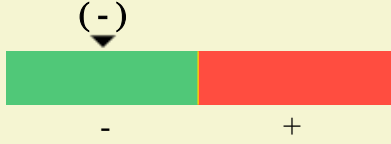
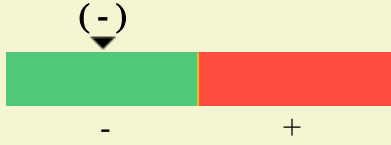
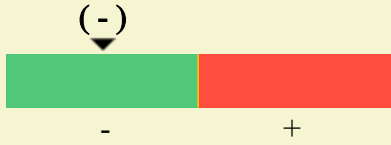
Thyroid Function Test			
Item	Result	Range Ref.	Unit
TSH	0.02	0.550~4.780	uIU/ml
		<p>The Thyroid-Stimulating Hormone (TSH) test is a fundamental thyroid function test, used to differentiate between various thyroid conditions. High TSH levels typically indicate primary hypothyroidism, whereas low levels suggest hyperthyroidism. It's useful in investigating low thyroxine (T4) results, evaluating thyroid replacement therapy, and monitoring post-treatment hyperthyroid patients. However, its accuracy can be compromised by factors like glucocorticoids, dopamine, severe illnesses, certain medications like amiodarone, and in cases of secondary hypothyroidism where TSH is not elevated.</p>	
Free T4	1.98	0.89~1.76	ng/dl
		<p>Free Thyroxine (Free T4) testing is pivotal for thyroid function assessment, especially useful in evaluating hyperthyroidism, hypothyroidism, and when issues with thyroxine-binding globulin (TBG) are suspected. It's reliable in subjects with altered TBG levels but euthyroid status and should remain normal in nonthyroidal diseases and familial dysalbuminemic hyperthyroxinemia. However, Free T4 levels can be influenced by medications like radiologic contrast agents, propranolol, amiodarone, heparin, and carbamazepine. Elevated Free T4 in nonthyroid diseases is usually transient.</p>	

Immunology Screening			
Item	Result	Range Ref.	Unit
RA Factor	9.4	<17.0	IU/ml
		<p>The Rheumatoid Factor (RA Factor) test is primarily used in the differential diagnosis and prognosis of arthritic disorders, particularly rheumatoid arthritis. It can also indicate other autoimmune conditions like systemic lupus erythematosus and immune system diseases such as tuberculosis. A positive RA Factor is typically associated with these conditions, while a negative result generally indicates their absence. However, the test's accuracy can be compromised by markedly lipemic or contaminated specimens, which may lead to false-positive results.</p>	

## Urinalysis

Urine Screening			
Item	Result	Range Ref.	Unit
Appearance	Yellow Clear	light~yellow clear	
<b>Yellow Clear</b>	Urinalysis is a fundamental diagnostic tool for detecting urinary abnormalities and managing renal diseases, urinary tract infections, neoplasms, systemic diseases, and adjacent inflammatory or neoplastic conditions. It provides valuable insights into a patient's overall health. However, its accuracy can be affected by various factors: insufficient urine volume may limit testing, metabolites from medications like Pyridium® can interfere with dipstick reactions, high vitamin C intake may skew results for glucose or nitrite tests, and the survival of white blood cells in the sample can be compromised by low osmolality, alkalinity, and lack of refrigeration.		
Urine pH	6.5	5.0~8.0	
	Urine pH testing is crucial for diagnosing and managing conditions like urinary tract infections, diabetes, nephrotic syndrome, and dietary influences like excessive consumption of coffee, tea, and vegetables, which can increase pH. On the other hand, a lower urine pH may be observed in conditions like polyuria, pyelonephritis, hydronephrosis, or in individuals with a diet high in animal products.		
Urine Sp.G	1.020	1.005~1.030	
	Urine Specific Gravity (Sp.G) testing is essential for evaluating the concentration of urine and is indicative of hydration status and renal function. High specific gravity can point towards conditions like dehydration, reduced urine output, or diabetes, suggesting a more concentrated urine. Conversely, low specific gravity may be seen in diabetes insipidus or in the syndrome of inappropriate antidiuretic hormone secretion (SIADH), indicating diluted urine.		
Urine Glucose	-	-	
	Urine Glucose testing is a key tool in identifying glucose excretion in urine, often used as an initial indicator for conditions like prediabetes and diabetes. The presence of glucose in urine typically suggests elevated blood glucose levels, pointing towards possible glucose metabolism disorders. However, it's important to note that urine glucose testing is not as sensitive or specific as blood glucose testing and should not be used as the sole diagnostic tool.		
Urine Protein	-	-	
	Urine Protein testing is crucial for detecting proteinuria, which can indicate renal insufficiency, diabetes, nephrotic syndrome, or other kidney-related disorders. The presence of protein in urine is a significant marker of kidney function and damage. However, transient proteinuria can also occur due to physical exertion or stress.		



Urine Screening			
Item	Result	Range Ref.	Unit
Urine OB	-	-	
	<p>Urine Occult Blood (Urine OB) testing is essential for detecting hidden blood in urine, which can be indicative of conditions like urolithiasis, cystitis, autoimmune diseases, or tumors. The presence of occult blood in urine is a critical diagnostic marker for various urinary tract and systemic conditions. However, it's important to consider that this test can sometimes yield false positives due to factors like menstruation or certain foods and medications, necessitating careful interpretation in conjunction with other clinical evaluations for accurate diagnosis.</p>		
Urine UBG	Normal	Normal	
Urine Bilirubin	-	-	
			
Urine NIT	-	-	
			
Urine KET	-	-	
	<p>Urine Ketone testing is a valuable diagnostic tool primarily used to identify ketosis, commonly seen in conditions like prolonged fasting or diabetic ketoacidosis (DKA). The presence of ketones in urine indicates that the body is using fats rather than carbohydrates for energy, a key sign of metabolic imbalance. While highly indicative of DKA in diabetic patients, it's essential to interpret results in the context of clinical symptoms and other diagnostic tests for a comprehensive assessment.</p>		
Urine Leu	-	-	
			
RBC	2-4	0~5	/HPF
<p><b>2-4 /HPF</b></p>	<p>Urine Sediment analysis, specifically Red Blood Cells (RBCs), is crucial for diagnosing urinary tract conditions like urolithiasis, cystitis, autoimmune diseases, and tumors. The presence of RBCs in urine sediment can indicate inflammation, infection, or trauma within the urinary tract.</p>		



Urine Screening			
Item	Result	Range Ref.	Unit
WBC	0-1	0~5	/HPF
<b>0-1 /HPF</b>	Urine White Blood Cell (WBC) testing is instrumental in detecting urinary tract infections (UTIs) and microbial infections. Elevated levels of WBCs in urine typically point to inflammation or infection within the urinary system.		
Epith.cell	0-1	0~5	/HPF
<b>0-1 /HPF</b>	Urine Epithelial Cell analysis is significant for detecting renal tubular damage and identifying contamination, such as from vaginal discharge. Elevated epithelial cells in urine may suggest underlying renal issues or contamination during sample collection.		
Cast	None found	None found	/HPF
<b>None found /HPF</b>	Urine Cast testing is pivotal for identifying renal pathologies like pyelonephritis and nephrotic syndrome. The presence of casts—cylindrical structures formed from coagulated protein or cellular elements—indicates renal tubular damage or significant kidney disease.		
Crystals	None found	None found	/HPF
Bacteria	None found	None found	/HPF
<b>None found /HPF</b>	Urine Bacteria testing is essential for diagnosing urinary tract infections (UTIs) and other microbial infections. The presence of bacteria in urine is a key indicator of infection within the urinary system. While this test is a critical tool for identifying UTIs, it's important to interpret results alongside clinical symptoms and additional tests, as contamination can occur during sample collection. Accurate diagnosis and treatment rely on correlating these results with the patient's overall health status and symptoms.		
Other	None found	None found	/HPF



## Pharyngorhinoscopy

### Nasopharyngoscope:

Symmetric of the nasopharynx cavity is noted and no bulging mass or ulcerative mucosa is found under the white light view nasopharyngoscope.

### NBI nasopharyngoscope:

Reticular subepithelial capillary network is noted under the NBI nasopharyngoscope. No brownish spot or irregular microvascular pattern is neither found. There is no significant sign for the nasopharyngeal carcinoma.

