

# Detailed Disease Prediction Metrics Calculations

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This document provides a detailed breakdown of Recall, Precision, and F2-score calculations for each disease class based on the True Positive (TP), True Negative (TN), False Positive (FP), and False Negative (FN) values provided.

The calculations for each metric are as follows:

- **Recall (Sensitivity)**: Measures the model's ability to correctly identify true positive cases. Calculated as:

$$\text{Recall} = \text{TP} / (\text{TP} + \text{FN})$$

- **Precision**: Measures the accuracy of positive predictions, showing the proportion of correctly predicted positive cases. Calculated as:

$$\text{Precision} = \text{TP} / (\text{TP} + \text{FP})$$

- **F2-Score**: A harmonic mean of Precision and Recall, with more emphasis on Recall (useful when Recall is more critical). Calculated as:

$$\text{F2} = (5 * \text{Precision} * \text{Recall}) / ((4 * \text{Precision}) + \text{Recall})$$

## Paroxysmal Positional Vertigo

True Positives (TP): 18

True Negatives (TN): 966

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $18 / (18 + 0) = 1.00$

Precision Calculation:  $18 / (18 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Paroxysmal Positional Vertigo cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Paroxysmal Positional Vertigo cases.

## AIDS

True Positives (TP): 30

True Negatives (TN): 954

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $30 / (30 + 0) = 1.00$

Precision Calculation:  $30 / (30 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies AIDS cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting AIDS cases.

## Acne

True Positives (TP): 24

True Negatives (TN): 960

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $24 / (24 + 0) = 1.00$

Precision Calculation:  $24 / (24 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Acne cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Acne cases.

## Alcoholic hepatitis

True Positives (TP): 25

True Negatives (TN): 959

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $25 / (25 + 0) = 1.00$

Precision Calculation:  $25 / (25 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Alcoholic hepatitis cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Alcoholic hepatitis cases.

### Allergy

True Positives (TP): 24

True Negatives (TN): 960

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $24 / (24 + 0) = 1.00$

Precision Calculation:  $24 / (24 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Allergy cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Allergy cases.

### Arthritis

True Positives (TP): 23

True Negatives (TN): 961

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $23 / (23 + 0) = 1.00$

Precision Calculation:  $23 / (23 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Arthritis cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Arthritis cases.

### Bronchial Asthma

True Positives (TP): 33

True Negatives (TN): 951

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $33 / (33 + 0) = 1.00$

Precision Calculation:  $33 / (33 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Bronchial Asthma cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Bronchial Asthma cases.

### Cervical spondylosis

True Positives (TP): 23

True Negatives (TN): 961

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $23 / (23 + 0) = 1.00$

Precision Calculation:  $23 / (23 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Cervical spondylosis cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Cervical spondylosis cases.

### Chicken pox

True Positives (TP): 21

True Negatives (TN): 963

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $21 / (21 + 0) = 1.00$

Precision Calculation:  $21 / (21 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Chicken pox cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Chicken pox cases.

### Chronic cholestasis

True Positives (TP): 15

True Negatives (TN): 969

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $15 / (15 + 0) = 1.00$

Precision Calculation:  $15 / (15 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Chronic cholestasis cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Chronic cholestasis cases.

### Common Cold

True Positives (TP): 23

True Negatives (TN): 961

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $23 / (23 + 0) = 1.00$

Precision Calculation:  $23 / (23 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Common Cold cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Common Cold cases.

### Dengue

True Positives (TP): 26

True Negatives (TN): 958

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $26 / (26 + 0) = 1.00$

Precision Calculation:  $26 / (26 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Dengue cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Dengue cases.

### Diabetes

True Positives (TP): 21

True Negatives (TN): 963

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $21 / (21 + 0) = 1.00$

Precision Calculation:  $21 / (21 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Diabetes cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Diabetes cases.

### Dimorphic hemorrhoids(piles)

True Positives (TP): 29

True Negatives (TN): 955

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $29 / (29 + 0) = 1.00$

Precision Calculation:  $29 / (29 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Dimorphic hemorrhoids(piles) cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Dimorphic hemorrhoids(piles) cases.

### Drug Reaction

True Positives (TP): 24

True Negatives (TN): 960

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $24 / (24 + 0) = 1.00$

Precision Calculation:  $24 / (24 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Drug Reaction cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Drug Reaction cases.

### Fungal infection

True Positives (TP): 19

True Negatives (TN): 965

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $19 / (19 + 0) = 1.00$

Precision Calculation:  $19 / (19 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Fungal infection cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Fungal infection cases.

### GERD

True Positives (TP): 28

True Negatives (TN): 956

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $28 / (28 + 0) = 1.00$

Precision Calculation:  $28 / (28 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:



The Recall of 100.00% indicates that the model identifies GERD cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting GERD cases.

### Gastroenteritis

True Positives (TP): 25

True Negatives (TN): 959

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $25 / (25 + 0) = 1.00$

Precision Calculation:  $25 / (25 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Gastroenteritis cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Gastroenteritis cases.

### Heart attack

True Positives (TP): 23

True Negatives (TN): 961

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $23 / (23 + 0) = 1.00$

Precision Calculation:  $23 / (23 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Heart attack cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Heart attack cases.

