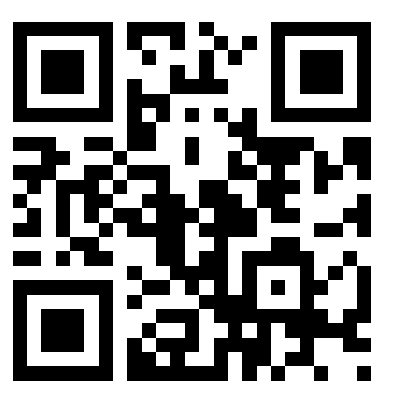


# COMMUNITY PHARMACY-BASED eGFR SCREENING FOR EARLY DETECTION OF CHRONIC KIDNEY DISEASE IN HIGH-RISK PATIENTS

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http://www.eahp.eu/24-4CPS-253

## 1. Introduction

- Chronic kidney disease is irreversible kidney damage or loss of function (eGFR < 60 mL/min) lasting > 3 months and typically progressing over months to years.
- Roughly 10% of Canadians live with CKD, yet 90% of patients go undiagnosed.
- Pharmacists are ideally suited to screen for these cases in the community.

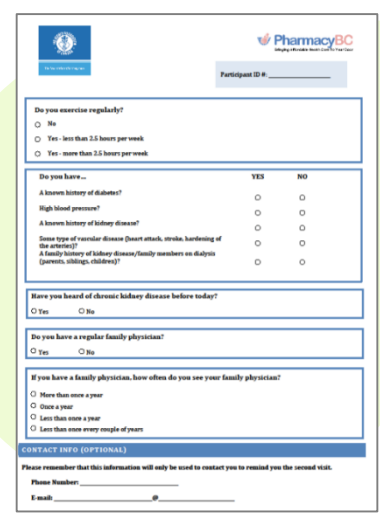
## 2. Aim

To determine the potential impact of pharmacy-based HealthTab® technology to screen patients for reduced renal function and for which patients in community this screening is most appropriate.

## 3. Methods

### Study Process

**Step 1:** Identify patients with risk factors for CKD and offer complementary metabolic panel.



**Step 2:** Patients complete hardcopy survey of demographics and risk factors.

**Step 3:** Pharmacist pipettes sample to a panel and puts it in the Piccolo® blood analyzer.



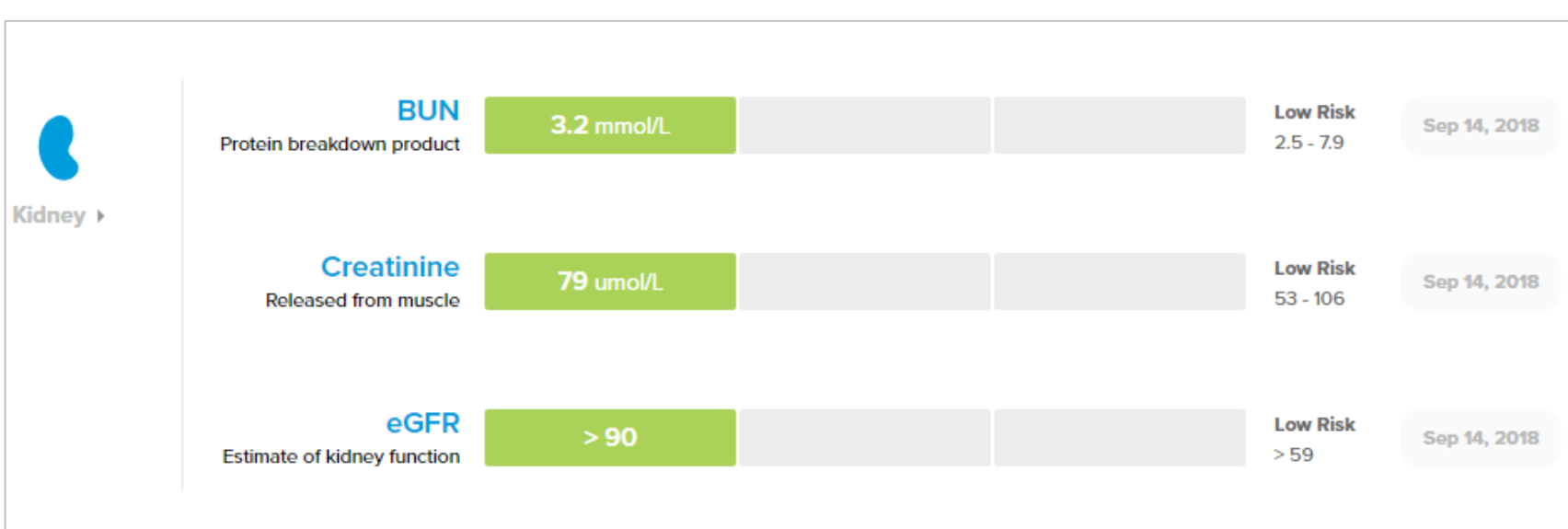
**Step 4:** Patient provides blood sample from a fingerprick using a disposable lancet.

