

Syncope in Older People

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NHS Foundation Trust



Safest Care
in the North
of England

Questions I'll try and answer

- What is different in older people
- Why syncope can present as falls in older people
- Why it is more serious in older people
- Challenges to investigating
- This much I know ...

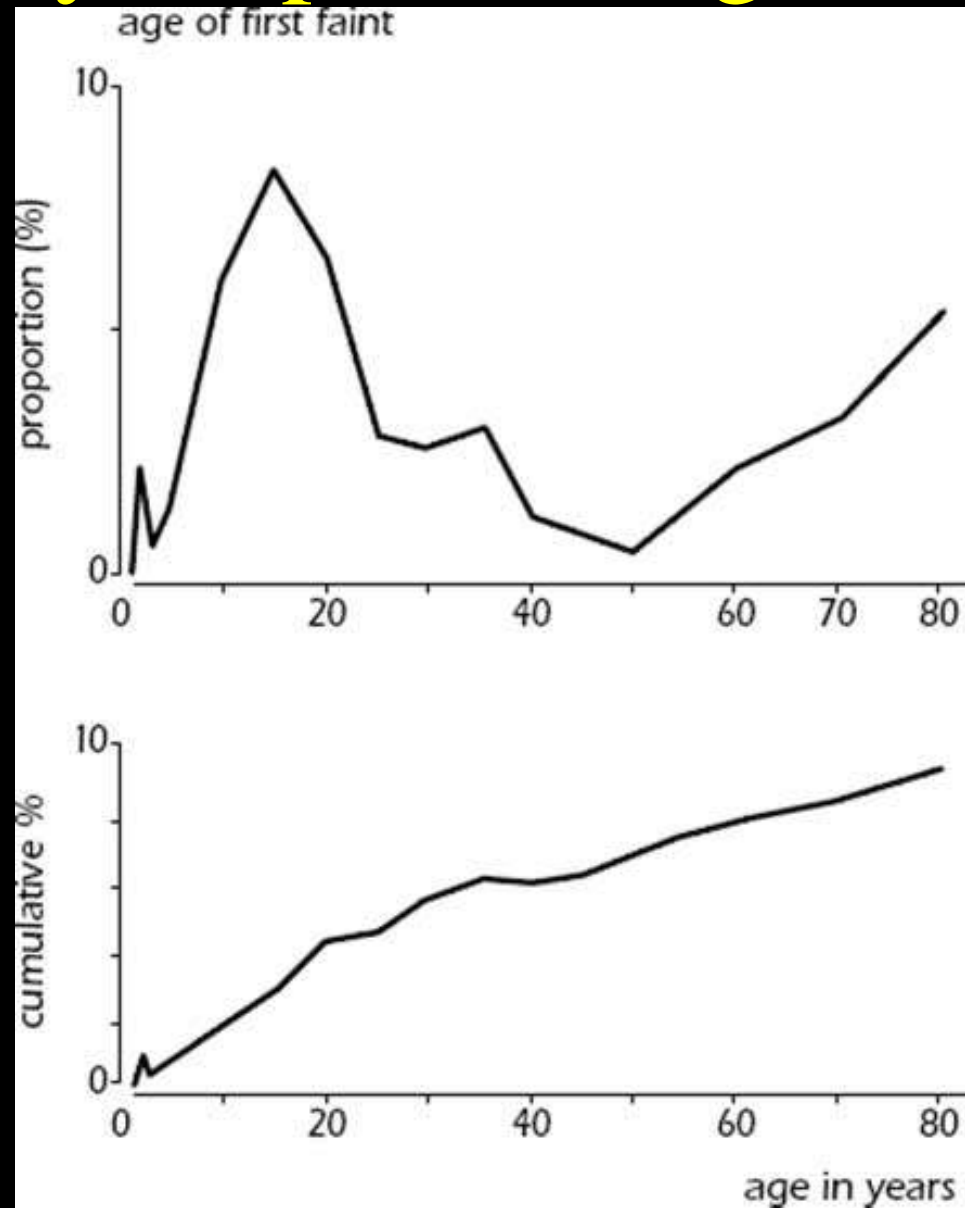
Case 1: 91 yo man Jan 2011

- Couple of sudden falls and several dizzy spells. Independent retired businessman.
- GPs referral says these are weekly and there is clear LOC but he's saying not that often and he's not impressed by being in the clinic
- Known Hx IHD, but quiescent now
- Meds Aspirin statin ramipril, atenolol 25mg
- L/S BP No drop. Nil on exam.
- ECG SR LBBB. Baseline Ix normal.

Case 2

- 73 yo woman returned from Spain. Lifelong blackouts – assembly! But 6 events in last six months.
- strange sensation in her chest, breathless, aborted by sitting sometimes but multiple T-LOC, seconds and recovered. Some when sat eating but mainly on her feet. Warm and fatigued afterwards.

Syncope with age



Impact of Syncope

- 6% of hospital admissions²
- 1% of emergency room visits per year^{3,4}
- 10% of falls in elderly are due to syncope⁵
