

# Chronic Kidney Disease

@ckd\_ce on Twitter



## Midnight Matters: Hypertension and CKD


@CKD\_ce  · Feb 21, 2024



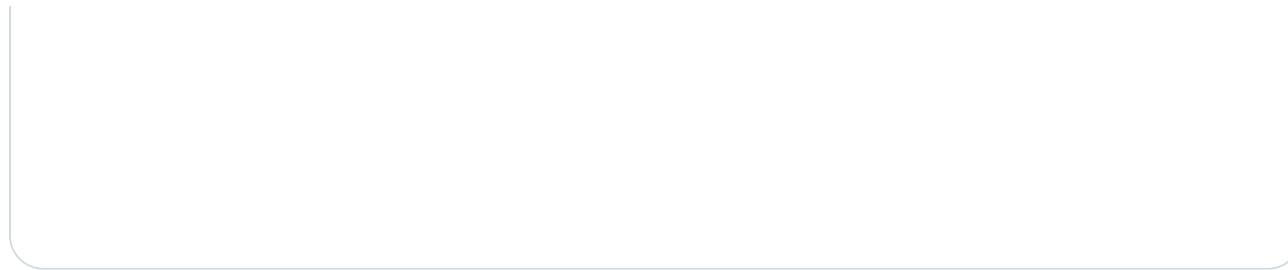
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 [#Tweertorial](#) alert! 

1a) Welcome to a  [#accredited #tweertorial](#) brought to you by the collaboration of [@ckd\\_ce](#) & [@KIReports](#).


Our returning author is Gerren Hobby [@ghobby](#) & our topic for  CE/[#CME](#) is [#Hypertension](#) + [#CKD](#)

[#MedTwitter](#) [#nephtwitter](#) [@ISNkidneycare](#) [#FOAMed](#)



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1b) This is part of a foundational  #MedEd #accredited series hosted by core @ckd\_ce faculty @sophia\_kidney & co-posted from @KIReports. See prior #tweetorials, still available for **FREE** CE/#CME credit, at [ckd-ce.com/category/found...](https://ckd-ce.com/category/found...)



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Foundations | CKD CE

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3a) Hey [#NephTwitter](#) & [#MedTwitter](#)! Have you ever wondered about the mysteries of nighttime BP dips in [#CKD](#)? 🌙 Let's start with a quiz! What percentage of CKD patients are non-dippers?

a. 10%	0%
b. 20%	21%
c. 50%	29%
<b>d. 80%</b>	<b>50%</b>

138 votes · Final results

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3b) The answer is 80%. This is important because a non-dipping status is linked with worse CV outcomes 

pubmed.ncbi.nlm.nih.gov

Association of Office and Ambulatory Blood Pressure With M...

In this population-based cohort study, higher 24-hour and nighttime blood pressure measurements were significantly ...

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4) Healthy individuals typically dip BP 10-20% at night. This pattern is generated endogenously, follows a stable pattern, and is associated with higher sodium excretion during the day than at night.

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6) Past studies show that those with a non-dipping status tend to excrete relatively less sodium during the day. <https://t.co/ngqrbY28kT>

— @CKD\_ce (@ckd\_ce) February 21, 2024

8) This was a cross-sectional study that studied the relationship of blood pressure with day/night patterns of sodium and potassium excretion in 3152 patients with #CKD.

 BP measured via #ABPM

 Na/K excretion measured by separate daytime and nighttime urine

collections

— @CKD\_ce (@ckd\_ce) February 21, 2024

10) Baseline characteristics of those in Q1 as compared to those in Q4:

👉 Older

👉 Higher BMI

👉 Higher fasting blood sugar

👉 Higher % with #DM

👉 Higher % with #CVD

👉 More severe #albuminuria

👉 More BP meds

👉 Lower #eGFR

— @CKD\_ce (@ckd\_ce) February 21, 2024

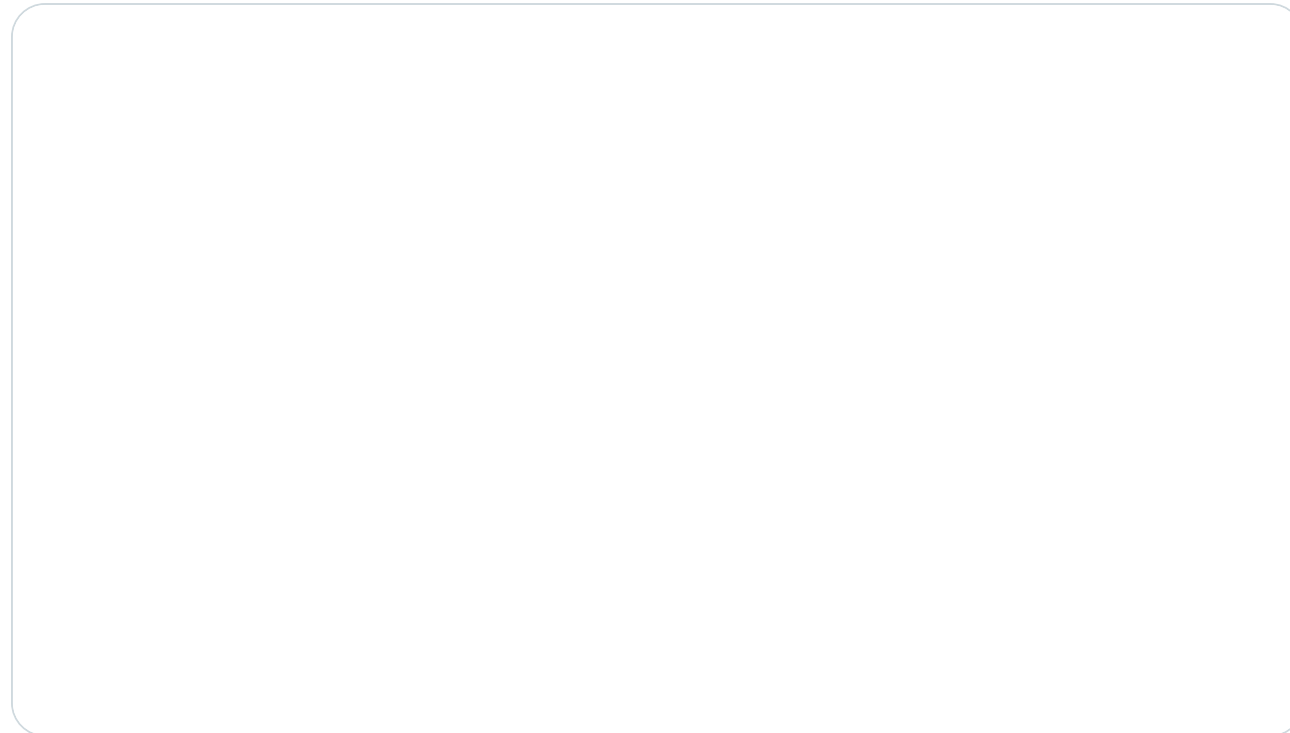
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11) On ABPM, those in Q1 had higher BP and were more likely to be non-dippers or risers than Q4




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12) The authors considered multiple factors when interpreting [#BP](#) trends. Even when adjusting for

