

Loss of Consciousness

Dr. Alice Thomas



Faints, Fits and Funny turns



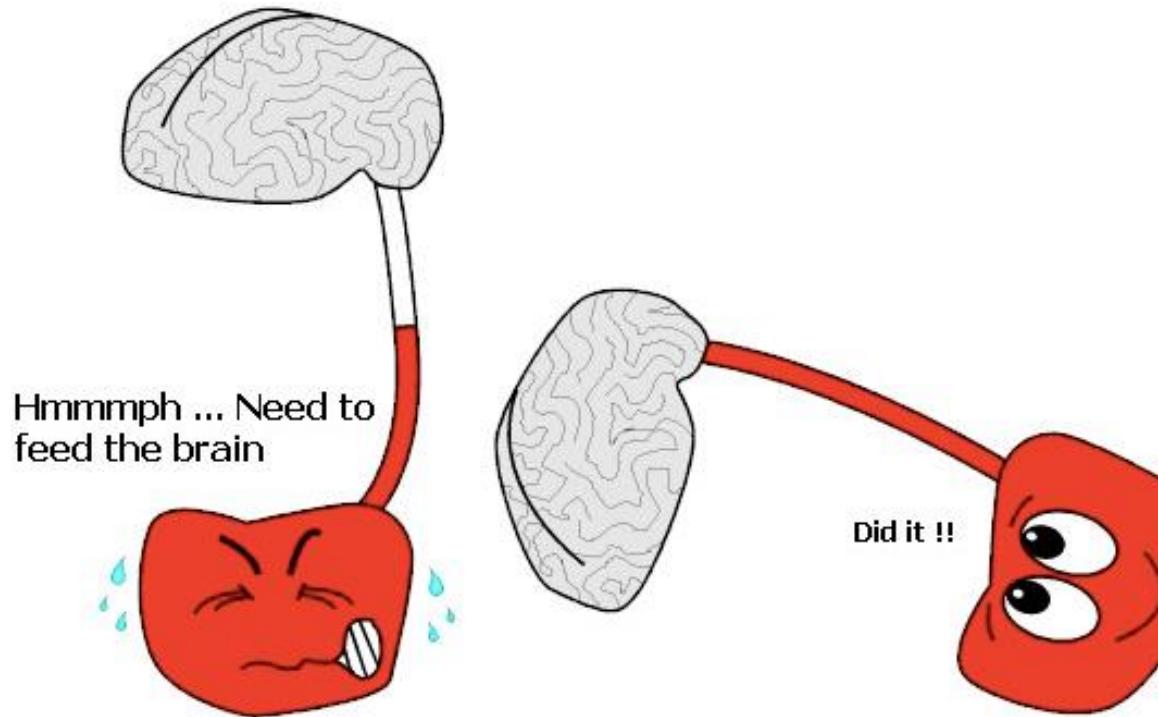
Overview

- Causes
- History: Syncope vs Seizure
- Examination/Investigations
- Driving/Flying
- Law and medicine
- Summary



Syncope

‘Transient loss of consciousness due to global cerebral hypoperfusion.’



