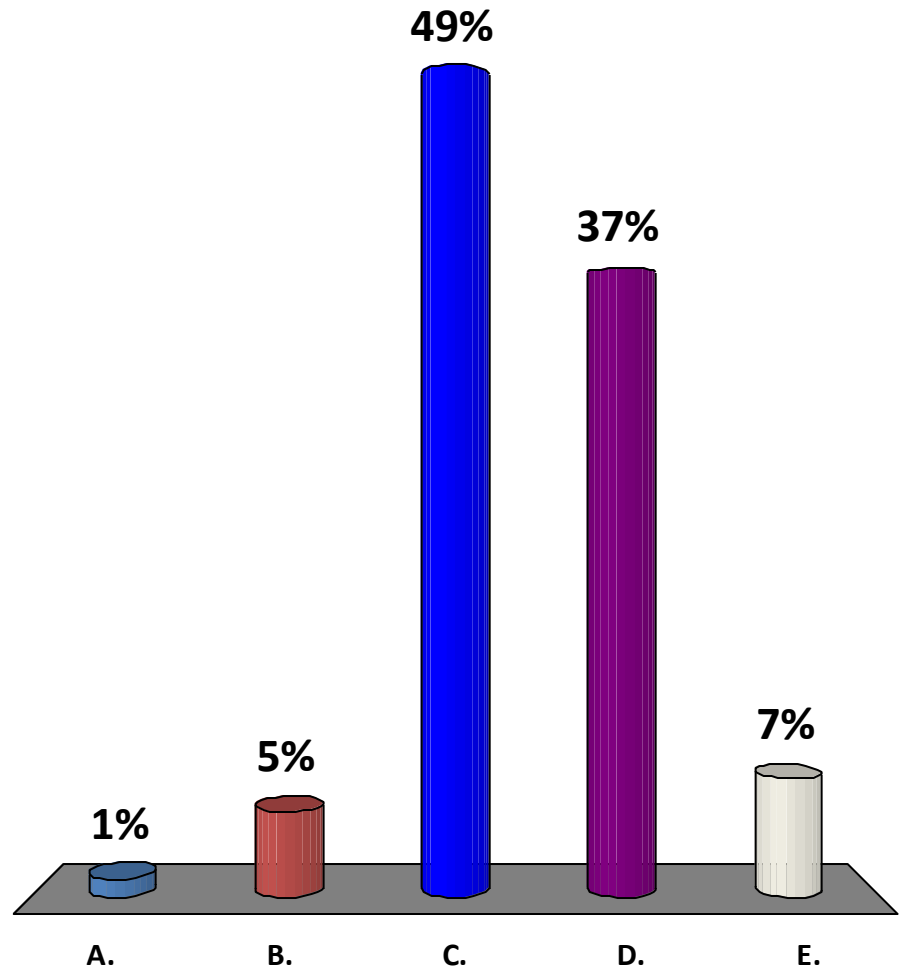


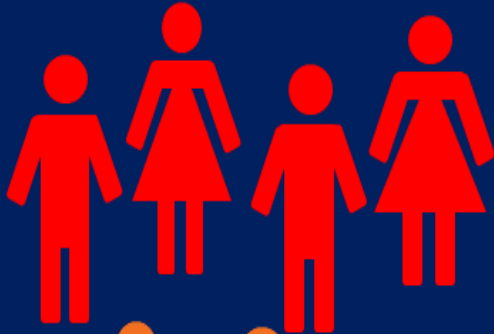
Hypertension

How many people with Hypertension are being diagnosed and treated correctly?

- A. 100%
- B. 80%
- C. 60%
- D. 40%
- E. 20%



Of every **10** people with high blood pressure:



4 are undiagnosed



2 are on treatment but their blood pressure isn't controlled



4 are on treatment and their blood pressure is controlled

Barnsley premature mortality from CVD higher than average by how much?

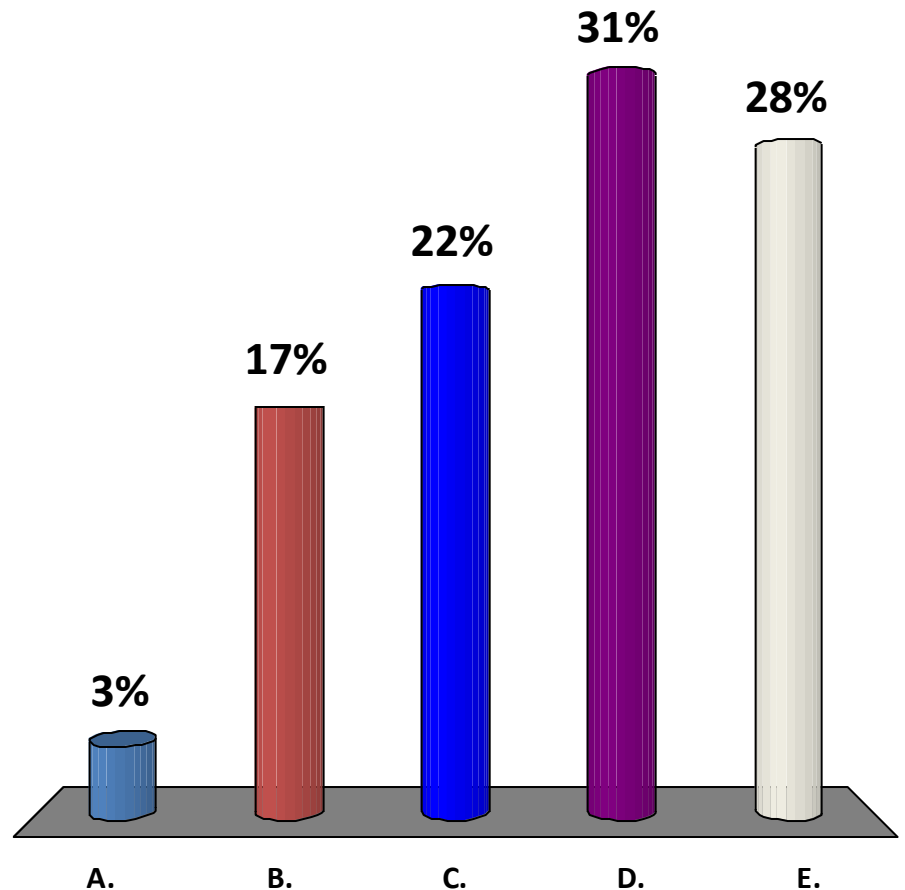
A. 5%

B. 10%

C. 15%

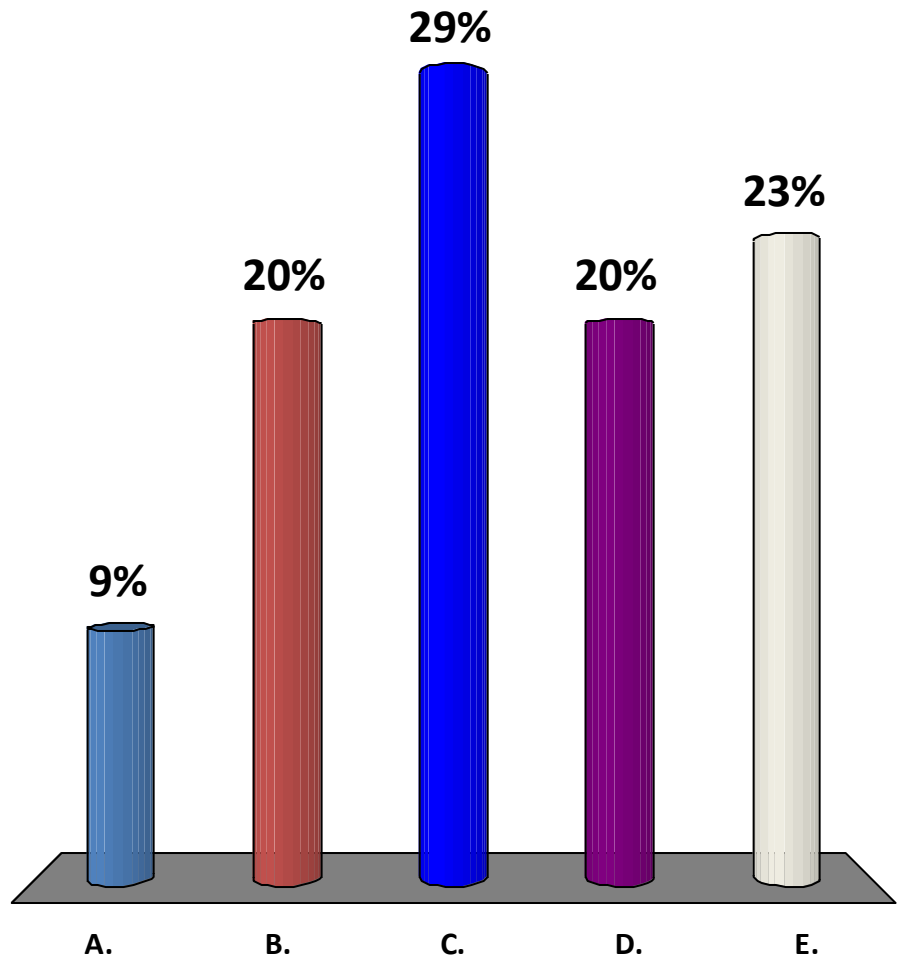
D. 20%

E. 30%



Undiagnosed hypertensive population in Barnsley?


- A. 5,000
- B. 10,000
- C. 15,000
- D. 20,000
- E. 25,000





1 thing I did right?

List 7 things I did wrong!

