



# **Nottinghamshire LPC NHS Community Pharmacy Hypertension Case-Finding Advanced Service Webinar**

**23<sup>rd</sup> February 2022**



# Agenda



- Introductions
- Context
- NHS direction and background to the service
- Lifestyle information and importance of the service
- What is the service and the service spec
- How to take a blood pressure reading
- Blood pressure equipment choices
- Signposting to other training available including
- Close



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## **Lifestyle interventions for hypertension**



# Lifestyle intervention for blood pressure reduction

<b>Intervention</b>	<b>Recommendation</b>	<b>Expected systolic BP reduction (range)</b>
<b>Weight reduction</b>	Maintain ideal body mass index (20- 25 kg/m <sup>2</sup> ).	<b>5- 10 mmHg per 10 kg weight loss</b>
<b>Dash eating plan</b>	Eat diet rich in fruit, vegetables, low-fat dairy products. Eat less saturated and total fat.	<b>8- 14 mmHg</b>
<b>Dietary sodium restriction</b>	Reduce dietary sodium intake to < 100 mmol/day < 2.4 g sodium or < 6 g salt (sodium chloride).	<b>2- 8 mmHg</b>
<b>Physical activity</b>	Regular aerobic physical activity, e.g. brisk walking for at least 30 min most days.	<b>4- 9 mmHg</b>
<b>Alcohol moderation</b>	Men ≤ 14 units per week. Women ≤ 14 units per week.	<b>2- 4 mmHg</b>

# The Hypertension Alphabet Strategy

**A**

l  
c  
o  
h  
o  
l

**B**

M  
I

**C**

i  
g  
a  
r  
e  
t  
t  
e  
s

**D**

r  
u  
g  
s

**E**

x  
e  
r  
c  
i  
s  
e

**F**

o  
o  
d



# Alcohol



- Reducing alcohol intake
  - < 14 units per week
  - Spread units through the week
  - Try low alcohol options
- How to count units

# One exception to the rule...

## Red wine

There has been some evidence to show cardio protective qualities and 3 - 5 glasses of red wine is to be encouraged (per week)



Xiang L et al. (2014) *Food chem*; 156:258-63



BMI

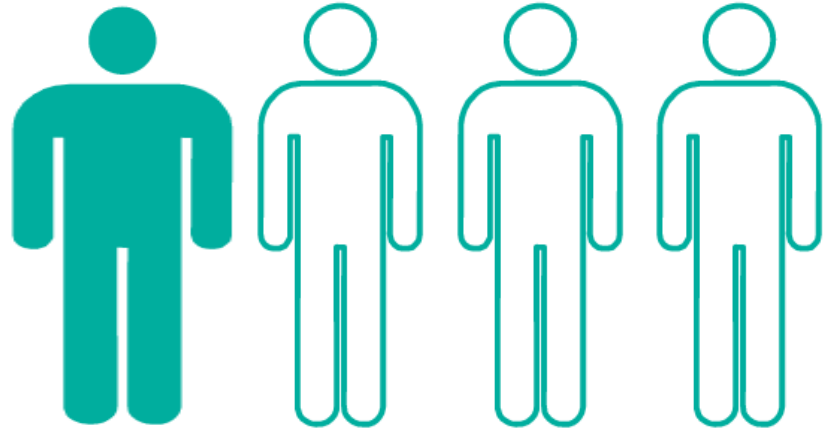


- Weight/height<sup>2</sup>
- Weight, height and girth measurement
- 5 -10mmHg BP reduction for 10kg weight loss
- Discuss local services



# Obesity among adults

Health Survey for England 2011-2013



One out of four **men** is obese (24.7%)

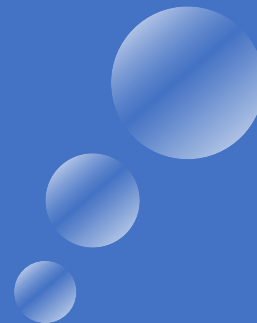


One out of four **women** is obese (24.9%)

- Smoking increases blood pressure
- Mediated by nicotine
- What is the role of nicotine replacement; ecigarettes, NRT, etc.?



## Cigarettes





## Drugs

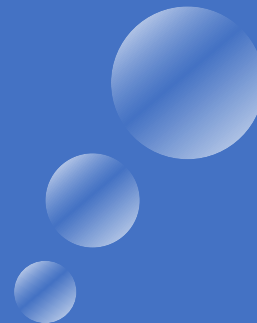


- Most people with hypertension will need two drugs to manage it.
- Non-adherence is much higher in hypertension than with other drugs (50-80%)
- Opportunity for NMS

- 5 x 30 minute sessions per week
- Moderate intensity
- Don't focus on steps
- Build up slowly
- Caution with BP over 180/100