Categories: Seizure vs Syncope





Syncope: Cardiac

1. Structural

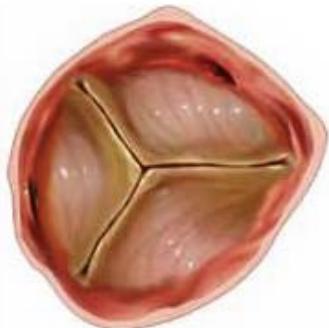
1. Arrhythmia

1. Vasculation



1. Structural

- Aortic stenosis

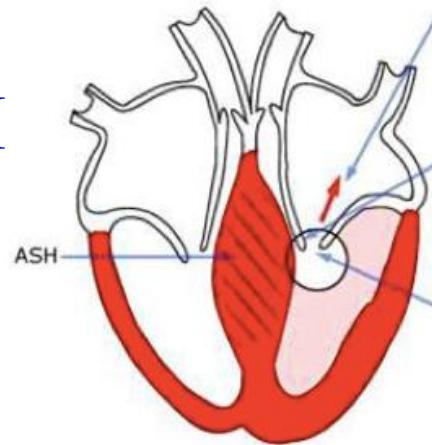


Normal Valve



Stenotic Valve

- HOCM



Sx: same

Signs: Displaced forceful apex beat/ ejection systolic murmur

Mx: Activity/ Medications/ myomectomy/ catheter septal ablation/ pacemaker

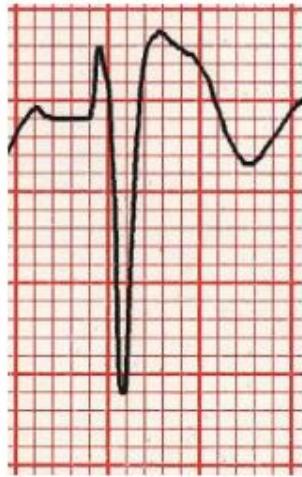
Sx: Syncope/Pain/Breathless

Signs: slow rising pulse/ Narrow pulse pressure/ Ejection systolic murmur/ Carotids/ Expiration

Mx: Valve replacement./ Transcatheter Aortic Valve Implant

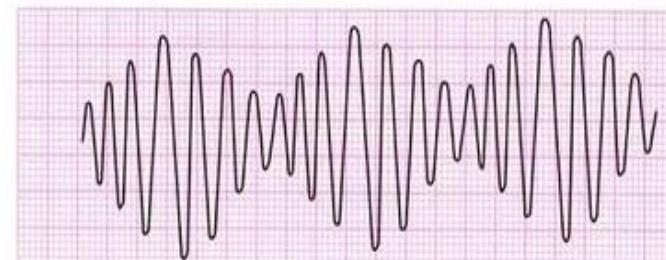
2. Arrhythmia

- Tachycardia
- Bradycardia
- Brugada/Torsades de points



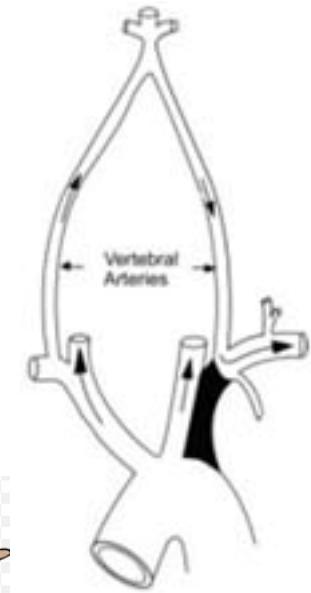
Brugada sign

Torsade de Pointes



3. Vasculature

- Volume depletion
- Medications
 - Diuretics/ TCA/ anti-hypertensives
- Anatomical
 - Carotid sinus hypersensitivity
 - Subclavian steel syndrome
- Autonomic
 - Parkinsons/ DM





Syncope: Other

- Vasovagal
 - Emotion/ Pain/ Stress
 - Situational: Cough/ Micturition

Operating theatre related syncope in medical students: a cross sectional study

AAB Jamjoom¹, A Nikkar-Esfahani¹ and JEF Fitzgerald^{2,3*}



- Hypoglycemia
- Drop attack
- Stroke
- Psychiatric



HOARDING

CARDIAC ARREST!!

Reversible Causes

- H's:

- Hypovolaemia
- Hypothermia
- Hypoxia
- Hyper K/Ca²⁺

- T's:

