

中文題目：急性腎損傷後脫離透析的長期結核感染

英文題目：Long- term Risk of Active Tuberculosis after Acute Kidney Injury

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**Backgrounds:** Profound alterations in immune responses associated with uremia and exacerbated by dialysis, increase the risk for developing active tuberculosis (TB). The evidence to long-term risk of active TB after surviving from acute kidney injury (AKI) requiring dialysis and their outcome is still limited.

**Design:** Population-based cohort study using claims records retrieved from the Taiwan National Health Insurance database and validated by a critical care database.

**Setting and Participants:**

Records of all patients aged >18 years hospitalized and served by AKI- dialysis from 1999 to 2008 retrieved from inpatient claims from the Taiwan National Health Insurance database.

**Interventions**

Main outcome including long-term de novo active TB after discharge from index hospitalization calculated using a propensity score adjusted Cox proportional hazard model. The effect of long term end stage renal disease was adjusted using the fitting generalized simultaneous equations models.

## **Results**

Of 2909 AKI- dialysis patients surviving to 90 days after index discharge, 686 patients was free from dialysis after hospital discharge. Another 11636 hospital patients without AKI, dialysis or history of TB were identified as control group. The risk of active TB in AKI-dialysis relative to the general population was 7.71 after a mean followed up of 3.6 years. Patients without recovery from AKI-dialysis (HR, 6.39,  $p<0.001$ ), and with recover from AKI-dialysis (HR, 3.84,  $p<0.001$ ) had significantly higher incidence of TB than patients without AKI. Additionally, in patients after AKI-dialysis, active TB was associated long term all-cause mortality (HR, 1.34,  $p=0.032$ ).

## **Conclusion**

Dialysis-requiring AKI seems to independently increase long-term risk of active TB, even among those withdrawing from dialysis at hospital discharge. The results raise concerns that the increasing global burden of AKI will increase the incidence of active TB.

**Key words:** active tuberculosis, acute kidney injury, dialysis, COPD