- A&E 80% required hospital admission⁶
- Average length of stay: 6.1 days⁶



¹Kenny RA, Kapoor WN. In: Benditt D, et al. eds. *The Evaluation and Treatment of Syncope*. Futura;2003:23-27.

²Kapoor W. *Medicine*. 1990;69:160-175.

³Brignole M, et al. *Europace*. 2003;5:293-298.

⁴Blanc J-J, et al. *Eur Heart J*. 2002;23:815-820.

⁵Campbell A, et al. *Age and Ageing*. 1981;10:264-270.

⁶Hospital Episode Statistics, Dept. of Health, Eng. 2002-2003.

Differences (Duncan 2010, Ungar 2011)

- Less likely to be obvious from the story
- Fewer symptoms - Less warning, some none
- Falls
- Focus on the injury
- More likely to be ill, sometimes silent
- More likely to be on culpable medications
- More likely multi factorial
- 15% cardiac, 9% will need a pacemaker (Duncan 2010)
- 17% dead at 2 year FU, 32% further event (>65 yo Ungar 2011)

Why ?

- Physiological
- Pathological
 - 2/3 >65 yo have 2+ chronic illnesses
 - Acute illness unravels health – reserves poor
 - Greater chance heart disease, abnormal ECG etc
 - Progression of cardiac disease eg AS

- Medications
 - 33% >65yo 3+ medications (Van der velde 2007)
 - Aggressive BP control, CCF and IHD management
 - Side effects of essential meds eg Parkinsons
- Lifestyle
 - Fluids and bladder/prostate problems

