### Introduction & Background

**Original Project Premise**
- Project created based on a performance decrease of 9% in annual serum creatinine testing in patient with hypertension reported to Better Health Partnership.

**Validation of Better Health Partnership Data**
- The validity of the Better Health Partnership (BHP) data was questioned due to the rapid decrease.
- Extensive process began to validate the data query (~3 months)
- The update query determined:
  - Current annual serum creatinine screening of 80 percent.
  - The rate had been stable since 2013.
- We reviewed charts of patients missing serum creatinine screening to determine the reason the patient was not screened.
- Limited opportunities for improvement in hypertension (HTN) serum creatinine screening based on updated data.

**Shifting Gears**
- Identified urine microalbumin/creatinine ratio (UACR) as an area for improvement for the clinic.

**UACR Guidelines**
- VA/DOD Guidelines (2014):
  - Periodic evaluation for chronic kidney disease (CKD) in patients with hypertension with analysis of a random urine sample for albuminuria.
  - Annual screening in hypertensive patients appropriate “periodic” screening.
- ADA 2019 Standards of Medical Care in Diabetes:
  - Annual spot urine microalbumin/creatinine ratio
- National Kidney Foundation guidelines:
  - In both diabetic & non CKD patients with hypertension & albuminuria
  - Annual urine microalbumin: creatinine ratio
  - Better Health Partnership and HEIDS:
  - Screening should be performed annually for patients with diabetes.

**Baseline Data:**
- A national VA data set (Primary Care Almanac) was used to determine the number of veterans that received annual UACR screening at the Cleveland VA Medical Center.
  - 1661 veterans with CKD 625 (37.8%) received annual UACR screening.
  - 4525 veterans with diabetes 1523 (33.7%) received annual UACR screening.

### Methods

- Obtained baseline data through extensive chart review of veterans that did not have annual screening.
- Identified current system for UACR collection in the primary care clinic.

### Results

- A of yellow cue cards distributed to veterans: 16
- A of urine labs collected of those that received cue cards: 15

#### Pending UACR Labs - 3/11/2019 to 3/29/2019

<table>
<thead>
<tr>
<th>Category</th>
<th>Primary Care Clinic</th>
<th>Learner Panes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetic</td>
<td>162 (60%)</td>
<td>11 (61%)</td>
</tr>
<tr>
<td>Non-Diabetic</td>
<td>110 (40%)</td>
<td>7 (39%)</td>
</tr>
</tbody>
</table>

### Conclusions

**Outcomes summary:**
- 93.75% veterans who received cue cards completed urine collection.
- In resident panels that received education there was an increase in:
  - # of pending orders for urine protein testing.

**Sustainability:**
- Interdisciplinary collaboration of PACT teams to incorporate reminder into routine care.

**Limitations:**
- Unvalidated baseline data led to setback.
- Short duration of follow-up.

**Next steps:**
- Implementing yellow cards across all of the primary care resident panels.

### Lessons Learned

- Importance of scoping quality improvement project on validated baseline data.
- Benefit of interdepartmental collaboration when approaching systems issues.
- Importance of considering veteran perspective and awareness regarding urine testing.
- Effectiveness of simple, tangible reminder for patients.

### References


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