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.0000000000000215?cookieSet=1

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

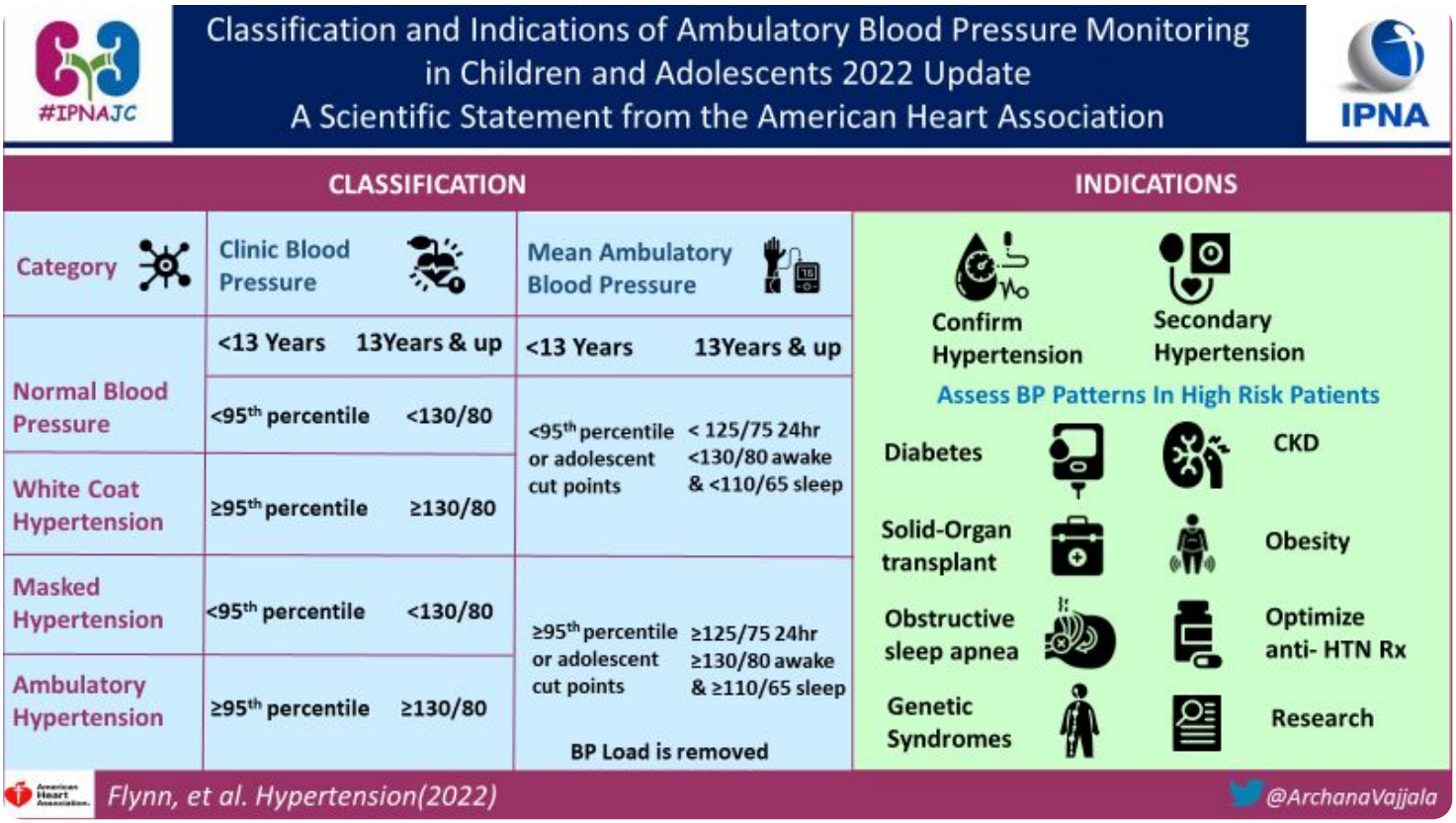
HTN in young can affect adult HTN & lead to Target organ damage (TOD)
Abnormal ABP is linked to TOD
2014 pediatric ABPM: Age, sex, height based threshold in <18y
2017 AAP CPG applied adult BP norms to define office HTN in pts ≥ 13y

https://publications.aap.org/pediatrics/article/140/3/e20171904/38358/Clinica

Practice-Guideline-for-Screening-and

https://www.ahajournals.org/doi/full/10.1161/HYP.0000000000000007

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 ≤90th or ≥ 95th percentile
⏩2022 ABPM update simplified by
🎯REMOVE BP LOAD
🎯ADULT SINGLE POINT CUT OFF IN ≥13 YEAR OLD
@ArchanaVajjala