## Exercise





# Food



- Salt content
  - 2-8mmHg reduction
- Dietary approaches
  - 8-14 mmHg

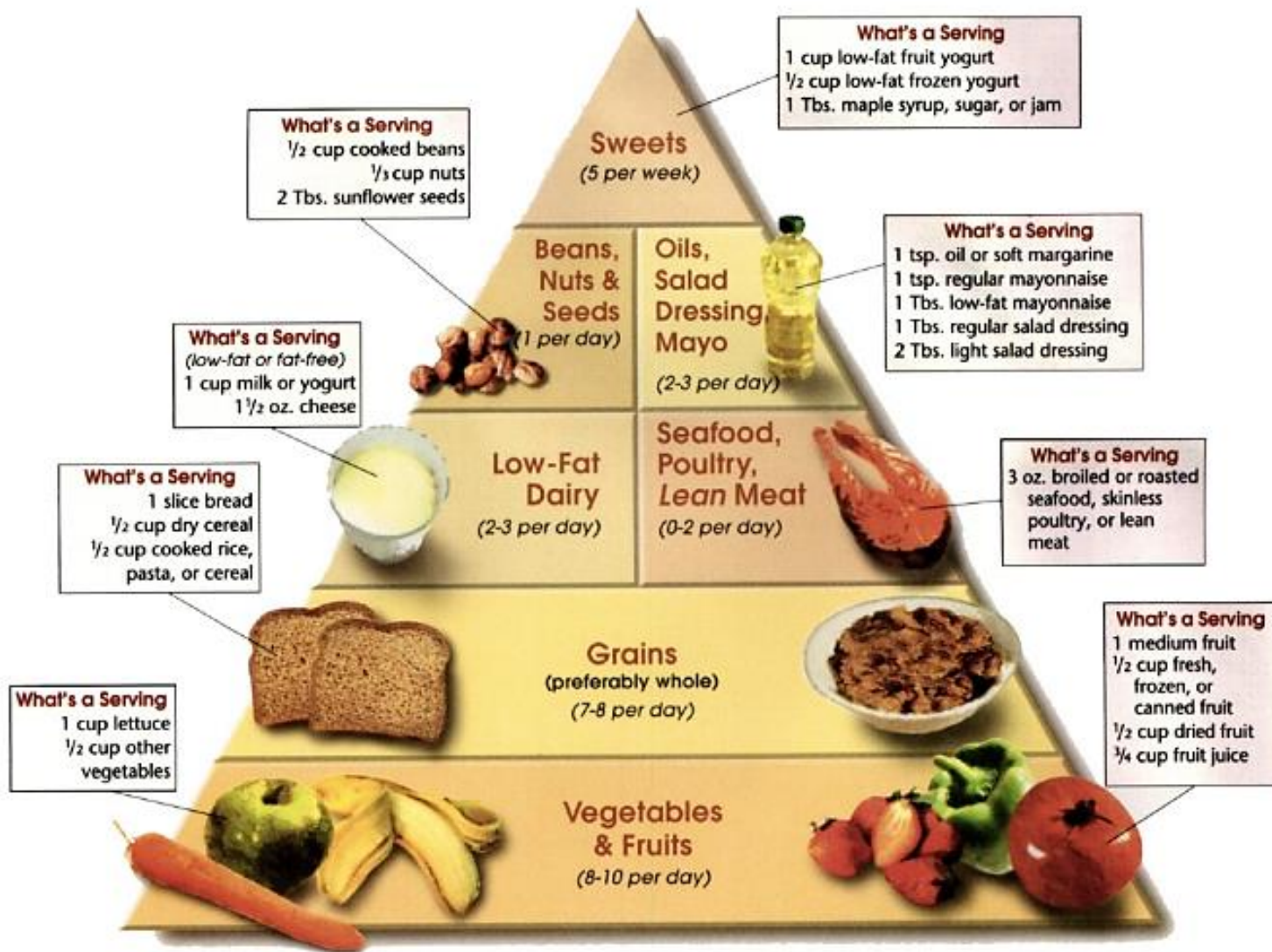
# Salt reduction

- A total of a teaspoon of salt per day = 6 gm  
(this is the maximum patients should be having)
- Salt in the afro-caribbean population
- Adding at the table or in cooking?
- Try to help people assess how much salt they are having



# DASH

- Low saturated fat
- Low salt
- High in fruit and veg
- High in fiber
- High in calcium and magnesium
- Low fat dairy





# The Socratic Fallacy

“If men know what is good they will do what is good.”