- Only one arm
- Didn't palpate pulse
- On top of clothes?
- Talking
 - 15mmHg
- Crossed legs
 - 10mmHg
- Wrong Cuff size 
 - 8 mmHg
- Didn't support her arm
 - 2mmHg

Cases

Mary

- 38 contraception check
- clinic blood pressure 158/94 mmHg
- (138/75- one year ago)

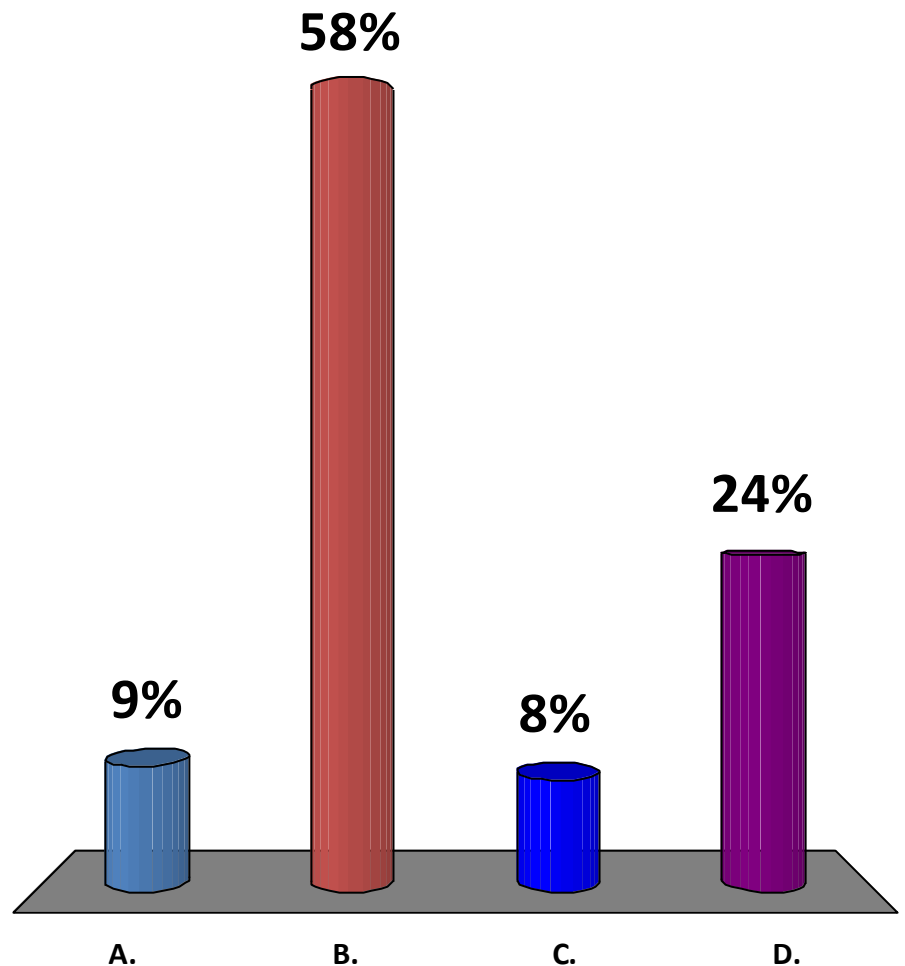
The magic clinic number above which you consider hypertension?

A. 140/80

✓ B. 140/90

C. 145/85

D. 150/90

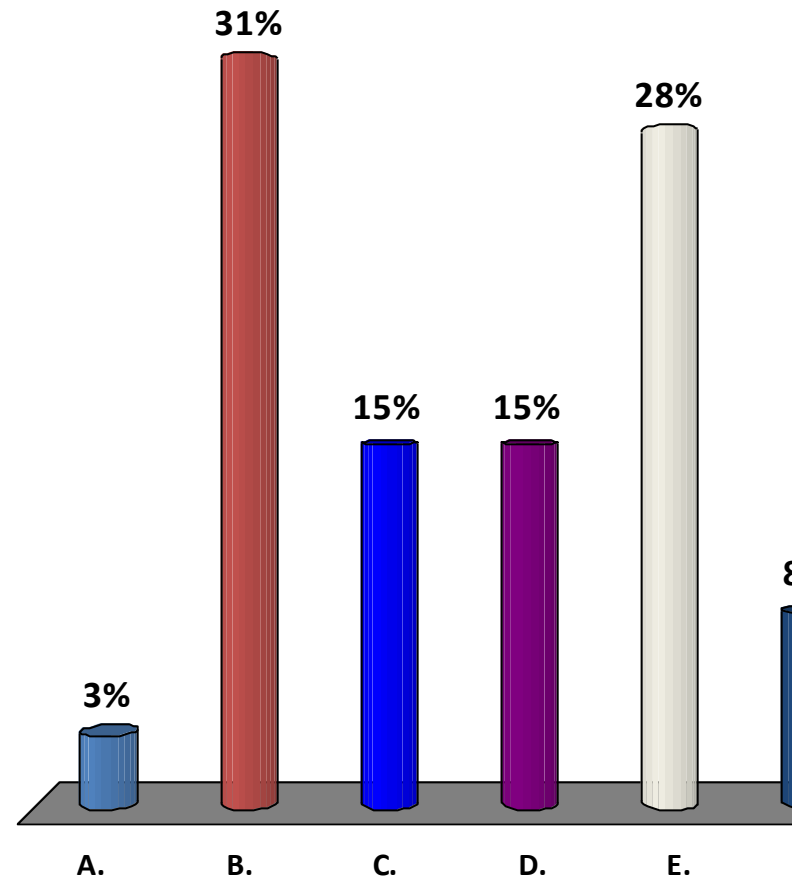


Mary

- 38 contraception check
- clinic blood pressure 158/94 mmHg
- (138/75- one year ago)

What next ?

- A. Come back in a month - see HCA – get BP re-checked?
- B. Check BP in other arm?
- C. Repeat BP in 1 minute?
- D. Offer ambulatory BP ?
- ✓ E. B and D
- F. A and C



If first Clinic BP recording >140/90

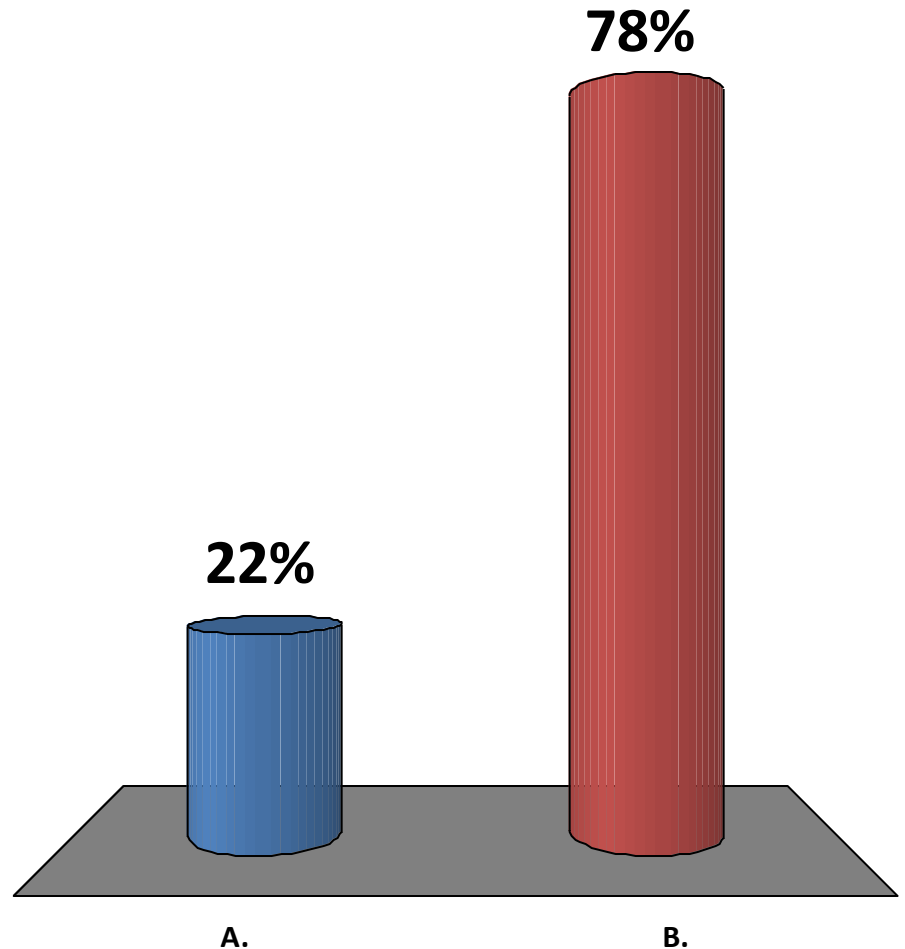
- Check BP in both arms
- If difference >20mm Hg ?
- Which arm recordings would you use ?
Higher/Lower
- What can a 20mm difference represent?

- If not much difference between the two arms?
- repeat in clinic again in 5 minutes

Can Stage 1 or 2 Hypertension be diagnosed on Clinic recordings alone?

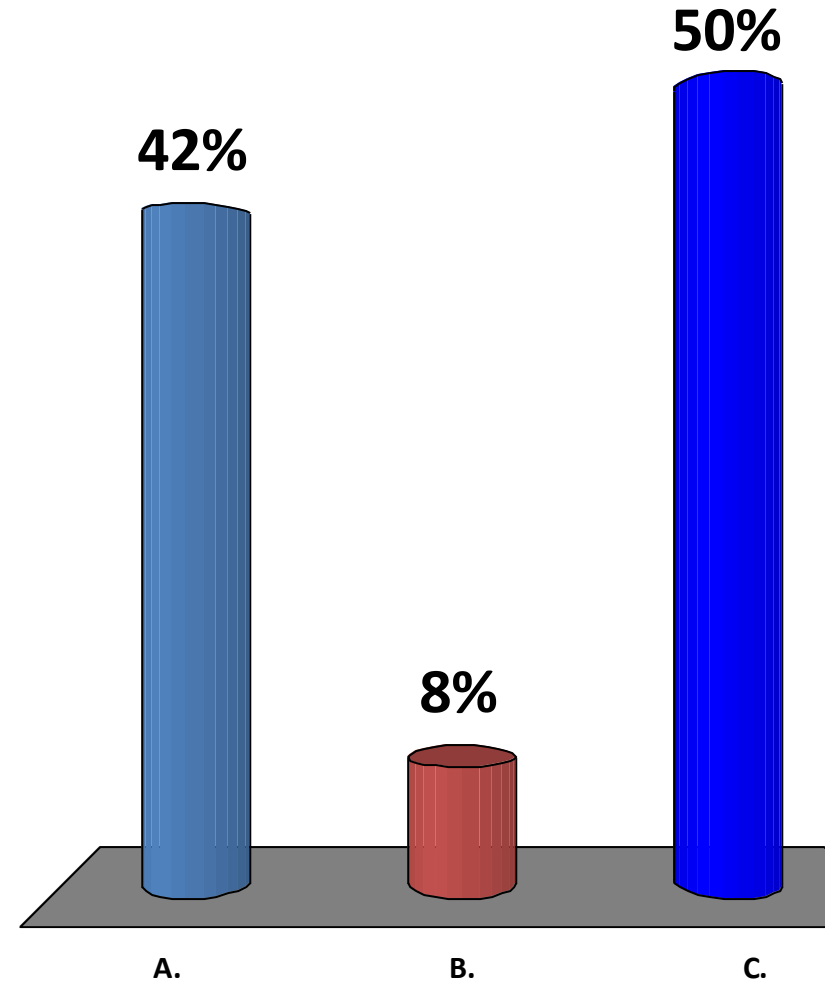
A. YES

B. NO



What will you offer patient?

