

# Patient Report

Specimen ID: 341-827-1410-1  
Control ID: 3418271410

Acct #: 29999200

Phone: (908)

Rte: 00

**ADAIKKAPPAN, VIJAY**

1252 MEMORY LN  
WEST CHESTER PA 19380-1037

Raritan NJ 08869



## Patient Details

DOB: 03/09/1983  
Age(y/m/d): 034/08/27  
Gender: M SSN:  
Patient ID:

## Specimen Details

Date collected: 12/06/2017 0000 Local  
Date received: 12/07/2017  
Date entered: 12/11/2017  
Date reported: 12/19/2017 1012 ET

## Physician Details

Ordering:  
Referring:  
ID:  
NPI:

## General Comments & Additional Information

A courtesy copy of this report has been sent to 6107050180.

Clinical Info: CC:6107050180

Total Urine Volume: 1900ml

Fasting: Not Provided

## Ordered Items

Oxalate, Quant, 24-Hour Urine; Written Authorization

| TESTS                                | RESULT | FLAG | UNITS    | REFERENCE INTERVAL | LAB |
|--------------------------------------|--------|------|----------|--------------------|-----|
| <b>Oxalate, Quant, 24-Hour Urine</b> |        |      |          |                    |     |
| Oxalates, Urine                      | 38     |      | mg/L     | Undefined          | 01  |
| Oxalates, Urine 24hr                 | 72     | High | mg/24 hr | 7 - 44             |     |

## Written Authorization

Written Authorization Received.  
Authorization received from ORIGINAL REQ 12-11-2017  
Logged by Coset Jorrin

02

Requisition #: 547836

Physician:

Patient Name: Jessica Vijay Muruges

Date of Collection:

12/21/2017

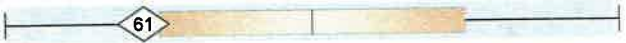
Metabolic Markers in Urine

Reference Range  
(mmol/mol creatinine)

Patient  
Value

Reference Population - Females Under Age 13

**Oxalate Metabolites**

|    |          |            |       |                                                                                    |
|----|----------|------------|-------|------------------------------------------------------------------------------------|
| 19 | Glyceric | 0.71 - 9.5 | 3.9   |  |
| 20 | Glycolic | 20 - 202   | 61    |  |
| 21 | Oxalic   | 15 - 174   | H 222 |  |

**Glycolytic Cycle Metabolites**

|    |         |            |      |                                                                                    |
|----|---------|------------|------|------------------------------------------------------------------------------------|
| 22 | Lactic  | 0.18 - 44  | 33   |  |
| 23 | Pyruvic | 0.88 - 9.1 | H 13 |  |

**Mitochondrial Markers - Krebs Cycle Metabolites**

|    |               |            |      |                                                                                      |
|----|---------------|------------|------|--------------------------------------------------------------------------------------|
| 24 | Succinic      | ≤ 15       | 5.9  |    |
| 25 | Fumaric       | 0.04 - 1.3 | 1.0  |    |
| 26 | Malic         | ≤ 2.2      | 1.2  |   |
| 27 | 2-Oxoglutaric | ≤ 81       | H 83 |  |
| 28 | Aconitic      | 11 - 35    | 16   |  |
| 29 | Citric        | 59 - 440   | 135  |  |

**Mitochondrial Markers - Amino Acid Metabolites**

|    |                    |             |      |                                                                                      |
|----|--------------------|-------------|------|--------------------------------------------------------------------------------------|
| 30 | 3-Methylglutaric   | 0.07 - 0.95 | 0.59 |  |
| 31 | 3-Hydroxyglutaric  | ≤ 11        | 7.1  |  |
| 32 | 3-Methylglutaconic | ≤ 6.4       | 1.4  |  |

**Neurotransmitter Metabolites**

**Phenylalanine and Tyrosine Metabolites**

|    |                                                         |            |       |                                                                                      |
|----|---------------------------------------------------------|------------|-------|--------------------------------------------------------------------------------------|
| 33 | Homovanillic (HVA)<br>(dopamine)                        | ≤ 14       | 4.8   |  |
| 34 | Vanillylmandelic (VMA)<br>(norepinephrine, epinephrine) | 0.87 - 5.9 | H 6.1 |  |
| 35 | HVA / VMA Ratio                                         | 0.12 - 3.0 | 0.79  |  |