Mrs T:
Frail and
demented

Age is irrelevant

Frailty
Comorbidity
Cognition

and

Individual preference

Conversely
Bob Shepton

75

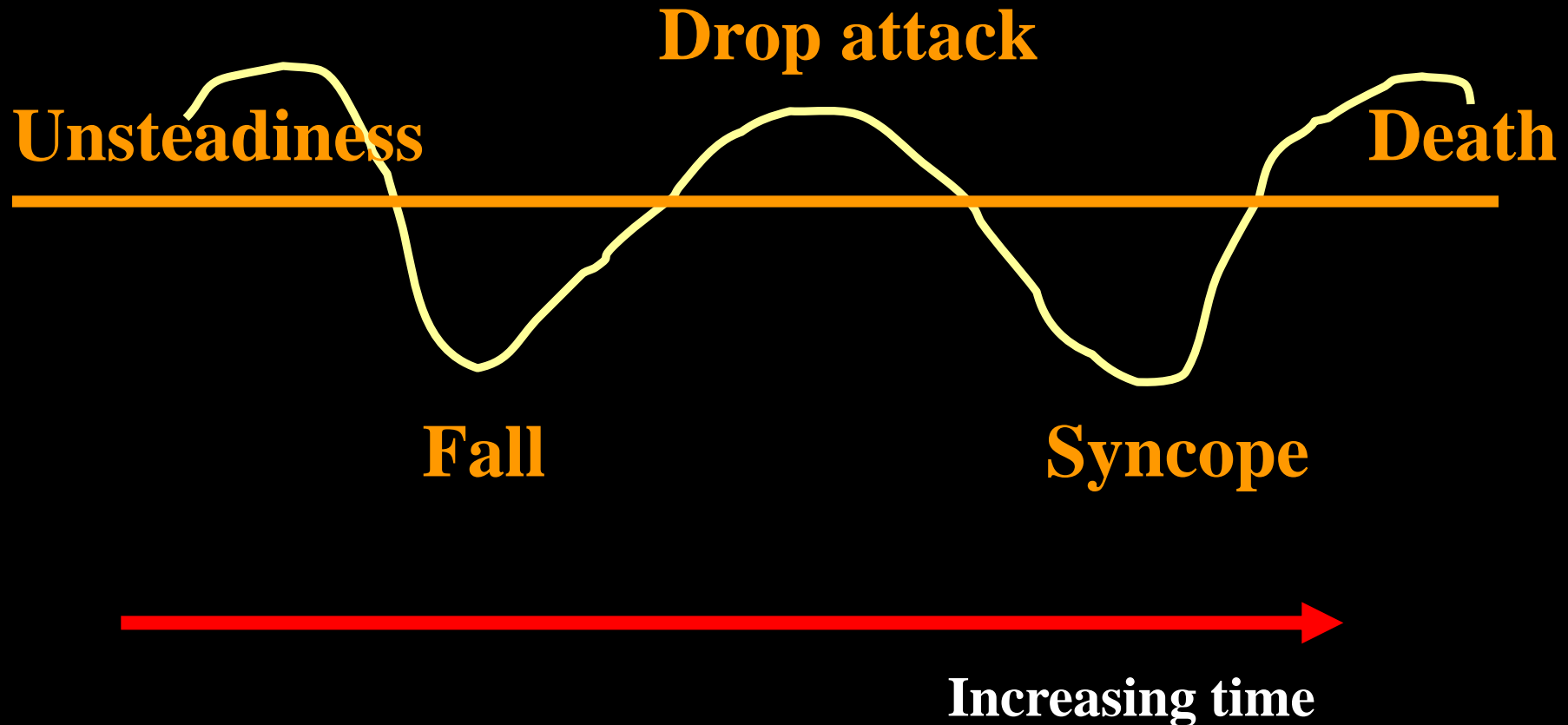
Atlantic sailor
Greenland
climber

Definition

- Syncope is a cause of transient loss of consciousness characterized by rapid onset, short duration, and spontaneous complete recovery. It is due to a transient global cerebral hypoperfusion