- Tension Pneumothorax
- Toxins
- Tamponade
- Thrombosis

CPR



Venous thrombosis risk factors

- Pulmonary embolism/DVT

Pregnancy/Pill
Immobility
Malignancy
Surgery
Fracture
Disorders of clotting



Arterial thrombosis risk factors

The Circle of



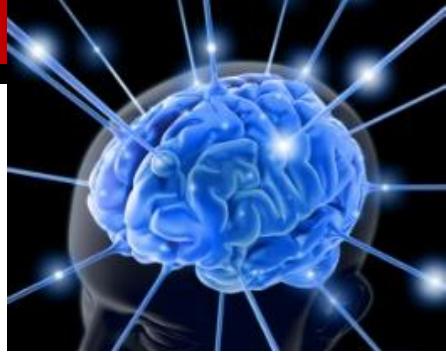
Vascular Risk factors

1. Hypertension
2. Hypercholesterolaemia
3. Diabetes
4. Smoking



Seizures





Seizure:

‘Abnormal event due to electrical discharge in the brain’

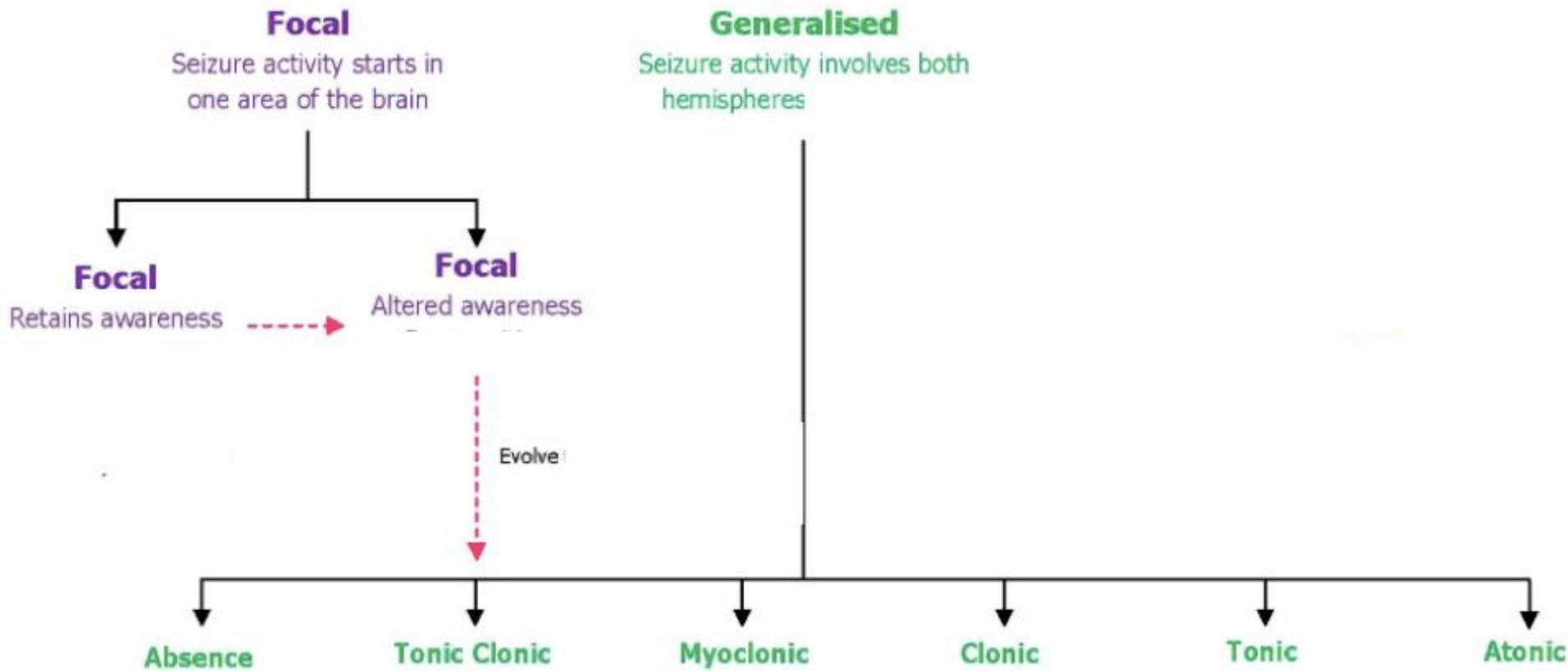
- EPILEPSY: Tendency to have seizures

Triggers

- Flashing Lights, fatigue
- Infection
- ETOH withdrawal/illicit drugs
- Headache (SAH, SOL)
- Trauma
- Taking meds late/Non compliance