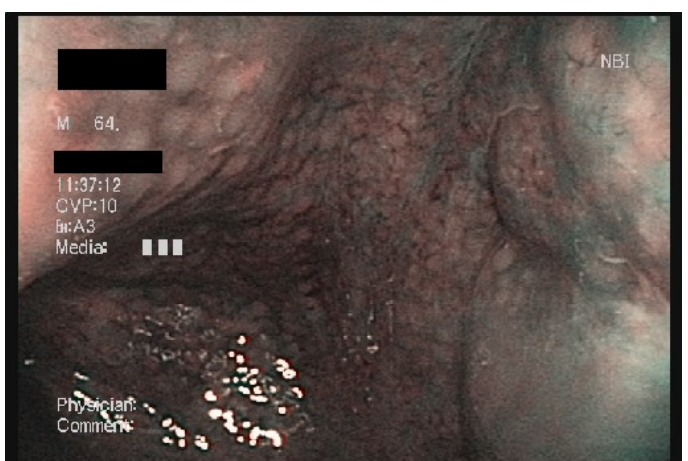
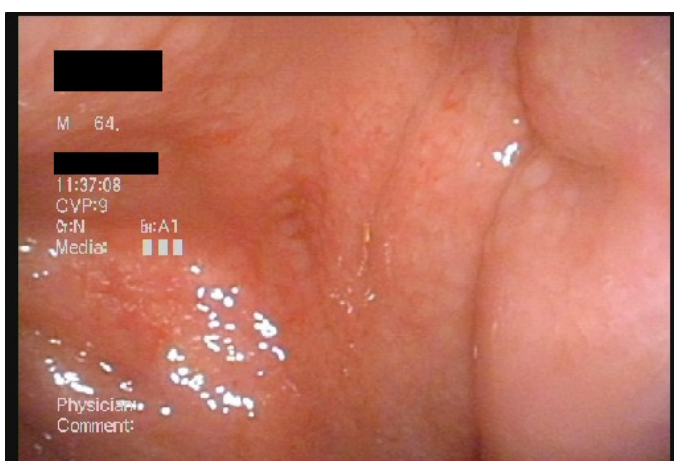
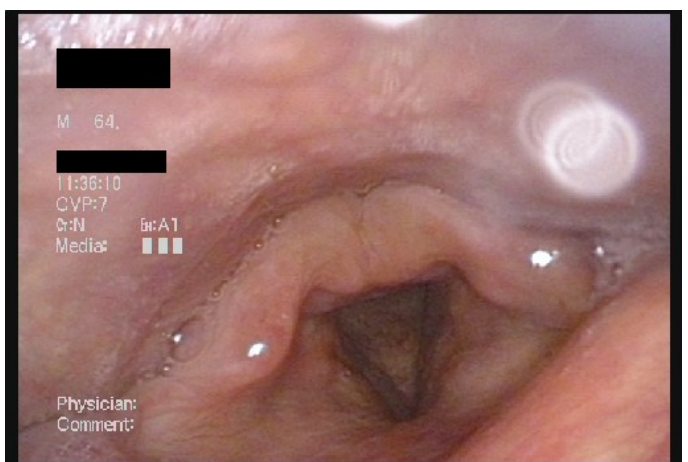
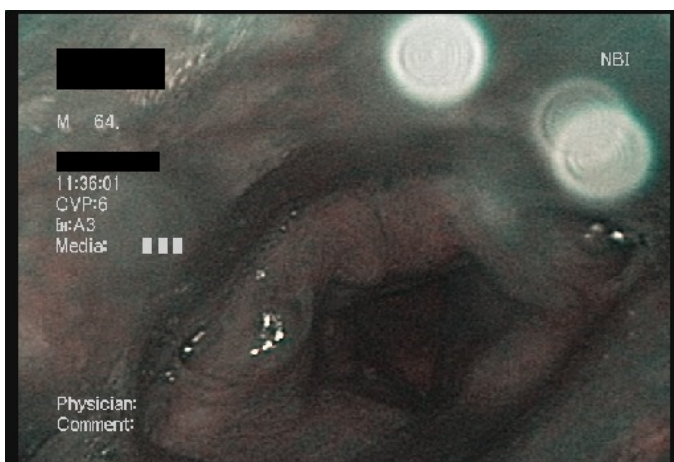
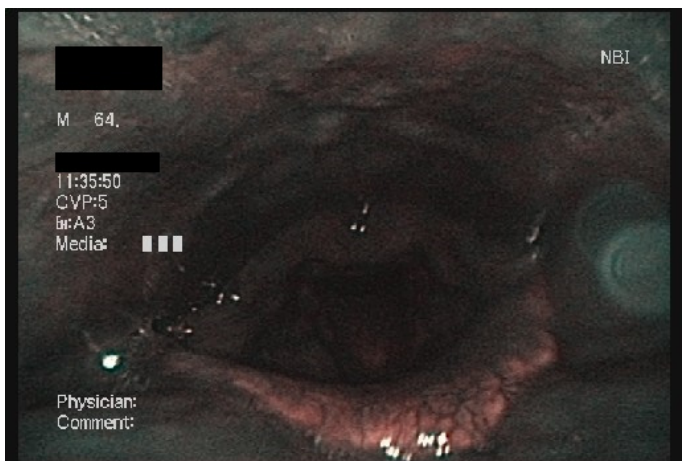
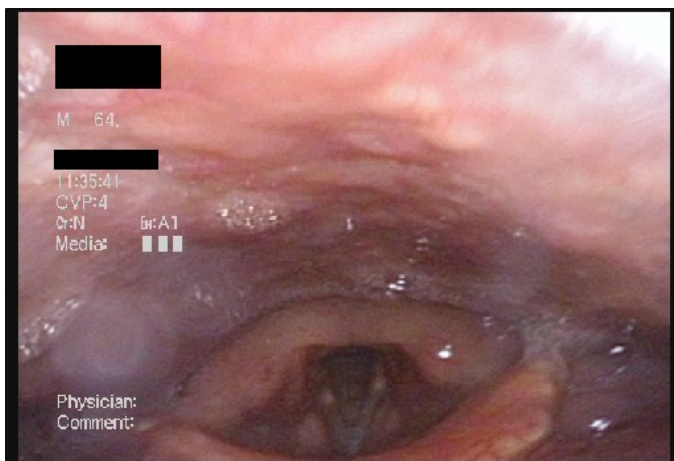
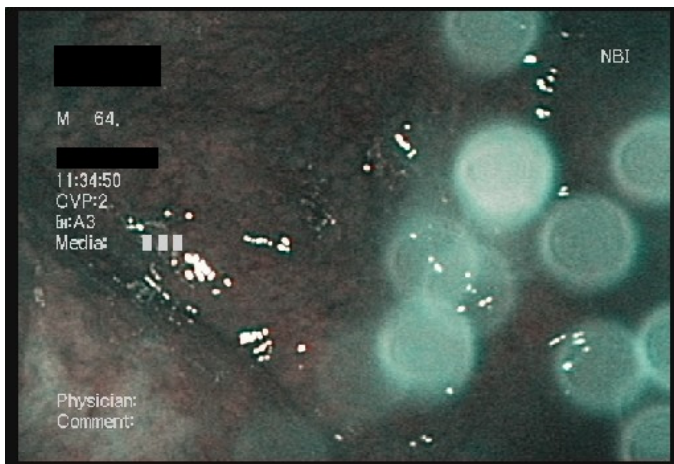
### Laryngoscope:

No bulging mass or ulcerative mucosa is found on the tongue base, vallecular cyst , epiglottic cartilage and arytenoid-epiglottic fold under the white light view laryngoscope. Bilateral vocal cord movement is freely.

### NBI laryngoscope:

Reticular subepithelial capillary network and normal appearance of the vessel growth are noted under the NBI laryngoscope view. No significant sign of tumor is noted.

Bilateral vocal cord movement is freely.





## Abdominal Ultrasound

### Abdominal ultrasound findings:

#### Liver:

The liver parenchyma is normal echogenicity and the liver size is within normal limit. There is no tumor in both lobe of liver.

#### Gallbladder:

Not remarkable change

#### Common bile duct:

No dilatation

#### Pancreas:

The pancreas is not remarkable change and partially obscured by intestinal gas.