- ✓ A. Ambulatory BP monitor
- B. Home BP monitor?
- C. Give patient a choice?

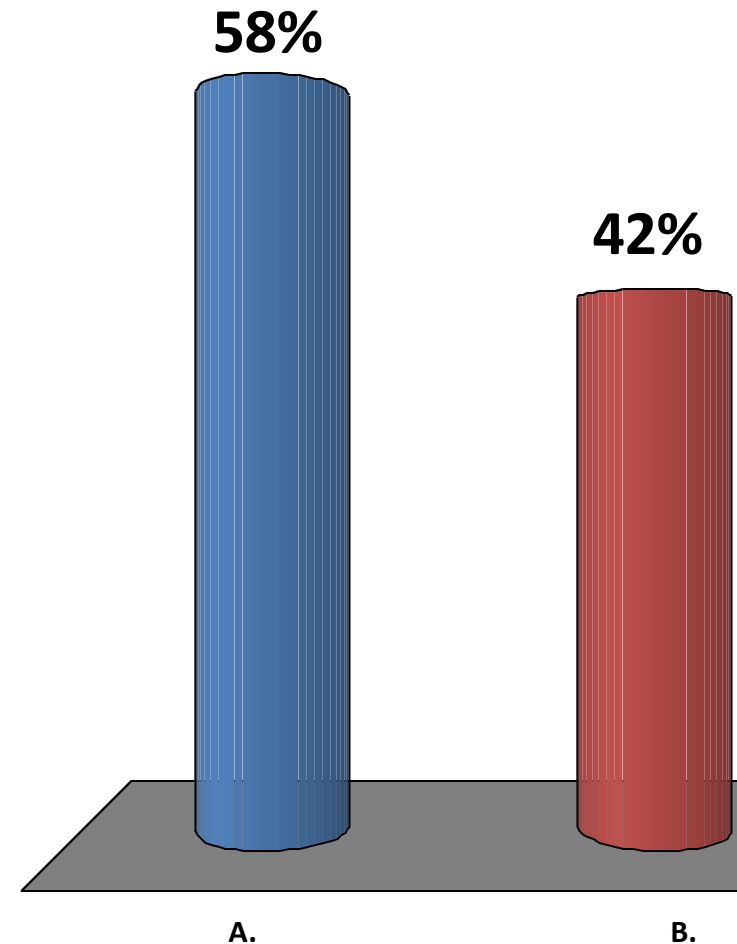


WHY do you have to offer AMBP/HMBP?

- Exclude White coat hypertension?
- 20/10

AMBP recordings

- ✓ A. Avg of 14 day time results?
- B. Avg of 14 results over 24 hours?



Home BP recordings

- How do you instruct them to take the recordings?



Contact numbers	Diagnostic tools	Prescribing guidelines	Patient information sheets	Investigation/referrals	Useful websites
Home	BEST talks	Events and education	Relaxation	Medicines	Working and appraisal

Home

Clinical support by body system

 Brain and mental health	 Ophthalmology and ENT	 Respiratory and Smoking	 Cardiovascular and Lipids
 Endocrine and Diabetes	 Gastroenterology	 Renal, Urology and Mens Health	 Women's and Sexual Health



- Contact numbers
- Diagnostic tools
- Prescribing guidelines
- Patient information sheets**
- Investigation/referrals
- Useful websites

Top patient information sheets

- [Fluid input/ output chart](#)
- [Headache diary](#)
- [Peakflow diary](#)
- [Menstrual diary](#)
- [DNACPR form /What happens if my heart stops](#)
- [Home Blood pressure monitoring chart](#)
- [URTI - Treating Your Infection](#)
- [Cough / Sore Throat / Ear infection](#)
- [Fever in Children- what to look out for](#)
- [2 week wait info sheet](#)
- [Physiotherapy- self referral](#)
- [MHAT - workshop diary 2016](#)

If you can't find an information sheet above try the directory of [all patient information sheets](#).

Home Blood Pressure Monitoring Sheet

When taking home blood pressure readings, please ensure that:

1. For each recording, 2 consecutive measurements are taken at least one minute apart, with the person seated.
2. That blood pressure is taken and recorded twice daily, ideally once in the morning and evening.
3. That blood pressure recordings continue for at least 4 days, ideally for 7 days.

Record your reading on this sheet.

PATIENT NAME

EMIS NUMBER

CONTACT NUMBER

DOCTOR

DATE	BLOOD PRESSURE READINGS			
	MORNING		AFTERNOON	
	First	Second	First	Second
Example 15/8/16	151/70	145/69	143/68	147/72

Mary

- Clinic:
- 158/94
- 149/93

- ABPM:
- 145/92

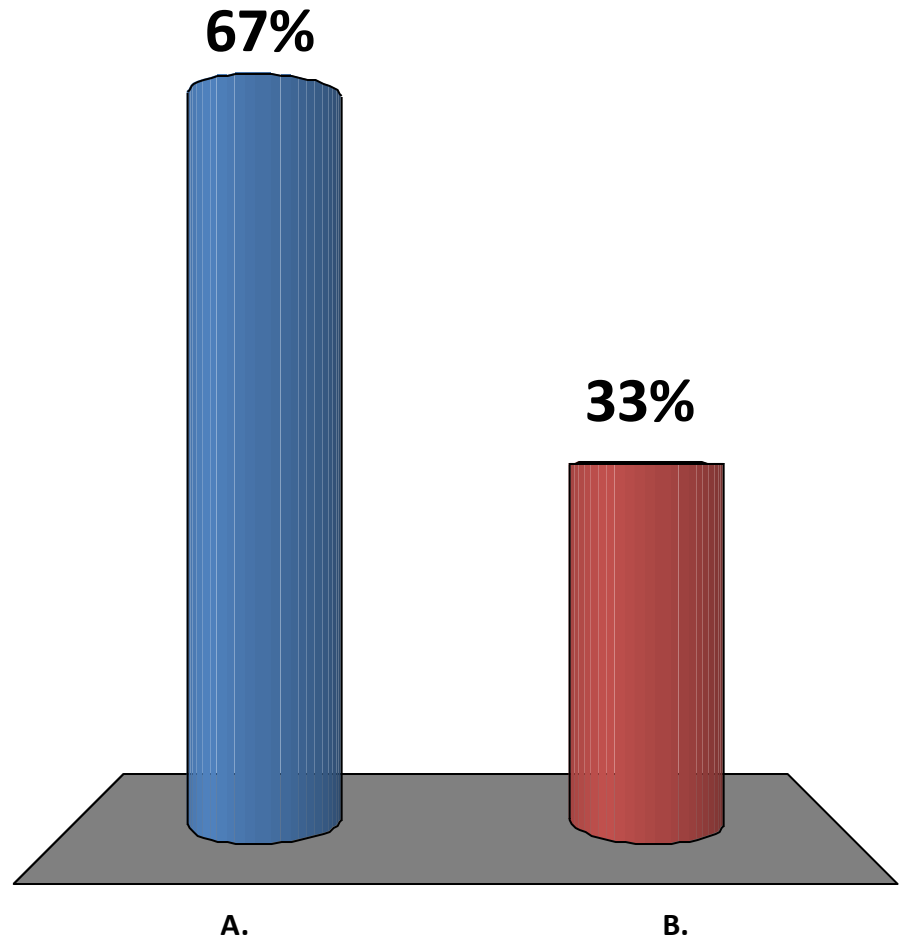
- Thoughts ?
- Stage 1 hypertension

What next?

