

T-LOC

The View From General Practitioner

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GP Principal Westcliffe Medical Practice

GPwSI in Cardiology

Chair Bingley and North Commissioning Alliance

Declaration of interest

Speaker fees and Honorarium

Bayer

BMS

Boehringer Ingelheim

Medtronic

Pfizer

Sanofi Aventis

Spacelabs

General Practice

Many Conflicting Priorities

- Wide Range of Pathologies
- Wide Range of guidelines
- National Quality & Outcome Framework
- Local Quality & Outcome Framework
- Ongoing Reorganisations
- Post White Paper world

**Those who suffer from frequent
and severe fainting often die
suddenly**

Hippocrates
Aphorisms 2.41 1000 BCE

Clarity of the diagnosis

What am I dealing with

- Is this a fall
- Is this syncope
- Is this epilepsy
- Is this more complex

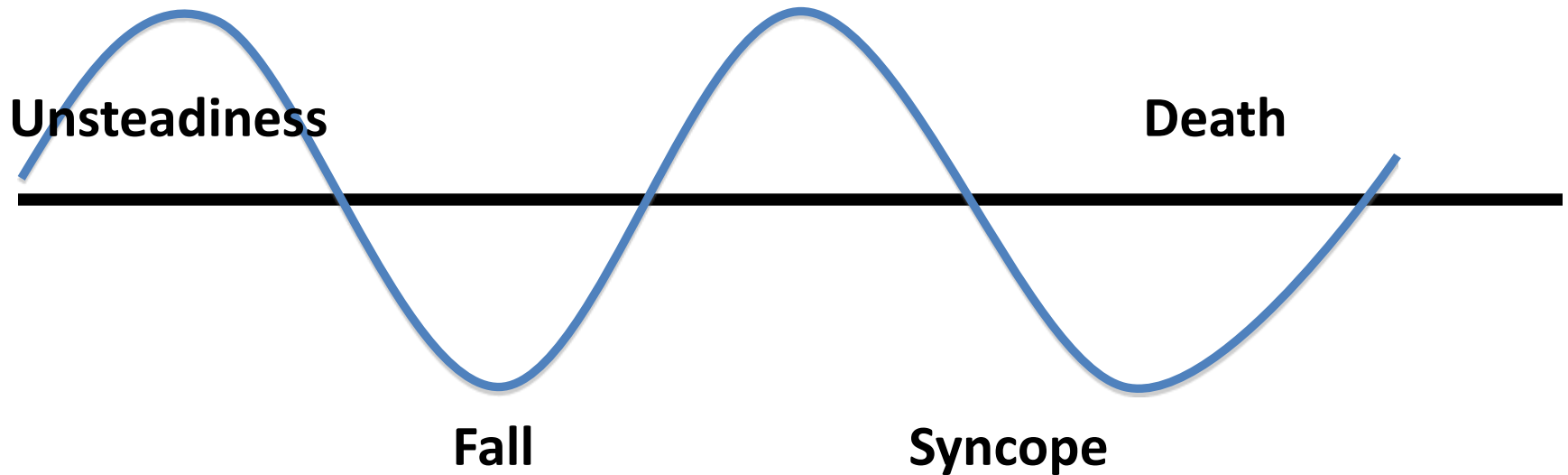
Clarity of concern

Patient's perspective

- Has this happened before
- Why have they come this time
- Do they want advice
- Do they want referral
- Do they want reassurance e.g re independence

Older people

Drop attack



Overlap between Falls and syncope

- Transient disturbances of cerebral blood flow can cause either syncope or falls
- Consider and reconsider syncope in recurrent faller
- Retrograde amnesia,
- Cognitive impairment
- Poor event recall impede story

Guidance



Guidelines for the diagnosis and management of syncope (version 2009)

The Task Force for the Diagnosis and Management of Syncope of the European Society of Cardiology (ESC)

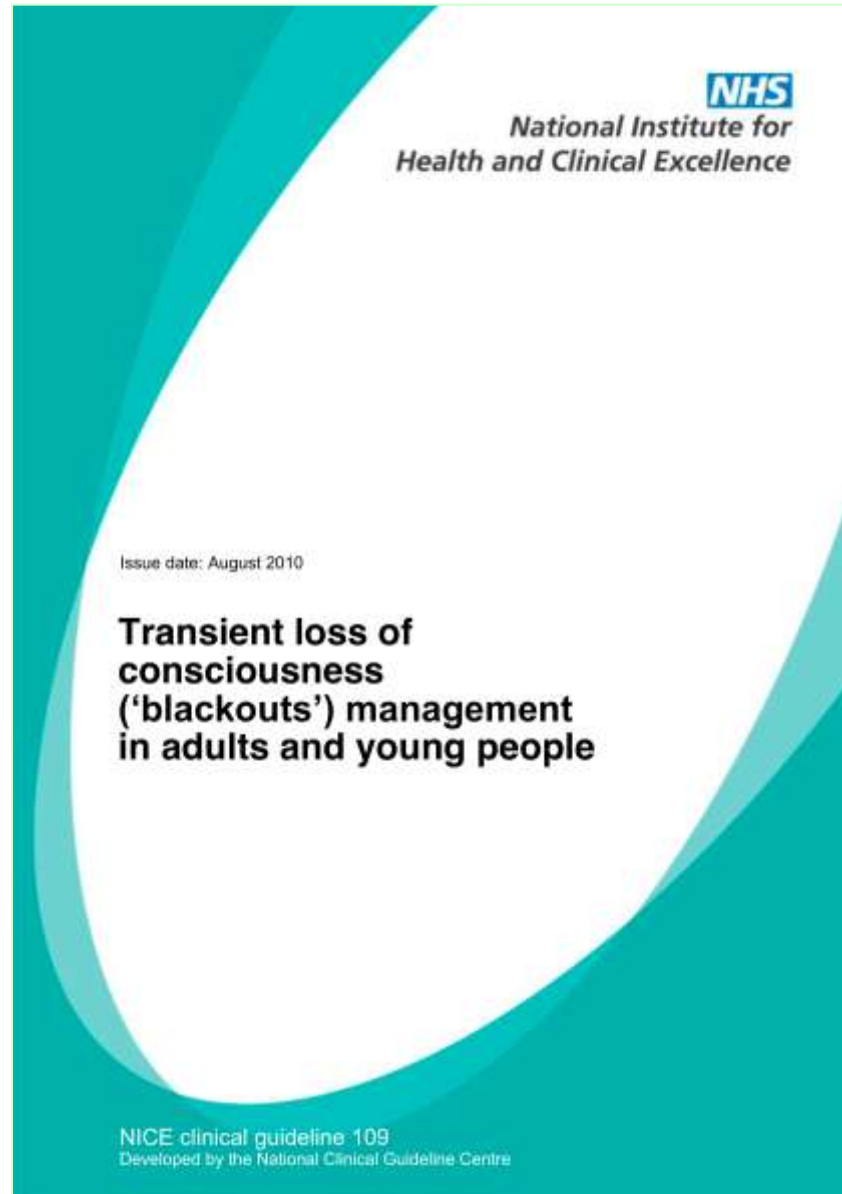
Developed in collaboration with, European Heart Rhythm Association (EHRA)¹, Heart Failure Association (HFA)², and Heart Rhythm Society (HRS)³

