Follow-up Care of Critically Ill Patients with Acute Kidney Injury

INTRODUCTION
- Acute kidney injury (AKI) occurs in more than half of critically ill patients in the intensive care unit (ICU) and is associated with adverse outcomes.1,2
- Guidelines recommend follow-up at 3 months of hospital discharge for evaluation of AKI resolution, new-onset or worsening of chronic kidney disease.3
- Currently, the proportion of survivors of critical illness with AKI who receive follow-up care in line with guideline recommendations is unknown.

OBJECTIVES
- To determine the proportion of patients receiving guideline recommended evaluation for CKD in survivors of critical illness and AKI.

METHODS
- We conducted a retrospective cohort study of patients admitted to the ICU with AKI (defined as 250% or ≥26.5 μmol/L serum creatinine increase from baseline) from 2005-2018 using linked databases in Alberta, Canada.
- The primary outcome was the cumulative incidence of an outpatient serum creatinine and urine protein measurement at 3 months of hospital discharge.
- Secondary outcomes included an outpatient serum creatinine measurement, urine protein measurement, or an outpatient visit by a family physician or nephrologist at 3 months of hospital discharge.
- We used non-parametric methods (Aalen-Johansen) to estimate the cumulative incidence functions of outcomes.

RESULTS
- There were 29,732 critically ill patients with AKI.
- Median age was 68 years, 39% were female, and the median baseline eGFR was 72 mL/min/1.73 m².
- 70% had stage 1 AKI, 18% had stage 2 AKI, 13% had stage 3 AKI, and 5% received acute dialysis.
- The cumulative incidence of having both an outpatient creatinine and urine protein measurement at 3 months of hospital discharge was 25% (95% CI 25-26) (Figure 1).
- At 3 months, 64% (95% CI 64-65) and 28% (95% CI 27-28) of patients had an outpatient creatinine and urine protein measurement, respectively.
- The cumulative incidence of an outpatient visit to a family physician or nephrologist was 69% (95% CI 89-90) and 5% (95% CI 4-5), respectively.

CONCLUSION
- Only 1 in 4 survivors of critical illness and AKI receive the recommended laboratory testing at 3 months of hospital discharge.
- Nephrology follow-up was rare, despite a third of the cohort having experienced KDIGO stage 2 or 3 AKI.
- Our findings illustrate an important gap in the transition of care for survivors of critical illness and AKI.
- Further research is needed to determine if post-AKI care can improve long-term outcomes.

ACKNOWLEDGEMENTS
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OBJECTIVES

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• We conducted a retrospective cohort study of patients admitted to the ICU with AKI (defined as ≥50% or ≥26.5 µmol/L serum creatinine increase from baseline) from 2005-2018 using linked databases in Alberta, Canada.

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• Secondary outcomes included an outpatient serum creatinine measurement, urine protein measurement, or an outpatient visit by a family physician or nephrologist at 3 months of hospital discharge.

• We used non-parametric methods (Aalen-Johansen) to estimate the cumulative incidence functions of outcomes.
There were 29,732 critically ill patients with AKI. Median age was 68 years, 39% were female, and the median baseline eGFR was 72 mL/min/1.73 m². 70% had stage 1 AKI, 18% had stage 2 AKI, 13% had stage 3 AKI, and 5% received acute dialysis. The cumulative incidence of having both an outpatient creatinine and urine protein measurement at 3 months of hospital discharge was 25% (95% CI 25-26) (Figure 1). At 3 months, 64% (95% CI 64-65) and 28% (95% CI 27-28) of patients had an outpatient creatinine and urine protein measurement, respectively. The cumulative incidence of an outpatient visit to a family physician or nephrologist were 89% (95% CI 89-90) and 5% (95% CI 4-5), respectively.
RESULTS

Figure 1. Cumulative incidences of A) outcomes and B) competing events post-discharge.
CONCLUSION

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REFERENCES

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