ie: inadequate/no blood flow to the whole brain that is transient and recovers

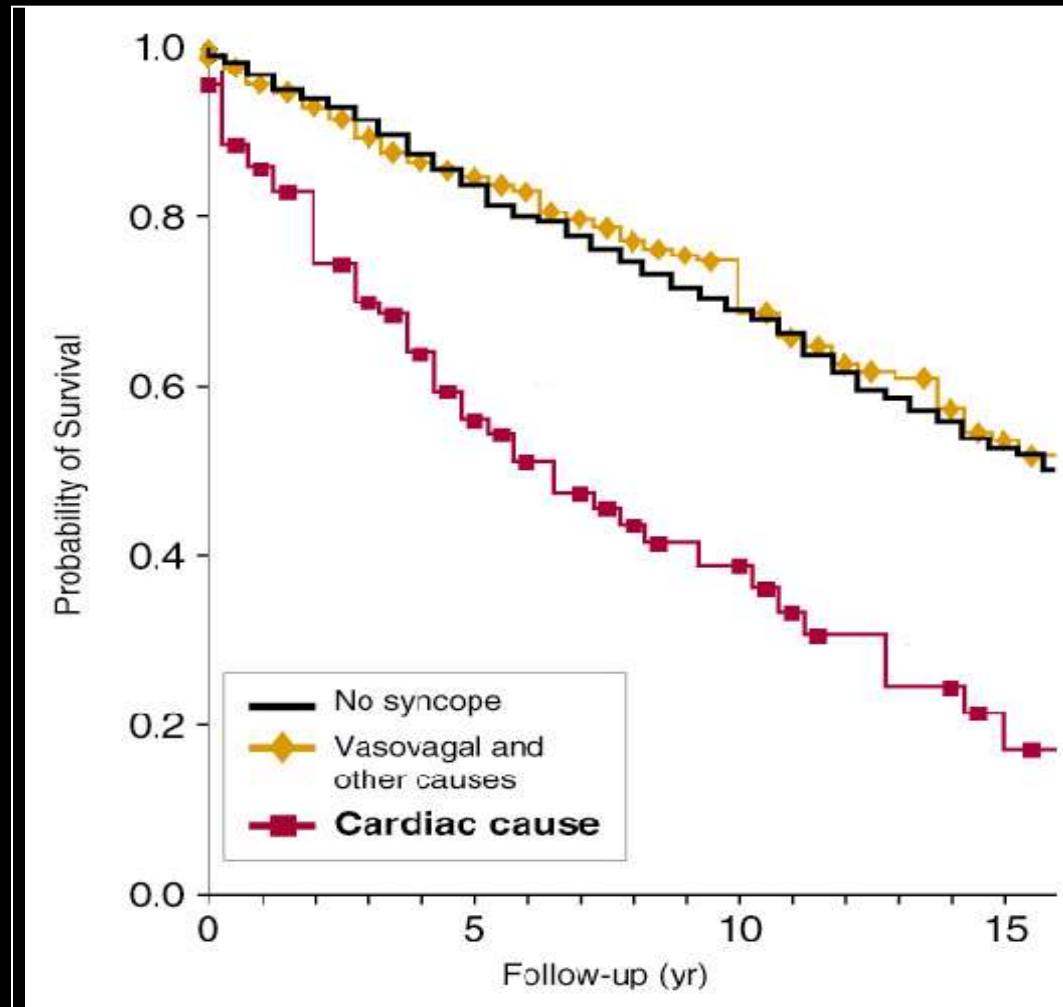
In Older people transient disturbances of cerebral blood flow can cause either syncope or falls



Falls that could be syncope

- If there's loss of consciousness felt or witnessed !
 - Retrograde amnesia
 - Dementia
 - Embarrassment
- No recall of going from being upright to hitting deck
- Dropping to the ground, unable to stop, no precipitant
 - explaining it away: 'I must of tripped'
- Facial injuries
 - Smashed glasses, broken nose
- Injuries that suggest no avoiding action –
 - burn from a radiator

Syncope Mortality



Patients fear

+

- Fear burden just like in falls:
- Most people are terrified of recurrent T-LOC
- Cotton-wooling destroys QOL.

Fear of falling – and its worse with T-LOC

- Fear level is greater than the fear of being robbed in the street (Howland 1993)
- Stops people wanting to exercise, go out
- Spiral of decline
- Soft tissue injury and Fracture
- Long lie, Hypothermia, pressure related injury
- social isolation and depression

Syncope – Injury and death

- 29% minor injury (Kenny 2003)
- 5% falls result in fracture, 1% hip (Tinetti 1988, O'Loughlin JL 1993, Duncan 2010)
- **14% admitted with syncope have fractured** (Galizia 2009)
- 1/3 hip fractures can no longer live independently and 25% are dead at 6 months
- Dementia and #NOF = 71% dead at 6 months (Melton 1998)

