Care after a hospitalized AKI event

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Inclusion criteria

• Enrollment in Medicare Part A & B in 2007
• No history of either a hospitalization event with an AKI diagnosis or ESRD in 2007
• Age ≥ 66 yr on December 31, 2007;
• Residence in the 50 states or the District of Columbia
Definitions

• CKD – required either 2 outpatient or 1 inpatient claim in the year 2007
• AKI defined as a hospitalization with AKI (584.x) as either the primary or a secondary diagnosis
  • Incident – first AKI hospitalization occurring in 2008
  • Recurrent – subsequent (discrete) hospitalization occurring in 2008 or 2009
Definitions (cont.)

• AKI requiring dialysis – AKI as above plus a dialysis code from the hospitalization
• Drug information – required Part D enrollment during the 90 days prior to the AKI hospitalization and from the discharge until either a) change in insurance b) death or ESRD or c) study end
With Part D

1st AKI
14,954 (54.1%)
- CKD (5,589)
- Dialysis (550)

2nd AKI
3,955 (57%)

No Part D

1st AKI
12,685 (45.9%)

2nd AKI
2,983 (43%)
Drug use before/after AKI

- Central alpha agonist
- Peripheral alpha antagonist
- Beta blocker
- Dihydropyridine calcium channel blocker
- Loop diuretic
- Thiazide diuretic
- ACE inhibitor
- ARB

Before

After
Drug use before and after a recurrent AKI event
Drug use in patients with and without CKD

![Bar chart showing drug use in patients with and without CKD.](chart.png)
Drug use in patients with and without AKI requiring dialysis
Visits After an Initial AKI discharge

- Cardiology
- Primary care
- Nephrology

% with visit

Time:
- within 3 months
- within 6 months
- within 9 months
- within 12 months
Visits in the year after a recurrent AKI discharge

- Primary care
- Cardiology
- Recurrent Nephrology
- Incident Nephrology

% with Visit

within 3 months, within 6 months, within 9 months, within 12 months
Patients with a nephrology visit after an AKI hospitalization, by CKD status
Conclusion

• Recurrent AKI is common
• There is a decrease in the use of cardioprotective drugs after both AKI and recurrent AKI events
• Few patients see a nephrologist after an AKI event
  - This is true whether they have CKD, required acute dialysis or have had multiple hospitalized AKI events
• Future studies should target this population as they are at high risk for adverse health outcomes and appear to be receiving sub-optimal care