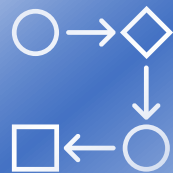
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## The hypertension service – an overview

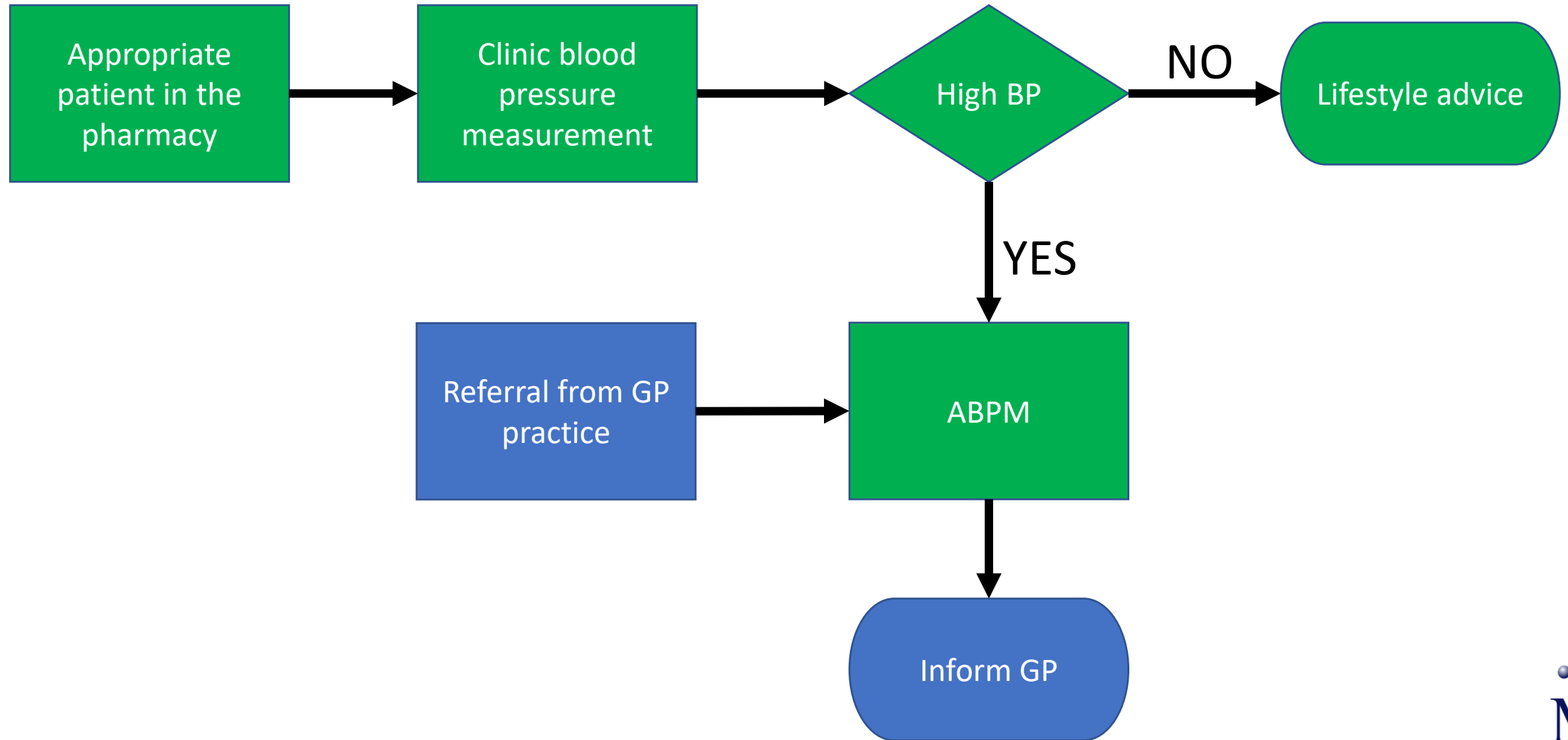


# Service Description



- Advanced service
- Started on 1st October 2021
- Two stages:
  - **Stage 1** - identify people at risk of hypertension – ‘Clinic check’
  - **Stage 2** - 24-hour ambulatory blood pressure monitoring (ABPM)
- Contractors must be able to provide both stages
- Currently only provided by pharmacists

# Service in a nutshell



Person visits Pharmacy

Pharmacy team member approaches person, inviting them or their relative, friend, or person they care for/ represent to have the BP check, subject to eligibility

Is potential patient eligible?

NO

Advice on healthy behaviours offered as appropriate, and/or signposts to GP/ other services as appropriate

END

YES

Obtain consent

Record consent

Measure BP in line with NICE guidance

BP result

If BP monitor indicates irregular pulse refer directly to registered GP

END

VERY HIGH BP

Refer to registered GP for same day appointment or local same day follow-up pathway. If no other option refer to A&E

END

HIGH BP

Provide advice on healthy behaviours. Carry out ABPM (Ambulatory Blood Pressure Monitoring)

If ABPM declined advise patient to see GP within 3 weeks. Email results to GP

If Stage 1 indicated, refer for appointment within 3 weeks. Email results / referral to GP

END

LOW BP

NORMAL BP

Give advice on healthy behaviours. Provide BP reading to patient. Recommend further blood pressure check within 5 years, or 1 year if low BP or borderline

Email results to GP in Weekly Summary email

END

Does patient experience symptoms?

NO

YES

If patient is fainting or regularly feeling like they will faint, refer for same day GP appointment. If experiencing dizziness, nausea, or fatigue, advise patient to see GP within 3 weeks.