The killer fracture

'Fainting Nicolas Sarkozy 'worn out' by his young wife Carla Bruni'

- Notoriously over managed

Over use of beds

Over use of investigation

Lack of diagnosis – 'going round in circles' or shot gun approach

Standardized care pathways increase rates of diagnosis to >90% and improve cost effectiveness

Diagnostic outcomes

Management	Usual (%)	Standardized (%)
Neurally mediated	46	65
Orthostatic	6	10
Cardiac	13	13
Cerebrovascular	2	0
Syncope like	13	6
Unexplained	20	5

Older people need investigating

- Same Assessment as younger people
- Investigations may be more difficult
- But ...with a structured approach high diagnostic yields

Diagnostic rates in structured investigation of Elderly patients with syncope.

3.5 % (n=6) proven non syncope

Rest:

Italy	Newcastle	Bradford
Galizia 2006 <small>JAGS 2006 & 2009</small>	Newton 2010 <small>Age&Ageing 2010</small>	Brierley & Akeroyd Apr 08 – Nov 09
Inpatients	Outpatients	Outpatients
>90%	90% Diagnostic rates	95% n
74%	70% non cardiac syncope	81% 138
15%	20% cardiac syncope	14% 24
10%	10% syncope cause unknown	5% 8
	8% pacemakers inserted	9% 15

Causes of syncope in older people

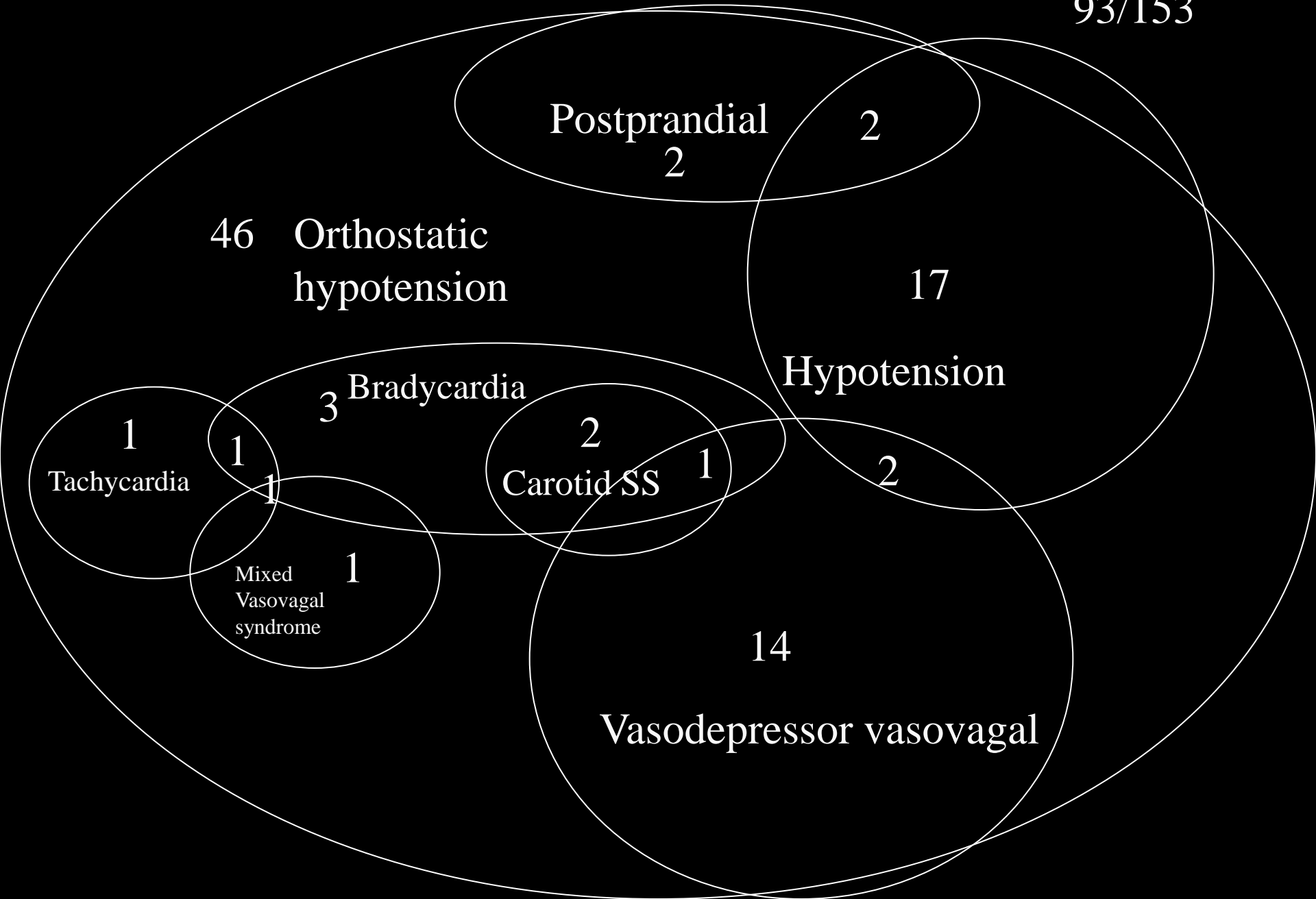
- Orthostatic hypotension 20%
- Cardioinhibitory CSH 20%
- Vasovagal syncope 15%
- Arrhythmias 20%