**Tryptophan Metabolites**

|    |                                               |            |      |                                                                                      |
|----|-----------------------------------------------|------------|------|--------------------------------------------------------------------------------------|
| 36 | 5-Hydroxyindoleacetic (5-HIAA)<br>(serotonin) | ≤ 7.7      | 4.3  |  |
| 37 | Quinolinic                                    | 0.63 - 6.7 | 3.8  |  |
| 38 | Kynurenic                                     | ≤ 4.1      | 1.7  |  |
| 39 | Quinolinic / 5-HIAA Ratio                     | 0.04 - 2.2 | 0.88 |  |

## Patient Results Report

PATIENT

Vijay Murugesh, Jessica

MRN:

DATE OF BIRTH

09/16/2010

GENDER

F

PHYSICIAN

## Pediatric Chemistry Data

Values larger, bolder and more towards red indicate increasing risk for kidney stone formation.

| DATE     | SAMPLE ID | SS CaOx     | Ca 24<br>/Kg | Ox 24<br>/1.73m <sup>2</sup> | Cit 24<br>/Cr 24 | pH           | UA 24<br>/1.73m <sup>2</sup> | P 24<br>/Kg | Mg 24<br>/Kg | HEIGHT | WEIGHT |
|----------|-----------|-------------|--------------|------------------------------|------------------|--------------|------------------------------|-------------|--------------|--------|--------|
| 04/01/19 | S25792099 | <b>2.78</b> | 0.7          | <b>48.7</b>                  | <b>591</b>       | <b>7.322</b> | <b>0.61</b>                  | <b>13</b>   | <b>1.7</b>   | 114.3  | 18.0   |
| 03/31/19 | S25792098 | <b>4.73</b> | 0.7          | <b>72.6</b>                  | <b>755</b>       | <b>7.561</b> | <b>0.51</b>                  | <b>12</b>   | <b>2.1</b>   | 114.3  | 18.0   |

| ABBR.                     | ANALYTE                               | COMMENTS                                                                                                                              |
|---------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| SS CaOx                   | Supersaturation CaOx                  | Reduce levels by raising urine volume and citrate, lowering urine oxalate and calcium.<br>(J Urol 158:157, 1997)                      |
| Ca 24/Kg                  | 24 hr calcium / Kg                    | mg/kg; <3.7 both genders; if not associated with hypercalcemia consider thiazide diuretic.<br>(Arch Dis Child 49:97, 1974)            |
| Ox 24/1.73 m <sup>2</sup> | 24 hr oxalate / 1.73 m <sup>2</sup>   | mg/1.73 m <sup>2</sup> /d; high from diet excess, severe elevation consider genetic cause or bowel disease.<br>(J Urol 158:157, 1997) |
| Cit 24/Cr 24              | 24 hr citrate / 24 hr creatinine      | mg/g; if low consider potassium citrate.<br>(Reference range calculated from proprietary Litholink data)                              |
| pH                        | 24 hr urine pH                        | Low pH can cause uric acid stones, treat with alkali; if >8 consider urea splitting infection.<br>(J Urol 158:157, 1997)              |
| UA 24/1.73 m <sup>2</sup> | 24 hr uric acid / 1.73 m <sup>2</sup> | g/1.73 m <sup>2</sup> /d; <0.61 both genders; high from diet or inborn errors of purine metabolism.<br>(J Pediatr 92:911, 1978)       |
| P 24/Kg                   | 24 hr phosphorous / Kg                | mg/kg/d; low in poor nutrition or bowel disease, high from diet intake especially dairy.<br>(J Urol 158:157, 1997)                    |
| Mg 24/Kg                  | 24 hr magnesium / Kg                  | mg/kg/d; low in poor nutrition or bowel disease.<br>(J Urol 158:157, 1997)                                                            |
| Height                    | Height in cm                          | Obtained from treating physician or patient.                                                                                          |
| Weight                    | Body Weight in Kg                     | Obtained from treating physician or patient.                                                                                          |

## Patient Results Report

## PATIENT

Vijay Murugesh, Jessica

MRN:

## DATE OF BIRTH

09/16/2010

## GENDER

F

## PHYSICIAN

Values larger, bolder and more towards red indicate increasing risk for kidney stone formation. See reverse for further details.

