| Detail Results: Patient Info | | | | Results Info | |
|---|---|---|---|---|---|
| **Patient Name:** | AMEND-LIFELABS TEST | **Home Phone:** | (416) 675-4530 | **Date of Service:** | 2023-10-24 00:00:00 |
| **Date of Birth:** | 2000-01-01 | **Work Phone:** | | **Reported on:** | 2023-11-06 15:09:43 |
| **Age:** | 23 years | **Sex:** | M | **Date Received:** | 2025-11-17 11:29 |
| **Health Care #:** | | **Reported by:** | KLINRISK | **Report Status:** | Completed |
| | | | | **Client Ref. #:** | LL3100031 |
| | | | | **Accession #:** | 2023-MAG240472-KLIN |

**Requesting Client:** TEST ON_EMR_DOCTOR_AE **cc: Client:** HUDA ALMOHRI, TEST ON_EMR_DOCTOR_AE

## CHEMPDF

| Test Name(s) | Result | Abn | Reference Range | Units | Date/Time Completed | Status | Lab Lic # |
|---|---|---|---|---|---|---|---|
| **KLINRISK** | | | | | | | |
| PDF | PDF Report (Appended to end of Laboratory Report) | | | | 2023-11-06 15:09:43 | F | J23 |

**END OF REPORT**

J23 - Klinrisk 100 International Blvd. Toronto Ontario M9W 6J6 Canada B

KLINRISK
CLINICAL RISK PREDICTION FOR KIDNEY DISEASE

Accession Number
2023-1M2970472

## Patient Information

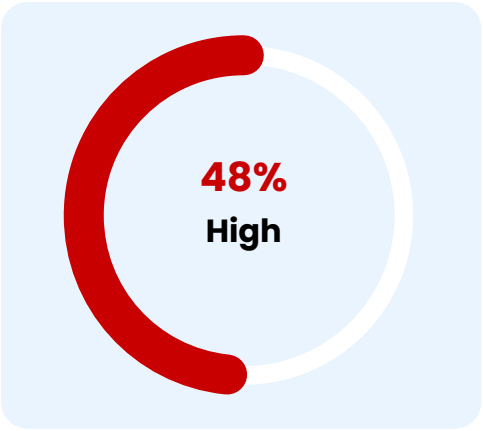
| | |
|---|---|
| Name | TEST, AMEND-LIFELABS |
| Date of Birth | 01/01/2000 |
| Sex | Male |

## Test Information

| | |
|---|---|
| Ordered By | I.T. TESTING |
| Collection Day | 10/26/2023 |
| Report Date | 11/06/2023 |
| Date of Receipt | 11/01/2023 |
| Time of Receipt | 05:15 PM |
| Medical Record (HCN/PHN) | Not Provided |

## Test Report

**Risk of progressive decline in kidney function**




| Low | Medium | High |
|---|---|---|
| 0 - 5 | 6 - 24 | 25+ |

The Klinrisk algorithm uses data from blood and urine tests including CBC, metabolic panel, urine albumin to estimate the probability of kidney function loss of up to 40% or kidney failure in the next 5 years. The risk categories and recommendations are provided to alert providers to the risk of progression of CKD, complications of kidney disease and associated care pathways recommended by clinical practice guidelines.

Patients at high risk can work with their physician to implement an evidence based care plan to improve their kidney health.

*This algorithm is developed by Klinrisk Inc and has been tested for accuracy in independent populations. It is not an accredited algorithm, nor cleared or approved by Health Canada and it is not required to be.*

*Klinrisk algorithm is for clinical care and should be considered as an aid to help with clinical decision making and is not meant to replace a physician's advice or diagnosis.*

*The laboratory tests required for the algorithm were performed at LifeLabs.*

## Clinical decision support

### Frequency of monitoring

**1 times per year**

### Blood Pressure Target

**Target standardized BP < 120 systolic**

### Complications of CKD

Anemia | Hyperkalemia | Metabolic Acidosis | CKD-MBD

**Anemia - Hgb 122.0 g/L**
*Reference range : Serum hemoglobin 129 to 165 g/L*
**CKD-MBD - Phosphate - 2.7 mmol/L & Calcium - 1.77 mmol/L**
*Reference range : Serum phosphorous 0.8 - 1.5 mmol/L & Serum calcium 2.15 - 2.60 mmol/L*

### Disease modifying treatment to slow CKD progression

RAASi | SGLT2i Therapy | Non Steroidal MRA

- **Consider RAASi therapy with potassium monitoring**
- **Consider SGLT2i therapy in patients with heart failure or Type 2 Diabetes**
- **Consider nonsteroidal MRA therapy in adults with Type 2 Diabetes with concomitant potassium monitoring**

### Referral

**Nephrology referral may not be indicated**

### Other Recommendations

- **Suggest iron studies including ferritin, TIBC and serum iron**
- **Monitor and treat as per CKD-MBD guidelines**

