

# The Prudent Prescriber

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### Diagnosing Hypertension: Over-Diagnosis is not just for PSA and Screening Mammography

In August 2011, NICE (National Institute for Health and Clinical Excellence - UK) made the following recommendation, "A diagnosis of primary hypertension should be confirmed using 24-hour ambulatory blood pressure monitoring (ABPM) as gold standard rather than be solely based on measurements taken in the office."

#### NICE recommendations:

- If the clinic BP is 140/90 mm Hg or higher, offer ABPM to confirm the diagnosis of hypertension.
- When using ABPM to confirm a diagnosis of hypertension, ensure that at least two measurements per hour are taken during the person's usual waking hours.
- Use the average value of at least 14 measurements taken during the person's usual waking hours to confirm a diagnosis of hypertension.

Pharm Reps  $\neq$  Rational Prescribing

(PR)



(RP)

Antibiotics do  
**NOT**

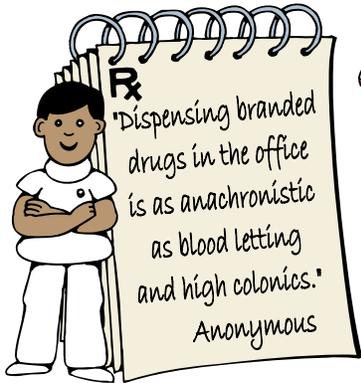


help  
acute bronchitis

**$\beta$ -blockers in  
post-MI  
save  
lives**



Pill splitters save  
BIG



## CHE?

Think:

- Ace**
- Aldactone**
- B-blocker**
- Dig**
- Diuretic**



Avoid these expensive

"me-too" drugs:



- Intermezzo
- Vimovo
- Livalo
- Pristiq
- Viibryd
- Edarbi
- Daliresp

Treat patients  
> 60 years to 150/90



**NOW AVAILABLE  
ON THE  
GENERIC MARQUEE**

Frova  $\rightarrow$  frovatriptan  
 Voltaren gel  $\rightarrow$  diclofenac Na 1% gel  
 Crestor  $\rightarrow$  rosuvastatin  
 Nuvigil  $\rightarrow$  armodafinil  
 Jalyn  $\rightarrow$  dutasteride/tamsulosin  
 Ortho Tri-Cyclen Lo  $\rightarrow$  Tri-Lo-Marzia,  
 Tri-Lo-Sprintec, & others