Optimum ABPM reading

▶️70% successful reading

▶️Min. 1 per hr including sleep

▶️At least 18H

▶️Sleep-wake diaries

👉Include

1️⃣24H mean SBP & DBP (awake & sleep)

2️⃣Dipping %

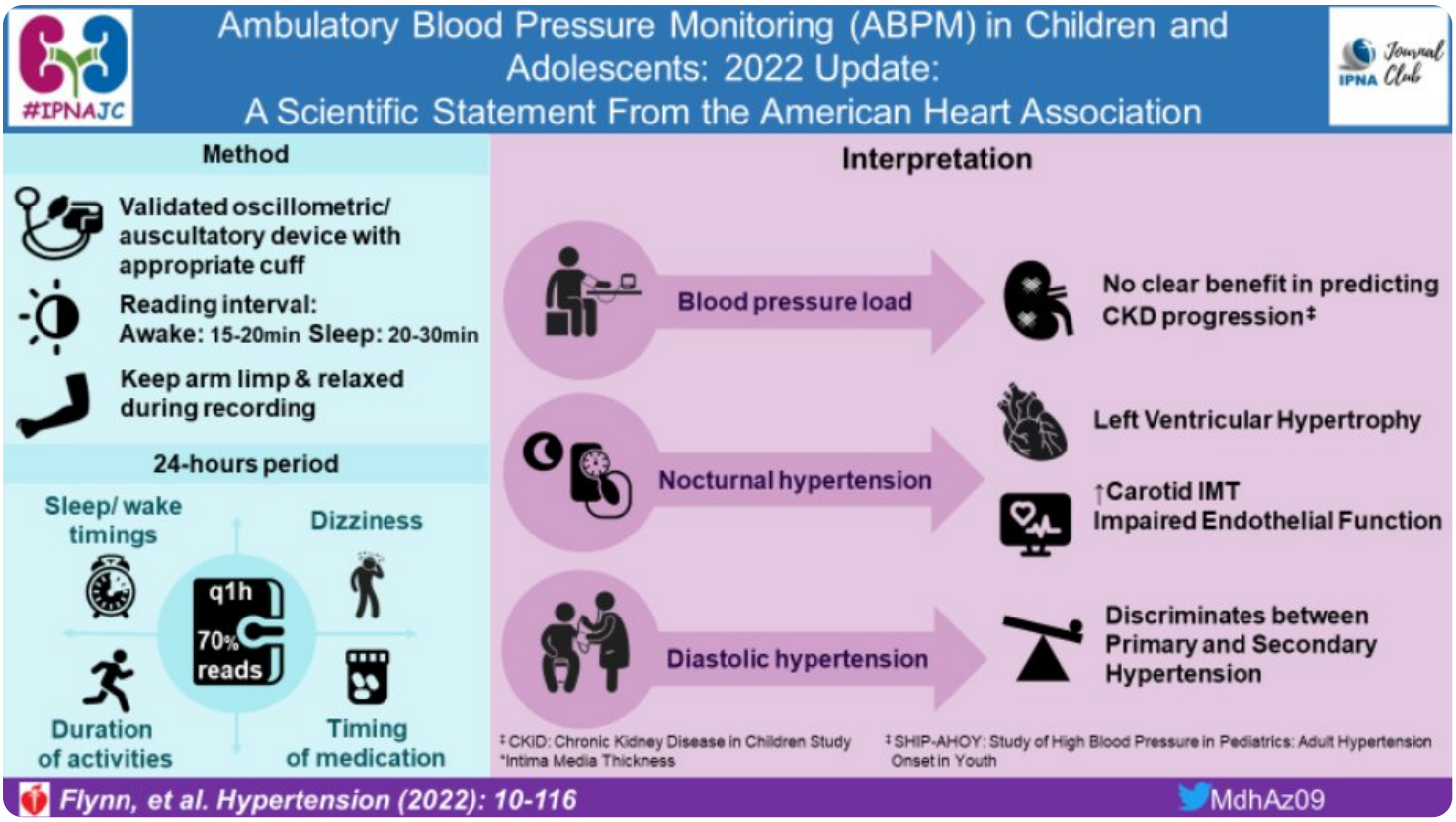
3️⃣Pediatric normative data

👉Exclude

1️⃣Outlier

2️⃣Resting BP at placement

3️⃣During 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

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6398596/

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

