



IPNA Journal Club

@ipnajc

11 Tweets • 2022-07-27 16:22:54 UTC • [See on Twitter](#)

rattibha.com

Hello #NephTwitter #PedNeph #Medtwitter

This month #IPNAJC we have discussed the latest 2022 updates by @AHA on Ambulatory BP Monitoring (ABPM) in Children and Adolescents

👉 Here is the link to the article

👉 Summary:

@IPNA\_PedNeph

<https://www.ahajournals.org/doi/10.1161/HYP.000000000000215?cookieSet=1>

<https://theipna.org/wp-content/uploads/2022/07/summary-abp-neph-jc-Jul-15.docx.pdf>

HTN in young can affect adult HTN & lead to Target organ damage (TOD)

Abnormal ABP is linked to TOD

2014 pediatric ABPM: Age, sex, height based threshold in <18y

2017 AAP CPG applied adult BP norms to define office HTN in pts  $\geq 13y$

<https://publications.aap.org/pediatrics/article/140/3/e20171904/38358/Clinical-Practice-Guideline-for-Screening-and>

Practice-Guideline-for-Screening-and

<https://www.ahajournals.org/doi/full/10.1161/HYP.000000000000007>

2014 ABPM, classified ABP into 6 categories but leads to an “unclassified” gray zone where mean BP was normal but load  $>25\%$ , if office BP  $\leq 90$ th or  $\geq 95$ th percentile

▶ 2022 ABPM update simplified by

🎯 REMOVE BP LOAD

🎯 ADULT SINGLE POINT CUT OFF IN  $\geq 13$  YEAR OLD

@ArchanaVajjala

CLASSIFICATION				INDICATIONS			
Category	Clinic Blood Pressure		Mean Ambulatory Blood Pressure		Confirm Hypertension	Secondary Hypertension	
	<13 Years	13Years & up	<13 Years	13Years & up	Assess BP Patterns In High Risk Patients		
Normal Blood Pressure	<95 <sup>th</sup> percentile	<130/80	<95 <sup>th</sup> percentile or adolescent cut points	< 125/75 24hr <130/80 awake & <110/65 sleep	Diabetes	CKD	
White Coat Hypertension	≥95 <sup>th</sup> percentile	≥130/80			Solid-Organ transplant	Obesity	
Masked Hypertension	<95 <sup>th</sup> percentile	<130/80			Obstructive sleep apnea	Optimize anti- HTN Rx	
Ambulatory Hypertension	≥95 <sup>th</sup> percentile	≥130/80	≥95 <sup>th</sup> percentile or adolescent cut points	≥125/75 24hr & ≥130/80 awake & ≥110/65 sleep	Genetic Syndromes	Research	
				BP Load is removed			

American Heart Association Flynn, et al. Hypertension(2022)

@ArchanaVajjala

Optimum ABPM reading

▶ 70% successful reading

▶ Min. 1 per hr including sleep

▶ At least 18H

▶ Sleep-wake diaries

☞ Include

1 24H mean SBP & DBP (awake & sleep)