#### Spleen:

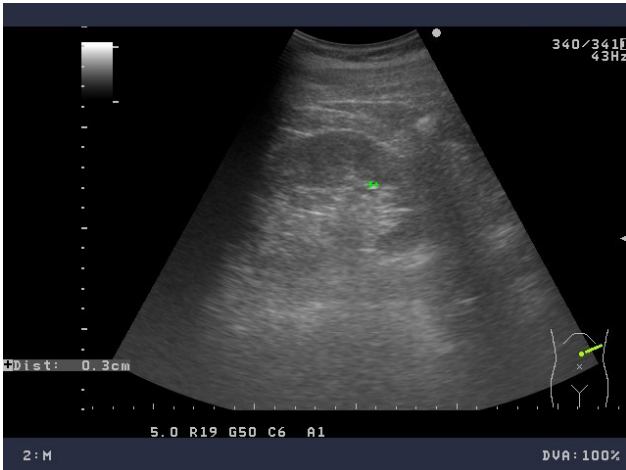
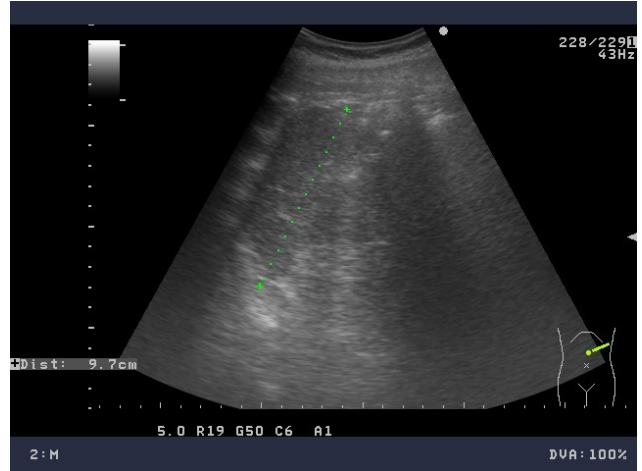
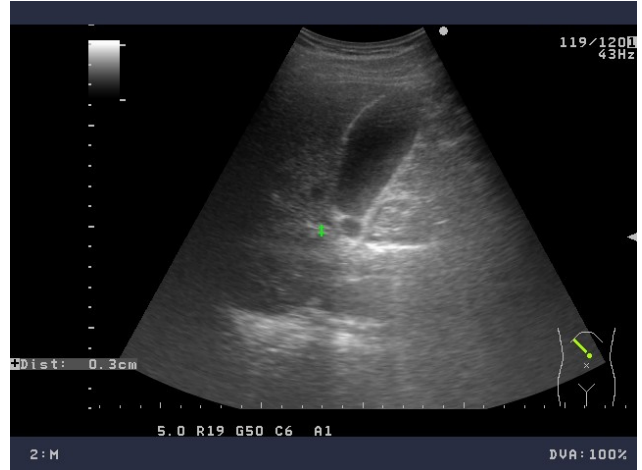
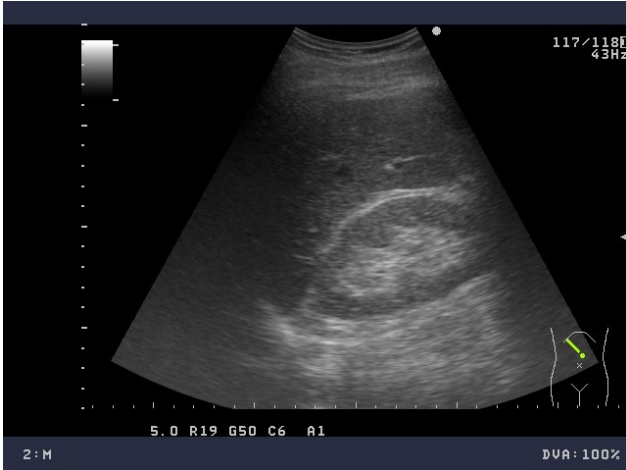
Normal size.

#### Kidneys:

There is a 0.3cm calcification spot in left kidney.

#### Diagnosis:

Left renal calcification spot





## Echocardiography Ultrasound

### Heart

Left Ventricular Diastolic Dysfunction

### Heart Valves

Minimal Mitral Valve, Pulmonary Valve Regurgitation, and Mild Tricuspid Valve Regurgitation

### Cardiac Function

Normal Left Ventricular Systolic and Diastolic Function, Normal Left Ventricular Ejection Fraction  
77%



## Echocardiogram Report

Name: DEMO

ID:

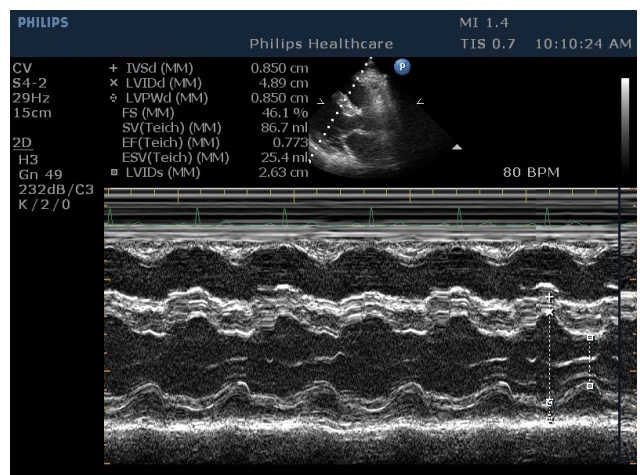
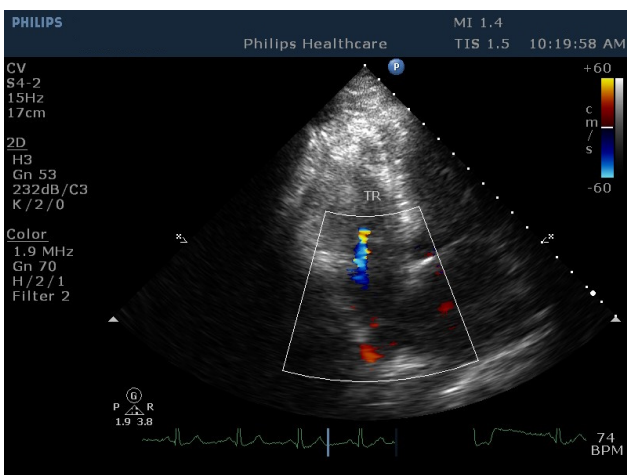
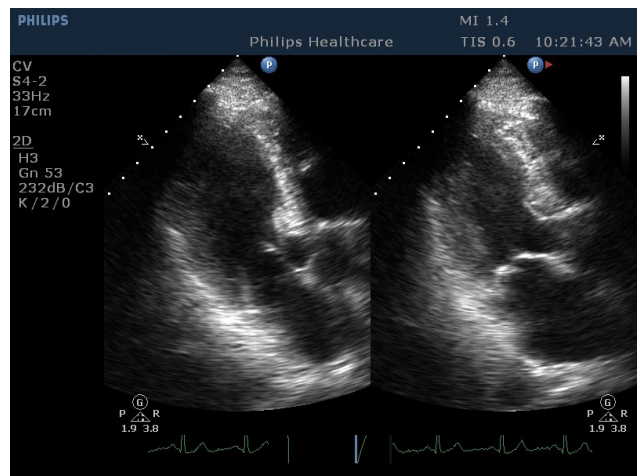
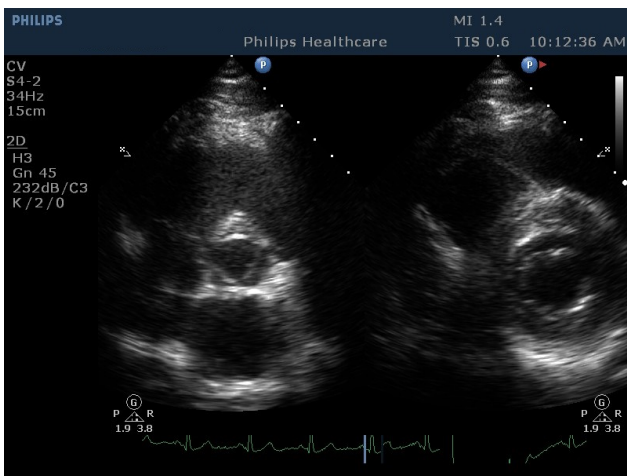
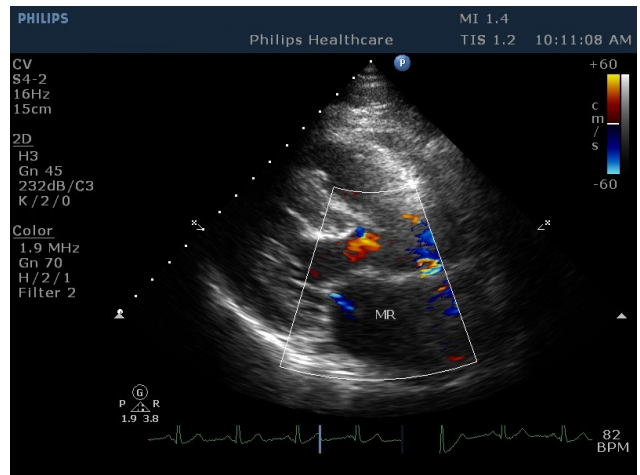
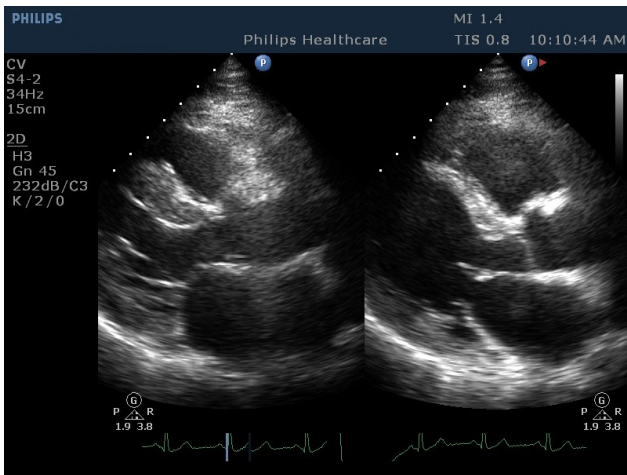
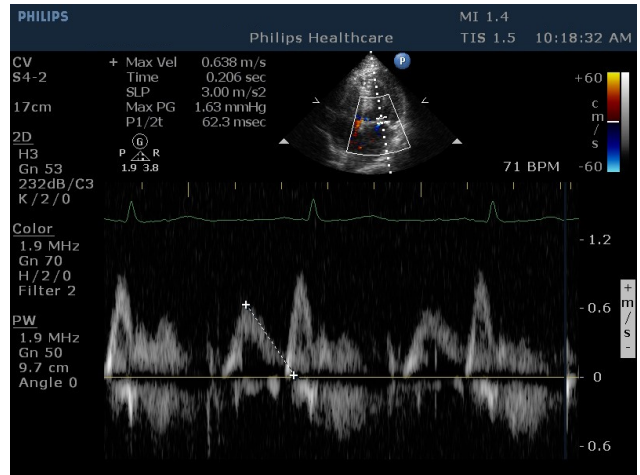
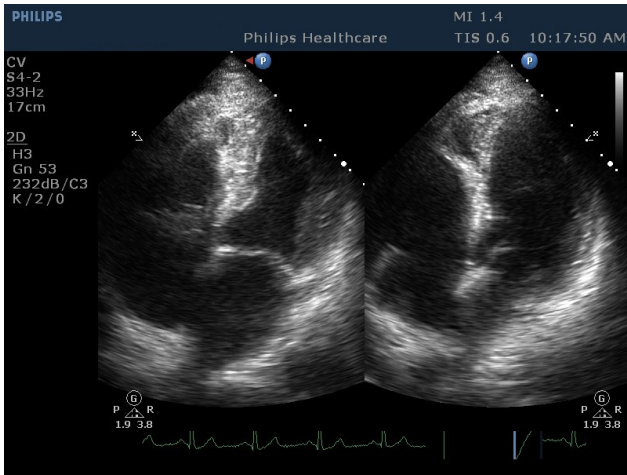
Age: 64