Endorsed by the following societies, European Society of Emergency Medicine (EuSEM)⁴, European Federation of Internal Medicine (EFIM)⁵, European Union Geriatric Medicine Society (EUGMS)⁶, American Geriatrics Society (AGS), European Neurological Society (ENS)⁷, European Federation of Autonomic Societies (EFAS)⁸, American Autonomic Society (AAS)⁹

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Box A

Ask the person who has had the suspected TLoC, and any witnesses, to describe what happened before, during and after the event. Try to contact by telephone witnesses who are not present. Record details about:

- circumstances of the event
- person's posture immediately before loss of consciousness
- prodromal symptoms (such as sweating or feeling warm/hot)
- appearance (for example, whether eyes were open or shut) and colour of the person during the event
- presence or absence of movement during the event (for example, limb-jerking and its duration)
- any tongue-biting (record whether the side or the tip of the tongue was bitten)
- injury occurring during the event (record site and severity)
- duration of the event (onset to regaining consciousness)
- presence or absence of confusion during the recovery period
- weakness down one side during the recovery period.

Box B

If an automated interpretation is not available, the unreported 12-lead ECG should be reviewed by a healthcare professional trained and competent in identifying the following abnormalities:

- Inappropriate persistent bradycardia.
- Any ventricular arrhythmia (including ventricular ectopic beats).
- Long QT (corrected QT > 450 ms) and short QT (corrected QT < 350 ms) intervals.
- Brugada syndrome.
- Ventricular pre-excitation (part of Wolff-Parkinson-White syndrome).
- Left or right ventricular hypertrophy.
- Abnormal T wave inversion.
- Pathological Q waves.
- Atrial arrhythmia (sustained).
- Paced rhythm.

Box C

- ECG abnormality (as specified in Box B)
- Heart failure (history or physical signs)
- TLoC during exertion
- Family history of sudden cardiac death under 40 years and/or inherited cardiac condition
- New or unexplained breathlessness
- Heart murmur

Consider referring within 24 hours for cardiovascular assessment, as above, anyone aged older than 65 years who has experienced TLoC without prodromal symptoms.

Box D

Make a diagnosis of **uncomplicated faint** when:
There are no features that suggest an alternative diagnosisAND
there are features suggestive of uncomplicated faint such as:
Posture - prolonged standing or similar episodes which have been prevented by lying down.
Provoking factors (such as pain or a medical procedure).
Prodromal symptoms (such as sweating or feeling warm/hot before TLoC).

Make a diagnosis of **situational syncope** when:
there are no features from the initial assessment that suggest an alternative diagnosisAND
syncope is clearly and consistently provoked by straining during micturition (usually while standing) or by coughing or swallowing.



Use clinical judgement to determine appropriate management and the urgency of treatment if there is:
- a condition that requires immediate action
- the person has sustained an injury as a result of TLoC or
- they have not made a full recovery of consciousness

Take patient and witness account of the suspected TLoC (box A)
Include paramedic records in your information gathering

Accounts confirm TLoC?

NO

Manage according to non-TLoC presentation

YES/UNCLEAR

ASSESS AND RECORD:

- details of any previous TLoC (including number and frequency)
- the person's medical history and any family history of cardiac disease (for example, personal history of heart disease and family history of sudden cardiac death)
- current medication that may have contributed to TLoC (e.g. diuretics)
- vital signs (for example, pulse rate, respiratory rate and temperature) - repeat if clinically indicated
- lying and standing blood pressure if clinically appropriate
- other cardiovascular and neurological signs

12 LEAD ECG:

Record a 12-lead ECG using automated interpretation. 12-lead ECG - Treat as a red flag if any of the following abnormalities are reported on the ECG printout:

- conduction abnormality (e.g. complete right or left bundle branch block or any degree of heart block)
- a long or short QT interval, or
- any ST segment or T wave abnormalities

If automated ECG unavailable take manual 12 lead ECG (box b)

ADDITIONAL TESTS:

If there is suspicion of an underlying problem causing TLoC, or additional to TLoC, carry out relevant examinations and investigations (for example, check blood glucose levels if diabetic hypoglycaemia is suspected, or haemoglobin levels if anaemia or bleeding is suspected).

do not routinely use electroencephalogram (EEG) in the investigation of TLoC (see pg. 2 Suspected Epilepsy box)

Can a diagnosis of uncomplicated faint or situational syncope be made? (box d)

NO

Red Flag? (box c)

NO

YES

If there is a condition that requires immediate action, use clinical judgement to determine appropriate management and the urgency of treatment

Refer for specialist cardiovascular assessment within 24 hours See pg 2
Provide patient information and advice (if the person presents to the ambulance service, take to the Emergency Department; transfer all records with the person)

2

SEND FOR FURTHER ASSESSMENT See pg 2
(If the person presents to the ambulance service, take to the Emergency Department; transfer all records with the person)

2

If the presentation is not to the GP, the healthcare professional should:
• advise the person to take a copy of the patient report form and ECG record to their GP
• inform the GP about the diagnosis directly if possible;
• if an ECG has not been recorded, the GP should arrange an ECG (and its interpretation as described in recommendation Box B) within 3 days

Further Assessment and Referral



Suspected orthostatic hypotension on the basis of the initial assessment when:

- there are no features suggesting an alternative diagnosis, and
- the history is typical

Yes

Measure lying and standing blood pressure (with repeated measurements whilst standing for 3 minutes)

Orthostatic hypotension is confirmed?