END

When providing ABPM: Obtain consent, Provide & fit monitor, Explain how it works & provide instructions. Patient leaves, Patient returns, Review measurements

STAGE 1 indicated

If Stage 2 indicated, refer for same day appointment or A&E. Call to book appointment and email results to GP.

END

STAGE 2 indicated

Unregistered: Blood pressure result given to patient. If Stage 2 indicated, refer for same day appointment or A&E

Provide information on how to register with a GP practice

END

Average Ambulatory Blood Pressure

Low blood pressure: 90/60mmHg or lower
Normal blood pressure: between 90/60mmHg and 134/84mmHg
Stage 1 Hypertension: Between 135/85mmHg and 149/94mmHg
Stage 2 Hypertension: 150/95mmHg or higher

- Inclusion criteria:**
- Adults who are 40 years old or over, who do not have a current diagnosis of hypertension or a related condition
  - Any patient under the age of 40 who requests the service because they have a recognised family history of hypertension may be seen under this service (with notes provided in the information sent to the general practice to this effect) if the pharmacist thinks this is appropriate
  - Adults between 35 and 39 years old who are approached about or request the service may be tested at the pharmacist's discretion
  - Adults specified by a local GP practice for the measurement of blood pressure
- Exclusion criteria:**
- People who are unable to give consent to participate
  - People under the age of 40 years old, unless at the discretion of the Pharmacist
  - People who have their blood pressure regularly monitored by a healthcare professional, unless at the request of a local GP practice
  - Any person who is identified as suitable to be included under the criteria but where the smallest / largest cuff available does not fit

Clinic Blood Pressure

Low blood pressure: 90/60mmHg or lower
Normal blood pressure: between 90/60mmHg & 139/89mmHg
High blood pressure: between 140/90mmHg & 179/119mmHg
Very high blood pressure: 180/120mmHg or higher

- Premises
  - Consulting room
  - Appropriate furniture
  - IT
- Training
  - Pharmacist
  - Pharmacy team
- Registration - MYS
- SOPs
- Engage with GP practices / PCN

# Pre-commencement



# Patient eligibility



## **Inclusion criteria**

- Adults  $\geq$  40 years with no diagnosis of hypertension
- By exception, < 40 years with family history of hypertension (pharmacist's discretion)
- Approached or self requested 35-39 years old (pharmacist's discretion)
- Adults specified by a general practice (clinic and ambulatory blood pressure checks)

## **Exclusion criteria**

- Unable to give consent
- Under 40 years old
- People who have their blood pressure regularly monitored by a healthcare professional

## **Additional consideration**

- Unable to support due to cuff size

- Both normal BP checks and ABPM
- Locally agreed process
- ABPM referrals best done electronically
- Template referral form available

# Patient referral from GP



# ABPM



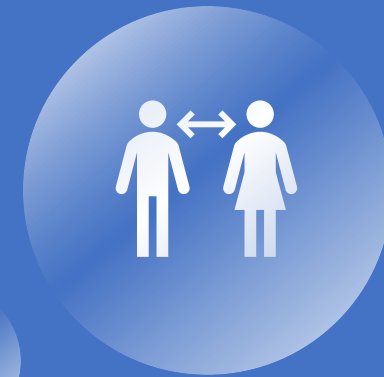
- Supply the monitor
  - Fit the ABPM to the patient
  - Educate the patient
- Arrange a follow up appointment
- Record average daytime, night-time and 24 hr BP
- Interpret on 24hr BP
- Notify GP of all three readings



- Normal
  - 90/60 – 134/84mmHg
  - Provide advice
  - Weekly email results to GP
- Stage 1
  - 135/85 – 149/94mmHg
  - Refer within three weeks
  - Email results/referral
- Stage 2
  - >150/95mmHg
  - Same day referral
  - Call GP for appointment /email results

# ABPM

## Informing the GP



# Remuneration



- Setup fee £440
- Clinic check £15
- ABPM £45
- Incentive fees
  - £1,000 if 5 ABPMs in 2021/22;
  - £400 if 15 ABPMs in 2022/23  
and
  - £400 for 20 ABPMs in 2023/24.