Sex: M

Date: 20240519

Basic Data:						
IVSt:	9	mm(6-12)	LVEDD:	49	mm(36-52)	EF: 77 % (49-76)
LVPWt:	9	mm(5-11)	LVEDS:	26	mm(20-36)	FS: 46 % (28-44)
AO Root:	31	mm(23-37)	LVEDV:	112	ml(96-157)	SV: 87 ml(32-95)
LAD:	37	mm(18-38)	LVESV:	25	ml(33-68)	Echo window: <input checked="" type="checkbox"/> good <input type="checkbox"/> fair <input type="checkbox"/> poor
Clinical Impression:						
ASSESSMENT:						
1. Heart size: <input checked="" type="checkbox"/> normal; <input type="checkbox"/> dilatation of _____; <input type="checkbox"/> thickening of _____						
2. Pericardial Effusion: <input checked="" type="checkbox"/> nil; <input type="checkbox"/> small(<100ml); <input type="checkbox"/> mod(100-300ml); <input type="checkbox"/> large(300ml); <input type="checkbox"/> tamponade						
3. LV systolic function: <input checked="" type="checkbox"/> good; <input type="checkbox"/> fair; <input type="checkbox"/> borderline; <input type="checkbox"/> slightly impaired; <input type="checkbox"/> poor						
4. LV diastolic function: <input type="checkbox"/> normal; <input checked="" type="checkbox"/> impaired relaxation; <input type="checkbox"/> restrictive						
5. Valvular lesion:						
MS: <input type="checkbox"/> trivial; <input type="checkbox"/> mild; <input type="checkbox"/> mod; <input type="checkbox"/> severe; Vmax _____ m/sec; PG max _____ mmHg; PG mean _____ mmHg; Amv (Doppler): _____ cm <sup>2</sup> ; Amv (2D): _____ cm <sup>2</sup>						
MR: <input checked="" type="checkbox"/> trivial; <input type="checkbox"/> mild; <input type="checkbox"/> mod; <input type="checkbox"/> severe; MR-Vmax _____ m/sec; PG _____ mmHg						
AS: <input type="checkbox"/> trivial; <input type="checkbox"/> mild; <input type="checkbox"/> mod; <input type="checkbox"/> severe; Vav: _____ m/s; Vlvot: _____ m/s; Alvot: _____; Aav: _____						
AR: <input type="checkbox"/> trivial; <input type="checkbox"/> mild; <input type="checkbox"/> mod; <input type="checkbox"/> severe; Vmax _____ m/sec; PG _____ mmHg; LVEDP _____ mmHg						
TS: <input type="checkbox"/> trivial; <input type="checkbox"/> mild; <input type="checkbox"/> mod; <input type="checkbox"/> severe						
TR: <input type="checkbox"/> trivial; <input checked="" type="checkbox"/> mild; <input type="checkbox"/> mod; <input type="checkbox"/> severe; Vmax _____ m/sec; PG 24 mmHg; RVSP 29 mmHg						
PR: <input checked="" type="checkbox"/> trivial; <input type="checkbox"/> mild; <input type="checkbox"/> mod; <input type="checkbox"/> severe; Vmax _____ m/sec; PG _____ mmHg						
6. Congenital: <input checked="" type="checkbox"/> nil; <input type="checkbox"/> ASD; <input type="checkbox"/> VSD; <input type="checkbox"/> PDA; <input type="checkbox"/> T/F; <input type="checkbox"/> Others						
7. Asynergy: <input checked="" type="checkbox"/> nil; <input type="checkbox"/> hypokinesis or <input type="checkbox"/> akinesis of segments _____ <input type="checkbox"/> dyskinesis of segments _____						
8. Additional findings: IVC 16 mm						
1. No chamber dilation, no regional wall motion abnormality, estimate LVEF about 77%						
2. Impaired LV relaxation						
3. Trivial MR, trivial PR						
4. Mild TR, PG: 24 mmHg, estimate RVSP about 29 mmHg						







## Carotid Duplex Ultrasound

Left Common Carotid Artery

No Abnormality

Right Common Carotid Artery

No Abnormality

Left Common Carotid Bifurcation

No Abnormality

Right Common Carotid Bifurcation

No Abnormality

Left Internal Carotid Artery

No Abnormality

Right Internal Carotid Artery

No Abnormality

Left External Carotid Artery

No Abnormality

Right External Carotid Artery

No Abnormality

Left Vertebral Artery

No Abnormality

Right Vertebral Artery

No Abnormality



## Carotid Ultrasound Report

Name: DEMO

ID:

Age: 64

Sex: M

Date: 20240519

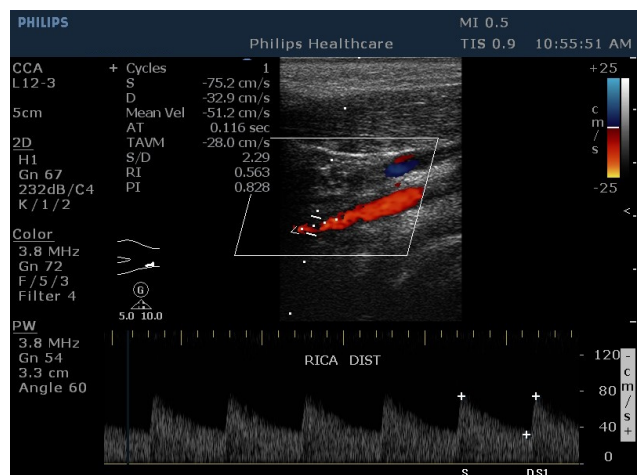
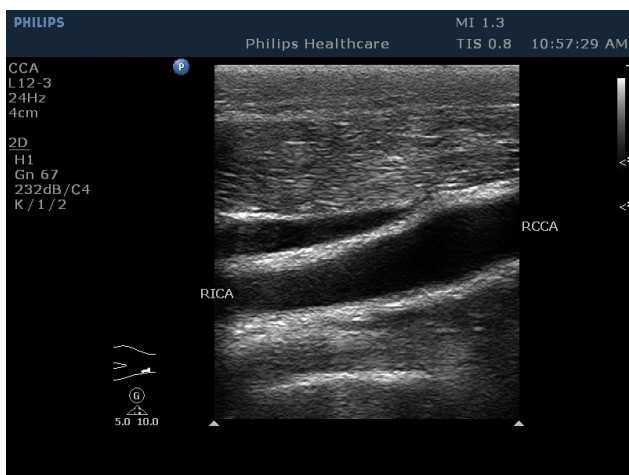
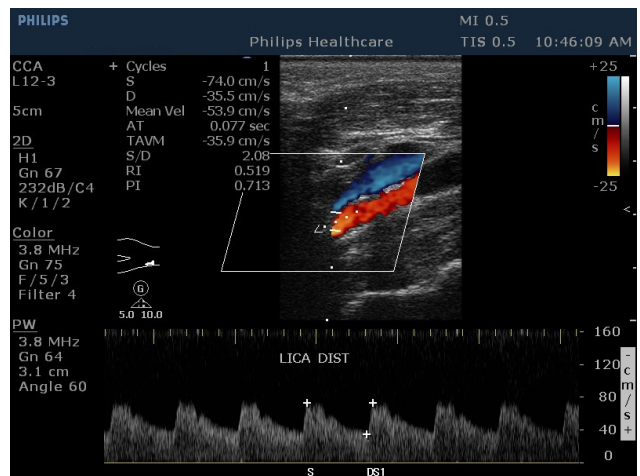
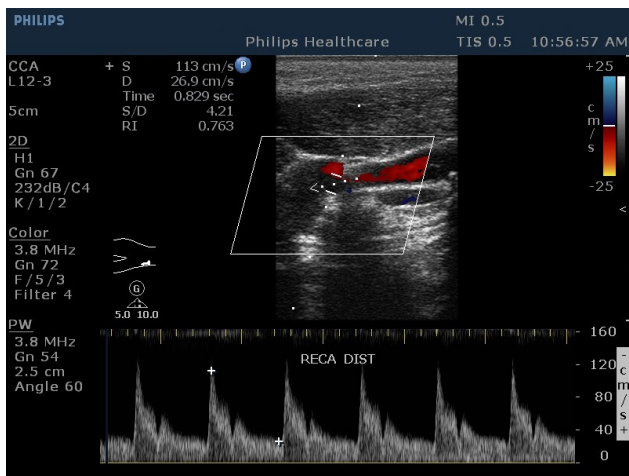
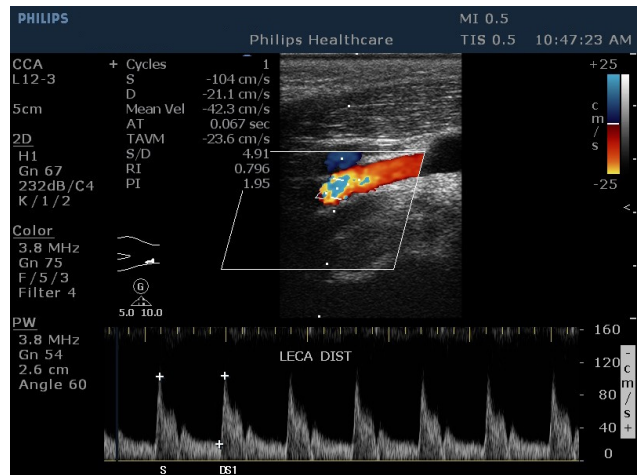
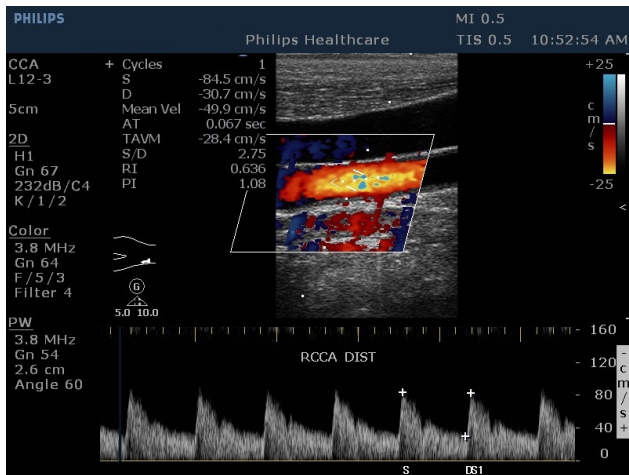
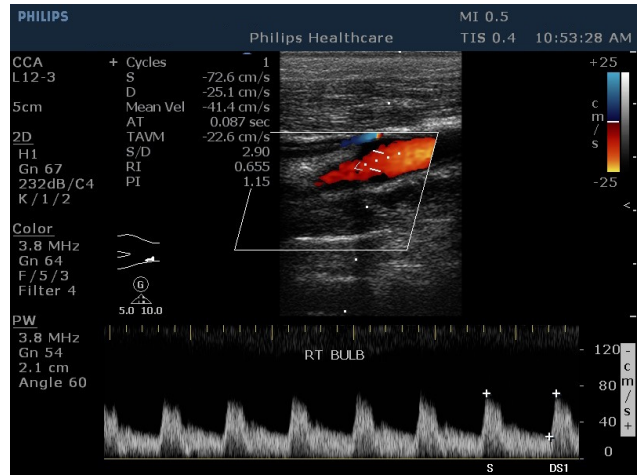
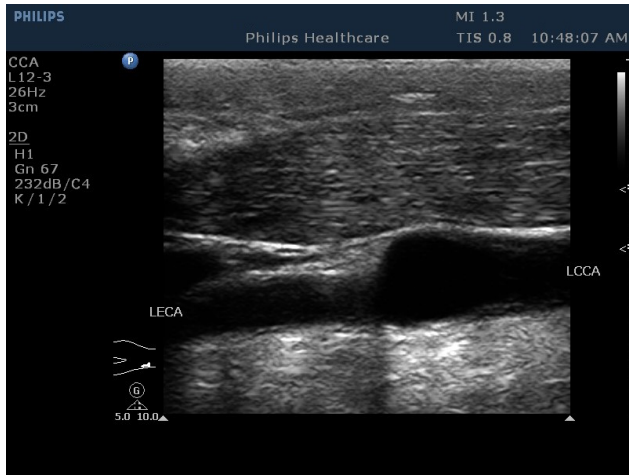
	LEFT	RIGHT
CCA1	90.1/30.0	98.9/28.8
CCA2	71.1/25.0	84.5/30.7
Diam of CCA(mm)	5.16	5.58
IMT(mm)	0.86/0.86	0.73/0.73
BIF	91.3/29.8	72.6/25.1
ICA1	71.1/33.6	79.5/30.3
ICA2	63.4/32.7	61.4/32.0
ICA3	74.0/35.5	75.2/32.9
ECA1	97.0/20.2	83.9/17.3
ECA2	104/21.1	113/26.9
VA	67.2/20.2	62.4/21.1
Diam of VA (mm)	4.30	3.72
other		