- Test for end organ damage?
 - LVH- ECG
 - Retinopathy- fundoscopy
 - Renal-
 - urine dipstick- blood
 - Protein A:CR
- Bloods
 - U+E,eGFR
 - Glc
 - Total chol and HDL

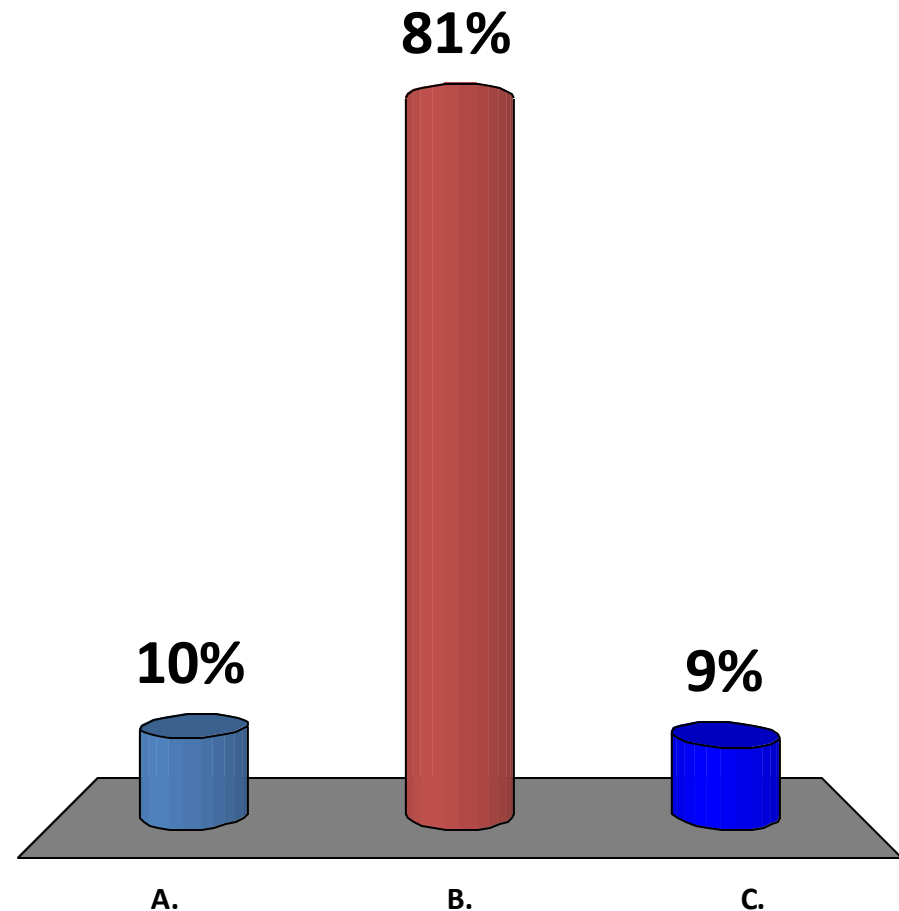
Q risk calculation ?

- ✓ A. Yes
- B. No



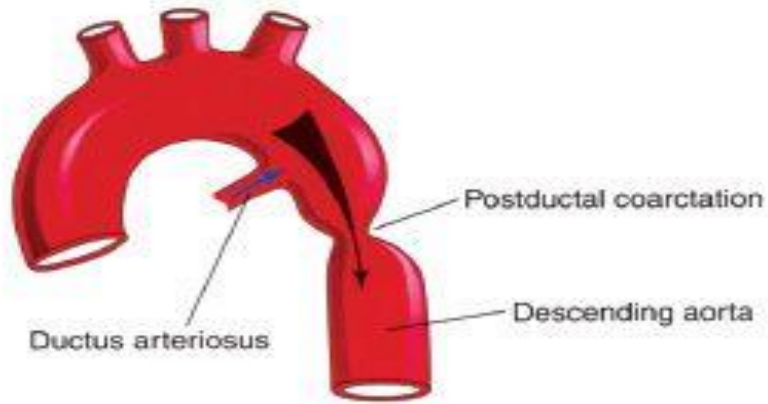
Would you refer Mary to the hospital?

- ✓ A. YES
- B. No !
- C. unsure

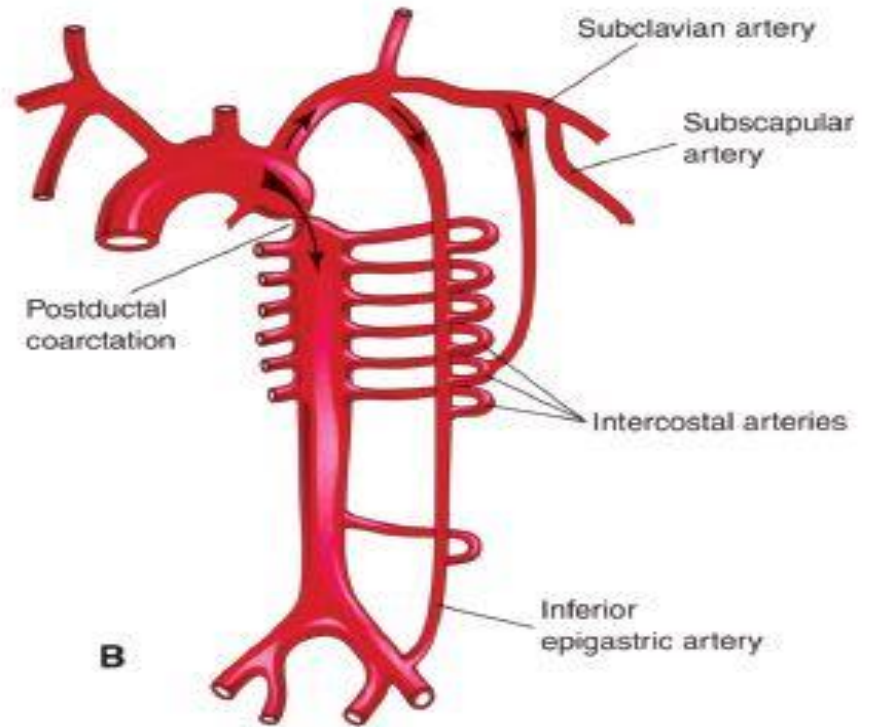


Secondary Causes of hypertension?

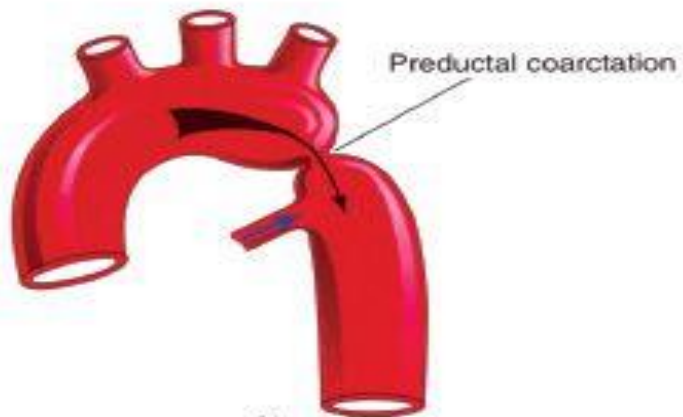
- Drugs
 - Steroids
 - NSAIDs
 - COCP
 - Illicit
- Endocrine
 - hyperthyroidism
 - Conns
 - Cushings
 - Pheochromocytoma
 - acromegaly
- Renal
- Congenital ?



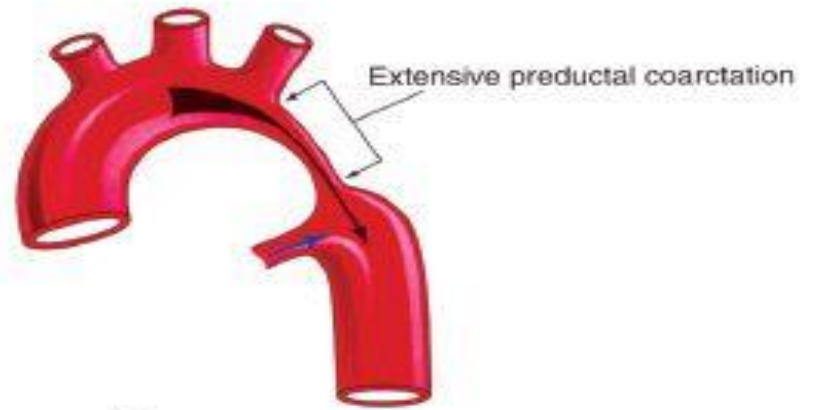
A



B



C



D

Case

- A 28-year-old who is 10 weeks pregnant is noted to be hypertensive on her booking visit. Blood show a potassium of 3.1 mmol/l. Clinical examination is unremarkable
- ? Cause for hypertension?

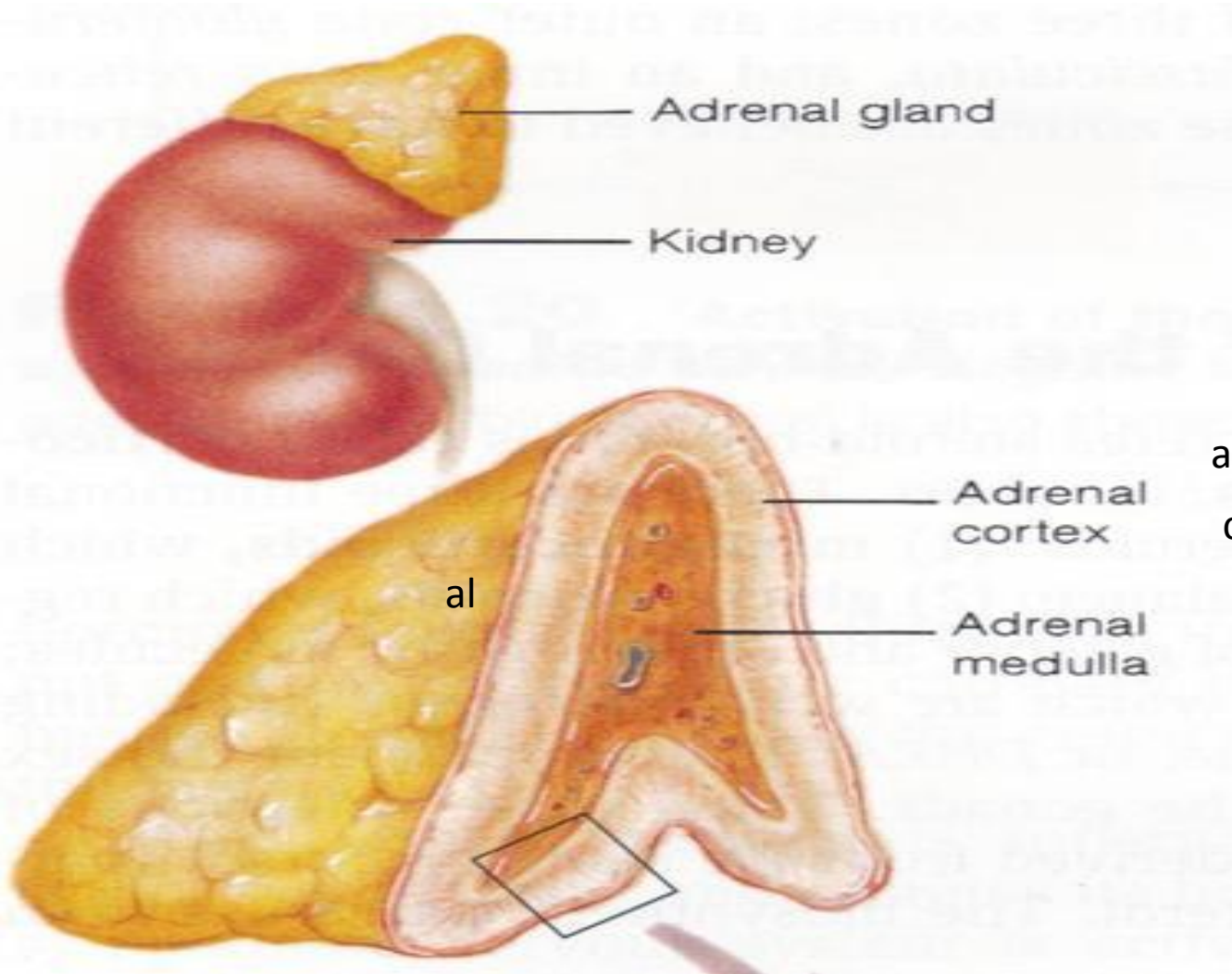
Case

- Sodium
 - high
- Potassium
 - Low
- Glucose
 - high



Case

- Headaches, palpitations, sweating+, anxiety
- Settles within the hour !
- Postural hypotension