2 Dipping %

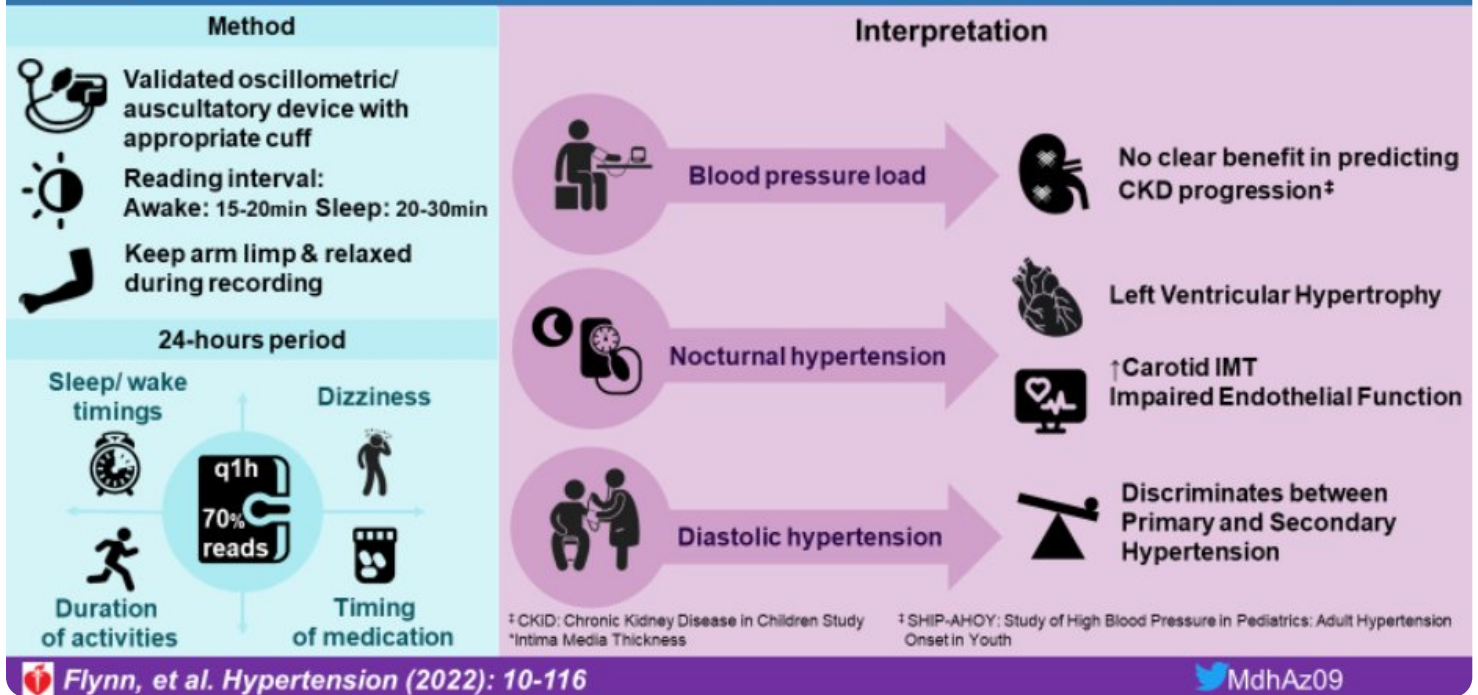
3 Pediatric normative data

☞ Exclude

1 Outlier

2 Resting BP at placement

3 During vigorous exercise



### Nocturnal HTN (NH)

Due to high prevalence of NH in SOT, OSA, obese & CKD; association with TOD, Equal weightage → nighttime readings as awake

NH is also associated with

- Sickle cell dis
- Lupus
- ADPKD
- Steroid-sensitive NS
- Type I DM
- Solitary kidney
- Children born preterm

### White coat HTN (WCH) & Masked HTN

❖ WCH is associated with early CVD and TOD & ABPM remains useful tool to diagnose WCH

❖ ABPM can unmask “masked” hypertension which is prevalent in youth with CKD, coarctation repair, OSA & LVH in high-risk patients

### Common complaints from patients after wearing an ABP monitor

- 📝 32% significantly disturbed
- 📝 Intolerant during day(17%) & night(25%)
- 📝 Poor tolerability → Higher ambulatory HTN

## Knowledge gap


- 🤔 Normative data across different races, ethnicity, heights, & age is imperative
- 🤔 Outcome data on anti-hypertensive use to reduce ABP, WCH, nocturnal hypertension are lacking
- 🤔 Cost and tolerability still remain a huge burden

