



## 醫療新知

### 血液透析患者的常規抽血頻率並不影響病患的住院率及死亡率

- 為了解血液透析(HD)腎友的身體狀況,院所都會安排定期的抽血檢查。理論上,更頻繁的血液檢查頻率應該可以見微知著更早發現腎友的問題,應該可以為腎友帶來更好的照顧結果,但是目前幾乎沒有任何證據告訴我們,多久作一次血液檢查對腎友的照護最佳。
- 根據以上原因,國際知名的腎臟科期刊 Am J Kidney Dis (AJKD)於 2020 年 4 月發表了一篇臨床研究,探討血液透析(HD)腎友的抽血檢查頻率,學者回溯收集了 2011 年 4 月 1 日至 2016 年 3 月 31 日期間在加拿大安大略省接受血液透析治療的腎友,研究人員將其腎友依照抽血檢查頻率分為兩組,一組為每月固定抽血,另一組為間隔每 6 週抽一次血。經過 5 年的追蹤去統計兩組腎友的全死亡率及心血管事件發生率,住院率及高鉀血症發生率。
- 統計結果發現與每 6 週進行一次血液採樣相比,每月監測並無法降低腎友死亡率風險(校正後的 HR, 1.16; 95%CI, 0.99-1.38)。每月監測也沒有降低心血管事件發生率,住院率及高鉀血症發生率。

- 與每 6 週進行一次定期抽血檢查相比，血液透析患者每月例行血液檢查其死亡率，心血管事件或住院的風險並沒有因抽血頻率的提升而降低。考慮到健康資源的影響，血液透析接受者的常規血液採樣頻率或許可重新評估。此項研究還需更大規模的前瞻性臨床試驗來達到驗證。

**Table 2.** Primary and Secondary Outcomes: Prevalent Patients

	Testing Every 6 wk (n = 2,119)		Monthly Testing (n = 5,335)		Unadjusted HR (95% CI)	Adjusted HR <sup>a,b</sup> (95% CI)
	Pts With Events <sup>c</sup>	Incidence <sup>d</sup>	Pts With Events <sup>c</sup>	Incidence <sup>d</sup>		
All-cause mortality	1,094 (52%)	150.0	3,106 (58%)	185.3	1.24 (0.99-1.54)	1.16 (0.99-1.38)
Cardiovascular events	561 (26%)	95.6	1,412 (26%)	87.0	1.08 (0.95-1.23)	1.11 (0.95-1.29)
All-cause hospitalization	1,802 (85%)	614.1	4,537 (85%)	651.1	1.03 (0.93-1.13)	1.03 (0.94-1.13)
All-cause ED visits	1,830 (86%)	784.0	4,599 (86%)	858.7	1.00 (0.98-1.02)	1.03 (0.87-1.27)
Hyperkalemia	123 (6%)	17.6	362 (7%)	22.6	1.26 (0.74-2.14)	1.33 (0.87-2.04)

Abbreviations: CI, confidence interval; ED, emergency department; HR, hazard ratio; Pt, patient.

<sup>a</sup>For cardiovascular events, hospitalizations, ED visits, and episodes of hyperkalemia, adjustment was made for number of prior events.

<sup>b</sup>Models further adjusted for age, sex, income quintile (missing values imputed as middle quintile), time since dialysis initiation, cause of end-stage kidney disease, number of hospitalizations in preceding year, number of ED visits in preceding year, pre-existing comorbid conditions (abdominal aortic aneurysm repair, alcoholism, depression, arrhythmia, pacemaker implantation, defibrillator implantation, atrial fibrillation, cancer, liver disease, lung disease, coronary artery disease, prior coronary artery bypass graft surgery, myocardial infarction, prior percutaneous coronary intervention, dementia, heart failure, hypothyroidism, hypertension, diabetes mellitus, peripheral vascular disease, stroke, venous thrombus, dyslipidemia, illicit drug use, obesity), and the Aggregated Diagnostic Groups score.

<sup>c</sup>Reflects proportion of patients with at least 1 event.

<sup>d</sup>Per 1,000 patient-years.

**Table 3.** Primary and Secondary Outcomes: Incident Patients

	Testing Every 6 wk (n = 2,914)		Monthly Testing (n = 7,752)		Unadjusted HR (95% CI)	Adjusted HR <sup>a,b</sup> (95% CI)
	Pts With Events <sup>c</sup>	Incidence <sup>d</sup>	Pts With Events <sup>c</sup>	Incidence <sup>d</sup>		
All-cause mortality	1,066 (37%)	175.4	3,155 (41%)	204.9	1.15 (0.91-1.46)	1.15 (0.96-1.37)
Cardiovascular events	469 (16%)	86.4	1,385 (18%)	100.0	1.17 (0.96-1.43)	1.18 (1.00-1.39)
All-cause hospitalization	2,269 (78%)	990.5	6,220 (80%)	1,051.9	1.10 (1.01-1.20)	1.11 (1.03-1.20)
All-cause ED visits	2,152 (74%)	1,038.6	5,926 (76%)	1,133.6	1.29 (0.93-1.37)	1.12 (0.99-1.27)
Hyperkalemia	85 (3%)	14.3	316 (4)	21.0	1.18 (0.94-1.49)	1.20 (1.00-1.44)

Abbreviations: CI, confidence interval; ED, emergency department; HR, hazard ratio; Pt, patient.

<sup>a</sup>For cardiovascular events, hospitalizations, ED visits, and episodes of hyperkalemia, adjustment was made for number of prior events.

<sup>b</sup>Models further adjusted for age, sex, income quintile (missing values imputed as middle quintile), time since dialysis initiation, cause of end-stage kidney disease, number of hospitalizations in preceding year, number of ED visits in preceding year, pre-existing comorbidities (abdominal aortic aneurysm repair, alcoholism, depression, arrhythmia, pacemaker implantation, defibrillator implantation, atrial fibrillation, cancer, liver disease, lung disease, coronary artery disease, prior coronary artery bypass graft surgery, myocardial infarction, prior percutaneous coronary intervention, dementia, heart failure, hypothyroidism, hypertension, diabetes mellitus, peripheral vascular disease, stroke, venous thrombus, dyslipidemia, illicit drug use, obesity), and the Aggregated Diagnostic Groups score.

<sup>c</sup>Reflects proportion of patients with at least 1 event.

<sup>d</sup>Per 1,000 patient-years.

資料來源： 安慎診所洗腎室

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