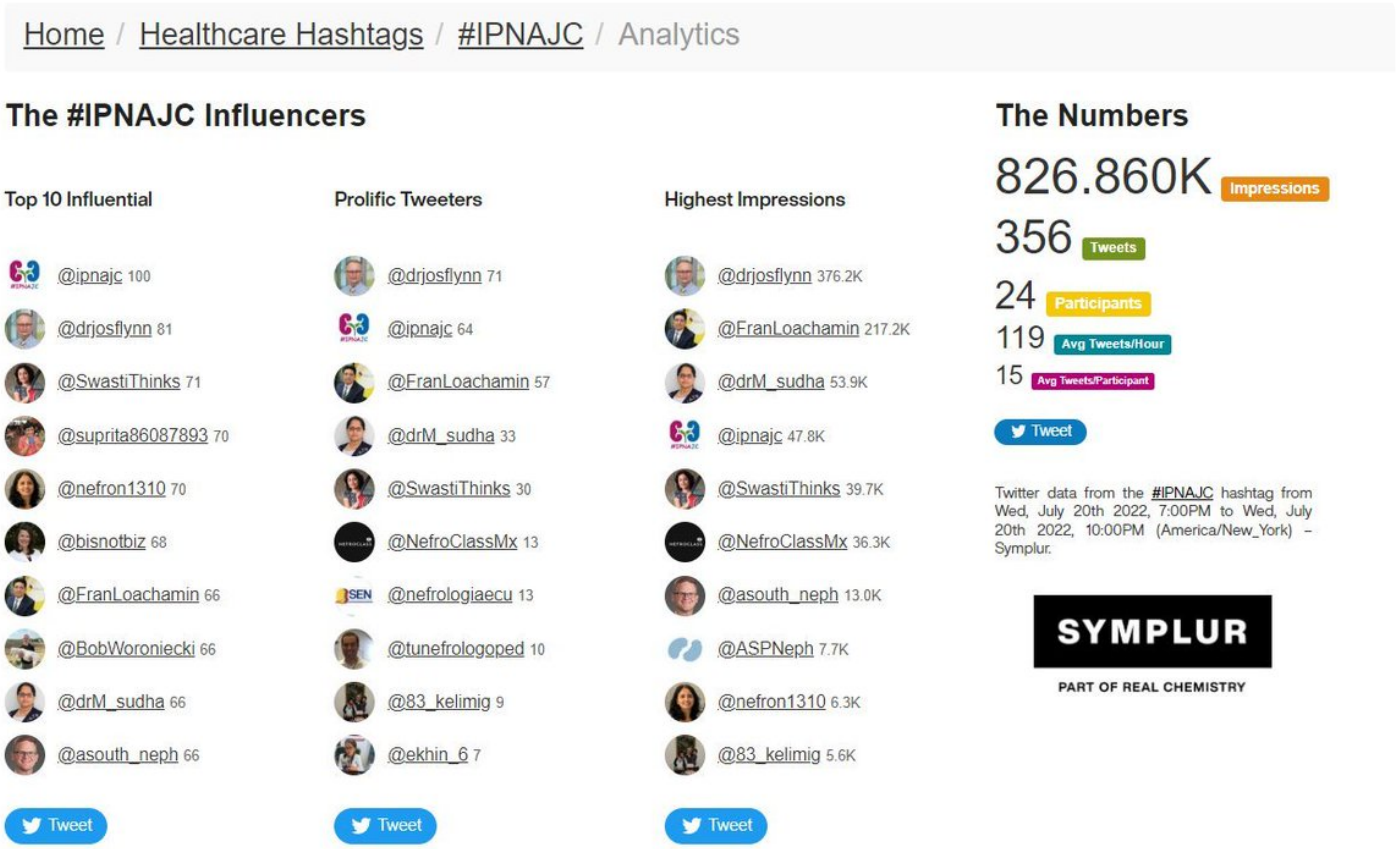
Table 3. Gaps in Knowledge in Pediatric ABP Monitoring

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,[6] data comparing clinic, ABP, and home BP in children are sparse.[5]
	Data on expected ABP values in subpopulations such as cancer survivors and transplant patients are lacking.
Outcomes	The only randomized clinical trial[4] 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:



👉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