YES

If orthostatic hypotension is confirmed, consider likely causes, including drug therapy, and manage appropriately (for example, see 'Falls: the assessment and prevention of falls in older people' [NICE clinical guideline 21]).

NO

Refer all people with TLoC (apart from the exceptions below) for a specialist cardiovascular assessment by the most appropriate local service. Exceptions are: people with a firm diagnosis after the initial assessment of:

- uncomplicated faint
- situational syncope
- orthostatic hypotension

and people whose presentation is strongly suggestive of epileptic seizures.

Advise people waiting for specialist cardiovascular assessment.

- What they should do if they have another event.
- If appropriate, how they should modify their activity (for example, by avoiding physical exertion)
- They should not drive prior to seeing cardiovascular assessment

Suspected epilepsy - Refer people who present with one or more of the following features (that is, features that are strongly suggestive of epileptic seizures) for an assessment by a specialist in epilepsy; the person should be seen by the specialist within 2 weeks (see 'The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care' [NICE clinical guideline 20]).

- A bitten tongue.
- Head-turning to one side during TLoC.
- No memory of abnormal behaviour that was witnessed before, during or after TLoC by someone else.
- Unusual posturing
- Prolonged limb jerking (note that brief seizure-like activity can often occur during uncomplicated faints)
- Confusion following the event.
- Prodromal déjà vu or jamais vu (see glossary)

Consider that the episode may not be related to epilepsy if any of the following:

- Prodromal symptoms which on other occasions have been abolished by sitting or lying down.
- Sweating.
- Prolonged standing that appeared to precipitate TLoC
- Pallor during the episode.

EEG should not be used routinely in the investigation of TLoC [see CG20]
Offer advice to people waiting for a specialist neurological assessment for their TLoC [see CG20]

Specialist cardiovascular assessment

HISTORY AND EXAMINATION
Carry out a specialist cardiovascular assessment as follows.
Reassess the person's:

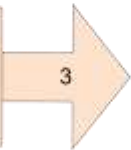
- detailed history of TLoC including any previous events
- medical history and any family history of cardiac disease or inherited cardiac condition
- drug therapy at the time of TLoC and any subsequent changes.

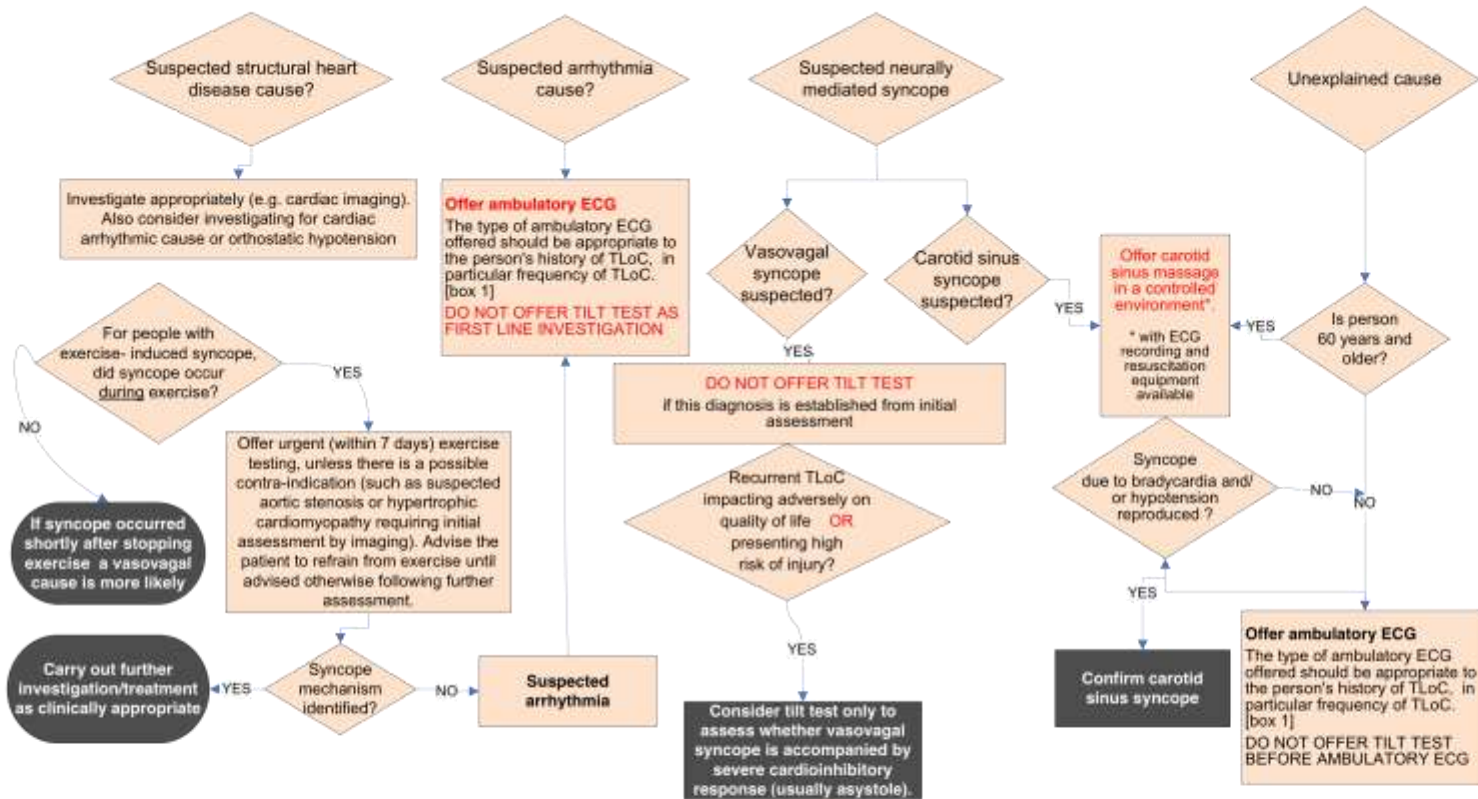
Conduct a clinical examination, including full cardiovascular examination and, if clinically appropriate, measurement of lying and standing blood pressure.
Repeat 12-lead ECG and examine previous ECG documentation.