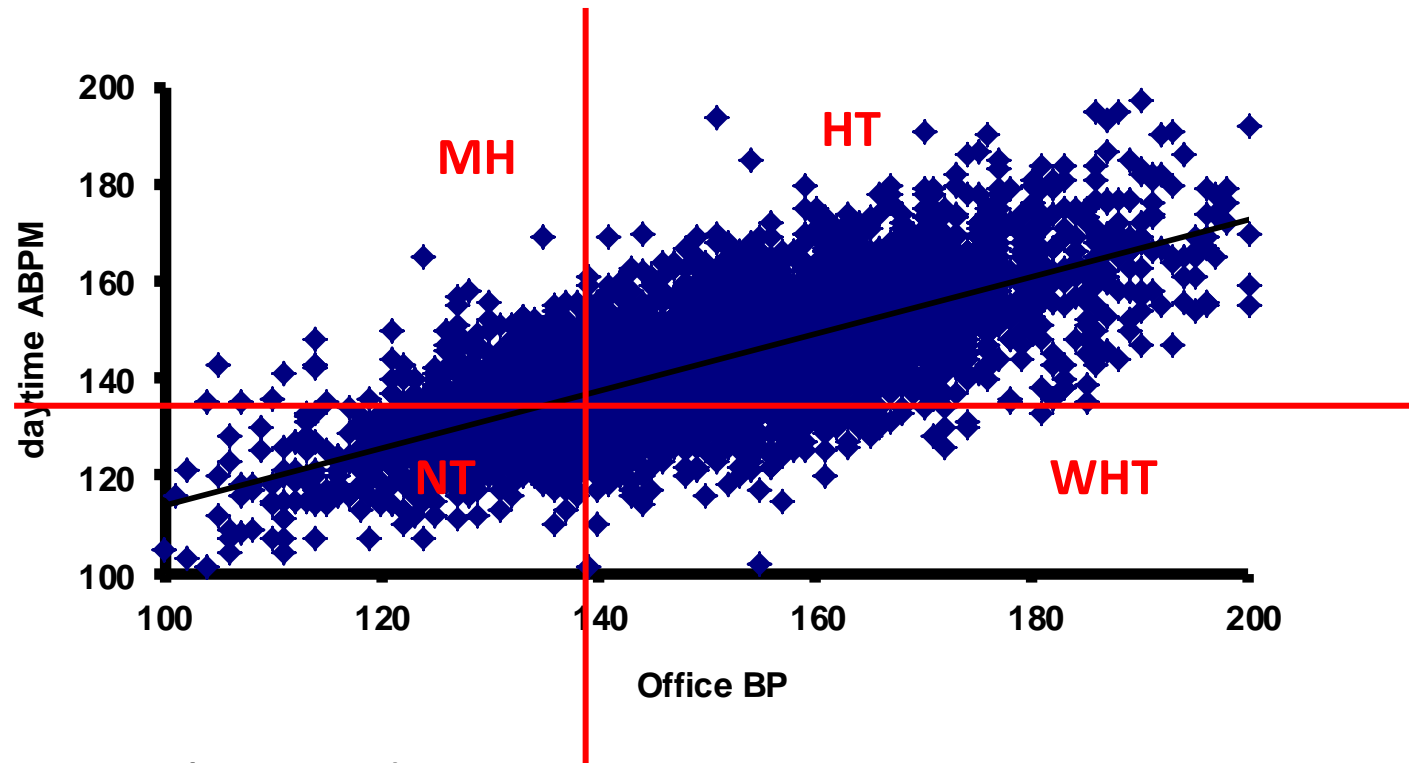
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## Measuring BP correctly