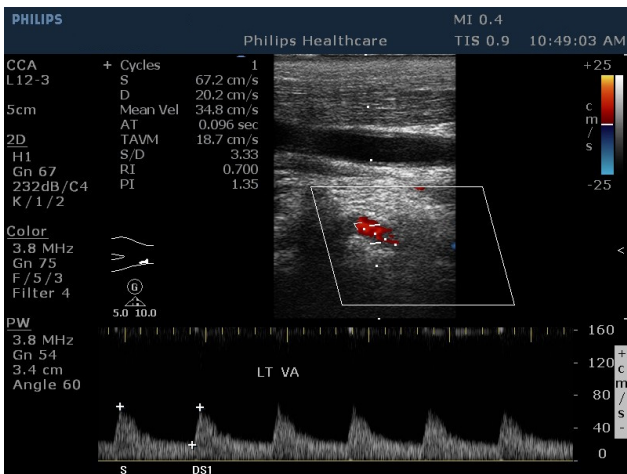
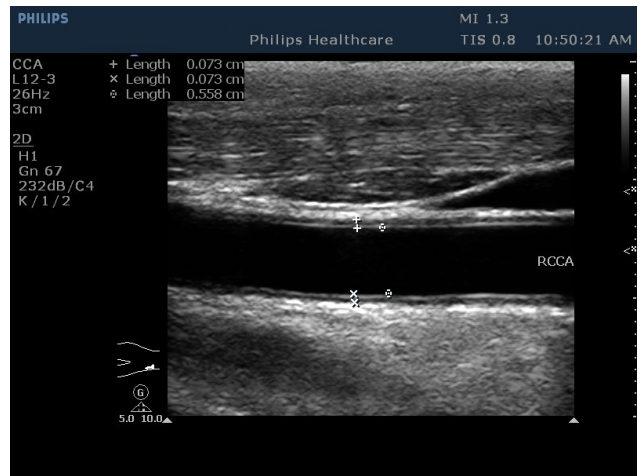
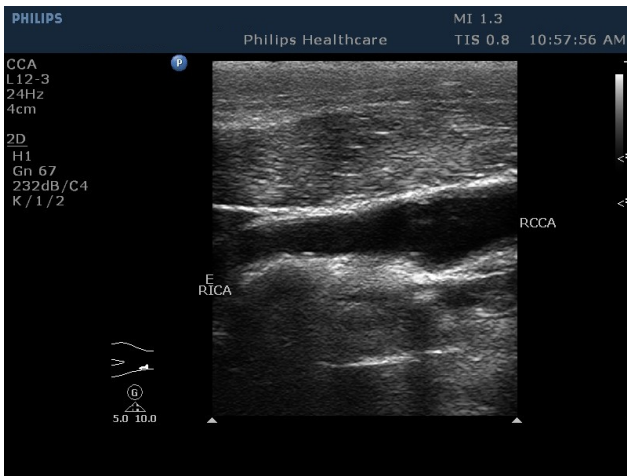
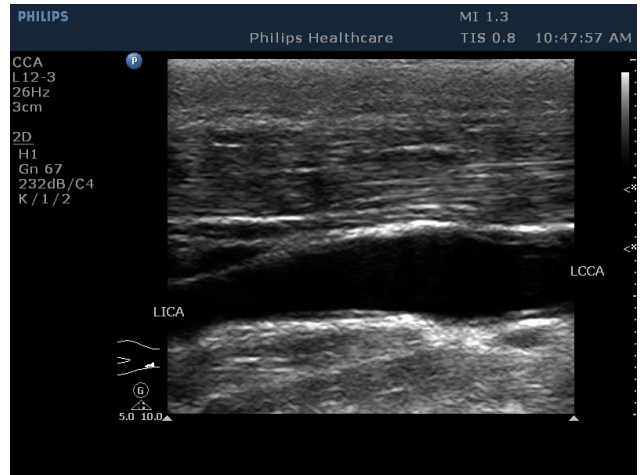
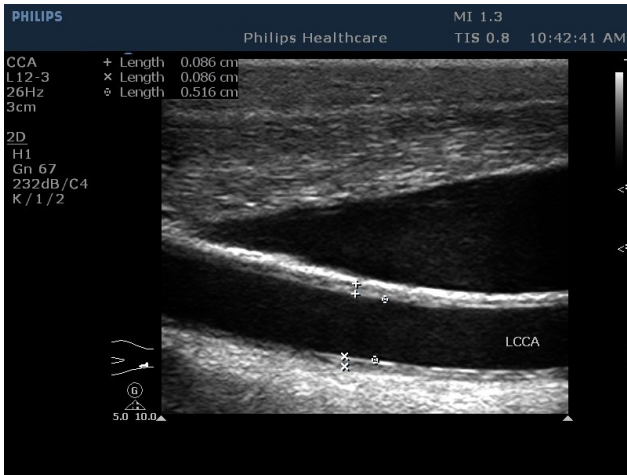
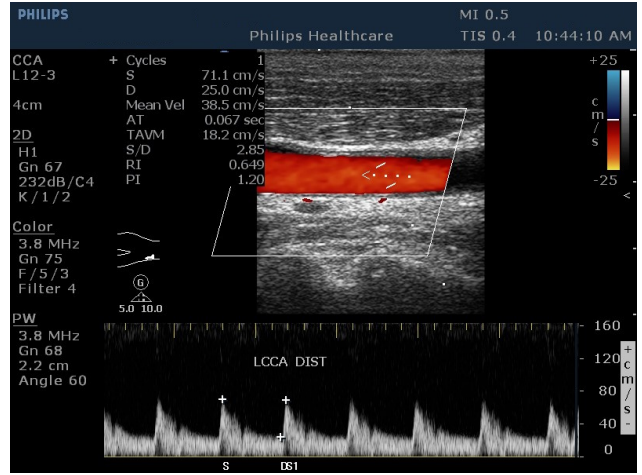
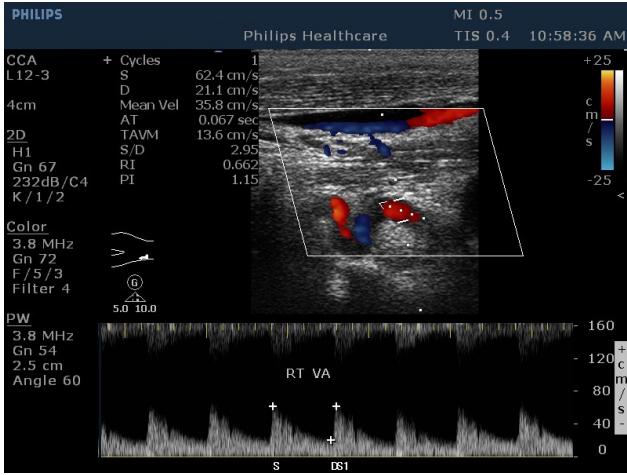
## Findings:

Color duplex: No stenosis of the extracranial carotid and vertebral arteries.

## Conclusion:

Normal vascular ultrasonology study of the extracranial arteries.