On the basis of this assessment, assign the person to one of the following causes of suspected syncope:

- suspected structural heart disease
- suspected cardiac arrhythmia
- suspected neurally mediated, or unexplained.

Offer further testing see page 3 or other tests as clinically appropriate.





BOX 1
For people who have:

- TLoC at least several times a week, offer Holter monitoring (up to 48 hours if necessary). If no further TLoC occurs during the monitoring period, offer an external event recorder that provides continuous recording with the facility for the patient to indicate when a symptomatic event has occurred.
- TLoC every 1-2 weeks, offer an external event recorder*. If the person experiences further TLoC outside the period of external event recording, offer an implantable event recorder.
- TLoC infrequently (less than once every 2 weeks): offer an implantable event recorder. A Holter monitor should not usually be offered unless there is evidence of a conduction abnormality on the 12-lead ECG.

*Excludes event recorders that do not perform continuous ECG monitoring (and therefore are not capable of documenting cardiac rhythm at the moment of TLoC).

When offering a person an implantable event recorder, provide one that has both patient-activated and automatic detection modes. Instruct the person and their family and/or carer how to operate the device. Advise the person that they should have prompt** follow-up (data interrogation of the device) after they have any further TLoC.

**The timing of the follow-up is dependent on the storage on the device and the condition of the person.

If the cause remains uncertain or the person has not responded to treatment

Consider PNES or Psychogenic pseudo-syncope if a person has persistent TLoC and if, for example:

- the nature of the event changes over time
- there are multiple unexplained physical symptoms
- there are unusually prolonged events

Refer for neurological assessment

Advise people who have experienced TLoC to try to record any future events (for example, a video recording or a detailed witness account of the event) particularly if the diagnosis is unclear or taking a history is difficult

If, after, further assessment the cause of TLoC remains uncertain or the person has not responded to treatment, consider other causes of TLoC, including the possibility that more than one pathology may co-exist, for example Ictal arrhythmias

Westcliffe Cardiology Service
Guidance on the Management of Blackout in Primary care

Dr Matthew Fay and Dr Andreas Wolff

Suggested Management for Syncope-Collapse presenting in Primary Care

Introduction

This is a common symptom that is often referred to the GPwSI cardiology service. With the view of spreading experience between general practitioners we have prepared this document as a brief suggestion of a way to view Syncope-Collapse in primary care to aid in future referral decisions. This document is not suggesting that referral was inappropriate or ill advised.

Definitions

Syncope: is a sudden but brief loss of consciousness which is caused by inadequate blood supply to the brain.

Recovery is spontaneous and rapidly complete.

Syncope is common, disabling and possibly associated with sudden cardiac death.

Vertigo: is a hallucination of movement of the environment about the patient, or of the patient with respect to the environment.

It is not synonymous with dizziness.

It may be central - due to a disorder of the brainstem or the cerebellum - or peripheral - due to a disorder in the inner ear or the VIIIth cranial nerve.

Always would suggest ENT review prior to cardiac review unless associated with palpitations or chest pain

Significant Structural Damage: This includes Previous Myocardial Infarction, Heart Failure, Cardiomyopathy, Valvular Heart Disease

Features Suggestive of Epilepsy: Tonic/Clonic Movement, cyanosis, incontinence, lateral tongue biting, prolonged post ictal confusion

Initial Evaluation

- History
- Examination
- Supine and erect BP
- ECG

3 Key Questions to answer

1. Is loss of consciousness due to syncope?

- Features that suggest a Non-syncopal attack:
 - Confusion after the attack for more than 5 minutes (seizure)-some caution in elderly patients where recovery may be more protracted
 - Prolonged (>15 sec) tonic-clonic movement starting at the onset of the attack (seizure)
 - Associated with vertigo, dysarthria, diplopia (TIA)
 - TIAs in general do not cause drop attacks and syncope

2. Are there clinical features suggestive of diagnosis?

- (see below Aids in Diagnosis-CERTAIN)

3. Is heart disease present or absent?

- Aortic Stenosis
- Left Ventricular systolic dysfunction

Guidance

- What to do in primary care
- When to refer

10 STEPS

10 STEPS

Before you refer for: Syncope

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Introduction

Syncope, a transient loss of consciousness, can present to the clinician in a variety of ways. The most important tool for the clinician is the history, not only from the patient but also from a witness of the collapse, if available. Clinicians should be aware of the possibility that a patient

In discussions about syncope, definitions are important. Syncope is a sudden, brief loss of consciousness due to a reduction in blood flow to the brain and, thus, of its oxygenation. With loss of consciousness there is collapse that may or may not be associated with jerking of the limbs. This can lead to confusion in the separation of epilepsy from syncope and we know that approximately