(Allcock 2000, Kurbaan 2003)

But it's not that simple

Diagnostic overlap – Elderly with OH

93/153



Unrecognized illness is common

- Farwell 2004 EaSyAS (Hospital assessment, Mean Age 71)
 - 9% anaemic
 - 5% PE
 - 5% Dehydrated
 - 45% Sepsis
 - 25% OH
- My outpatient clinic (70% post hospital visit, Mean Age 78)
 - 10% anaemic
 - 4% severely abnormal TFTs
 - 45% are ill, 10% UTI
 - 60% OH

Other findingslifestyle (Bradford data)

- Fluid intake (25% woeful, 4 beakers or less)
closely associated with OH and VVS
- Alcohol intake (8% major contributor)
if they don't stop you'll never sort out their
syncope
- Salt Intake (restricted 4%)

Bradford Elderly: In 40% cases medications contributed to cause of syncope. In order of culpability n = 76

■ Diuretics	25
■ CCB	18
■ Beta blocker	17
■ Alpha blockers	14
■ ACE/ARB	14
■ GTN /nitrates	7
■ Antidepressant	5
■ Prochlorperazine	3
■ anticholinergic	2
■ moxonidine	2
■ Others	9

"I've brought along my tablets, like you said on the phone."

IATROGENIC SYNCOPE

Are the medications doing the job they were intended for ?

Are some for side effects !

What prolongs life ?

What makes life more comfortable?

Over zealous prescribing
new guidelines may help

.....

NHS

*National Institute for
Health and Clinical Excellence*

Quick reference guide

Issue date: August 2011

Hypertension

Clinical management of primary hypertension in adults

This updates and replaces NICE clinical guideline 34



NICE clinical guideline 127

Developed by the Newcastle Guideline Development and Research Unit and updated by the National Clinical Guideline Centre (formerly the National Collaborating Centre for Chronic Conditions) and the British Hypertension Society

- All ages treat 140/90 – 160/100 only if additional risk factor
- 80+ year olds don't treat unless BP > 160/100
- Don't rely on clinic BP alone: use ABPM or HBPM as adjunct
- With ambulatory monitoring treat if avg < 135/85 under 80s < 150/95 over 80s
- Alpha blockers stage 4 hypertension only

Unmask non compliance !