## Thyroid Ultrasound

Left Thyroid

Multinodular Goiter with Cystic Changes

Right Thyroid

Nodular Goiter



## Thyroid Ultrasound Report

Name: DEMO

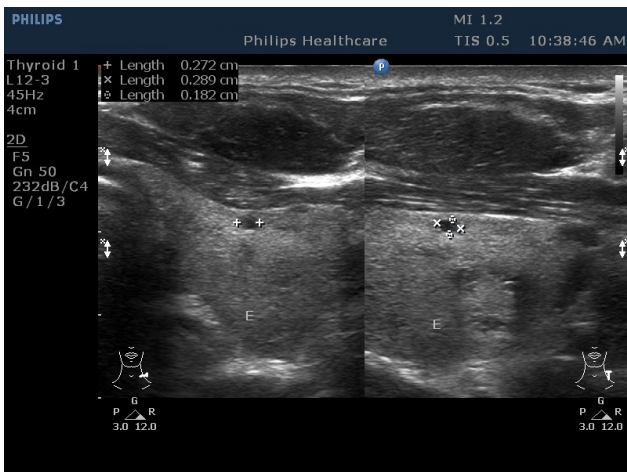
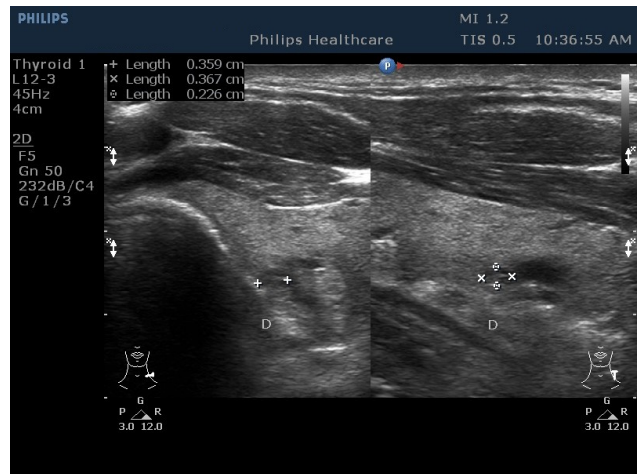
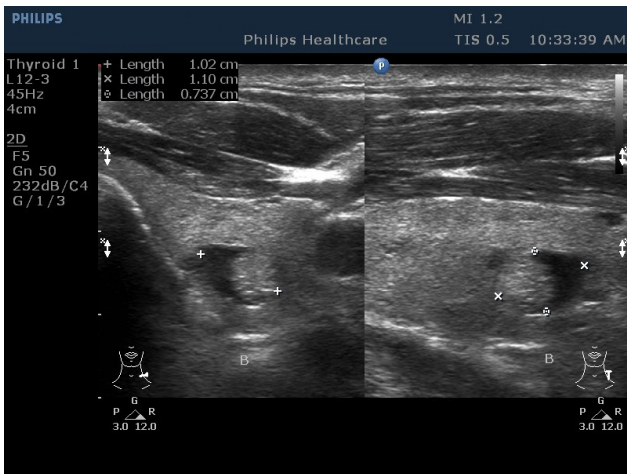
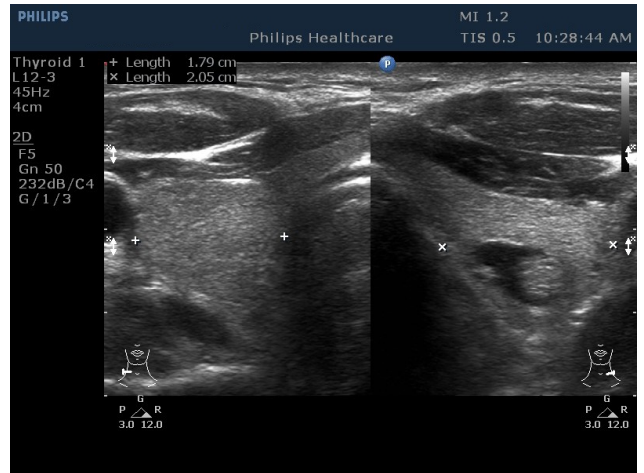
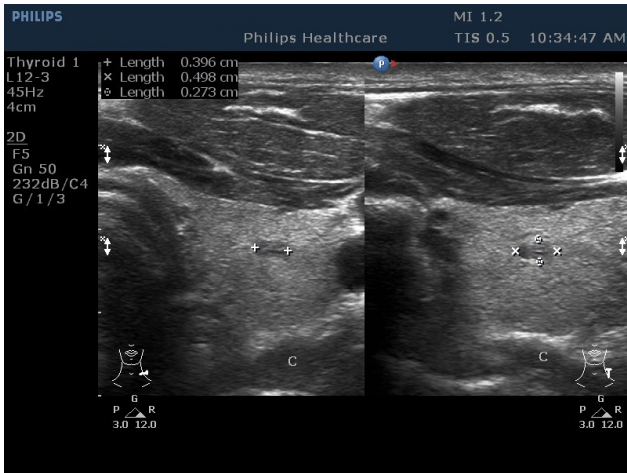
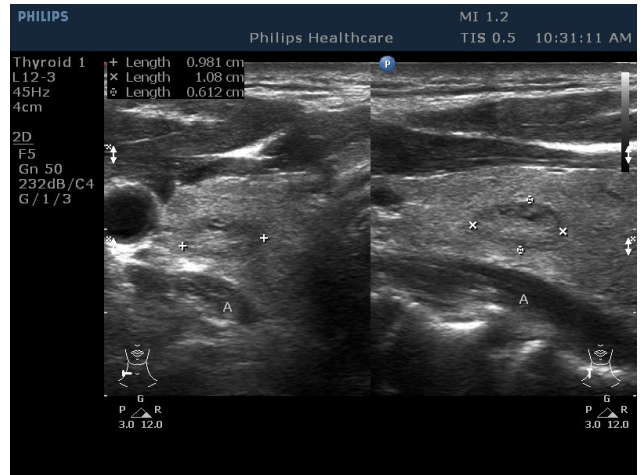
ID:

Age: 64

Sex : M

Date: 20240519

1.		L	W	T	
Right:		cm	1.79cm	1.21cm	
Left:		cm	2.05cm	1.65cm	
2.	Nodularity of the thyroid:	<input type="checkbox"/> NO	<input type="checkbox"/> single	<input checked="" type="checkbox"/> Multiple	
3.	Echo pattern of the thyroid:				
	<b>General</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Right Lobe	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Left Lobe	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
size(cm)		1.08x0.98x0.61	1.10x1.02x0.74	0.50x0.40x0.27	0.37x0.36x0.23
Hyper-echoic	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iso-echoic	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hypo-echoic	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Echo-free	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Smooth margin	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Uneven margin	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear margin	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unclear margin	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Halo	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homogeneous	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heterogeneous	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sparse	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compact	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Calcification	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	L,t side: E:0.29x0.27x0.18				
<b>Impression :</b>	Multinodular goiter with cystic change				
<b>Suggest :</b>	Echo-guided aspiration and cytology				







## Electrocardiogram

Pulmonary Function:

No Abnormality

Blood Oxygen Saturation:

No Abnormality

Resting ECG:

No Abnormality



Pulmonary Function Test Results

Flow / Volume and Volume / Time Loops

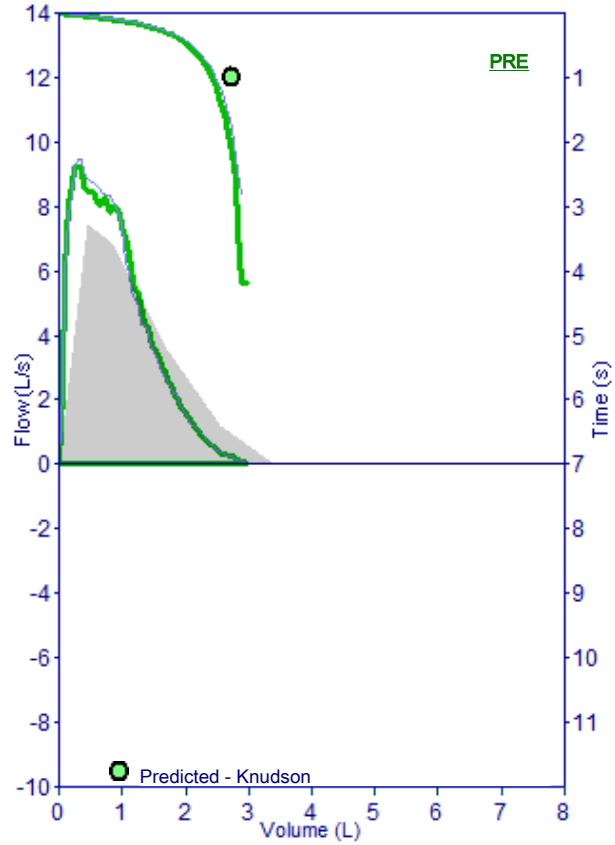
Visit date 2013/9/6

Patient code			
Surname		Age	64
Name	DEMO	Gender:	Male
Date of birth	1958/7/10	Height, cm	167
Ethnic group	Chinese	Weight, kg	78
Smoke		Pack-Year	
Patient group			

Interpretation

Normal Spirometry

Conclusion / Medical report



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PRE Trial date 2024/5/19 上午 09:38:25

Parameters	BTPS 1.078 28°C - 82.4°F	Pred	PRE	%Pred	POST	%Pred	%Chg	PRE#1	PRE#2	PRE#3
Best values from all loops										
FVC	L	3.41	2.99	88				2.99	2.96	
FEV1	L	2.72	2.49	91				2.46	2.49	
FEV1/FVC	%	80.7	83.3	103				82.3	84.1	
PEF	L/s	7.47	9.60	129				9.32	9.60	
Values from best loop										
FEF2575	L/s	2.83	2.80	99				2.80	2.87	
FEF25	L/s	6.84	8.21	120				8.21	8.36	
FEF50	L/s	3.54	3.56	101				3.56	3.57	
FEF75	L/s	1.22	0.85	70				0.85	0.96	
FEV3	L	3.29	2.89	88				2.89	2.90	
FET	s	6.00	4.19	70				4.19	3.63	
FVC	L	3.41								
FIV1	L	2.72								
FIV1/FVC	%	80.7	0.0	0				0.0	0.0	
PIF	L/s	7.47								
ELA	Years	64	73					73	72	
VC	L									
IVC	L									
FEV1/VC	%									
ERV	L									
IC	L									
EVOL	mL		0							