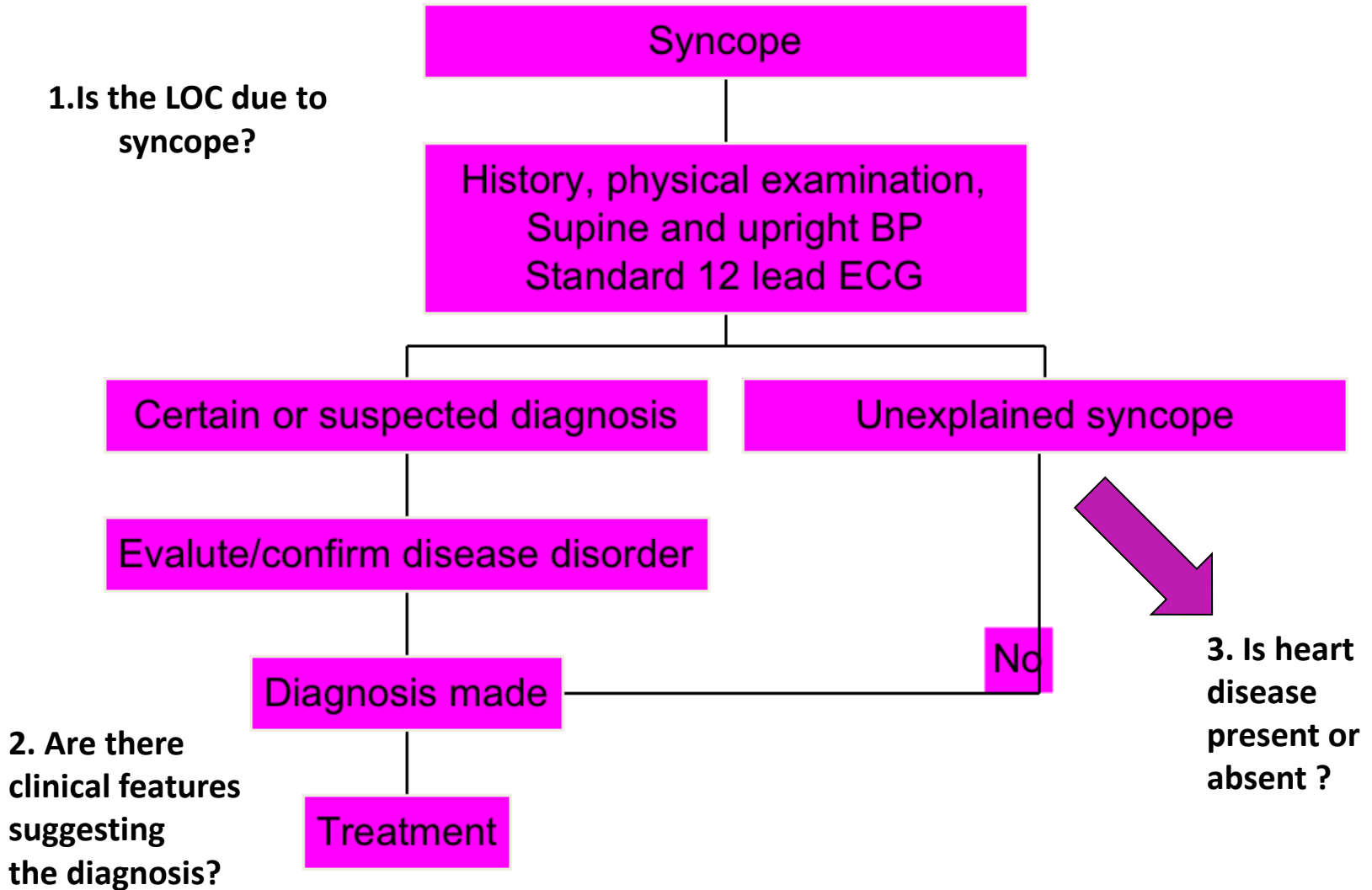
Guidance

- What to do in primary care
- When to refer

Take A History

Initial assessment of possible Syncope

- History
- Examination
- Supine and erect BP
- ECG
- 3 Key Questions to answer



Three Questions:-Question 1

Are there features that suggest a Non-syncopal attack?

Three Questions:-Question 1

Are there features that suggest a Non-syncopal attack?

- Disorders resembling syncope with impairment or loss of consciousness. E.g. seizures, TIAs etc
- Disorders resembling syncope with intact consciousness E.g. psychogenic “syncope” (somatization disorders)

Three Questions:-Question 2

Are there features that suggest a diagnosis?

Three Questions:-Question 2

Are there features that suggest a diagnosis?

Onset

- Rapid with/without prodrome
- Position Action Situation Event Exercise

Prodrome

- light headed, visual disturbance, cold nausea, sweating, weakness, dizziness, neck pain, palpitations

Witness

- Colour, duration, movements, tongue biting

End of attack

- Usually spontaneous complete prompt recovery
- Post recovery fatigue sometimes. Injury, confusion

Three Questions:-Question 2

Are there features that suggest a diagnosis?

Certain:-Initial investigations may lead to certain diagnosis based on symptoms, signs or ECG findings.

This may be the case of:

- Vasovagal syncope
- Situational syncope
- Orthostatic syncope
- Syncope due to cardiac ischaemia
- Syncope due to cardiac arrhythmia

Three Questions:-Question 3

Is there known heart disease?

Three Questions:-Question 3

Is there known heart disease?

- Known Aortic Stenosis
- Known Left Ventricular Systolic Dysfunction
- Unexplained cardiac murmur
- Unexplained ECG abnormalities

Three Questions:-Question 3

Is there features to suggest a cardiac cause?

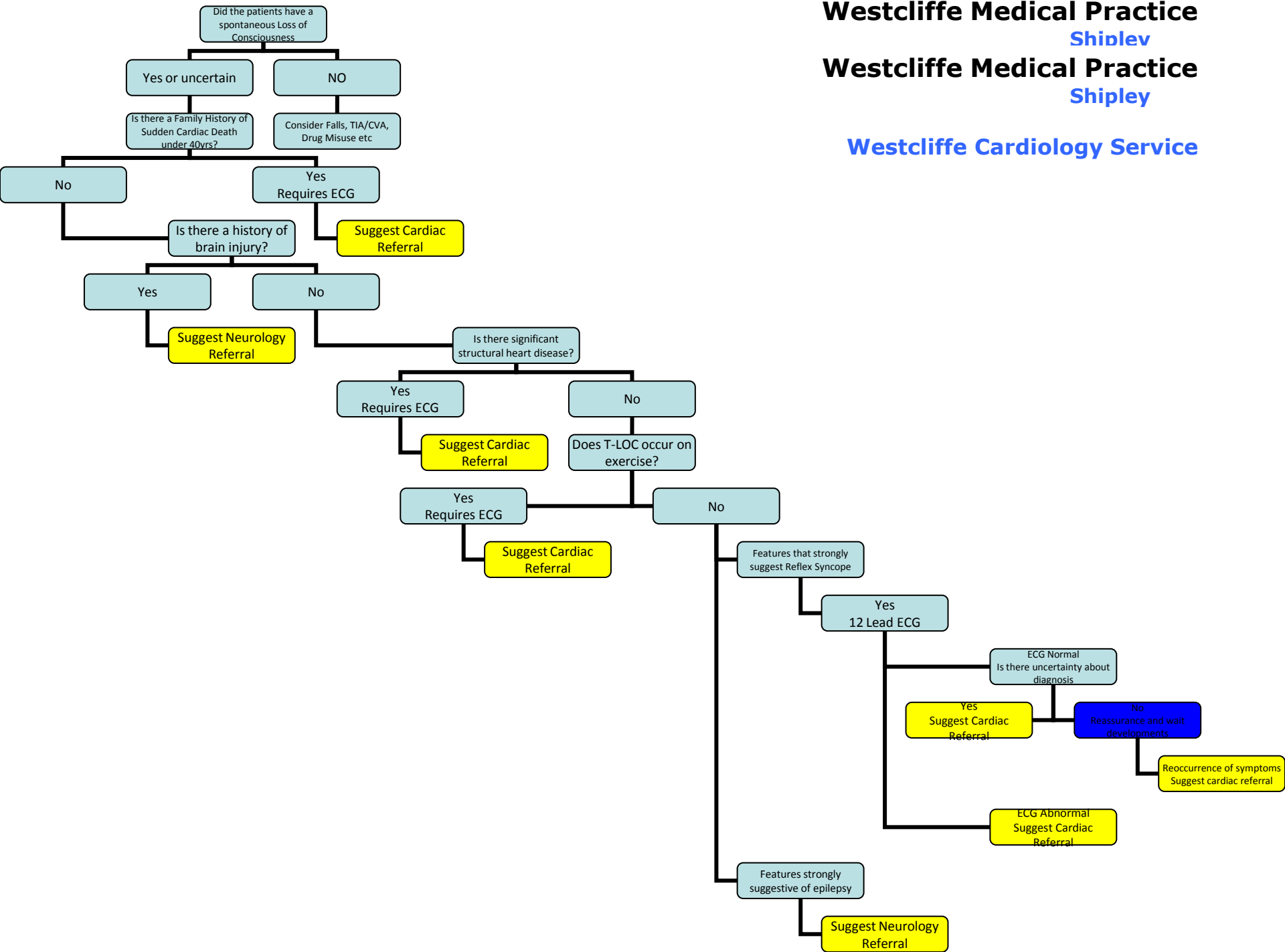
- Supine
- During exertion
- Preceded by palpitations
- Presence of severe heart disease
- ECG abnormalities summarized as:
 - Wide QRS complex ($>0.12\text{sec}$)
 - AV conduction abnormalities
 - Sinus bradycardia ($<50\text{bpm}$) or pause ($>3\text{sec}$)
 - Long QT interval