KLINRISK
CLINICAL RISK PREDICTION FOR KIDNEY DISEASE

Clinical Report

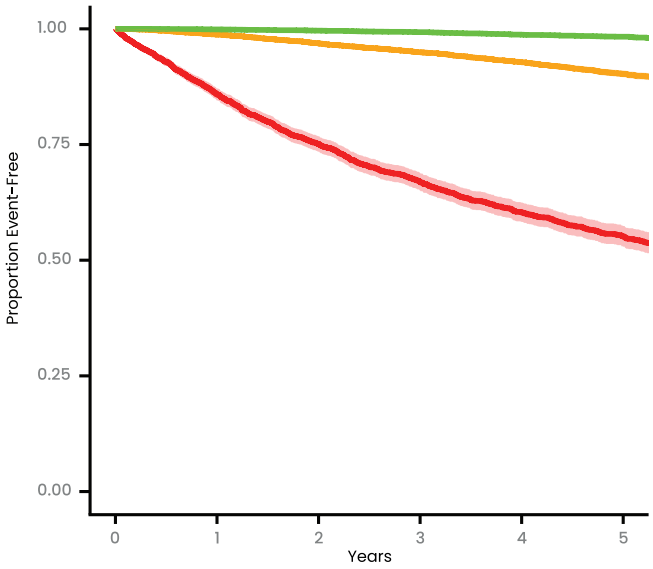
## Clinical Validity

The Klinrisk test was developed in a population based sample of more than 70,000 adults and has been proven to be accurate in more than 100,000 patients. The test is externally validated in diverse patient populations, and can discriminate risk in patients at different ranges of age, those with or without diabetes and with early or late stages of CKD. *Results of the validation studies are described in the figures below.*

## Clinical Utility

Identifying patients at high risk of CKD progression can help determine intensity of follow up and need for nephrology referral as well as guide the initiation of disease modifying therapy early in the course of disease before kidney function is irreversibly lost. Patients at intermediate or high risk of disease may benefit from more aggressive care to slow CKD progression whereas those at low risk may be safely managed with a conservative care plan.

## Relationship between Categories of Predicted Risk (Low, Medium, and High) from the Random Forest Algorithm and the Occurrence of the Primary Outcome (40% Decline in eGFR or Kidney Failure) over 5 Years



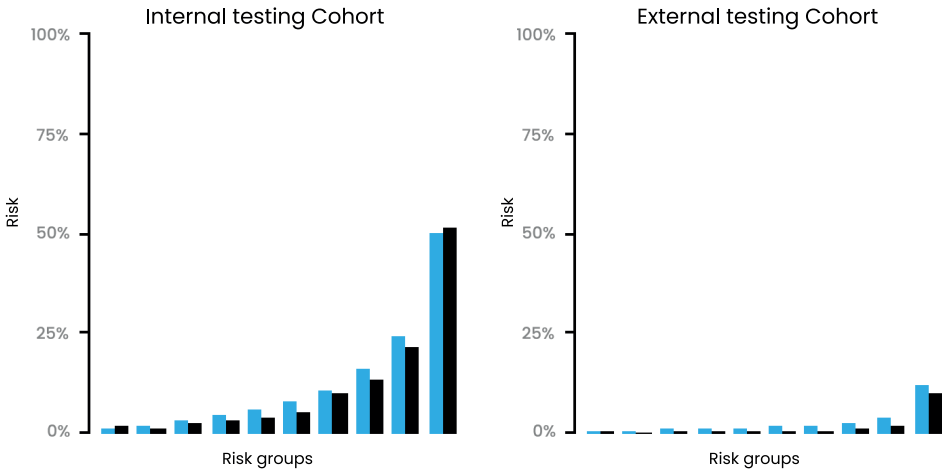

When applying the Klinrisk test, patients who are classified at the highest risk (5-25% risk over 5 years) had a 20-fold higher risk of the 40% decline in eGFR or kidney failure event at 5 years compared to those classified as low risk, and those classified as medium risk (5-25% risk over 5 years) had a 5-fold higher risk of the event at 5 years. This relationship is observed immediately and persists over the entire 5-year period.

High risk

Medium risk

Low risk

## Accuracy of the Random Forest Algorithm




The Klinrisk test is highly accurate at discriminating between patients who will experience a 40% decline in eGFR or kidney failure over a 5-year period and those who remain event free.

At 5 years, the area under the receiver operating characteristic (AUROC) curve is 0.84 (95% confidence interval 0.83 to 0.85).

Predicted risk

Estimated actual risk

### About the Test

The Klinrisk test uses data collected from blood and urine samples including the complete blood count, comprehensive metabolic panel, liver enzymes and the urine albumin to creatinine ratio to identify patients at risk for progression of kidney disease. It is indicated as a decision aid for further assess the risk of progressive CKD within a period of 5 years for patients over the age of 18 who are with or at risk of developing chronic kidney disease. These patients include those with existing CKD (eGFR < 60 or albuminuria (Urine ACR) > 30 mg/g or those with diabetes or hypertension being screened for CKD. Progression of kidney disease is defined as a sustained decline in kidney function (eGFR > 40 %) or kidney failure (initiation of long term dialysis or transplant). Klinrisk is not intended to diagnose, treat, mitigate or prevent a disease, disorder or abnormal physical state, or any of their symptoms. Independent follow up with health care professional is necessary prior to any medical diagnosis or treatment decision.