## If using HBPM (Home Blood Pressure Monitoring) to confirm or deny hypertension:

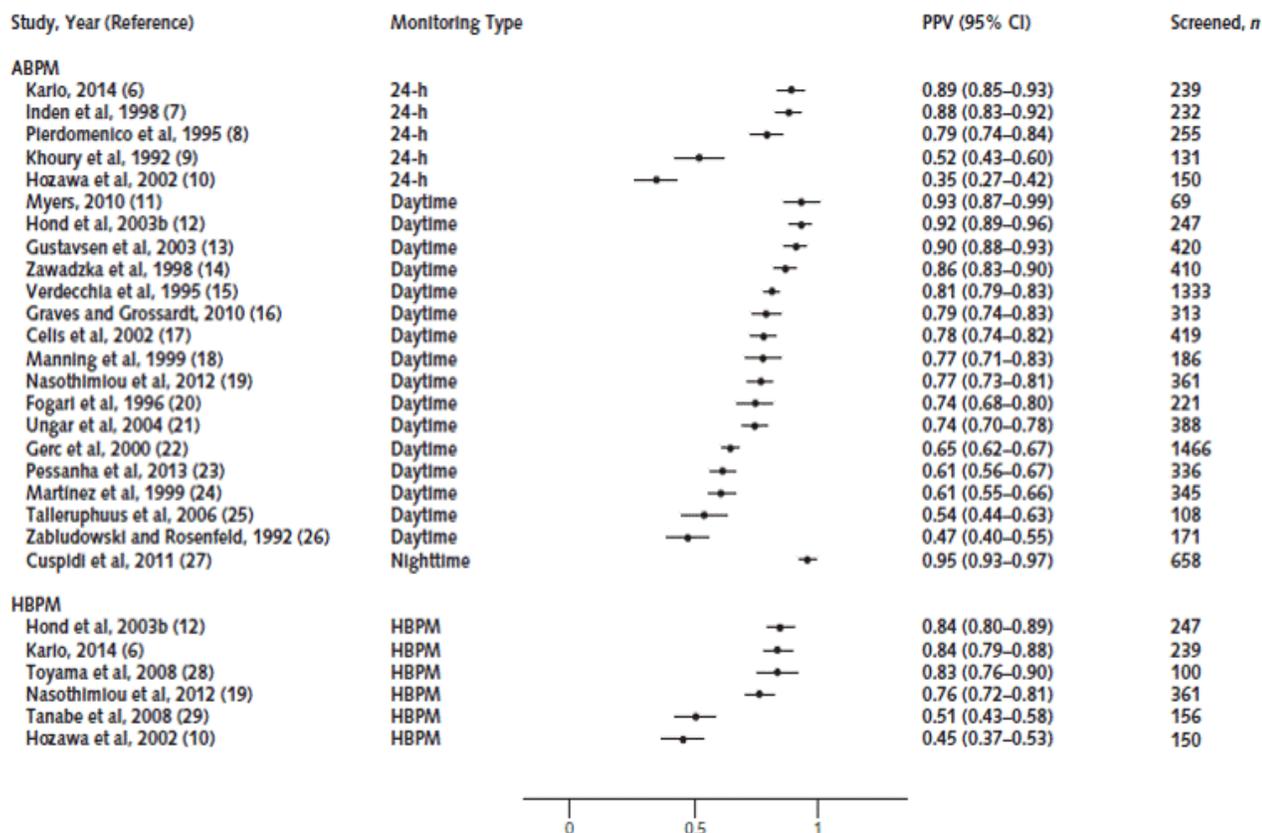
- ☞ For each BP reading at home, two consecutive measurements are taken at least one minute apart and with the person seated.
- ☞ BP is recorded twice daily, ideally in the morning and evening.
- ☞ BP recording continues for at least 4 days and ideally for 7 days.
- ☞ Studies that involve participants taking their BPs for 14 days or 28 days do not lead to better decision making.
- ☞ Discard the readings taken on the first day and use the average value of all the remaining measurements to confirm/deny a diagnosis of hypertension.

### In their October 2015 update, our own US Preventive Services Task Force (USPSTF):

- ☺ Screen for high BP in adults aged 18 and older. (Grade A)
- ☺ Obtain measurements outside of the clinical setting for diagnostic confirmation before starting treatment. (Grade A)