Guidance

- What to do in primary care
- When to refer

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Guidance

- What to do in primary care
- When to refer

Prognostic Stratification

- Poor prognosis:
 - structural heart disease
- Excellent prognosis:
 - young, healthy, normal ECG
 - neurally mediated syncope

Prognostic Stratification

- Risk stratification
 - age >45
 - history of CCF
 - history of ventricular arrhythmias
 - abnormal ECG
- Arrhythmia or death within one year:
 - 0 factors 4%
 - 3+ factors 58-80%

Guidance

- What to do in primary care
- When to refer
 - Is there anything I can do first?

What can be done in Primary Care

- Consider the Syncope/Fall in the elderly
 - **A**dditional health issues that need attention
 - **B**lood pressure, hypotension?
 - **C**o-prescription of agents that may be significant
 - **D**ehydration, re-enforce fluids

Guidance

- What to do in primary care
- When to refer
- When to refer urgently

Three Questions:-Question 4

Do I need to admit or refer urgently?

Three Questions:-Question 4

Do I need to admit or refer urgently?

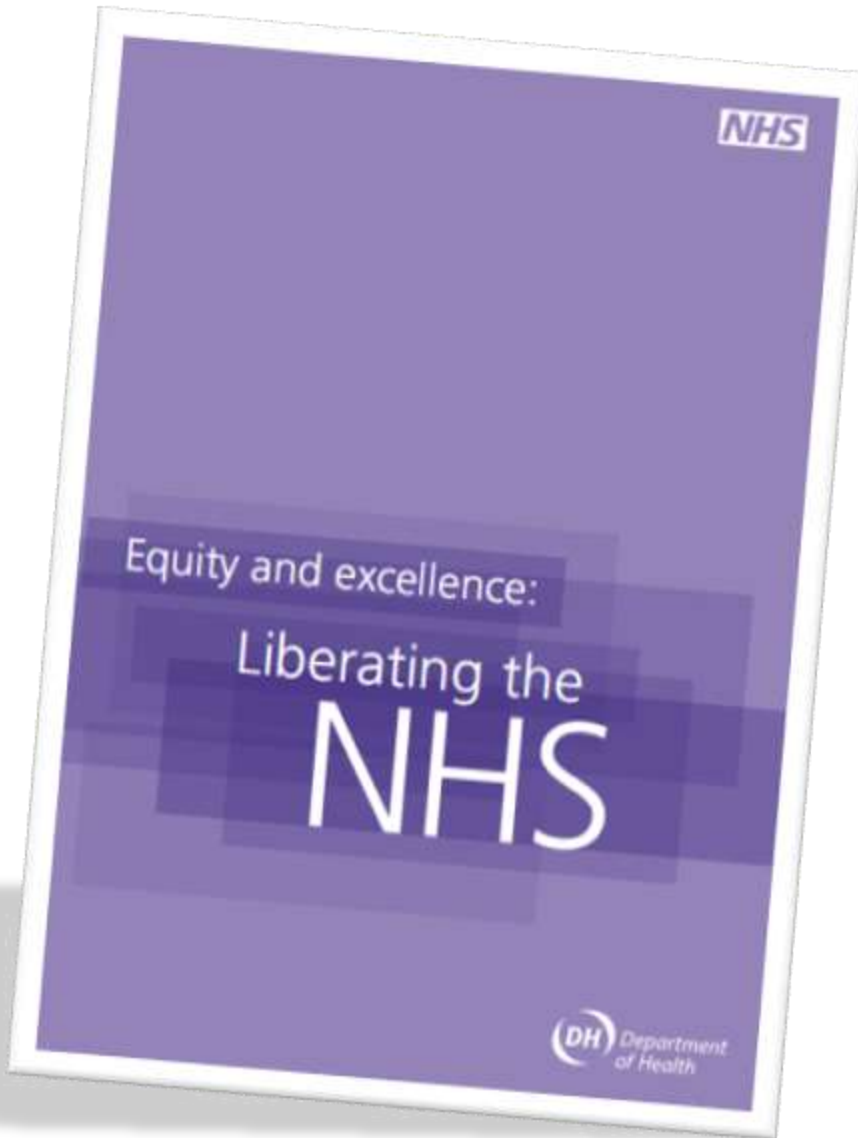
- Suspected/known significant cardiac diseases
 - chest pain/ ischaemic ECG
 - murmur
- ECG abnormalities suggesting arrhythmias
- Syncope during exercise
- Syncope causing severe injury
- Family Hx of sudden death
- Sudden onset of palpitations in the absence of heart disease
- Frequent recurrent episodes