**Table 3. Gaps in Knowledge in Pediatric ABP Monitoring**

Equipment	Insufficient numbers of ABP devices have been validated in youth.
	There are inaccuracies in measurement of DBP with oscillometric devices.
Normative data are lacking	Across race and ethnicity
	For children who are younger and have lower height
	Although home BP has been found to be more reliable in predicting elevated left ventricular mass index versus office or ABPM in adults, <sup>6</sup> data comparing clinic, ABP, and home BP in children are sparse. <sup>5</sup>
	Data on expected ABP values in subpopulations such as cancer survivors and transplant patients are lacking.
Outcomes	The only randomized clinical trial <sup>4</sup> that proved that the use of ABP led to improved outcomes was conducted in youth with chronic kidney disease.
	Whether nocturnal hypertension or WCH progress to sustained ambulatory hypertension is unknown.
	Limited data are available linking ABP values across race and ethnicity to intermediate cardiovascular outcomes such as left ventricular mass, carotid intima-media thickness, and arterial stiffness.
	Randomized clinical trials comparing the efficacy of antihypertensive medications to reduce ABP have not been performed.
	Improvement in the ability to predict hard CVD outcomes in adults by using ABPM, rather than clinic

	BP, performed in youth cannot be established.
ABPM interpretation	The number of ABPM readings obtained in a 24-h period that are needed to predict outcomes (eg, left ventricular hypertrophy) is unknown.
	The long-term consequences of WCH, masked hypertension, isolated nocturnal hypertension, and nondipping are unknown.
	The clinical relevance of morning surge in ABP in pediatrics has not been evaluated.
Cost-effectiveness and utility	Limited data on the cost-effectiveness of use of ABPM to reduce costs (through reducing the number of clinic visits) are available.
	Practical solutions for cost reduction through volume discount purchasing and sharing of devices are needed to increase access to devices.
	The influence of patient/family-specific factors (including social determinants of health) on the accuracy and precision of ABPM in children and adolescents has not been explored.











Stats for this chat-

The number: 356 Tweets. 24 participants 826,860 Impressions. July 21st, 2022. More #IPNAJC  here:



## The #IPNAJC Influencers

### Top 10 Influential

-  @ipnajt 100
-  @drjosflynn 81
-  @SwastiThinks 71
-  @suprita86087893 70
-  @nefron1310 70
-  @bisnotbiz 68
-  @FranLoachamin 66
-  @BobWoroniecki 66
-  @drM\_sudha 66
-  @asouth\_neph 66











 Tweet

### Prolific Tweeters

-  @drjosflynn 71
-  @ipnajt 64
-  @FranLoachamin 57
-  @drM\_sudha 33
-  @SwastiThinks 30
-  @NefroClassMx 13
-  @nefrologiaecu 13
-  @tunefrologoped 10
-  @83\_kelimig 9
-  @ekhin\_6 7

 Tweet

### Highest Impressions

-  @drjosflynn 376.2K
-  @FranLoachamin 217.2K
-  @drM\_sudha 53.9K
-  @ipnajt 47.8K
-  @SwastiThinks 39.7K
-  @NefroClassMx 36.3K
-  @asouth\_neph 13.0K
-  @ASPNEph 7.7K
-  @nefron1310 6.3K
-  @83\_kelimig 5.6K

 Tweet

## The Numbers

826.860K Impressions

356 Tweets

24 Participants

119 Avg Tweets/Hour

15 Avg Tweets/Participant

 Tweet

Twitter data from the #IPNAJC hashtag from Wed, July 20th 2022, 7:00PM to Wed, July 20th 2022, 10:00PM (America/New\_York) - Symplur.



👉 If you would like to go through the whole #IPNAJC conversation- Check out this chat transcript:

Summary:

See y'all in September 2022 with a new #PedNeph article.

This is brought to you by @md\_abdulqader83

<https://theipna.org/wp-content/uploads/2022/07/IPNAJC-Healthcare-Social-Media-Transcript-July-20th-2022.pdf> <https://theipna.org/wp-content/uploads/2022/07/summary-abp-neph-jc-Jul-15.docx.pdf>

@rattibha unroll, please

These pages were created and arranged by Rattibha services (<https://www.rattibha.com>)

The contents of these pages, including all images, videos, attachments and external links published (collectively referred to as "this publication"), were created at the request of a user (s) from Twitter. Rattibha provides an automated service, without human intervention, to copy the contents of tweets from Twitter and publish them in an article style, and create PDF pages that can be printed and shared, at the request of Twitter user (s). Please note that the views and all contents in this publication are those of the author and do not necessarily represent the views of Rattibha. Rattibha assumes no responsibility for any damage or breaches of any law resulting from the contents of this publication.