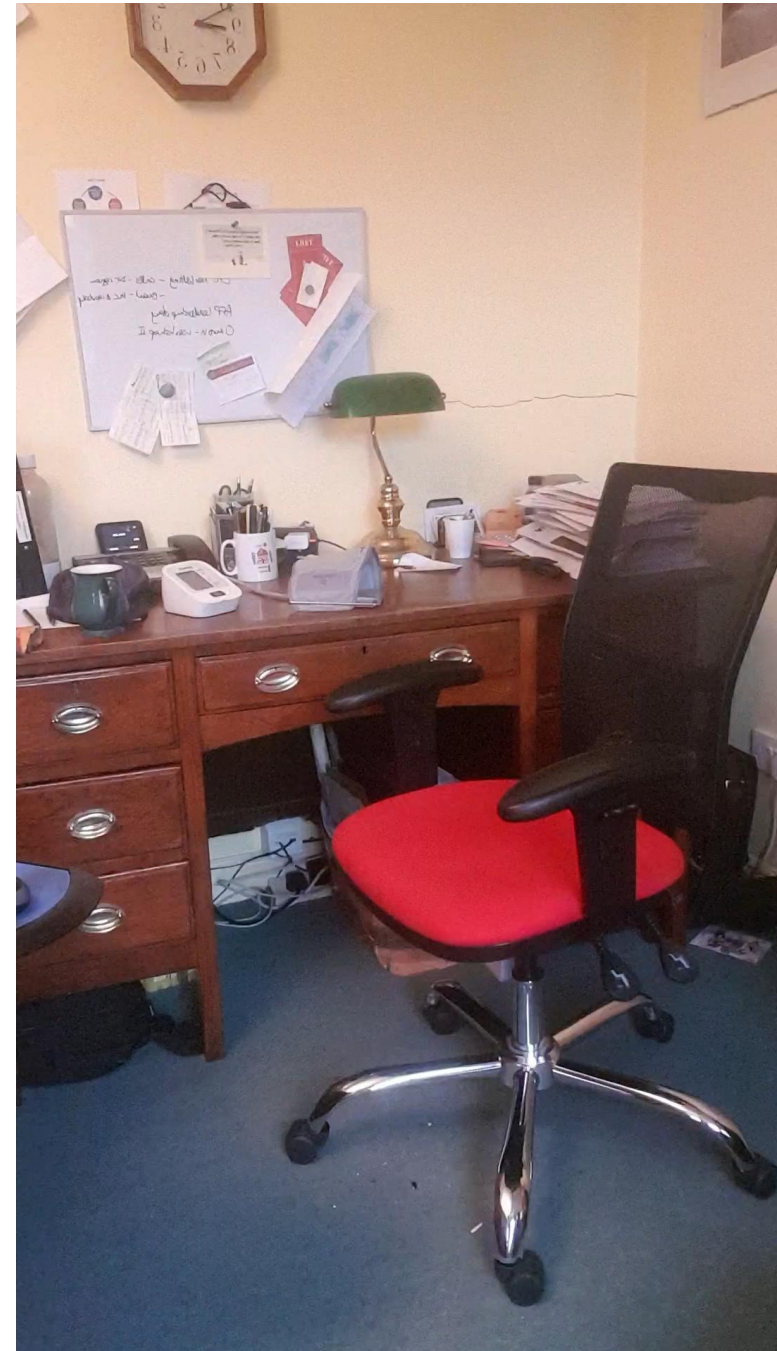


# Out of Office BP



Relationship between clinic and ambulatory blood pressure

# Measuring blood pressure



# Situations affecting correct BP reading

## Activity

- Cuff too small
- Cuff over clothing
- Back/feet unsupported
- Legs crossed
- Not resting 3 – 5 minutes
- Patient talking
- Pain

## Systolic mmHg

10 to 40 mmHg ↑

10 to 40 mmHg ↑ or ↓

5 to 15 mmHg ↑

5 to 8 mmHg ↑

10 – 20 mmHg ↑

10 to 15 mmHg ↑

10 – 30 mmHg ↑

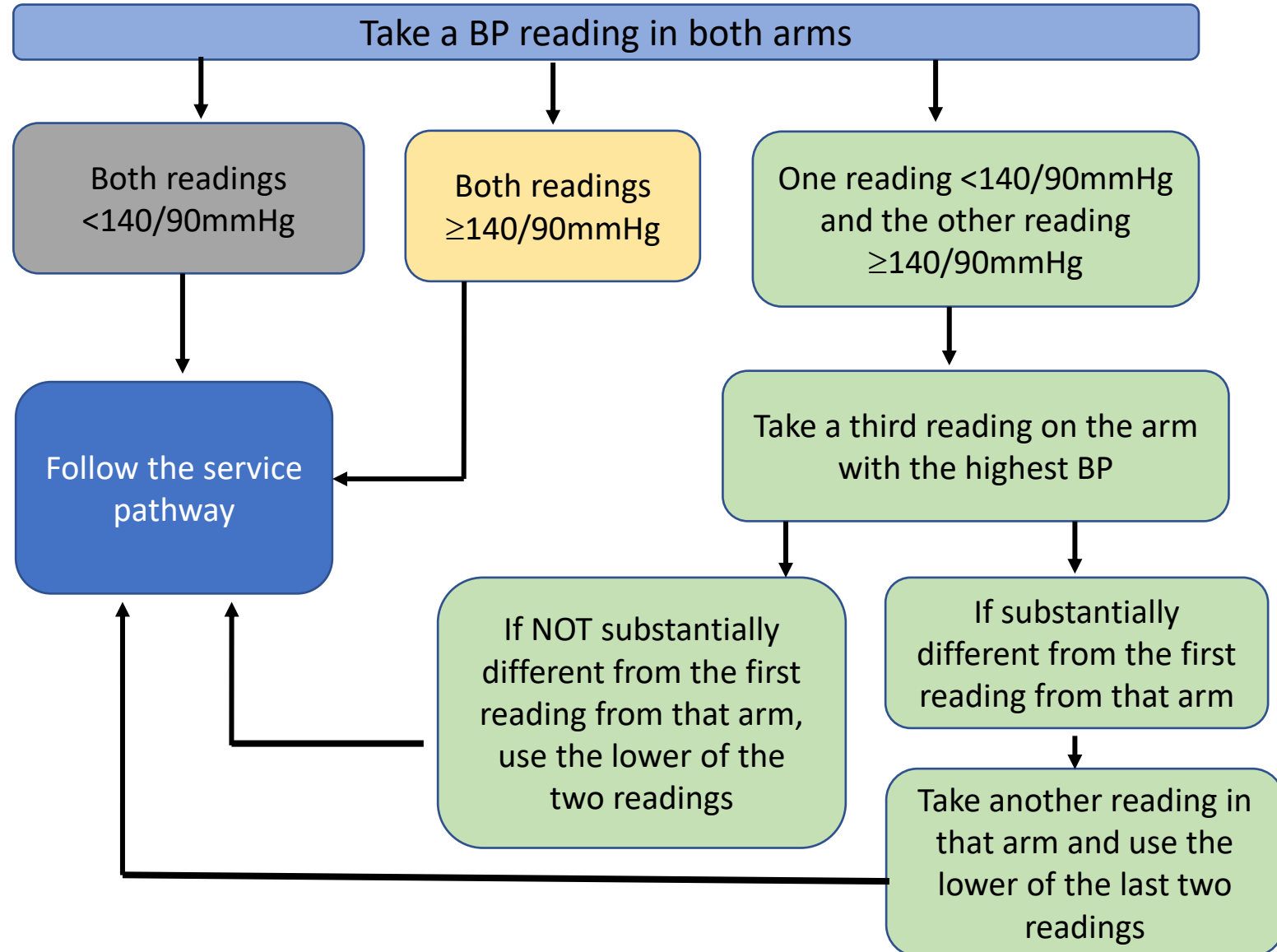
Wisconsin Heart Disease and Stroke Prevention Program 2010