**Step 5:** Login to Healthtab.com to view the results.



**Step 6:** Pharmacist intervenes, reviews medications and arranges follow-up with GP as necessary.

### Sample of HealthTab® Metabolic panel results



**Figure 1:** HealthTab® POCT combines a lab accurate analyzer with a secure online account. The Piccolo Xpress® Comprehensive Metabolic Panel from Abaxis® can directly determine a patient's creatinine and calculate eGFR using the MDRD equation. The analysis takes under 15 minutes and patients have permanent access to their results securely online.

## 4. Baseline Characteristics

### Patient Recruitment

**Table 1:** Summary of Patient Baseline Characteristics

Patient Characteristics (n=642)	
Mean age (years)	60.0
Sex (% female)	55.0
Mean number of CKD risk factors per patient	2.9

## 5. Results

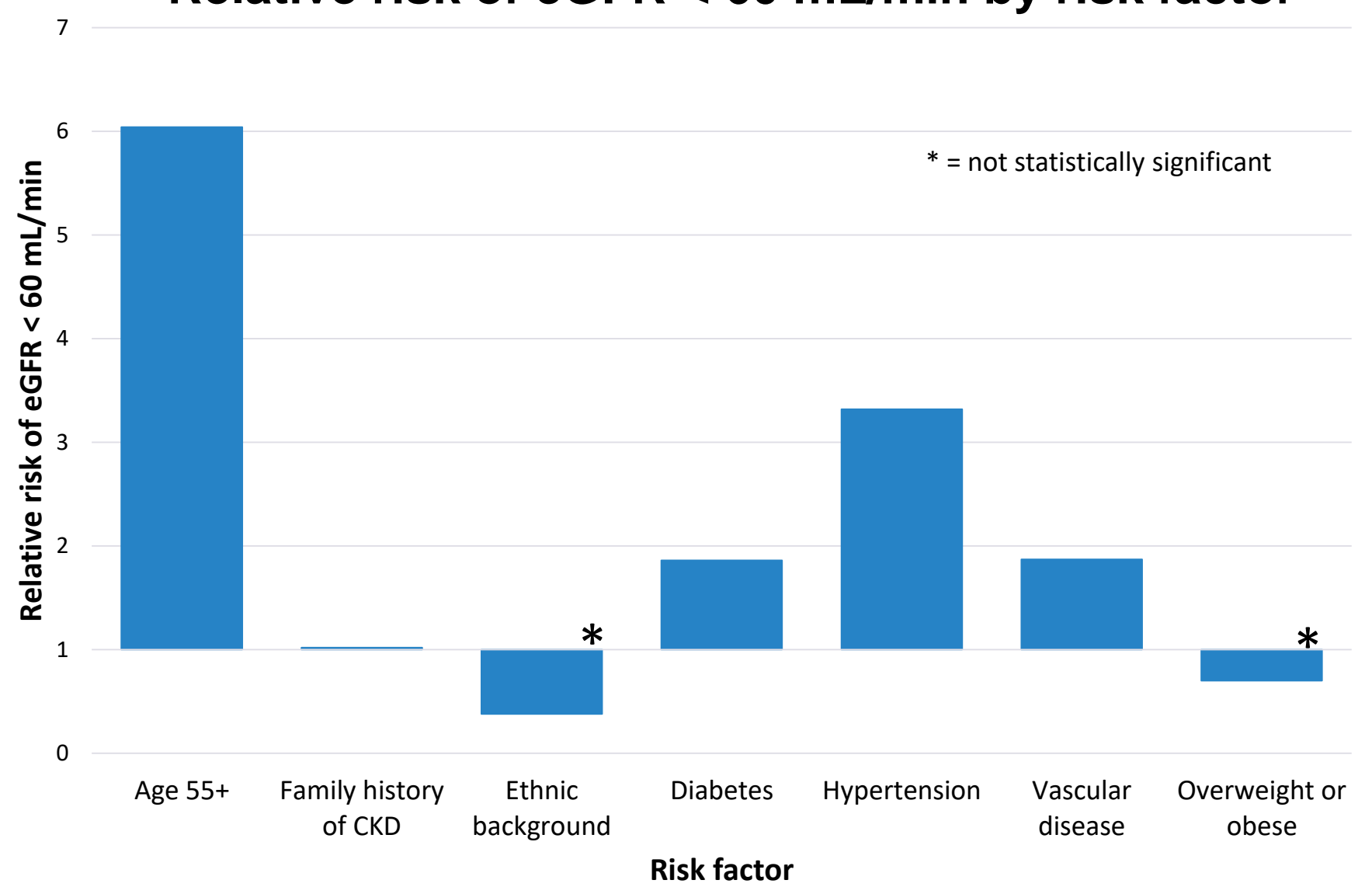
### Patient eGFR Results

**356 patients**  
(55%)  
had eGFR > 60 mL/min

**68 patients**  
(11.5%)  
had eGFR < 60 mL/min

**3 patients**  
(0.5%)  
had eGFR < 30 mL/min

### Relative risk of eGFR < 60 mL/min by risk factor

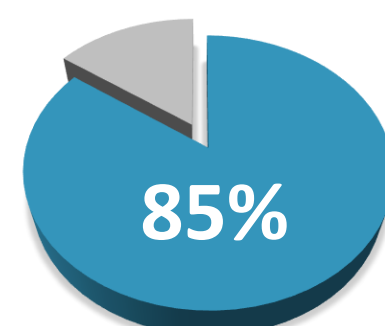


**Figure 2:** Relative risk of patients having significantly reduced renal function (eGFR < 60 mL/min) by risk factor.

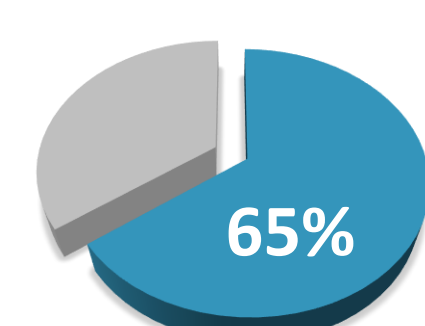
