

|                |  |                   |                        |
|----------------|--|-------------------|------------------------|
| NAME           | : Mrs. NEERAJ                                  | PATIENT ID        | : 1513996              |
| AGE/ GENDER    | : 33 YRS/FEMALE                                | REG. NO./LAB NO.  | : 122407160002         |
| COLLECTED BY   | :  | REGISTRATION DATE | : 16/Jul/2024 08:15 AM |
| REFERRED BY    | :  | COLLECTION DATE   | : 16/Jul/2024 08:31AM  |
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| CLIENT CODE.   | : P.K.R JAIN HEALTHCARE INSTITUTE              |                   |                        |
| CLIENT ADDRESS | : NASIRPUR, HISSAR ROAD, AMBALA CITY - HARYANA |                   |                        |

| Test Name | Value | Unit | Biological Reference interval |
|-----------|-------|------|-------------------------------|
|-----------|-------|------|-------------------------------|

## HAEMATOLOGY

### HAEMOGLOBIN (HB)

|                                     |                   |       |             |
|-------------------------------------|-------------------|-------|-------------|
| HAEMOGLOBIN (HB)<br>by CALORIMETRIC | 11.8 <sup>L</sup> | gm/dL | 12.0 - 16.0 |
|-------------------------------------|-------------------|-------|-------------|

#### INTERPRETATION:-

Hemoglobin is the protein molecule in red blood cells that carries oxygen from the lungs to the bodys tissues and returns carbon dioxide from the tissues back to the lungs.

A low hemoglobin level is referred to as ANEMIA or low red blood count.

#### ANEMIA ( DECREASED HAEMOGLOBIN):


- 1) Loss of blood (traumatic injury, surgery, bleeding, colon cancer or stomach ulcer)
- 2) Nutritional deficiency (iron, vitamin B12, folate)
- 3) Bone marrow problems (replacement of bone marrow by cancer)
- 4) Suppression by red blood cell synthesis by chemotherapy drugs
- 5) Kidney failure
- 6) Abnormal hemoglobin structure (sickle cell anemia or thalassemia).

#### POLYCYTHEMIA (INCREASED HAEMOGLOBIN):

- 1) People in higher altitudes (Physiological)
- 2) Smoking (Secondary Polycythemia)
- 3) Dehydration produces a falsely rise in hemoglobin due to increased haemoconcentration
- 4) Advanced lung disease (for example, emphysema)
- 5) Certain tumors
- 6) A disorder of the bone marrow known as polycythemia rubra vera,
- 7) Abuse of the drug erythropoetin (Epogen) by athletes for blood doping purposes (increasing the amount of oxygen available to the body by chemically raising the production of red blood cells).

NOTE: TEST CONDUCTED ON EDTA WHOLE BLOOD



  
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PLATELET COUNT (P/C)


|                      |                     |      |                 |
|----------------------|---------------------|------|-----------------|
| PLATELET COUNT (PLT) | 148000 <sup>L</sup> | /cmm | 150000 - 450000 |
|----------------------|---------------------|------|-----------------|

by HYDRO DYNAMIC FOCUSING, ELECTRICAL IMPEDENCE & MICROSCOPY

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## CLINICAL CHEMISTRY/BIOCHEMISTRY


## LIVER FUNCTION TEST (COMPLETE)

|  |       |       |   |
|--|-------|-------|---|
| BILIRUBIN TOTAL: SERUM<br><i>by DIAZOTIZATION, SPECTROPHOTOMETRY</i>                           | 0.38  | mg/dL | INFANT: 0.20 - 8.00<br>ADULT: 0.00 - 1.20 |
| BILIRUBIN DIRECT (CONJUGATED): SERUM<br><i>by DIAZO MODIFIED, SPECTROPHOTOMETRY</i>            | 0.18  | mg/dL | 0.00 - 0.40                               |
| BILIRUBIN INDIRECT (UNCONJUGATED): SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>            | 0.2   | mg/dL | 0.10 - 1.00                               |
| SGOT/AST: SERUM<br><i>by IFCC, WITHOUT PYRIDOXAL PHOSPHATE</i>                                 | 24.37 | U/L   | 7.00 - 45.00                              |
| SGPT/ALT: SERUM<br><i>by IFCC, WITHOUT PYRIDOXAL PHOSPHATE</i>                                 | 18.31 | U/L   | 0.00 - 49.00                              |
| AST/ALT RATIO: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>                                | 1.33  | RATIO | 0.00 - 46.00                              |
| ALKALINE PHOSPHATASE: SERUM<br><i>by PARA NITROPHENYL PHOSPHATASE BY AMINO METHYL PROPANOL</i> | 60.78 | U/L   | 40.0 - 130.0                              |
| GAMMA GLUTAMYL TRANSFERASE (GGT): SERUM<br><i>by SZASZ, SPECTROPHOTOMETRY</i>                  | 21.05 | U/L   | 0.00 - 55.0                               |
| TOTAL PROTEINS: SERUM<br><i>by BIURET, SPECTROPHOTOMETRY</i>                                   | 6.76  | gm/dL | 6.20 - 8.00                               |
| ALBUMIN: SERUM<br><i>by BROMOCRESOL GREEN</i>  | 4.24  | gm/dL | 3.50 - 5.50                               |
| GLOBULIN: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>                                     | 2.52  | gm/dL | 2.30 - 3.50                               |
| A : G RATIO: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>                                  | 1.68  | RATIO | 1.00 - 2.00                               |