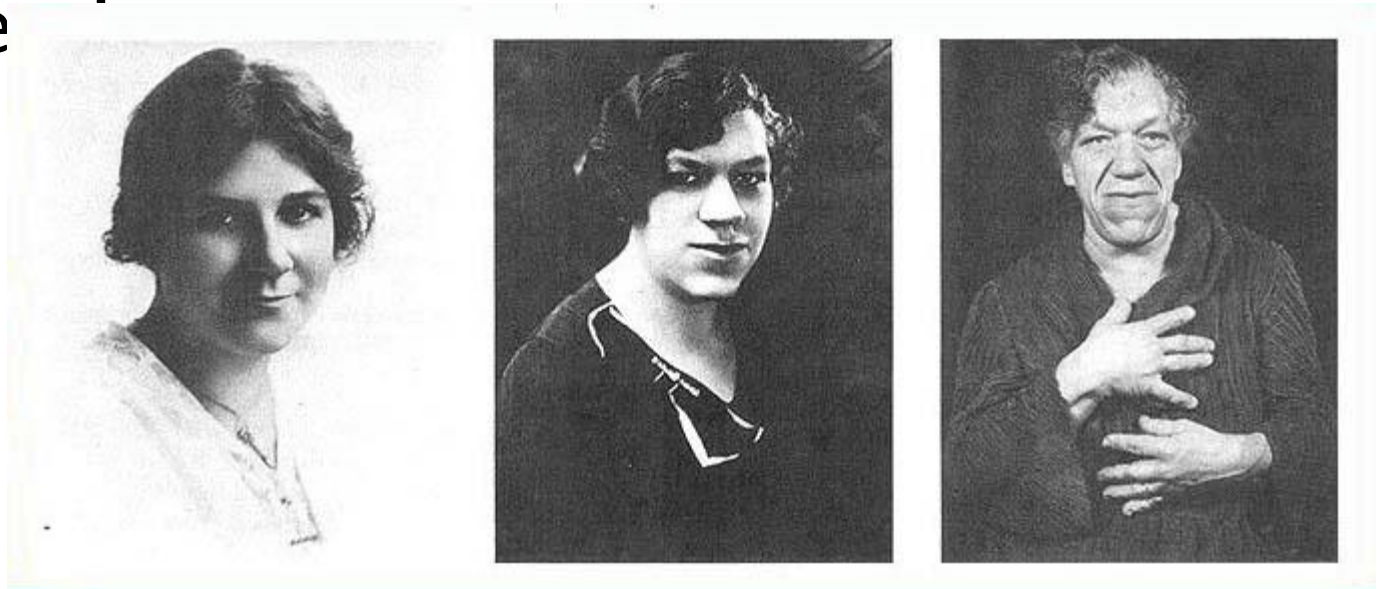
aldosterone
cortisol

Adrenaline
Noradrenaline

Case...



- Headaches
- sweating
- visual loss
- hypertensive

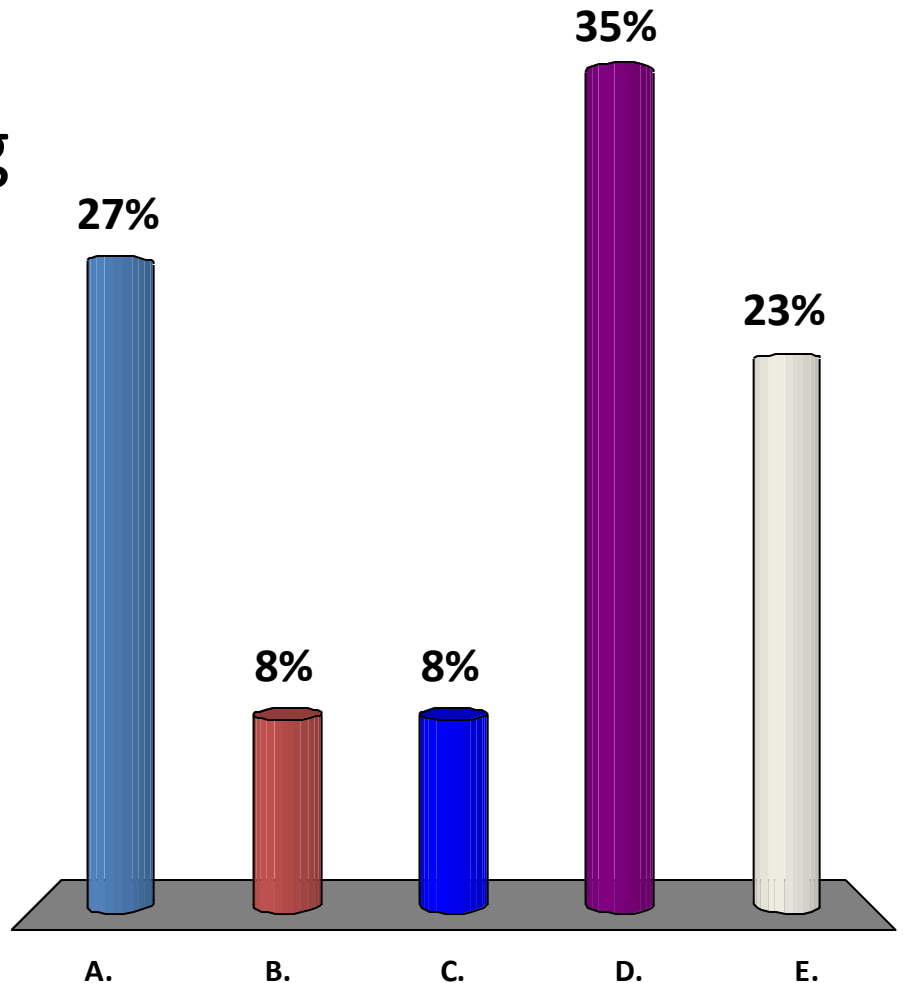


Case

- A 68-year-old with a history of ischaemic heart disease is seen in the hypertension clinic. Despite four anti-hypertensives his blood pressure is 174/94 mmHg.
- An abdominal ultrasound shows asymmetrical kidneys

How will you manage Mary?

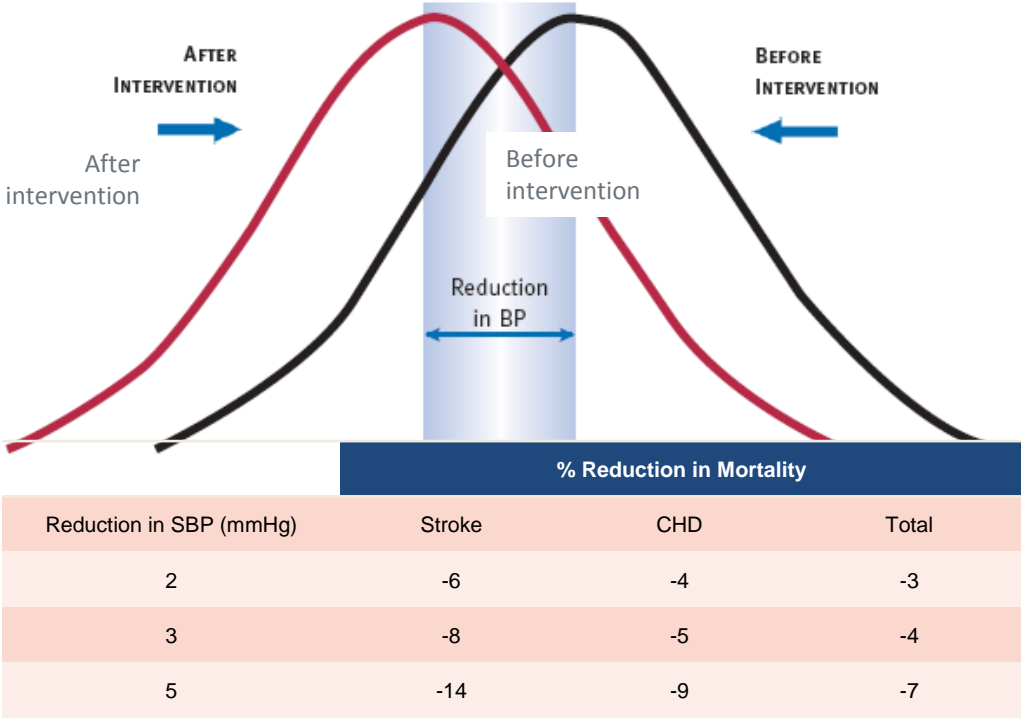
- A. Start ACE inhibitor
- B. Start amlodipine 5mg
- ✓ C. Lifestyle advice
- D. A and C
- E. B and C



Life Style Advice . Is it Really effective?