# Checklist for measuring blood pressure

- Check for irregular heart beat
- Rest for at least 5 min, 30 minutes without smoking, caffeine or eating a meal
- No excessive alcohol
- Seated, back supported and arm supported on table/desk/box
- Legs uncrossed and both feet on ground
- Use the right size cuff and place properly
- Avoid constrictive clothing
- Support the arm at heart level

# Providing the service – Clinic check

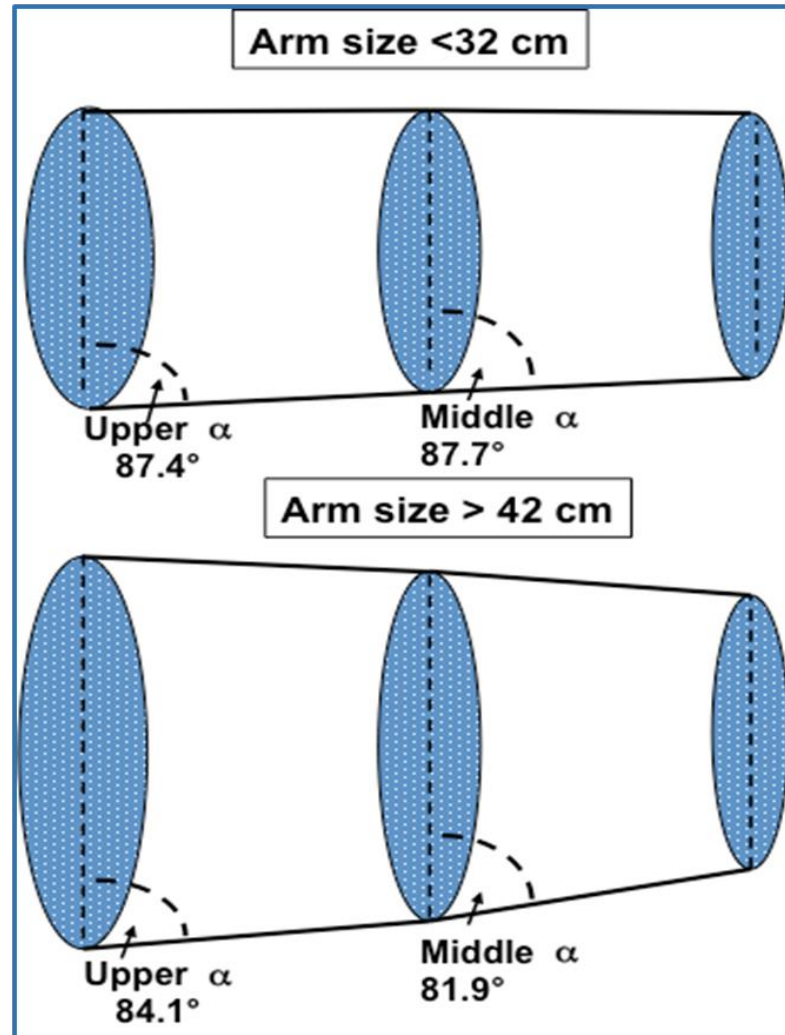
Measure BP  
in line with  
NICE  
guidance



Clinic Blood Pressure	Category	Range
	Low blood pressure:	90/60mmHg or lower
	Normal blood pressure:	between 90/60mmHg & 139/89mmHg
	High blood pressure:	between 140/90mmHg & 179/119mmHg
	Very high blood pressure:	180/120mmHg or higher



# Measuring blood pressure in obese patients





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## Choosing BP monitors



# Blood pressure monitors

## **Auscultatory measurement**

- Stops blood flow in arm
- Slow release of pressure
- Listen to sounds of blood flow returning
- Korotkoff sounds

***Manual monitors***

## **Oscillometric measurement**

- Arterial pulse wave leads to increase and decrease in pressure
- Pressure wave detected in cuff
- Pressure calculated with an algorithm

***Digital monitors***

- BHS validated
- Multi-position cuff
- Record of measurements
- Irregular heartbeat detection
- AF detection
- Automatic multiple tests
- Stroke risk identification
- Connection to smartphone