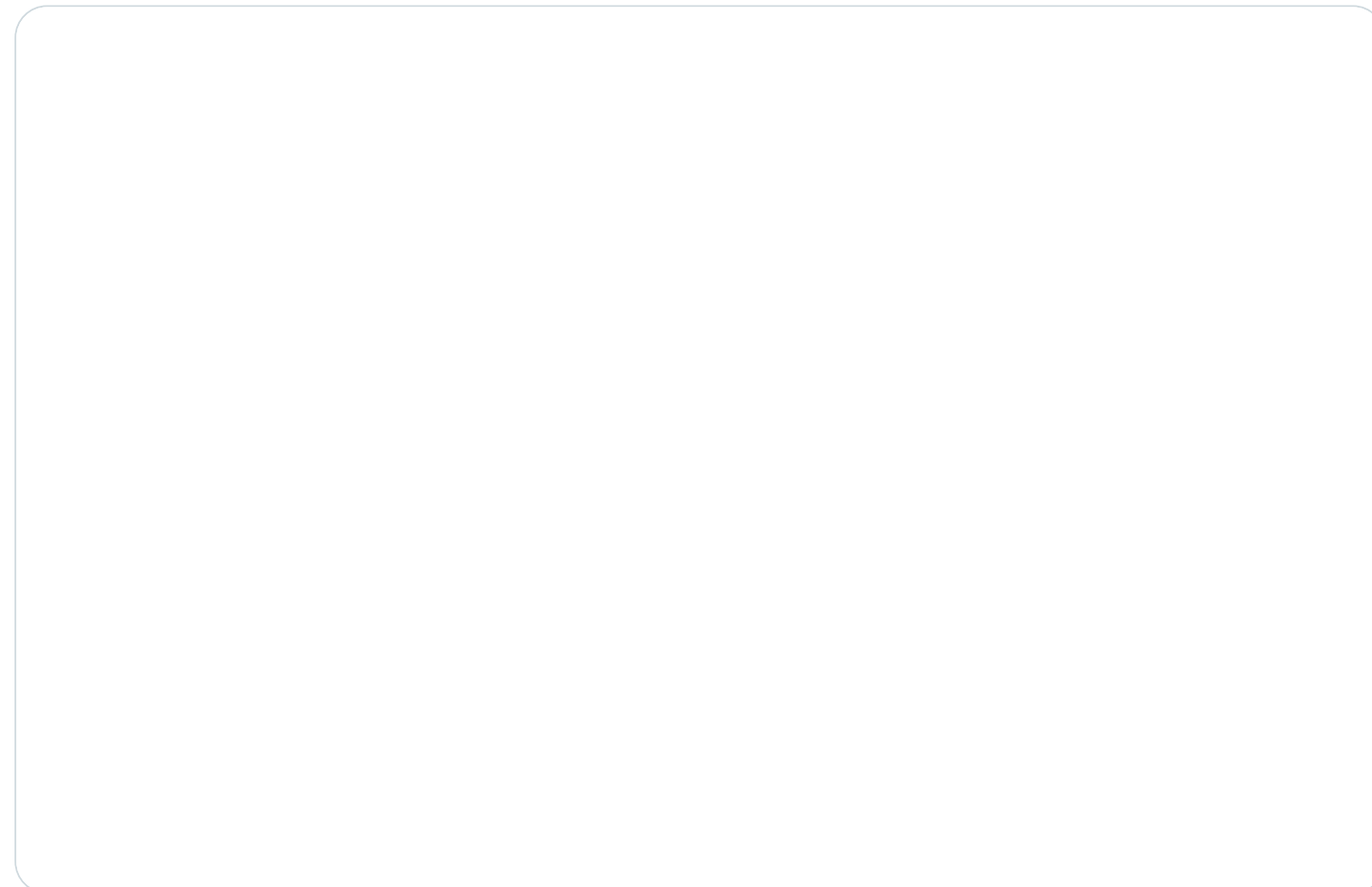


demographics, #CVD, #eGFR, antihypertensives, immunosuppression, etc:

 Nighttime SBP 6.89mmHg Q1 > Q4

 Nighttime DBP 4.25mmHg higher Q1 > Q4

 Less dipping in Q1 than Q4



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13) Also notable was the strikingly lower UOP and sodium excretion between quartiles:





 Daytime UOP 0.93mL/h in Q1 vs 1.54mL/hr in Q4

 Daytime Na excretion of 47mmol in Q1 vs 95mmol in Q4

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14) In conclusion, those in Q1

- Exhibited   excretion during the  than Q4
- Higher  BP than Q4
- More non-dippers and risers than Q4

(illustration by [@CTeodosiu](#))

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15) This study gives us insight into electrolyte handling in patients with [#CKD](#) and helps unravel the  of nocturnal HTN. For an in-depth overview of this paper, check out the [@KIReports](#) blog post by [@ghobby](#), [@DodinOmar](#), and Umar Ali at [kireportscommunity.org/post/midnight-....](https://kireportscommunity.org/post/midnight-....)

[kireportscommunity.org](https://kireportscommunity.org)





Midnight Matters: Effect of Nocturnal Blood Pressure & Blunt...

Effect of Nocturnal Blood Pressure & Blunted Nocturnal

## Dipping on Urinary Sodium &amp; Potassium Excretion

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**What best describes your title? \***

- MD/DO
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- Respiratory Therapist
- Non-Clinician Research Coordinator
- Other

**If MD/DO**

- nephrologist
- endocrinologist

- cardiologist (heart failure)
- cardiologist (lipid/vascular)
- cardiologist (interventional)
- cardiologist (general)
- emergency medicine specialist
- critical care specialist
- hospitalist
- other internist
- primary care provider
- industry
- Other

### If RN/NP

- NPP
- ICU
- cath lab



- call IDU
- ward
- clinic
- academic
- industry
- Other

### If PharmD

- hospital/health system-based
- community
- academic
- industry
- Other

### Where are you based?

- EU/GB

- 
- Canada
  - USA
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  - Australia/NZ
  - Asia

### How did you FIRST hear about our tweetorials?

- found it on Twitter searching in subject area
- found it on twitter searching for CE/CME
- found it on Twitter by following individual influencer
- found it on Twitter by following institutional influencer
- from LinkedIn

### How many years have you been in practice?

How many patients per month do you typically see with the disease addressed in this tweetorial?

1. With respect to nocturnal dips in blood pressure, what percentage of CKD patients are non-dippers? \*

- 10%
- 20%
- 50%
- 80%

2. Did you follow the entire tweetorial? \*

Yes

No

**3. Did you find this to be an effective learning tool? \***

Yes

No

**4. On a scale of 1 to 5, how applicable to your clinical practice was the material in this tweetorial? \***

1

Not At All  
Pertinent

2

3

4

5

Extremely  
Pertinent

**5. How will this program change your practice? \***

Not pertinent to my practice

Reinforces my practice

- ...
- Makes me want additional education
- Will change my practice

6. Will you recommend @CKD\_CE and/or this website to your colleagues? \*

- Yes
- No

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