When To Refer

- When the practitioner feels beyond their ability
- When risk stratification suggests high risk
- Known Cardiac disease
- Frequent
- Life affecting

Stop the waste

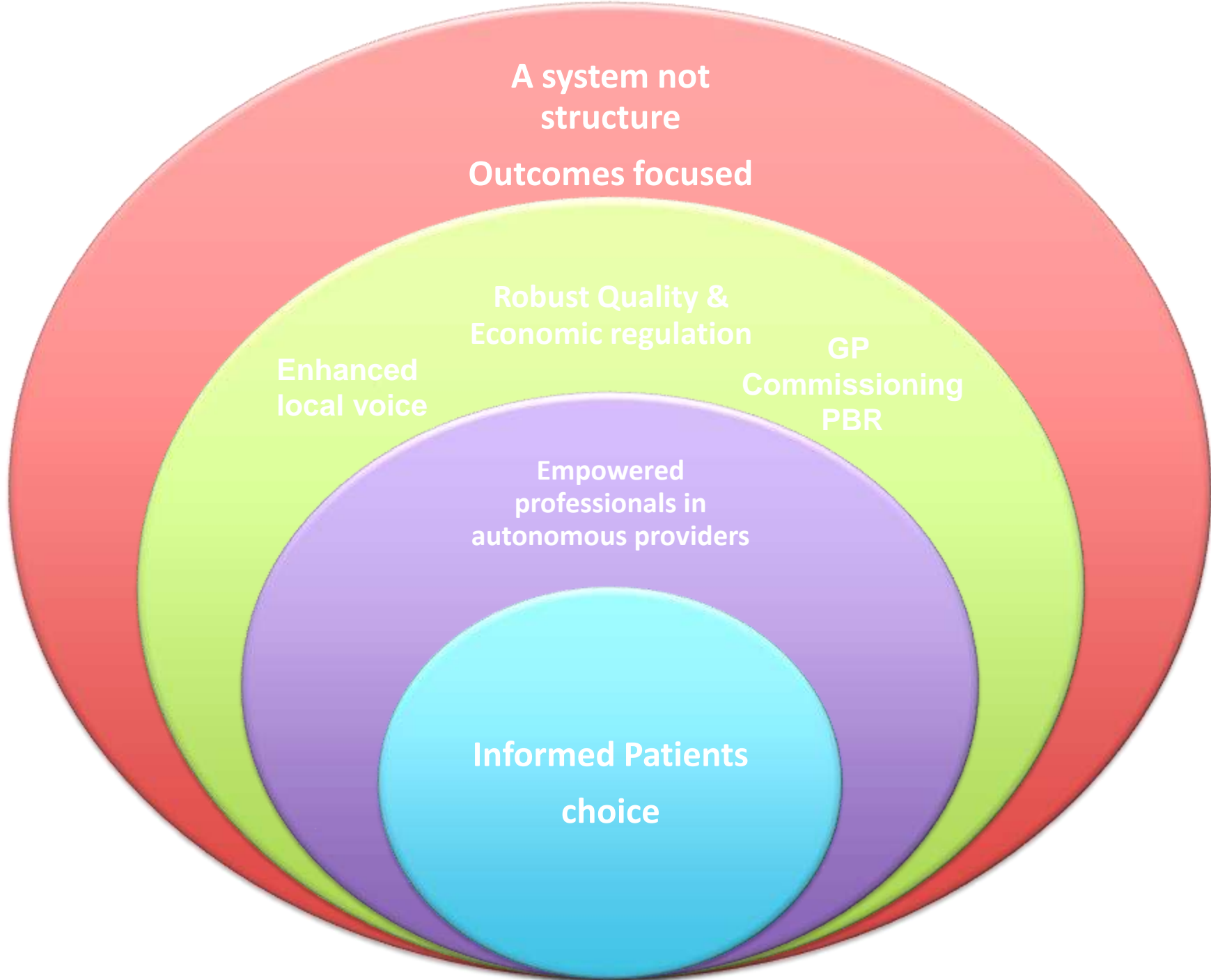
- 24hr ECG
- EEG
- CT scan
- MRI
- Repeated ambulance calls
- Repeated A&E Attendances
- Repeated hospital admissions
- Repeated personal distress