- Salt ***
 - 7-10 mmHg
- Fruit/veg –DASH diet
 - 10mmHg
- Alcohol limits
 - 7mm Hg
- Exercise- 2-3 hrs/wk
 - 5mmHg
 - “Sedentary Death Syndrome”
 - Exercise : not a miracle Cure, just good medicine
- Weight loss- 1kg
 - 1mmHg

Modest reductions in SBP can substantially reduce cardiovascular mortality



SBP = systolic blood pressure; CHD = coronary heart disease

Adapted from Whelton PK, et al. *JAMA* 2002;288:1882-1888.

Salt:

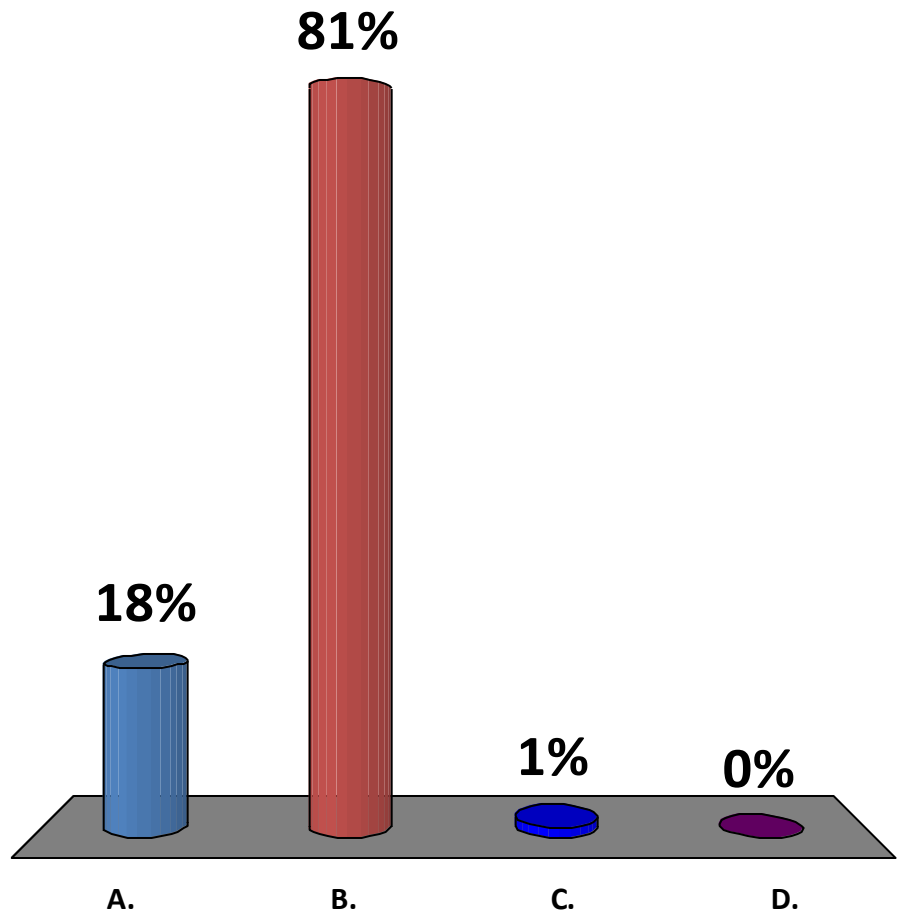
Daily recommended amount?

A. 3g

✓ B. 6g

C. 12g

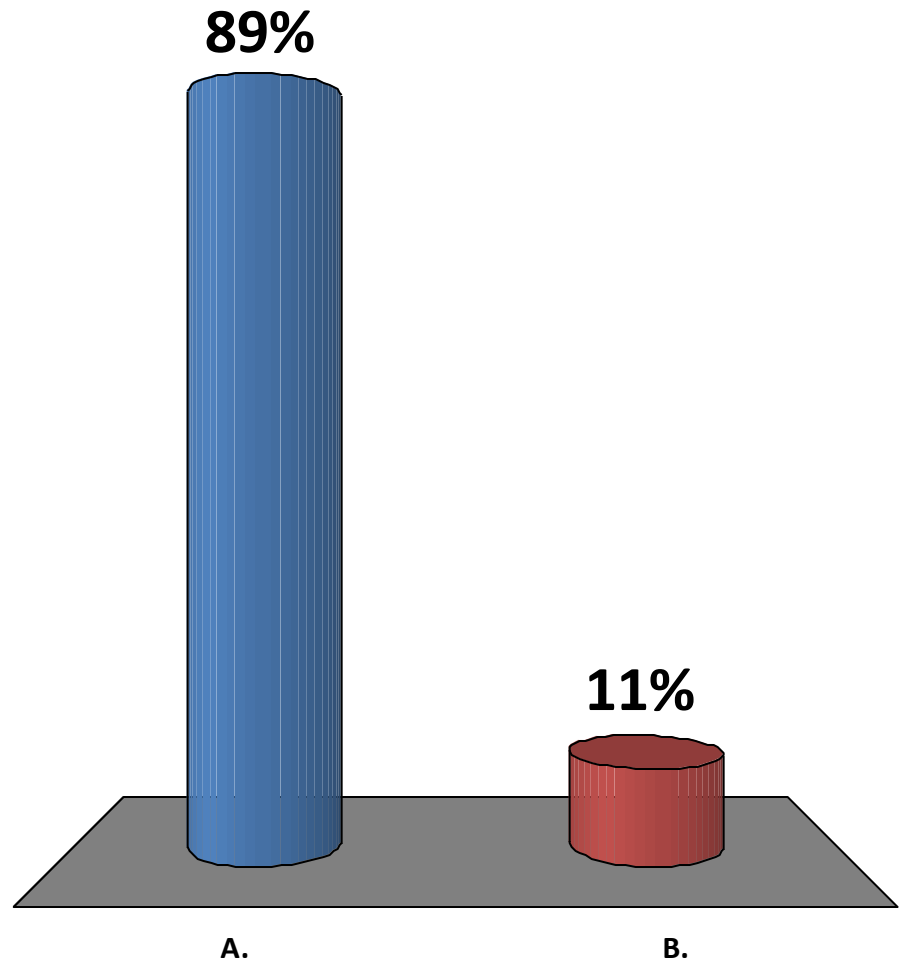
D. 24g



Do you know how much 6g of salt looks like?

A. Yes

B. No



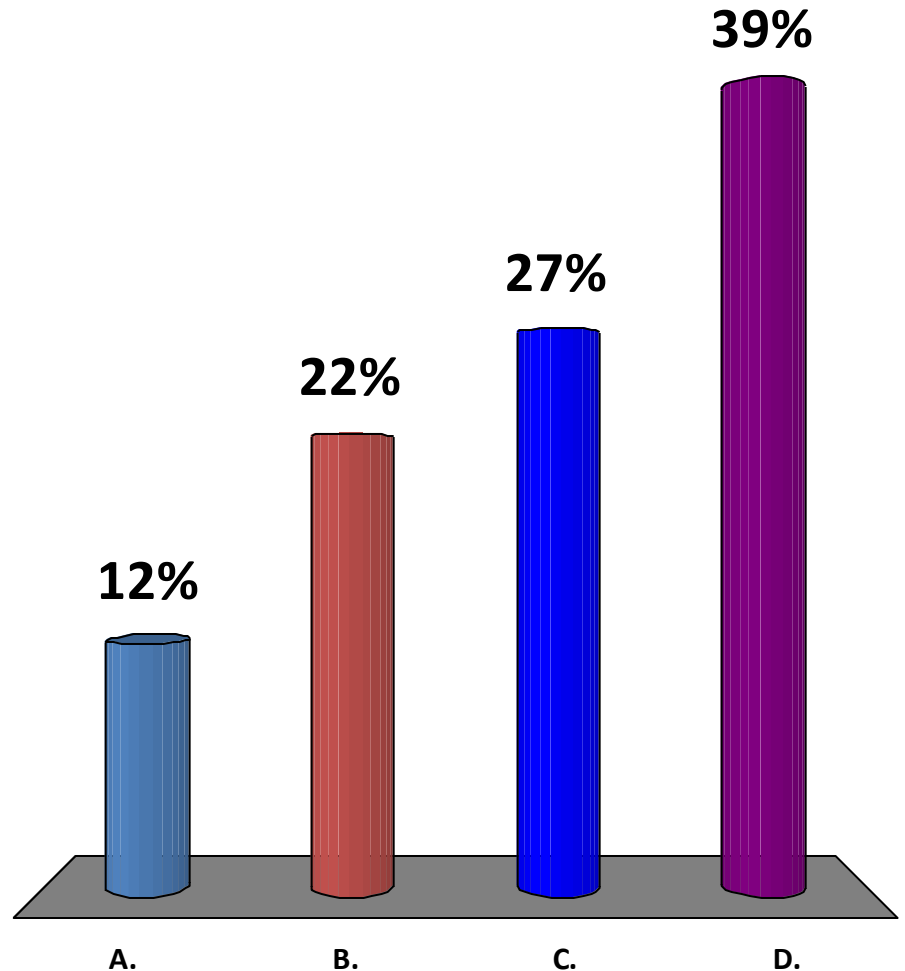
How much salt is there in:-
8 tabs co-codamol 8/500 (soluble)