Reducing medications reduces rates of falls and syncope (Van der Velde 2007)

This much is different

History

- Ask about any change in health
- Always ask about bladder function
- Ask about fluid and salt intake
- Alcohol intake
- Medications – recent changes ?
- Witness and collaboration of on going events essential in dementia
- Ambulance card invaluable

Examination

Look for Orthostatic Hypotension

- 2 people
- Rapid stand
- Know the point radial pulse returns supine
- Inflate the cuff slightly before the stand
- Measure systolics repeatedly
- Radial return stood if doubt or the grabbing granny

Investigation

Elderly people need a basic screen first

ECG plus

- Urine assessment
- Basic bloods
- TFTs
- CXR

Especially if suddenly started and hypotension

Also I know that

- Ambulatory BP very useful esp. in polypharmacy
- Event recorders hopeless
- Loop recorders well tolerated but some difficulty activating
- Tilt test tolerated but need the right bed, may need to modify and must think symptom/result correlation.
- ACE inhibitors and ARBs are my preferred antihypertensive

Syncope in Older People – this much I know

- Treatment options are **no different** for older people
- **Medications** frequently contribute to cause.
 - disease treatment v syncope risk
 - symptom control v life prolongation
- **Bradyarrhythmias** are **easy** to treat
- Intermittent hypotension is treatable but it takes **patience** as you need to
 - Stabilize health
 - Reduce medications
 - Improve lifestyle
- But with time you will move the person to a much better place and they will thank you for it !!

And the DVLA rules are the same

Osteoporosis risk ??

Case 1: 91 yo man Jan 2011

- Independent spirit
- sudden falls
- dizzy spells
- GP - clear LOC
- On atenolol 25mg
- Initial Ax: ECG SR LBBB.

- 24 hr ECG multiple pauses up to 9 secs. It is Friday 4pm !
- Patient rung at home Not in, Not in Sat am or sat pm. Finally caught 7pm Sat eve: Not impressed by the phone call at: reminds me it's very odd to be rung on a sat night by a doctor !!!!
- Refuses to be admitted ! Refuses to accept diagnosis. It is his age. Agrees after 20 minutes to come back to clinic. 'You are very persistant' and I think but I am not sure he knows to stop the atenolol.

- GP rung mon am.
- Attends the OP following day. Agrees to let me book him for the pacemaker !
- 6 months post PPM: feels great absolutely no symptoms at all. Delighted to be discharged.

Case 2 jan 2011

- 73 yo Lifelong blackouts
- Cluster of recent events mainly on her feet. occ when sat
- Treated for epilepsy and Alzheimers in spain
- 3 stone weight loss over 2 years; marriage breakdown. Not sleeping. All at sea being back in the UK
- Meds (Lamotrigine already stopped)
Donepezil 5mg od, Amitriptyline 25mg nocte, Omeprazole 20mg od.

- Very thin – 49kg
- Fluid intake : 2 cups tea 2 glasses water
- Home cooked food
- BP 92/45 lying dropping to 55 systolic on standing reproduction of chest and breathing symptoms.
- Initial Ax ECG basic bloods all normal
- SST normal, CT Thorax/Abdo normal.
- Lifestyle measures, stop all medications, Increase weight, sort out life !

Aug 2011

- Weight 55kg
- Postural hypotension nearly resolved
- No recent T-LOC
- Different woman

Any Questions ?

Each syncopologist handles a different population of patients which influences their view of the area and their preaching !

The End

Unnamed Sources

- NICE Hypertension guidelines 2011
- NICE T-LOC guidelines August 2010
- European Society Cardiology guidelines for Syncope 2009, easy read ! current best practice.
- NSF Coronary heart disease Chapter 8 Arrhythmia
- Medtronic site (pacemaker company)
- Postural hypotension advice on Bradford learnonline website - PACE falls
- STARS - support organisation and leaflets
- Bradford Hospitals Syncope Clinic Data