## Stone Risk Factors / Cystine Screening: Negative (04/02/2019)

| DATE            | SAMPLE ID | Voi 24      | SS CaOx | Ca 24                    | Ox 24   | Cit 24                   | SS CaP  | pH           | SS UA | UA 24                        |
|-----------------|-----------|-------------|---------|--------------------------|---------|--------------------------|---------|--------------|-------|------------------------------|
| 04/01/19        | S25792099 | <b>0.54</b> | 2.78    | 13                       | 21      | <b>166</b>               | 0.54    | <b>7.322</b> | 0.06  | 0.269                        |
| 03/31/19        | S25792098 | <b>0.49</b> | 4.73    | 13                       | 32      | <b>187</b>               | 0.62    | <b>7.561</b> | 0.03  | 0.223                        |
| REFERENCE RANGE |           | 0.5 - 4L    | 6 - 10  | male <250<br>female <200 | 20 - 40 | male >450<br>female >550 | 0.5 - 2 | 5.8 - 6.2    | 0 - 1 | male <0.800<br>female <0.750 |

## Dietary Factors

| DATE            | SAMPLE ID | Na 24    | K 24     | Mg 24     | P 24         | Nh4 24  | Cl 24    | Sul 24  | UUN 24 | PCR        |
|-----------------|-----------|----------|----------|-----------|--------------|---------|----------|---------|--------|------------|
| 04/01/19        | S25792099 | 70       | 21       | <b>31</b> | <b>0.229</b> | 16      | 72       | 2       | 1.31   | <b>0.6</b> |
| 03/31/19        | S25792098 | 58       | 24       | <b>38</b> | <b>0.209</b> | 11      | 60       | 2       | 0.72   | <b>0.4</b> |
| REFERENCE RANGE |           | 50 - 150 | 20 - 100 | 30 - 120  | 0.6 - 1.2    | 15 - 60 | 70 - 250 | 20 - 80 | 6 - 14 | 0.8 - 1.4  |

## Normalized Values

| DATE            | SAMPLE ID | WEIGHT | Cr 24                             | Cr 24/Kg    | Ca 24/Kg                     | Ca 24/Cr 24 |
|-----------------|-----------|--------|-----------------------------------|-------------|------------------------------|-------------|
| 04/01/19        | S25792099 | 18.0   | <b>281</b>                        | <b>15.6</b> | <b>0.7</b>                   | <b>46</b>   |
| 03/31/19        | S25792098 | 18.0   | <b>247</b>                        | <b>13.7</b> | <b>0.7</b>                   | <b>53</b>   |
| REFERENCE RANGE |           |        | male 11.9-24.4<br>female 8.7-20.3 | <4          | male 34-196<br>female 51-262 |             |

Requisition #: 547848

Physician: [REDACTED]

Patient Name: Jothika Vihay Muruges

Date of Collection: 12/21/2017

Metabolic Markers in Urine      Reference Range (mmol/mol creatinine)      Patient Value      Reference Population - Females Under Age 13

**Oxalate Metabolites**

|    |          |            |       |  |
|----|----------|------------|-------|--|
| 19 | Glyceric | 0.71 - 9.5 | 2.4   |  |
| 20 | Glycolic | 20 - 202   | 44    |  |
| 21 | Oxalic   | 15 - 174   | H 341 |  |

**Glycolytic Cycle Metabolites**

|    |         |            |     |  |
|----|---------|------------|-----|--|
| 22 | Lactic  | 0.18 - 44  | 43  |  |
| 23 | Pyruvic | 0.88 - 9.1 | 8.5 |  |

**Mitochondrial Markers - Krebs Cycle Metabolites**

|    |               |            |       |  |
|----|---------------|------------|-------|--|
| 24 | Succinic      | ≤ 15       | 3.3   |  |
| 25 | Fumaric       | 0.04 - 1.3 | 0.35  |  |
| 26 | Malic         | ≤ 2.2      | 0.44  |  |
| 27 | 2-Oxoglutaric | ≤ 81       | 22    |  |
| 28 | Aconitic      | 11 - 35    | L 7.0 |  |
| 29 | Citric        | 59 - 440   | 70    |  |

**Mitochondrial Markers - Amino Acid Metabolites**

|    |                    |             |      |  |
|----|--------------------|-------------|------|--|
| 30 | 3-Methylglutaric   | 0.07 - 0.95 | 0.65 |  |
| 31 | 3-Hydroxyglutaric  | ≤ 11        | 3.1  |  |
| 32 | 3-Methylglutaconic | ≤ 6.4       | 0.98 |  |

