

# Chronic Kidney Disease

@ckd\_ce on Twitter



## Genetic Spectrum of CAKUT in Chinese Newborns

@CKD\_ce  · Jan 30, 2024



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1) Hi #Nephtwitter#Medtwitter


 #Accredited#Tweeitorial alert 

What do you know about #CAKUT!?

Find out, learn more, and earn  CE/#CME by following this !


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2) Our guest faculty is M Abdul Qader 

[@md\\_abdulqader83](#), Pediatric #Nephrologist

[@squarehospital](#) and Clinical Fellow #NUH, #Singapore.

This program is part of a foundational 

#MedEd#accredited series hosted by core [@ckd\\_ce](#)

faculty [@sophia\\_kidney](#).



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3) We come to you with no industry support, courtesy of the collaboration of @ckd\_ce and @Kidney\_int.

Faculty disclosures at [ckd-ce.com/disclosures/](https://ckd-ce.com/disclosures/). For more  credit,

 #blogposts edited by @sophia\_kidney at

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

#FOAMed @MedTweeterials @ISNkidneycare



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

Kidney Education | KI Reports Community

KI Reports Community is the blog page affiliated with KI Reports and the ISN, ...

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4a) So, as I am SURE you all know, **#CAKUT** is congenital abnormality of the **#kidney** and urinary tract, encompassing a spectrum of structural abnormalities present at birth.

5) Methods:

Among the potential causes, what percentage do you think are attributable to **#genetic** variants?

Patients from the China Neonatal Genomes Project

Newborns diagnosed between Jan 2016 and June 2021 with **#CAKUT** were recruited


Infants &lt; 28 days at admission with CAKUT 5.8%

Excluded if incomplete information 29.8%

— @CKD\_ce (@ckd\_ce) [January 30, 2024](#)**c. 20%** **61.5%**7) Diagnosis of **#CAKUT** 2.9%

Generally will require imaging of kidneys and urinary tract by

104 votes · Final results

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9) Demographics

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- 330 newborns

- 228 were male

- Average birth weight 2984+/- 781g

- Average gestational age: 37 (+/-3) weeks

- 8 patients had family history of renal anomalies

— @CKD\_ce (@ckd\_ce) [January 30, 2024](#)

11) Extrarenal manifestation in 118 babies

- 🫀 Cardiovascular system (54)
- 💪 Musculoskeletal system (33)
- 😬 Special face feature (31)
- ❌ Reproductive system (15)
- 🧠 Neurologic system (12) [pic.twitter.com/sYZ5VhxGxF](https://pic.twitter.com/sYZ5VhxGxF)
- @CKD\_ce (@ckd\_ce) [January 30, 2024](#)

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13) Monogenic disease

45 pathogenic or like pathogenic SNVs in 30 genes (35 patients)

Inheritance (30 genes)

AD (13)

AR (10)

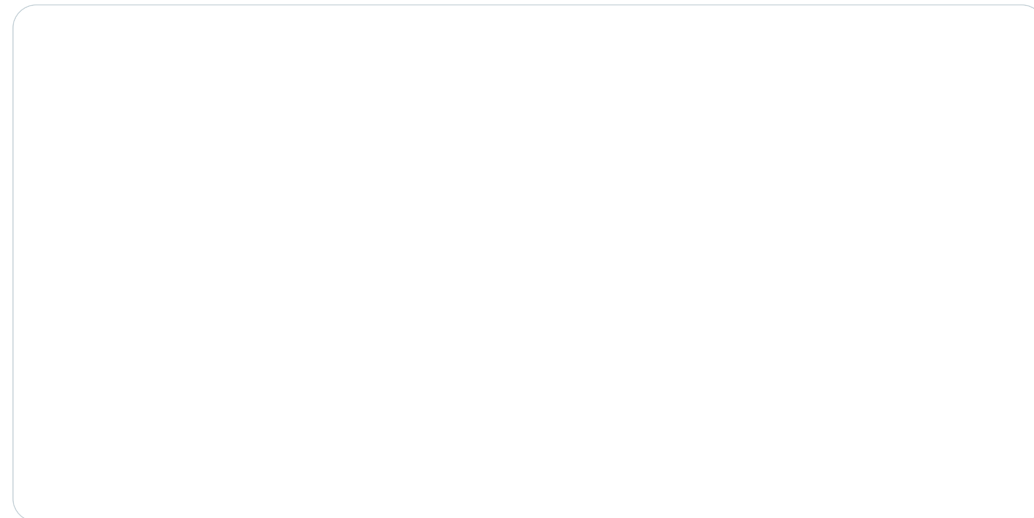
AD/ AR (4)

XLD (1)

XLD/ XLR (2)

=> 15 of 30 were [#syndromic](#)

=>KMT2D, Kabuki syndrome (5 patients) [[#PKD](#), MCDK, ectopic kidney, and horseshoe kidney]



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15) Limitations of the study

This study did not present the secondary findings (plan to publish in future)


Lack of complete maternal examination information and genetic findings

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17a) One last knowledge check! Which organ system represents the most common extrarenal manifestations of [#CAKUT](#)?

a. reproductive	22.9%
<b>b. cardiovascular</b>	<b>77.1%</b>
c. neurologic	0%
d. muscular	0%

140 votes · Final results  
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17b) It's b, cardiovascular , which were present in nearly half of the babies in this analysis. Remember that the renal and CV systems share a common embryologic origin, the [#mesoderm](#)!

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18) And you just earned 0.5hr  CE/CME! Claim your certificate now at [ckd-ce.com/foundations17/](https://ckd-ce.com/foundations17/) and share this [#tweetorial](#) with your followers & friends! Thanks to [@md\\_abdulqader83](#) for authoring & [@sophia\\_kidney](#) for managing!  
[#FOAMed](#) [#nephtwitter](#) [@ISNkidneycare](#) [@KIRReports](#)  
[@goKDIGO](#)



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Genetic Spectrum of CAKUT in Chinese Newborns...

2) Our guest faculty is M Abdul Qader 

[@md\\_abdulqader83](#), Pediatric [#Nephrologist](#) ...

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What best describes your title? \*

- MD/DO
- RN/NP
- PA
- PharmD/RPh
- 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
- ward

- clinic
- academic
- industry
- Other

**If PharmD**

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

**Where are you based?**

- EU/GB
- Canada
- USA
- Latin America
- Australia/NZ
- Asia

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

- found it on Twitter searching in subject area

- 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?**

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**1. Which organ system represents the most common external manifestations of CAKUT? \***

- reproductive
- cardiovascular
- neurologic
- muscular

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 2 3 4 5

Not At All Pertinent 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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