

Background

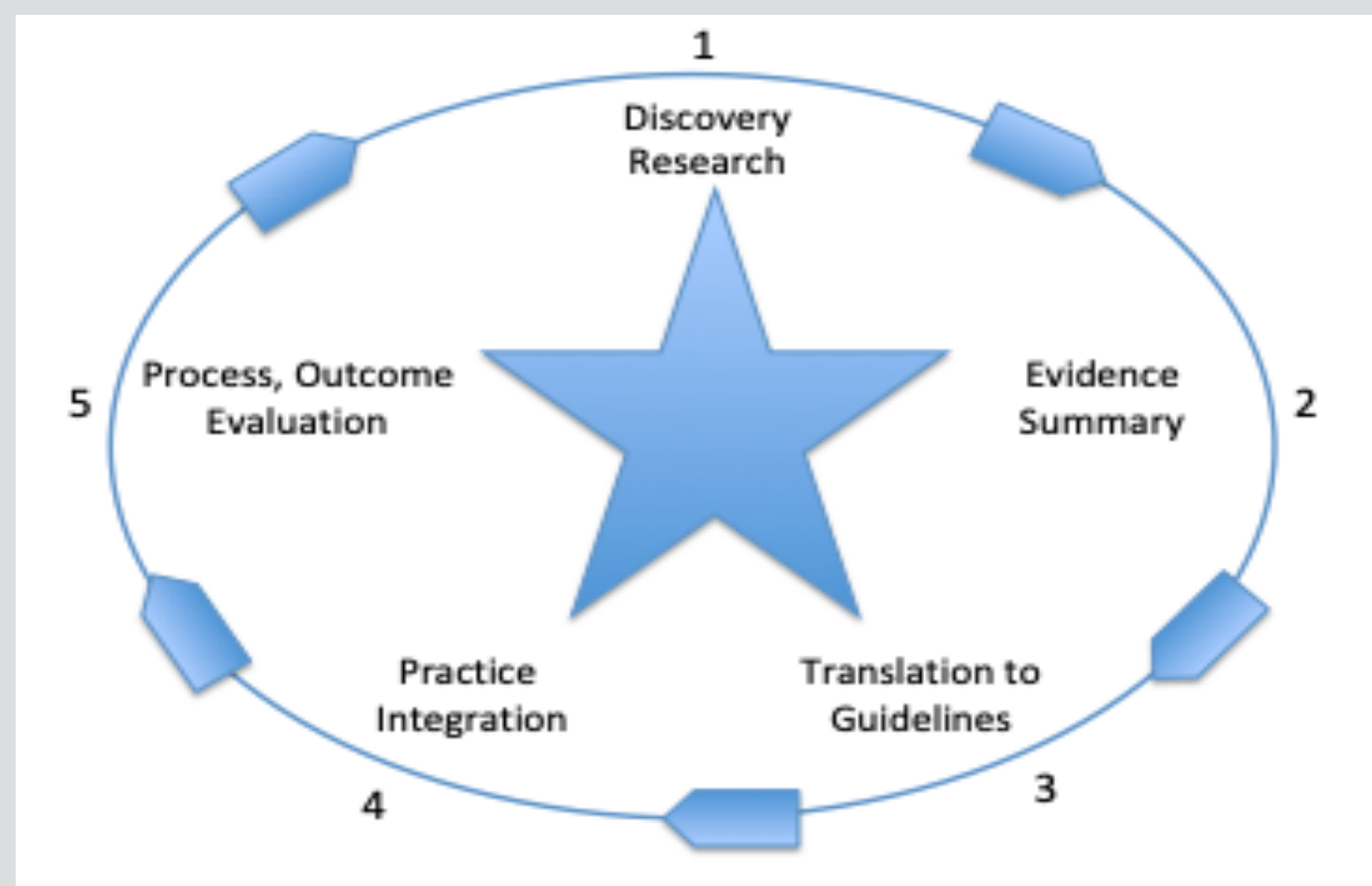
- Chronic Kidney Disease (CKD): an estimated eGFR < 60 with or without markers of kidney damage for at least 3 months
- CKD affects 30 million people
- 9 out of 10 people with CKD Stage 3 don't know they have CKD
- Many PCPs do not follow CKD guidelines due to lack of familiarity with the extensive CKD guidelines
- Nephrotoxic medications are frequently prescribed to patients with CKD
- Nephrology referrals are often under-utilized by PCPs

Project Purpose

- Evaluate the effectiveness of a compact, user-friendly reference guide for use by NPs in a primary care setting with the goals of:
 - Decreased incidence of prescribed nephrotoxic medications in a patient with an eGFR < 60
 - Increased number of appropriate nephrology referrals

Framework

ACE Star Model of Knowledge Transformation



Methods

- Setting: Private internal medicine clinic
- Target Population: Adults, aged ≥18 with an eGFR < 60
- Reference Guide for Evidence-Based Care of the Patient with CKD* was created using existing CKD guidelines and included guidelines on CKD diagnosis, criteria for nephrology referrals, and nephrotoxic medication dosage adjustments and discontinuations in CKD patients
- 7 providers were given the reference guide for use during June and July as well as anonymous pre- and post-implementation surveys to evaluate the guide
- Quantitative and qualitative data was collected over a 10 week period, 2 weeks pre-implementation and 8 weeks post-implementation

Implementation

- Weeks 1-2**
 - Pre-implementation retrospective chart reviews for baseline data of nephrology referrals and nephrotoxic medication prescribing
- End of Week 2**
 - Introduced reference guide
 - Pre-implementation surveys completed
- Weeks 3-6**
 - Post-implementation chart reviews
 - End of June: month 1 data analyzed
- Weeks 7-10**
 - Post-implementation chart reviews
 - End of July: post-implementation surveys completed and month 2 data analyzed

Results

Patient age range: 36-98 (average age 69)
Total CKD patients: 500 (64% Female; 36% Male)
35 of 64 patients who met referral criteria had a documented nephrologist

	Pre-Implementation	Post-Implementation
# of patients seen with a sustained eGFR < 60	113	387
Average # of current nephrotoxic medications	1.25	1.05
# of new nephrology referrals	2	1
# of nephrotoxic medications discontinued or dosage altered	3	6

Pre-implementation survey- 6 of 7 providers agreed that the reference guide was organized logically and seemed useful for identifying CKD and criteria for nephrology referrals, as well as understanding medication dosage alterations in CKD patients

Post-implementation survey- 3 of 6 providers agreed that the reference guide was useful for identifying CKD, referring, and prescribing during the implementation period; 1 provider was neutral about its use, and 2 providers disagreed that it was useful to them during implementation

Implications

- 2 providers cited their use of other resources as reasons for not finding the reference guide useful and felt it's more of an appropriate resource for new graduate NPs
- Recommendations for the future include:
 - Pocket cue card for nephrotoxic medications
 - Longer implementation period
 - Mid-implementation check-in with providers and provider log of reference guide use and nephrology referrals

Acknowledgements

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