## Hepatitis B

True Positives (TP): 27

True Negatives (TN): 957

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $27 / (27 + 0) = 1.00$

Precision Calculation:  $27 / (27 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hepatitis B cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hepatitis B cases.

## Hepatitis C

True Positives (TP): 26

True Negatives (TN): 958

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $26 / (26 + 0) = 1.00$

Precision Calculation:  $26 / (26 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hepatitis C cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hepatitis C cases.

## Hepatitis D

True Positives (TP): 23

True Negatives (TN): 961

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $23 / (23 + 0) = 1.00$

Precision Calculation:  $23 / (23 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hepatitis D cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hepatitis D cases.

### Hepatitis E

True Positives (TP): 29

True Negatives (TN): 955

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $29 / (29 + 0) = 1.00$

Precision Calculation:  $29 / (29 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hepatitis E cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hepatitis E cases.

### Hypertension

True Positives (TP): 25

True Negatives (TN): 959

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $25 / (25 + 0) = 1.00$

Precision Calculation:  $25 / (25 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hypertension cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hypertension cases.

### Hyperthyroidism

True Positives (TP): 24

True Negatives (TN): 960

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $24 / (24 + 0) = 1.00$

Precision Calculation:  $24 / (24 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hyperthyroidism cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hyperthyroidism cases.

### Hypoglycemia

True Positives (TP): 26

True Negatives (TN): 958

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $26 / (26 + 0) = 1.00$

Precision Calculation:  $26 / (26 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hypoglycemia cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hypoglycemia cases.

### Hypothyroidism

True Positives (TP): 21

True Negatives (TN): 963

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $21 / (21 + 0) = 1.00$

Precision Calculation:  $21 / (21 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hypothyroidism cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hypothyroidism cases.

### Impetigo

True Positives (TP): 24

True Negatives (TN): 960

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $24 / (24 + 0) = 1.00$

Precision Calculation:  $24 / (24 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Impetigo cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Impetigo cases.

## Jaundice

True Positives (TP): 19

True Negatives (TN): 965

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $19 / (19 + 0) = 1.00$

Precision Calculation:  $19 / (19 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Jaundice cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Jaundice cases.

## Malaria

True Positives (TP): 22

True Negatives (TN): 962

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $22 / (22 + 0) = 1.00$

Precision Calculation:  $22 / (22 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Malaria cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Malaria cases.

## Migraine

True Positives (TP): 25

True Negatives (TN): 959

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $25 / (25 + 0) = 1.00$

Precision Calculation:  $25 / (25 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Migraine cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Migraine cases.

### **Osteoarthritis**

True Positives (TP): 22

True Negatives (TN): 962

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $22 / (22 + 0) = 1.00$

Precision Calculation:  $22 / (22 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Osteoarthritis cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Osteoarthritis cases.

### **Paralysis (brain hemorrhage)**

True Positives (TP): 24

True Negatives (TN): 960

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $24 / (24 + 0) = 1.00$

Precision Calculation:  $24 / (24 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Paralysis (brain hemorrhage) cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Paralysis (brain hemorrhage) cases.

### Peptic ulcer disease

True Positives (TP): 17

True Negatives (TN): 967

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $17 / (17 + 0) = 1.00$

Precision Calculation:  $17 / (17 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Peptic ulcer disease cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Peptic ulcer disease cases.

### Pneumonia

True Positives (TP): 28

True Negatives (TN): 956

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $28 / (28 + 0) = 1.00$

Precision Calculation:  $28 / (28 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:



The Recall of 100.00% indicates that the model identifies Pneumonia cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Pneumonia cases.

### Psoriasis

True Positives (TP): 22

True Negatives (TN): 962

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $22 / (22 + 0) = 1.00$

Precision Calculation:  $22 / (22 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Psoriasis cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Psoriasis cases.

### Tuberculosis

True Positives (TP): 25

True Negatives (TN): 959

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $25 / (25 + 0) = 1.00$

Precision Calculation:  $25 / (25 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Tuberculosis cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Tuberculosis cases.

## Typhoid

True Positives (TP): 19

True Negatives (TN): 965

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $19 / (19 + 0) = 1.00$

Precision Calculation:  $19 / (19 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Typhoid cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Typhoid cases.

## Urinary tract infection

True Positives (TP): 26

True Negatives (TN): 958

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $26 / (26 + 0) = 1.00$

Precision Calculation:  $26 / (26 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Urinary tract infection cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Urinary tract infection cases.

## Varicose veins

True Positives (TP): 22

True Negatives (TN): 962

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $22 / (22 + 0) = 1.00$

Precision Calculation:  $22 / (22 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Varicose veins cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Varicose veins cases.

### Hepatitis A

True Positives (TP): 34

True Negatives (TN): 950

False Positives (FP): 0

False Negatives (FN): 0

Recall Calculation:  $34 / (34 + 0) = 1.00$

Precision Calculation:  $34 / (34 + 0) = 1.00$

F2-Score Calculation:  $(5 * 1.00 * 1.00) / ((4 * 1.00) + 1.00) = 1.00$

Interpretation:

The Recall of 100.00% indicates that the model identifies Hepatitis A cases accurately most of the time when they are present. Precision is 100%, as FP is 0, showing no false positives. The F2-score of 1.00 emphasizes Recall more, highlighting the model's sensitivity in detecting Hepatitis A cases.