The NHS White Paper 2010

John 11:35

Jesus wept



**A system not
structure**

Outcomes focused

**Robust Quality &
Economic regulation**

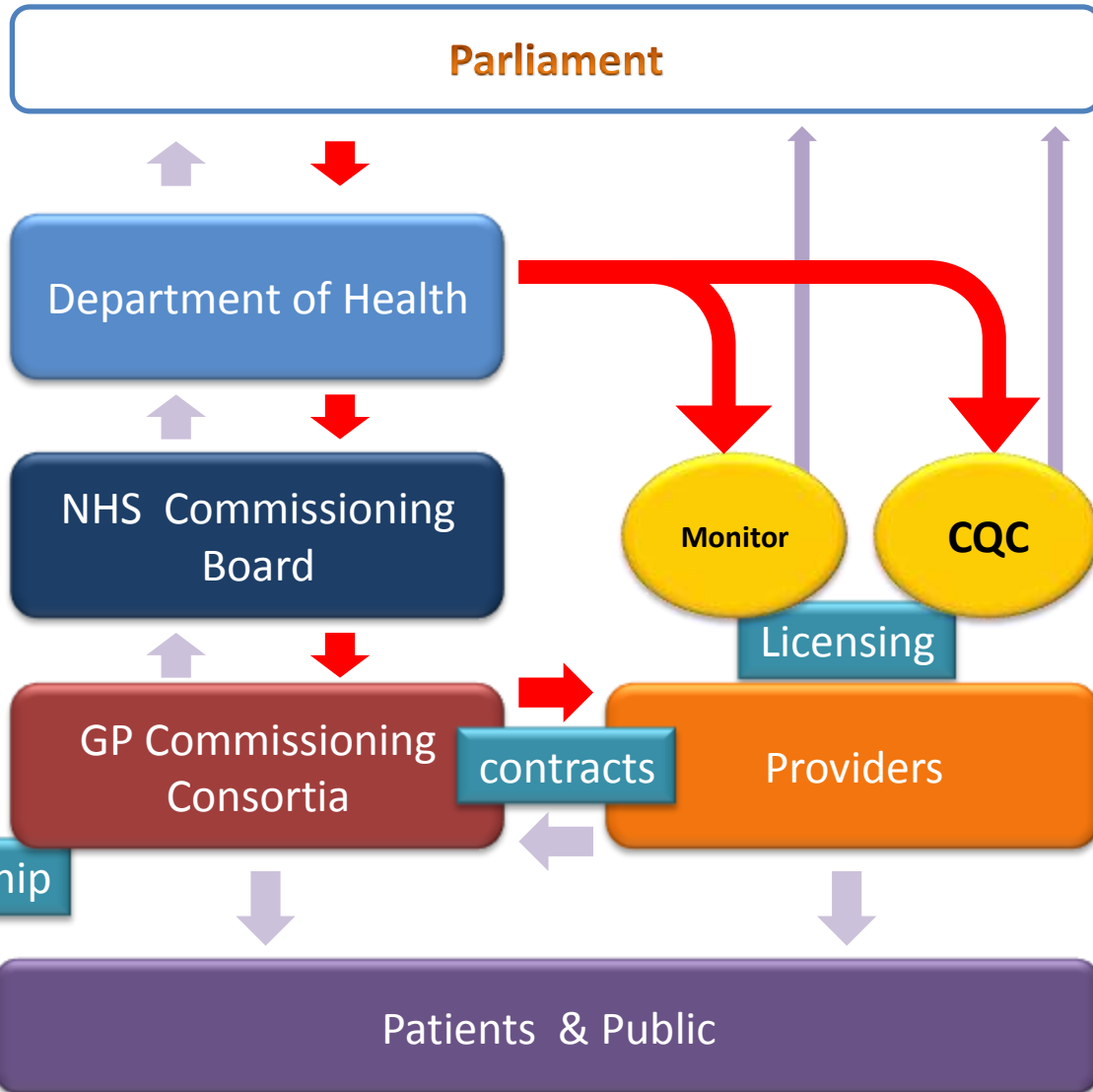
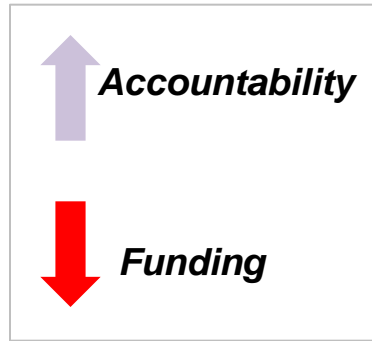
**Enhanced
local voice**

**GP
Commissioning
PBR**

**Empowered
professionals in
autonomous providers**

**Informed Patients
choice**

Westcliffe Medical Practice
Shipley
Westcliffe Cardiology Service



Local Authorities

GP Commissioning Consortia

Providers

Patients & Public

Department of Health

NHS Commissioning Board

Parliament

Monitor

CQC

Licensing

contracts

Partnership

Local HealthWatch

Timescales

- April 2011 SHAs merged into a special HA
- April 2011 Shadow NHS Commissioning Board set up
- From April 2011 set up shadow GP consortia
- April 2012 NHS Commissioning Board set up
- April 2012 National Public Health service set up
- April 2012 Health Watch established
- April 2012 New GP contract with commissioning responsibilities
- April 2012 Health & Well Being Boards created
- Autumn 2012 allocations to NHS Consortia
- 2012/13 SHAs abolished
- April 2013 GP Consortia legal entities (now lapsed???)
- From April 2013 PCTs abolished

Matt's Missing Pieces

- Local GP performance control
- Regional Commissioning Strategy (maybe the cluster)
- Strategic Commissioning (maybe the Cardiac Networks)
- Spread and Support of good practice (maybe NHS-I)
- Prevention of marked variation
- It was nice to have NICE
- Where did public health go?
- Local Leaders

Local Leaders

- For the bureaucrat, the world is a mere object to be manipulated by him
 - Karl Marx
- If God wanted us to vote, he would have given us candidates.
 - Jay Leno
- The problem with political jokes is they get elected.
 - Henry Cate, VII
- Any American who is prepared to run for president should automatically, by definition, be disqualified from ever doing so.
 - Gore Vidal
- Don't vote, it only encourages them.
 - Author Unknown
- We would all like to vote for the best man but he is never a candidate.
 - Frank McKinney "Kin" Hubbard
- I don't care to belong to a club that accepts people like me as members.
 - Groucho Marx

The Operating Framework for the NHS in England 2011-12

- Emerging GP Consortia and the NHS
Commissioning Board Development

“Action is needed to prevent the risk of unplanned loss of capacity and capability in the current commissioning system”

The challenge

- NHS will receive flat real terms increases at best from April
- Cash savings of £15-20bn will be needed from 2011-15 (the QIPP challenge)
- The NHS recession may well continue beyond 2015
- The likely length and depth of the recession is unprecedented

High quality care does not always require extra expenditure

- Every health care system suffers from waste and inefficiency
- In the US, states with high levels of spend have outcomes no better than states with low levels of spend, and outcomes are often worse
- Waste and inefficiency often occur in care transitions, eg delayed transfers of care

Two good pieces of advice

- ‘an unplanned hospital admission is a sign of system failure’
- ‘A hospital bed is a parked taxi with the meter running’
– Groucho Marx
- ‘it is already clear that many of the most significant quality and productivity opportunities lie in the interfaces between organisations’

Systems of care

- The NHS needs to adopt a local systems approach
- How can organisations and clinicians work together to deliver improvements?
- Local authorities and the voluntary sector should be involved
- Service changes are likely to follow to improve outcomes

Finally, some lessons in change

- Integration does not require organisational mergers
- Incentives and payment systems are crucial
 - The NHS needs to move rapidly beyond payment by results
 - Capitated budgets with a quality overlay are the way forward

More lessons

- Commissioning consortia should take on FULL responsibility only when they are ready
- Commissioning support of a high quality is essential, especially on transactional aspects of commissioning
- Ensure clinicians focus on improving service provision and developing integrated care
- Partnerships between consortia and FTs is vital

The Stars are setting and the Caravan
Starts for the Dawn of Nothing
--Oh, make haste!

The Rubaiyat of Omar Khayyam

Thank-you for the invitation and attention

Questions

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