Seizure Classification



History

- Before
- During
- After
- PMH/FH/DH/SH



Acute Mx: Seizure

- ABC...DEFG
- OXYGEN
- Benzodiazepines: iv 4mg **Lorazepam** (5 mins repeat)
- No iv access:
 - Rectal **Diazepam** 10mg (10 mins repeat)
 - Buccal **Midazolam** 10mg
- STATUS:
 - **Phenytoin** in 0.9% N.Saline (15mg/Kg)
 - **Phenobarbitol** 15mg/Kg
 - ITU!



Examination



SIMPLY
FINALS

Investigations

- Bloods: CK, prolactin, toxicology, lactate
- ECG: 24 hour
- BP: L/S
- CXR
- Echo
- CT/MRI
- EEG



Investigations and management

- 1st seizure: Bloods/ MRI
- 2nd seizure: Anticonvulsants
- Generalised: Sodium valproate
- Partial: Carbamazepine
- Absence: Ethosuximide
- Lamotrigine
- Phenytoin



Counseling

- Avoid Precipitants
- Recreational activities
- Pregnancy
- Driving



SIMPLY
FINALS

Flying and Driving



SIMPLY
FINALS

Law and Medicine

- Consent:
 - Understand/ Retain/ Weigh up material/Communicate

IMPLIED IN AN EMERGENCY



- Law: Defense of automatism



Categories: Seizure vs Syncope



Neuro (Seizurees)

- Primary: Partial/Generalized
- Secondary



Cardiac:

- Structural
- Arrhythmia
- Vascular

Other:

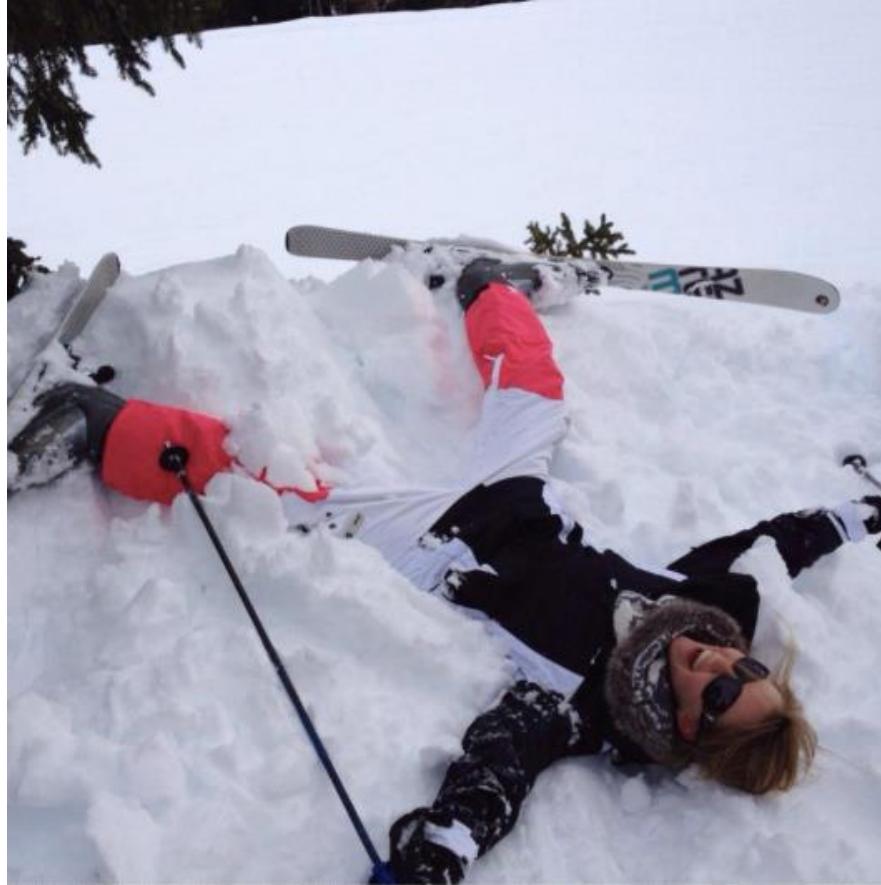
- Vasovagal
- Hypoglyc
- Stroke
- Psychiatric

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Thank you! Questions?