**INTERPRETATION****NOTE:-** To be correlated in individuals having SGOT and SGPT values higher than Normal Reference Range.**USE:-** Differential diagnosis of diseases of hepatobiliary system and pancreas.**INCREASED:**

|                     |                         |
|---------------------|-------------------------|
| DRUG HEPATOTOXICITY | > 2                     |
| ALCOHOLIC HEPATITIS | > 2 (Highly Suggestive) |
| CIRRHOSIS           | 1.4 - 2.0               |



  
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| Test Name                                    | Value | Unit                       | Biological Reference interval |
|--|-------|----------------------------|-------------------------------|
| INTRAHEPATIC CHOLESTATIS                     |       | > 1.5                      |                               |
| HEPATOCELLULAR CARCINOMA & CHRONIC HEPATITIS |       | > 1.3 (Slightly Increased) |                               |

**DECREASED:**  
 1. Acute Hepatitis due to virus, drugs, toxins (with AST increased 3 to 10 times upper limit of normal)  
 2. Extra Hepatic cholestasis: 0.8 (normal or slightly decreased).

|                                 |           |
|---------------------------------|-----------|
| <b>PROGNOSTIC SIGNIFICANCE:</b> |           |
| NORMAL                          | < 0.65    |
| GOOD PROGNOSTIC SIGN            | 0.3 - 0.6 |
| POOR PROGNOSTIC SIGN            | 1.2 - 1.6 |





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| Test Name  | Value | Unit  | Biological Reference interval |
|--|-------|-------|-------------------------------|
| KIDNEY FUNCTION TEST (BASIC)   |       |       |                               |
| UREA: SERUM<br>by UREASE - GLUTAMATE DEHYDROGENASE (GLDH)                                | 19.38 | mg/dL | 10.00 - 50.00                 |
| CREATININE: SERUM<br>by ENZYMATIC, SPECTROPHOTOMETRY                                     | 0.79  | mg/dL | 0.40 - 1.20                   |
| BLOOD UREA NITROGEN (BUN): SERUM<br>by CALCULATED, SPECTROPHOTOMETRY                     | 9.06  | mg/dL | 7.0 - 25.0                    |
| BLOOD UREA NITROGEN (BUN)/CREATININE<br>RATIO: SERUM<br>by CALCULATED, SPECTROPHOTOMETRY | 11.47 | RATIO | 10.0 - 20.0                   |
| UREA/CREATININE RATIO: SERUM<br>by CALCULATED, SPECTROPHOTOMETRY                         | 24.53 | RATIO |                               |
| URIC ACID: SERUM<br>by URICASE - OXIDASE PEROXIDASE                                      | 3.97  | mg/dL | 2.50 - 6.80                   |



  
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**INTERPRETATION:**  
Normal range for a healthy person on normal diet: 12 - 20  
To Differentiate between pre- and postrenal azotemia.  
**INCREASED RATIO (>20:1) WITH NORMAL CREATININE:**  
1.Prerenal azotemia (BUN rises without increase in creatinine) e.g. heart failure, salt depletion,dehydration, blood loss) due to decreased glomerular filtration rate.  
2.Catabolic states with increased tissue breakdown.  
3.GI hemorrhage.  
4.High protein intake.  
5.Impaired renal function plus .  
6.Excess protein intake or production or tissue breakdown (e.g. infection, GI bleeding, thyrotoxicosis, Cushings syndrome, high protein diet, burns,surgery, cachexia, high fever).  
7.Urine reabsorption (e.g. ureterocolostomy)  
8.Reduced muscle mass (subnormal creatinine production)  
9.Certain drugs (e.g. tetracycline, glucocorticoids)  
**INCREASED RATIO (>20:1) WITH ELEVATED CREATININE LEVELS:**  
1.Postrenal azotemia (BUN rises disproportionately more than creatinine) (e.g. obstructive uropathy).  
2.Prerenal azotemia superimposed on renal disease.  
**DECREASED RATIO (<10:1) WITH DECREASED BUN :**  
1.Acute tubular necrosis.  
2.Low protein diet and starvation.  
3.Severe liver disease.  
4.Other causes of decreased urea synthesis.  
5.Repeated dialysis (urea rather than creatinine diffuses out of extracellular fluid).  
6.Inherited hyperammonemias (urea is virtually absent in blood).  
7.SIADH (syndrome of inappropriate antidiuretic hormone) due to tubular secretion of urea.  
8.Pregnancy.  
**DECREASED RATIO (<10:1) WITH INCREASED CREATININE:**  
1.Phenacimide therapy (accelerates conversion of creatine to creatinine).  
2.Rhabdomyolysis (releases muscle creatinine).  
3.Muscular patients who develop renal failure.  
**INAPPROPRIATE RATIO:**  
1.Diabetic ketoacidosis (acetoacetate causes false increase in creatinine with certain methodologies,resulting in normal ratio when dehydration should produce an increased BUN/creatinine ratio).  
2.Cephalosporin therapy (interferes with creatinine measurement).

\*\*\* End Of Report \*\*\*



  
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