**Quality Report** **A**

Repeatable FVC, Repeatable FEV1, Repeatable PEF

Signature

Instrument used

Spirolab III S/N 306499

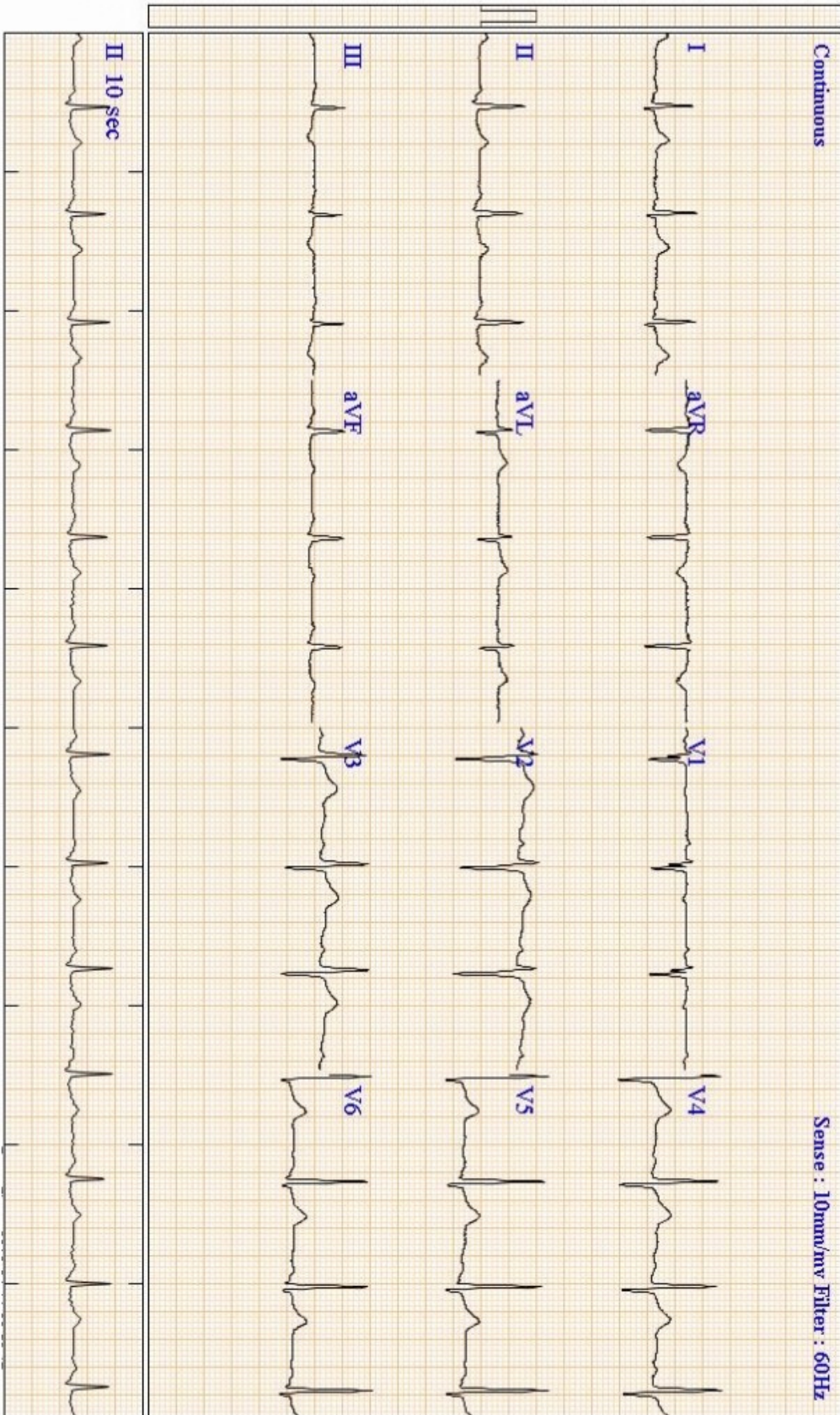




Medication :  
 History :  
 Symptoms :  
 Physical findings :  
 BirthDate :  
 Sex : M  
 Global Measurement :  
 HR 77 bpm  
 PR int. 150 msec  
 QRS dur. 94 msec  
 QT int. 386 msec  
 QTc int. 418 msec  
 P axis 33 deg  
 QRS axis 45 deg  
 T axis 17 deg  
 SV1 amp. 0.76 mV  
 RV5 amp. 1.72 mV  
 avg RR 77.0 msec

**RRatio = 14.03** comment :  
 Normal ECG  
 Sinus rhythm

Original Resolution





## 10-year Coronary Heart Disease Risk Assessment

The '10 Year Coronary Heart Disease(CHD) Risk Assessment' is based on the American Heart Association's analysis of the Framingham Heart Study\*, assessing the risk of CHD for patients who have no noticeable symptoms currently. The Framingham CHD Risk Score is generated by assessing the patient's age, gender, total cholesterol, high-density lipoprotein cholesterol, blood pressure, and whether there is a presence of diabetes and smoking habits. Through the Framingham CHD Risk Score, it can be estimated the likelihood of CHD occurrence within the next 10 years, and one's current health status age group.

Age	Gender	Cholesterol	HDL-Cholesterol	Blood Pressure	Diabetes	Smoking
64	Male	227 mg/dl	44 mg/dl	L:143/91 mmHg R:134/83 mmHg	No	No

**Estimates risk for CHD over a period of 10 years 20%**

**The age of CHD risk equivalent is : 70-74**

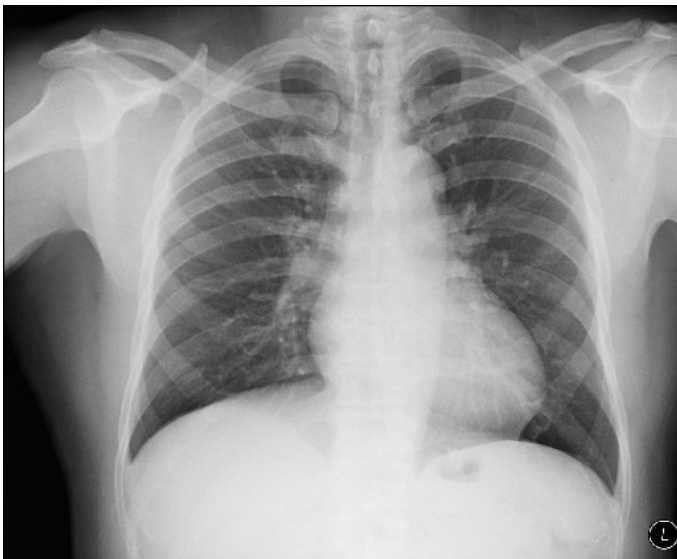
Peter W.F. Wilson, et al. Circulation 1998;97:1837-1847

### Estimates the risk score and risk of CHD occurrence within the next 10 years

Risk Score	< 10 %	10 ~ 20 %	> 20 %
Risk	Low	Moderate	High

## Chest X-Ray Examination

1. Atherosclerosis of aortic arch
  2. Thoracic spondylosis
  3. No obvious active pulmonary lesion
- 



## Cervical Spine X-Ray Examination

1. Cervical spondylosis with C3 to C7 spurs formation
  2. Grade I retrolisthesis of C4 on C5 and C5 on C6
  3. Narrowing disc space at C4 C5 and C5 C6 levels
  4. Nuchal ligament calcifications
- 





## L-S Spine X-Ray Examination

1. Grade I retrolisthesis of L4 on L5
  2. Grade I anterolisthesis of L5 on S1
  3. L5 pars fracture
  4. Narrowing of L4 L5 disc
  5. L4 and L5 bony spurs formation
- 



## Abdominal X-Ray Examination

1. Lumbar spondylosis with spurs formation
  2. Normal intestinal gas pattern
  3. No abnormal density
- 







## ENT Examination

Ear:

Normal appearance.

Nose:

Normal appearance.

Nasopharynx:

Too narrow to exam.

Pharynx:

Normal appearance.

Larynx:

Bilateral vocal cord movement freely.

Head and Neck:

Normal appearance, no palpable mass.