**Neurotransmitter Metabolites**

**Phenylalanine and Tyrosine Metabolites**

|    |                                                         |            |      |  |
|----|---------------------------------------------------------|------------|------|--|
| 33 | Homovanillic (HVA)<br>(dopamine)                        | ≤ 14       | 4.6  |  |
| 34 | Vanillylmandelic (VMA)<br>(norepinephrine, epinephrine) | 0.87 - 5.9 | 5.0  |  |
| 35 | HVA / VMA Ratio                                         | 0.12 - 3.0 | 0.93 |  |

**Tryptophan Metabolites**

|    |                                               |            |      |  |
|----|-----------------------------------------------|------------|------|--|
| 36 | 5-Hydroxyindoleacetic (5-HIAA)<br>(serotonin) | ≤ 7.7      | 4.6  |  |
| 37 | Quinolinic                                    | 0.63 - 6.7 | 3.2  |  |
| 38 | Kynurenic                                     | ≤ 4.1      | 1.3  |  |
| 39 | Quinolinic / 5-HIAA Ratio                     | 0.04 - 2.2 | 0.70 |  |

## Patient Results Report

PATIENT

Vijay Murugesh, Jothika

MRN:

DATE OF BIRTH

08/04/2013

GENDER

F

PHYSICIAN

## Pediatric Chemistry Data

Values larger, bolder and more towards red indicate increasing risk for kidney stone formation.

| DATE     | SAMPLE ID | SS CaOx      | Ca 24<br>/Kg | Ox 24<br>/1.73m <sup>2</sup> | Clt 24<br>/Cr 24 | pH           | UA 24<br>/1.73m <sup>2</sup> | P 24<br>/Kg | Mg 24<br>/Kg | HEIGHT | WEIGHT |
|----------|-----------|--------------|--------------|------------------------------|------------------|--------------|------------------------------|-------------|--------------|--------|--------|
| 04/01/19 | S25792101 | <b>11.47</b> | 0.9          | <b>93.4</b>                  | <b>446</b>       | <b>7.274</b> | 0.49                         | <b>10</b>   | <b>1.9</b>   | 102.0  | 13.0   |
| 03/31/19 | S25792100 | <b>14.71</b> | 1.2          | <b>125.3</b>                 | 568              | <b>7.245</b> | 0.62                         | <b>10</b>   | <b>2.5</b>   | 102.0  | 13.0   |

| ABBR.                     | ANALYTE                               | COMMENTS                                                                                                                              |
|---------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| SS CaOx                   | Supersaturation CaOx                  | Reduce levels by raising urine volume and citrate, lowering urine oxalate and calcium.<br>(J Urol 158:157, 1997)                      |
| Ca 24/Kg                  | 24 hr calcium / Kg                    | mg/kg; <3.7 both genders; if not associated with hypercalcemia consider thiazide diuretic.<br>(Arch Dis Child 49:97, 1974)            |
| Ox 24/1.73 m <sup>2</sup> | 24 hr oxalate / 1.73 m <sup>2</sup>   | mg/1.73 m <sup>2</sup> /d; high from diet excess, severe elevation consider genetic cause or bowel disease.<br>(J Urol 158:157, 1997) |
| Clt 24/Cr 24              | 24 hr citrate / 24 hr creatinine      | mg/g; if low consider potassium citrate.<br>(Reference range calculated from proprietary Litholink data)                              |
| pH                        | 24 hr urine pH                        | Low pH can cause uric acid stones, treat with alkali; if >8 consider urea splitting infection.<br>(J Urol 158:157, 1997)              |
| UA 24/1.73 m <sup>2</sup> | 24 hr uric acid / 1.73 m <sup>2</sup> | g/1.73 m <sup>2</sup> /d; <0.81 both genders; high from diet or inborn errors of purine metabolism.<br>(J Pediatr 92:911, 1978)       |
| P 24/Kg                   | 24 hr phosphorous / Kg                | mg/kg/d; low in poor nutrition or bowel disease, high from diet intake especially dairy.<br>(J Urol 158:157, 1997)                    |
| Mg 24/Kg                  | 24 hr magnesium / Kg                  | mg/kg/d; low in poor nutrition or bowel disease.<br>(J Urol 158:157, 1997)                                                            |
| Height                    | Height in cm                          | Obtained from treating physician or patient.                                                                                          |
| Weight                    | Body Weight in Kg                     | Obtained from treating physician or patient.                                                                                          |