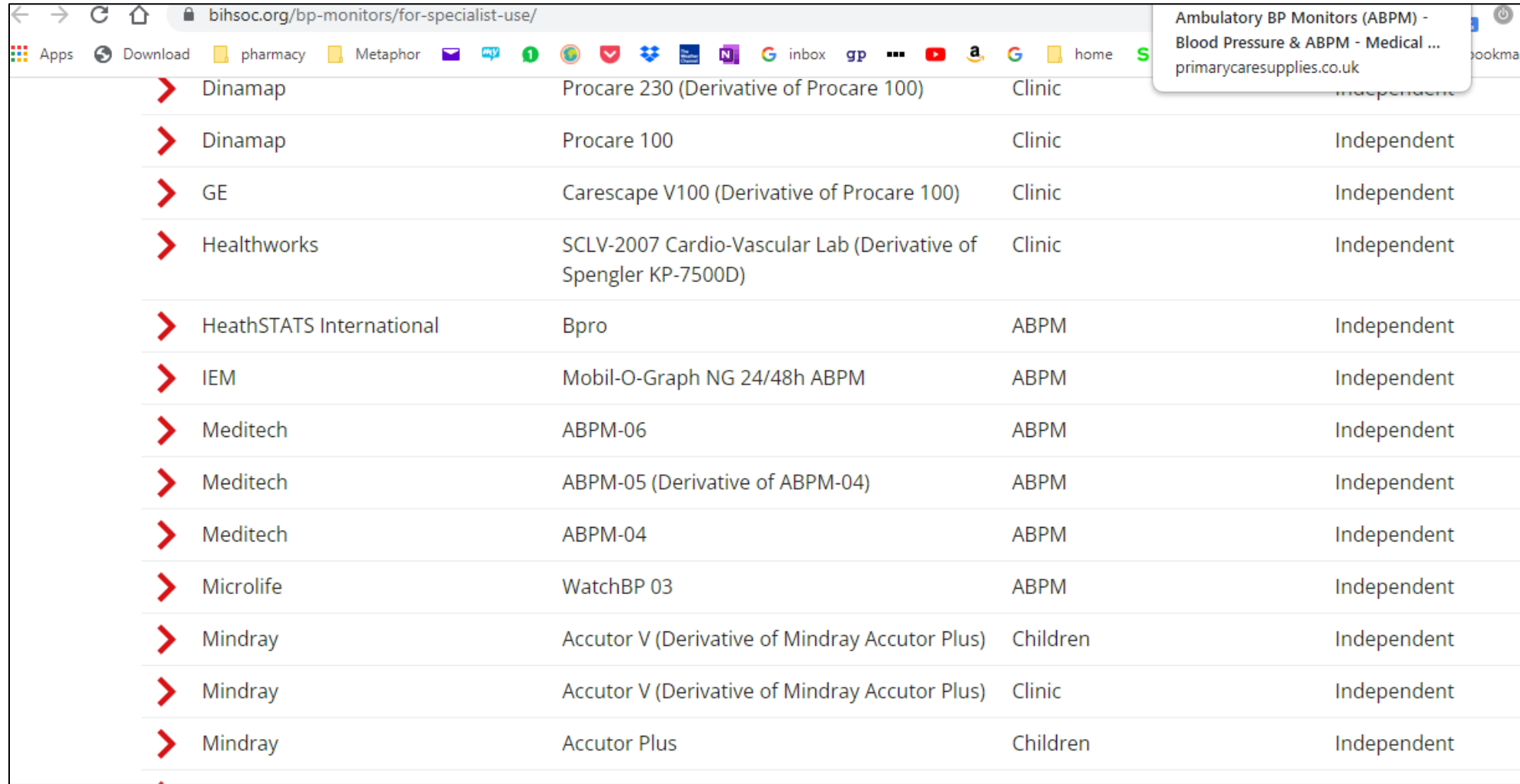
## Useful additional features

# Monitor considerations



- Maintenance and training
- Service contract
- Calibration versus replacement cost
- Consumables;
- Complexity of use
- Software
- Insurance to cover accidental damage / theft

# BIHS validated



Brand	Model	Setting	Validation Status
Dinamap	Procare 230 (Derivative of Procure 100)	Clinic	Independent
Dinamap	Procure 100	Clinic	Independent
GE	Carescape V100 (Derivative of Procure 100)	Clinic	Independent
Healthworks	SCLV-2007 Cardio-Vascular Lab (Derivative of Spengler KP-7500D)	Clinic	Independent
HeathSTATS International	Bpro	ABPM	Independent
IEM	Mobil-O-Graph NG 24/48h ABPM	ABPM	Independent
Meditech	ABPM-06	ABPM	Independent
Meditech	ABPM-05 (Derivative of ABPM-04)	ABPM	Independent
Meditech	ABPM-04	ABPM	Independent
Microlife	WatchBP 03	ABPM	Independent
Mindray	Accutor V (Derivative of Mindray Accutor Plus)	Children	Independent
Mindray	Accutor V (Derivative of Mindray Accutor Plus)	Clinic	Independent
Mindray	Accutor Plus	Children	Independent



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## Other available training