Case 1

- Enjoy!:
<http://youtu.be/8bygOaphU4o>



How to treat a hypoglycaemic episode

Don't  about. Know the  of Hypoglycemia. Be a 

and take  care of patients so we can have a . Here is a 

Symptoms

T	Tachycardia
I	Irritability
R	Restless
E	Excessive hunger
D	Diaphoresis
	Depression

Check CBG



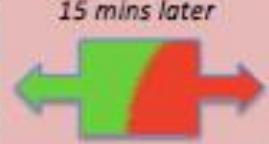
SHORT
acting carb



Always give an EVENING SNACK to all patients with diabetes!

Repeat cycle up to 3 times

Check CBG
15 mins later



Call Doctor if still low after 3 cycles



LONG acting carb

- 1) Hypo Proforma
- 2) Give regular insulin



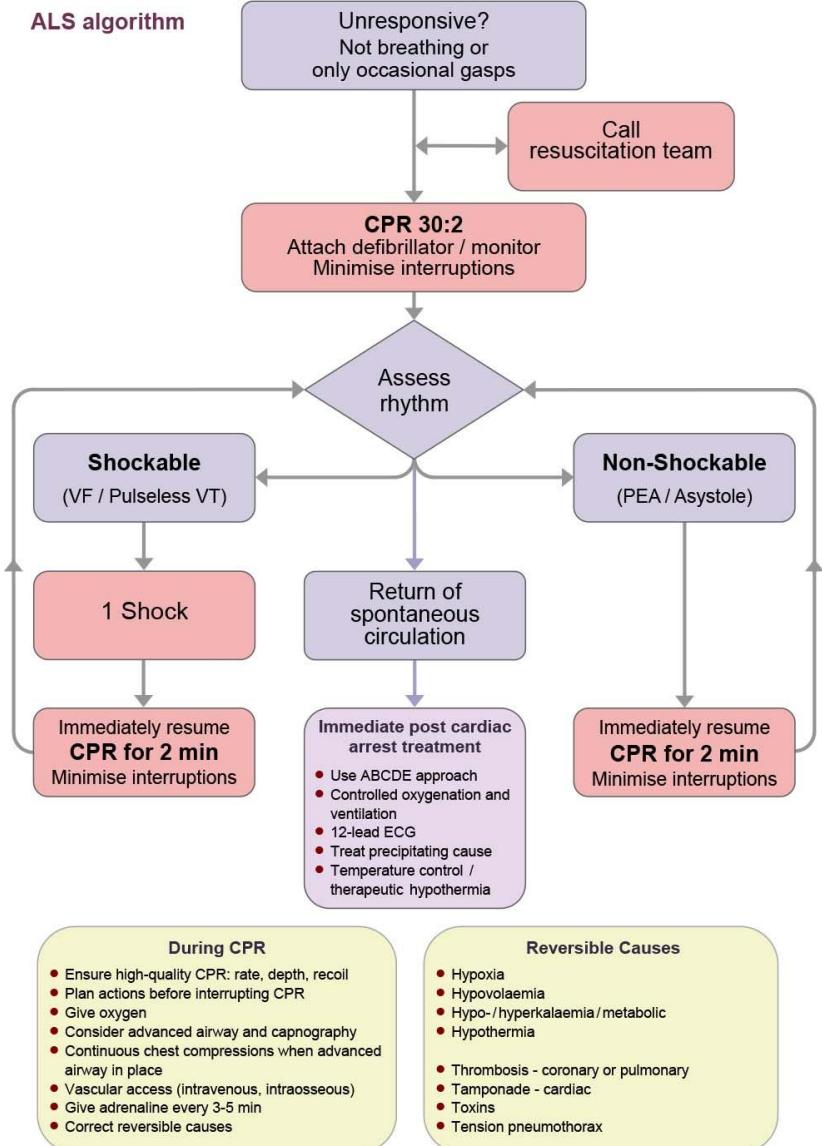
ZS



Algorithms:

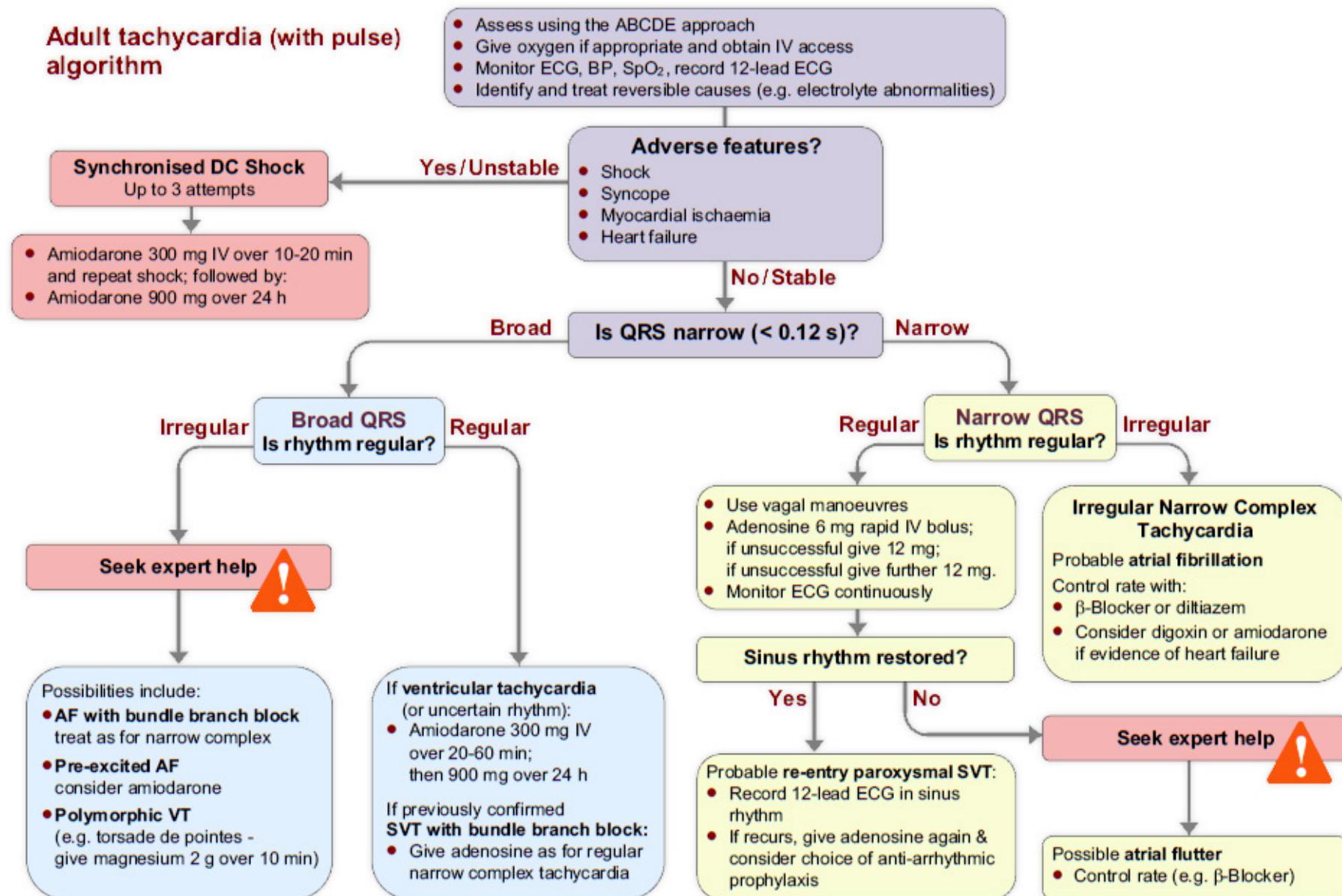
ALS

ALS algorithm



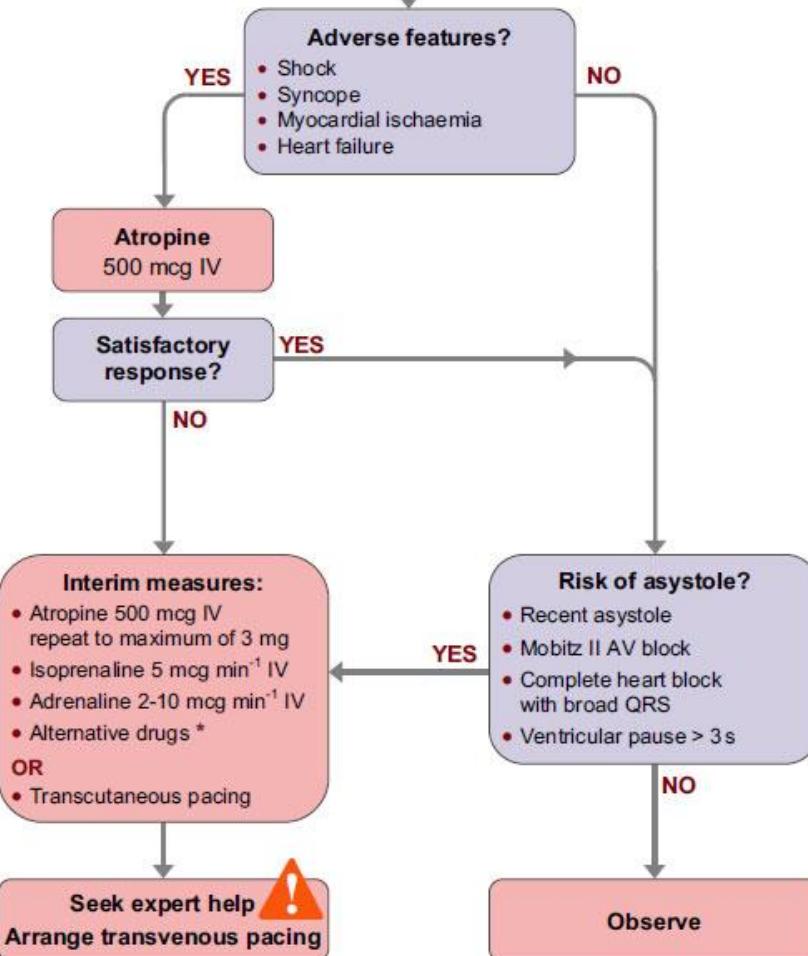
Tachycardia:

Adult tachycardia (with pulse) algorithm



Bradycardia:

- Assess using the ABCDE approach
- Give oxygen if appropriate and obtain IV access
- Monitor ECG, BP, SpO₂, record 12-lead ECG
- Identify and treat reversible causes (e.g. electrolyte abnormalities)



*Alternatives include:

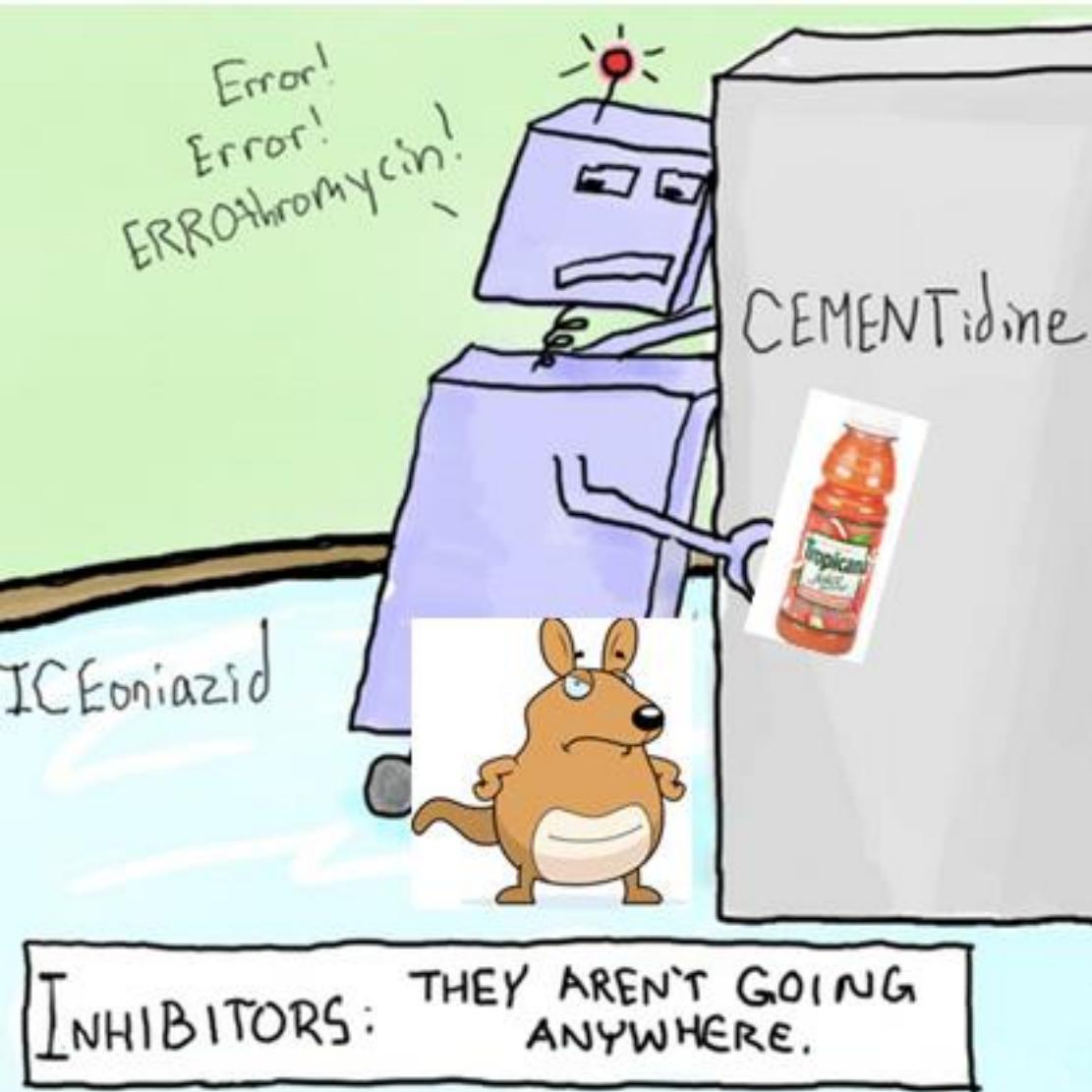
- Aminophylline
- Dopamine
- Glucagon (if beta-blocker or calcium channel blocker overdose)
- Glycopyrrolate can be used instead of atropine

P450 Inducers



Momma - Modafinil
Grizzly - Griseofulvin
Bear - Barbituates
Cruelly - Chronic alcohol
Steals - St. John's wort
Phen-phen- Phenytoin + Phenobarbital
And
Races- Rifampin
Cars - Carbamazepine

P450 Inhibitors



My - Macrolides

Sullen - Sulfonamides

Robot - Ritonavir

And- Amiodarone

Acute - Acute alcohol

Kangaroo - Ketoconazole

Couldn't - Ciprofloxacin

Quickly - Quinidine

Get the - Gemfibrozil

Cement -Cimetidine

Gliding on – Grapefruit

Ice - Isoniazid