## 6. Recommendations

### Top Pharmacist recommendations

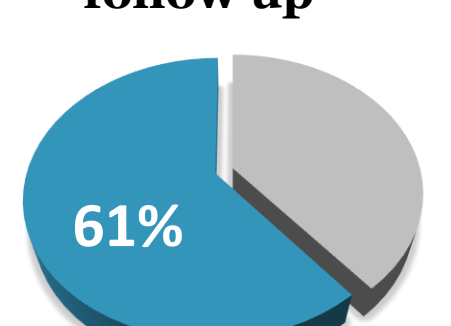
**Adopt a healthier diet**



**Increase exercise**



**See GP for follow up\***

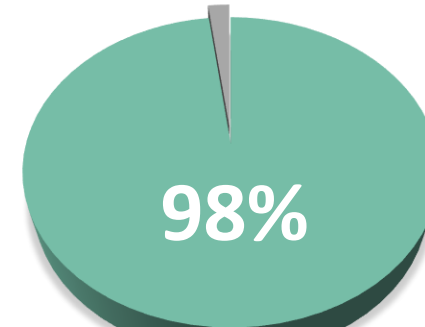


**Figure 3:** Top 3 recommendations made to patients by pharmacists after eGFR screening. Percent of all patients (out of 462) regardless of eGFR result.

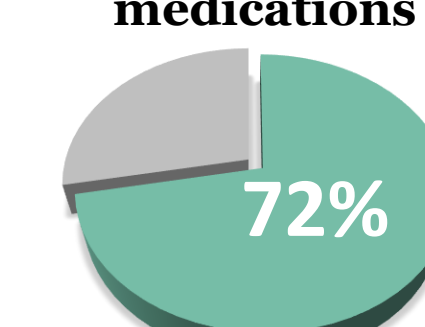
\*100% of those with eGFR < 30 mL/min and 81% of participants between 30 mL/min and 60 mL/min were recommended to follow-up with their GP.

### Top Pharmacist interventions

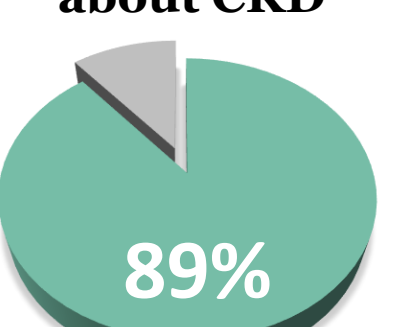
**Checked BP**



**Reviewed patient's medications**



**Provided info about CKD**



**Figure 4:** Frequency of the top 3 pharmacist interventions after eGFR screening.

**2/5 Pharmacist rating for time-consuming**  
(where 1 is not at all and 5 is extremely)



## 7. Conclusions

These results illustrate the prevalence of abnormal renal function among undiagnosed, high-risk patients in the community. Pharmacists, as the most accessible healthcare practitioners, are ideally positioned to utilize novel point-of-care technologies to improve access to CKD screening and increase awareness around the importance of early detection.

## 8. Contact Details

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