A. 1.5g

B. 3g

C. 6g

✓ D. >6g



Mary -Summary

Case 2 Danny 39yrs

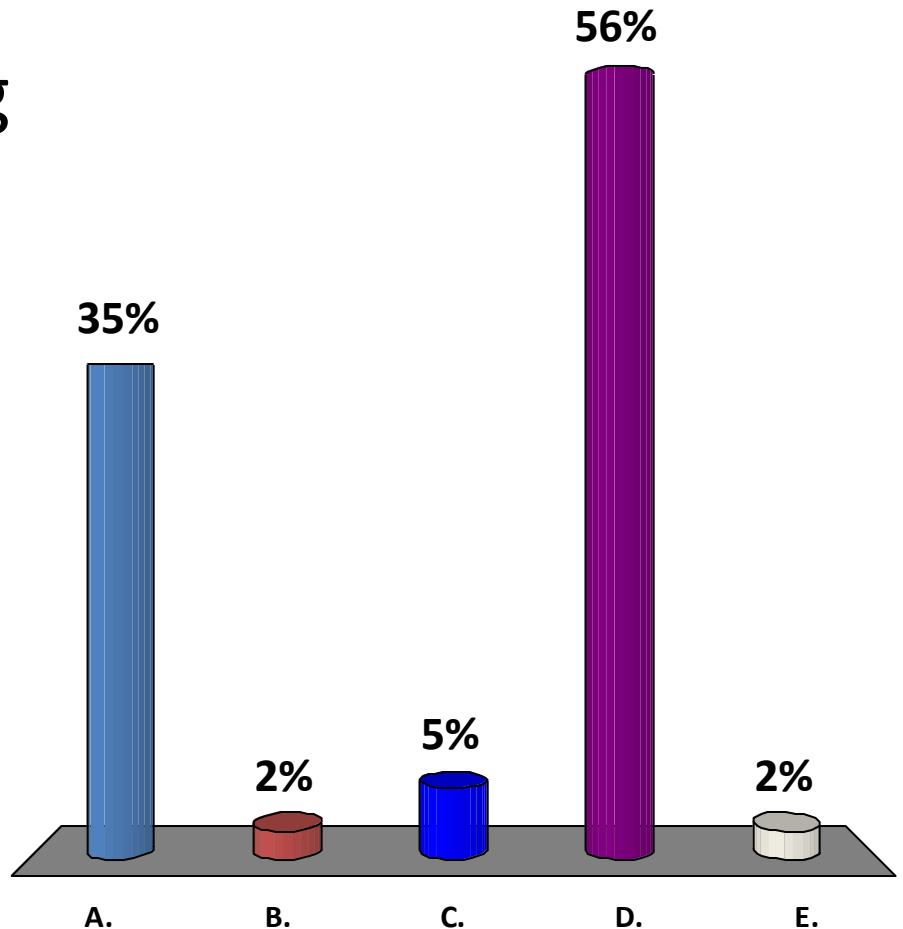
- Clinic
 - 149/91
 - 150/92
- ABPM
 - 147/89
- Diagnosis?

What next?

- Test for end organ damage?
 - LVH- ECG - ✓
 - Retinopathy- fundoscopy
 - Renal-
 - urine dipstick- blood
 - Protein A:CR
- Bloods
 - U+E,eGFR
 - Glc
 - Total chol and HDL

How will you manage Danny?

- A. Start ACE inhibitor
- B. Start amlodipine 5mg
- C. Lifestyle advice
- D. A and C
- E. B and C



BP Targets

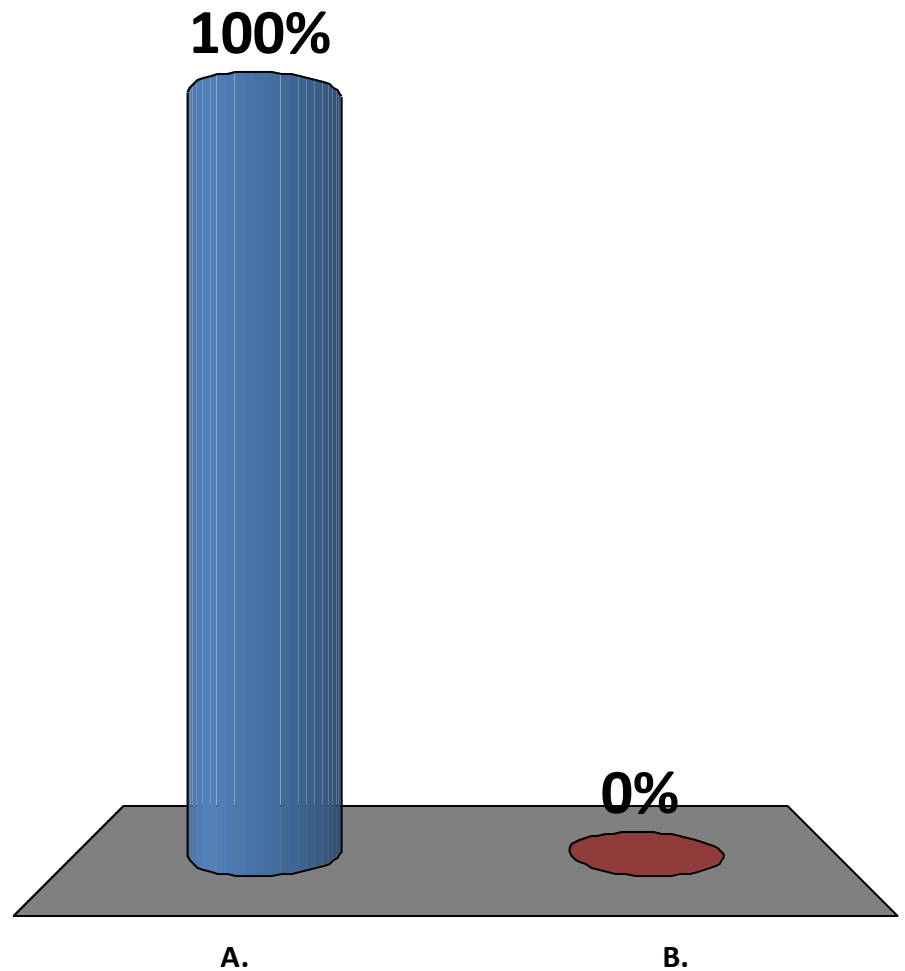
- Danny's BP after one month treatment 135/86
- Normal target – 140/90
- Special values if :-
 - Diabetic
 - CKD3-5
 - ACR>70
 - MI/CVA/TIA

Doris 81 yrs old

- Clinic
 - 174/100
- ABPM
 - 170/95
- Has Doris got white coat hypertension?
- What is her Diagnosis?

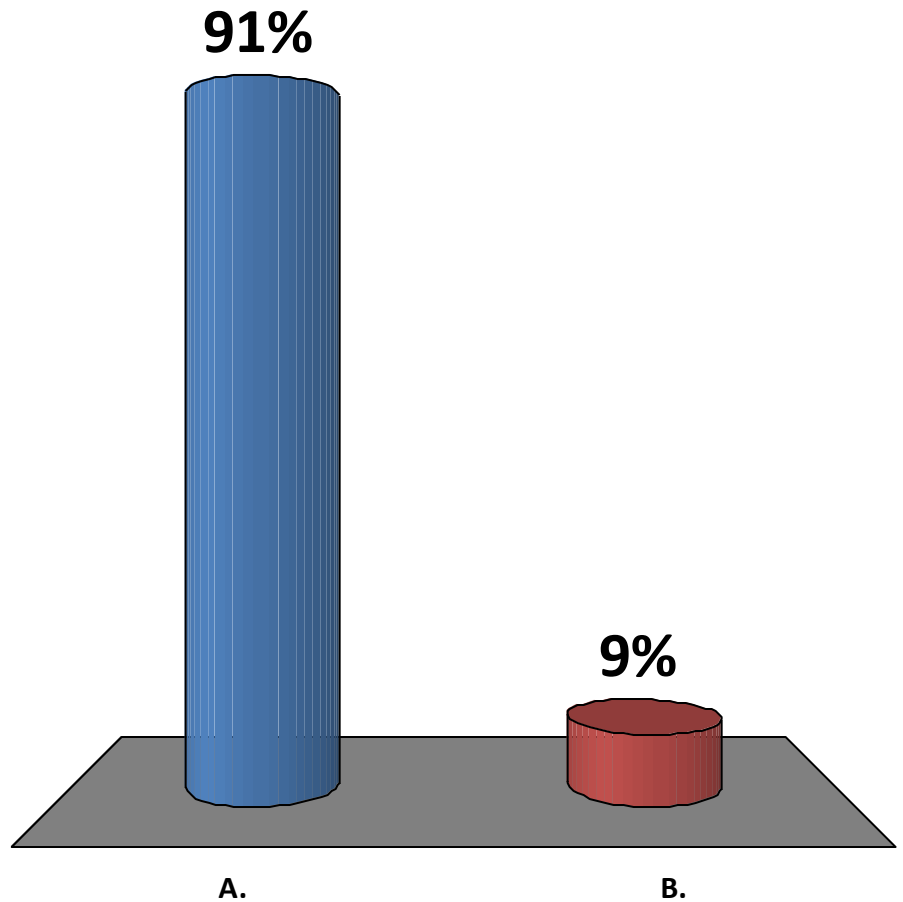
What treatment will you commence?

- ✓ A. Amlodipine 5 mg
- B. Amlodipine 10 mg



Doris's BP 1 month after amlodipine
5mg is 145/85.
Is this acceptable?

