



# PKR JAIN HEALTHCARE INSTITUTE

NASIRPUR, Hissar Road, AMBALA CITY- (Haryana)

**A PIONEER DIAGNOSTIC CENTRE**

☎ 0171-2532620, 8222896961 ✉ [pkrajainhealthcare@gmail.com](mailto:pkrajainhealthcare@gmail.com)

|                       |  |                          |                        |
|-----------------------|--|--------------------------|------------------------|
| <b>NAME</b>           | : Mr. SURESH KUMAR                             | <b>PATIENT ID</b>        | : 1817684              |
| <b>AGE/ GENDER</b>    | : 61 YRS/MALE                                  | <b>REG. NO./LAB NO.</b>  | : 122504040013         |
| <b>COLLECTED BY</b>   | :  | <b>REGISTRATION DATE</b> | : 04/Apr/2025 12:26 PM |
| <b>REFERRED BY</b>    | :  | <b>COLLECTION DATE</b>   | : 04/Apr/2025 12:33PM  |
| <b>BARCODE NO.</b>    | : 12507899                                     | <b>REPORTING DATE</b>    | : 04/Apr/2025 05:22PM  |
| <b>CLIENT CODE.</b>   | : P.K.R JAIN HEALTHCARE INSTITUTE              |                          |                        |
| <b>CLIENT ADDRESS</b> | : NASIRPUR, HISSAR ROAD, AMBALA CITY - HARYANA |                          |                        |

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


## CLINICAL CHEMISTRY/BIOCHEMISTRY

### KIDNEY FUNCTION TEST (BASIC)

|   |                     |       |               |
|---|---------------------|-------|---------------|
| UREA: SERUM<br><i>by UREASE - GLUTAMATE DEHYDROGENASE (GLDH)</i>                                | 103.79 <sup>H</sup> | mg/dL | 10.00 - 50.00 |
| CREATININE: SERUM<br><i>by ENZYMATIC, SPECTROPHOTOMETRY</i>                                     | 5.61 <sup>H</sup>   | mg/dL | 0.40 - 1.40   |
| BLOOD UREA NITROGEN (BUN): SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>                     | 48.5 <sup>H</sup>   | mg/dL | 7.0 - 25.0    |
| BLOOD UREA NITROGEN (BUN)/CREATININE<br>RATIO: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i> | 8.65 <sup>L</sup>   | RATIO | 10.0 - 20.0   |
| UREA/CREATININE RATIO: SERUM<br><i>by CALCULATED, SPECTROPHOTOMETRY</i>                         | 18.5                | RATIO |               |
| URIC ACID: SERUM<br><i>by URICASE - OXIDASE PEROXIDASE</i>                                      | 6.65                | mg/dL | 3.60 - 7.70   |



  
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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).



  
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TEST PERFORMED AT KOS DIAGNOSTIC LAB, AMBALA CANTT.

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## ELECTROLYTES COMPLETE PROFILE

|  |       |        |               |
|--|-------|--------|---------------|
| SODIUM: SERUM<br>by ISE (ION SELECTIVE ELECTRODE)    | 142.8 | mmol/L | 135.0 - 150.0 |
| POTASSIUM: SERUM<br>by ISE (ION SELECTIVE ELECTRODE) | 4.16  | mmol/L | 3.50 - 5.00   |
| CHLORIDE: SERUM<br>by ISE (ION SELECTIVE ELECTRODE)  | 107.1 | mmol/L | 90.0 - 110.0  |

### INTERPRETATION:-

#### SODIUM:-

Sodium is the major cation of extra-cellular fluid. Its primary function in the body is to chemically maintain osmotic pressure & acid base balance & to transmit nerve impulse.

#### HYPONATREMIA (LOW SODIUM LEVEL) CAUSES:-

1. Low sodium intake.
2. Sodium loss due to diarrhea & vomiting with adequate water and inadequate salt replacement.
3. Diuretics abuses.
4. Salt loosing nephropathy.
5. Metabolic acidosis.
6. Adrenocortical insufficiency .
7. Hepatic failure.

#### HYPERNATREMIA (INCREASED SODIUM LEVEL) CAUSES:-

1. Hyperapnea (Prolonged)
2. Diabetes insipidus
3. Diabetic acidosis
4. Cushing's syndrome
5. Dehydration

#### POTASSIUM:-

Potassium is the major cation in the intracellular fluid. 90% of potassium is concentrated within the cells. When cells are damaged, potassium is released in the blood.

#### HYPOKALEMIA (LOW POTASSIUM LEVELS):-

1. Diarrhoea, vomiting & malabsorption.
2. Severe Burns.
3. Increased Secretions of Aldosterone

#### HYPERKALEMIA (INCREASED POTASSIUM LEVELS):-

1. Oliguria
2. Renal failure or Shock
3. Respiratory acidosis



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4.Hemolysis of blood

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



  
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