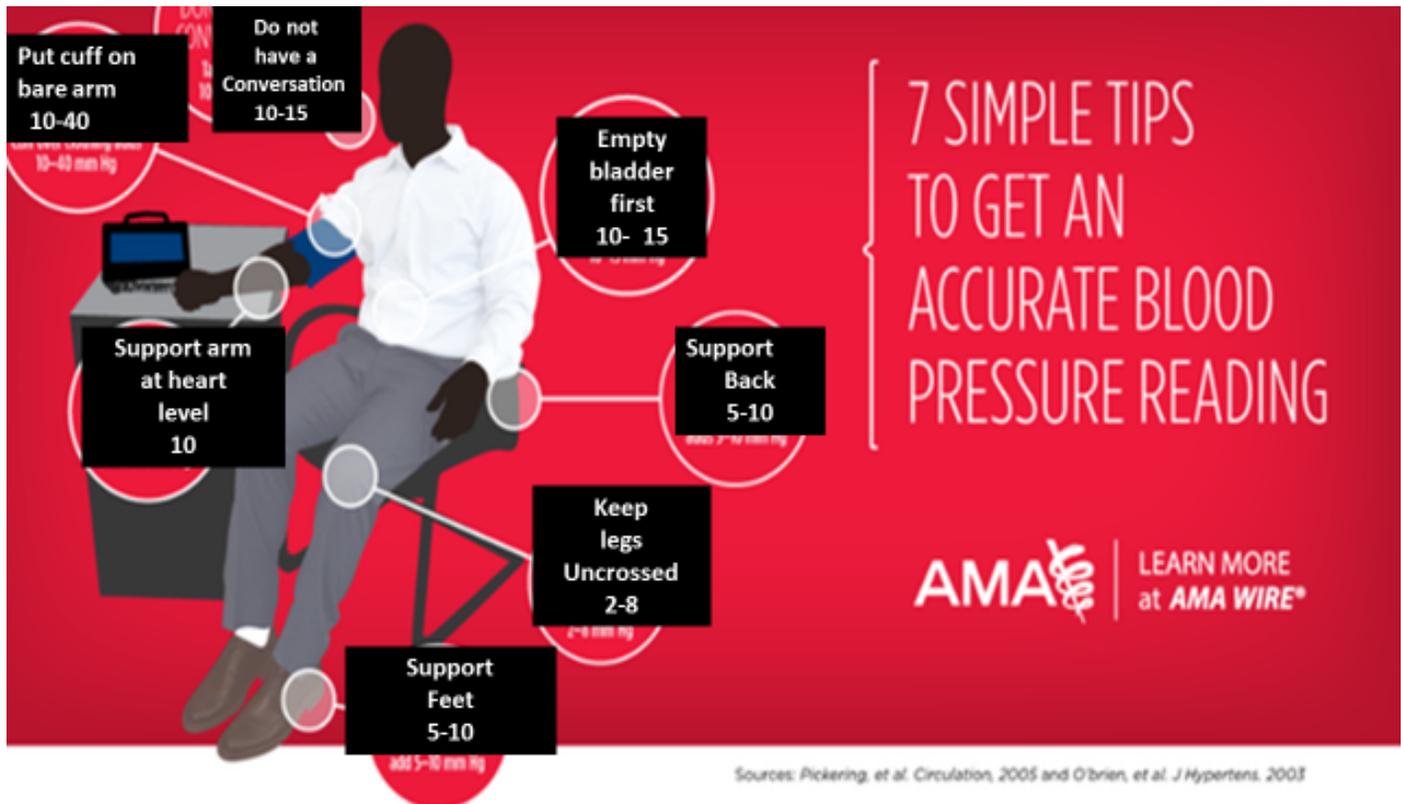
### Why have both the NICE and USPSTF recommendations changed?

The epidemiologic data below suggest that 5%-65% of the population diagnosed to have hypertension in the office, (the initial phase in each of the studies below) may have significantly lower BPs outside the office. In other words, these persons often are **NOT** truly hypertensive.



ABPM= ambulatory BP monitoring; HBPM = home BP monitoring; PPV – positive predictive value.  
Annals of Internal Medicine, vol.162 No.3 # February 2015.

The diagram below suggests some of the factors that contribute to the high false positive rate for diagnosing hypertension in the office. The numbers in the diagram indicate the outcomes of studies demonstrating the increase in mm Hg systolic BP when a particular recommendation is not followed. The paper, although 11 years old, is a good review and teaching tool.



Adapted from Pickering et al [Circulation](#) 2005

Automated BP in a room where patient is alone, allowed to sit quietly for 5 minutes before the first reading and a second reading after 2 more minutes *may* yield results similar to those of daytime ABPM. This is the protocol used in the recently published SPRINT Trial.

### My Take:

- In spite of lots of effort, I was never very effective in my own office in changing the RAZZLE DAZZLE, Chaotic launch: Patients out of the reception room, into the exam room, onto the table, feet dangling, cuff slapped on, MA talking a mile a minute.....
- The studies in the figure above certainly reflect that we are OVER-DIAGNOSING hypertension at an alarming rate.
- In Grand Junction, I have not been able to identify resources for doing ABPM.
- There is good quality evidence that home BP monitoring confirmation of hypertension is acceptable.
- An independent reputable agency has found that the following home BP monitoring units all provide excellent accuracy, good to very good comfort, and very good to excellent convenience.

MACHINE	COST
Omron 10 Series	\$75
Rite-Aid Deluxe BP3ARI-4DRITE	\$60
ReliON (Walmart) BP 200HEM741 CRELIN 4	\$40
A&D Medicine UA 767F	\$70

- The evidence is robust. We should not wait the 17 years that we typically muddle through to adopt new science in our exam rooms. Over-diagnosis, whether it involves breast or prostate cancers or hypertension, does not lower morbidity or mortality, wastes resources and creates harm.

You may access previous issues at <http://www.rmhp.org/providers/prudent-prescriber>.

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