- ✓ A. Yes
- B. No



Derek 53 – bus driver

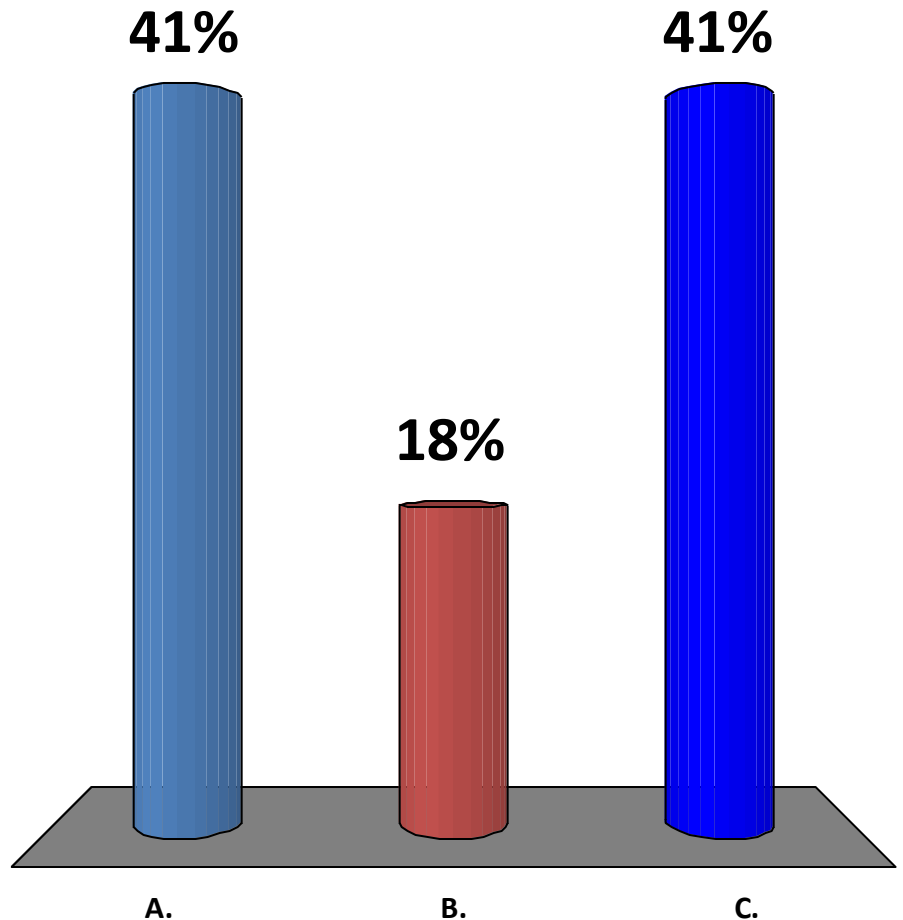
- Clinic
 - 176/108
- ABPM x
- HBPM
 - 155/97

Clinic 176/108-HBPM- 155/97 Diagnosis?

A. Stage 2 hypertension

B. White coat hypertension

✓ C. A&B



Treatment for Derek?

- Ace/ARB
- CCB
- Diuretic
- Alpha blockers/ beta blockers/ (spironolactone)

- Target BP?

Spiranolactone and potassium. Magic number ?

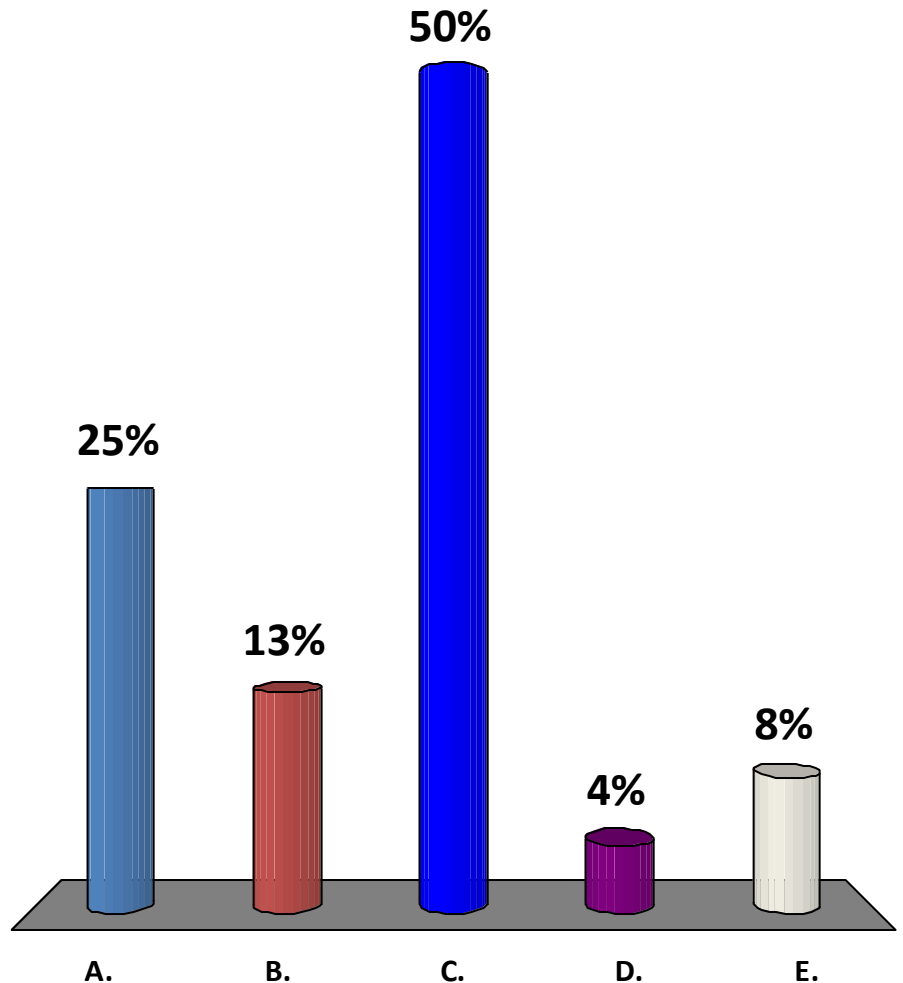
A. 3.5

B. 4

✓ C. 4.5

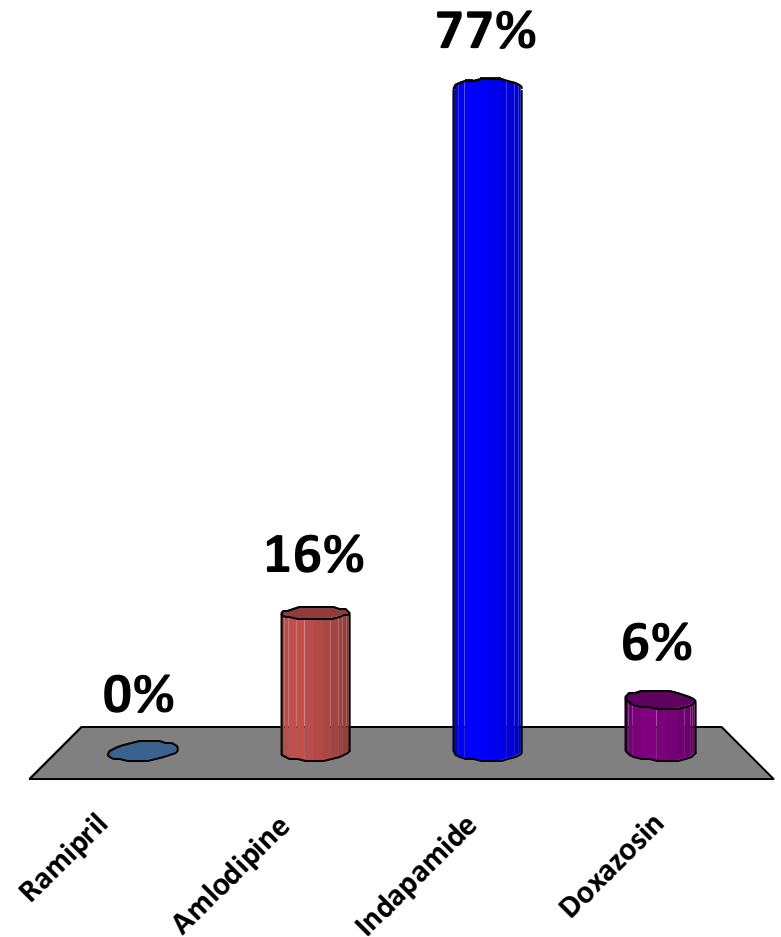
D. 5

E. 5.5



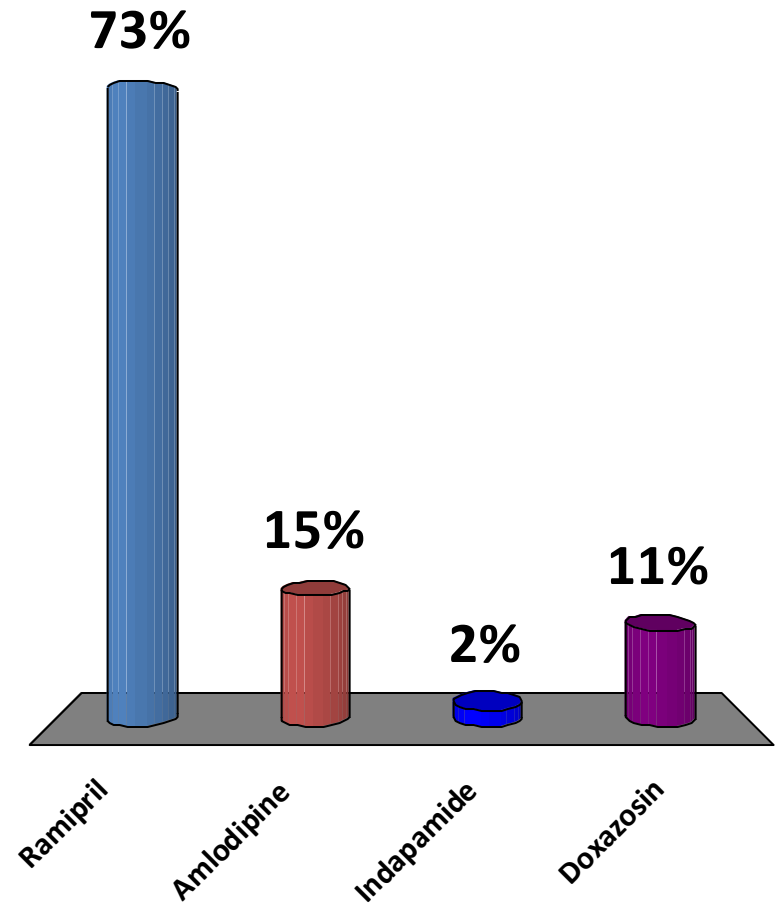
Diabetes, gout , high cholesterol

- A. Ramipril
- B. Amlodipine
- C. Indapamide
- D. Doxazosin





- A. Ramipril
- B. Amlodipine
- C. Indapamide
- D. Doxazosin



- Stage 1 Hypertension
- Stage 2 Hypertension

- Severe Hypertension
 - Clinic Sys >180 **OR**
 - Clinic Diastolic >110

