





Blackouts: how to make a diagnosis

Dr C Price, Neurologist, Musgrove Park Hospital

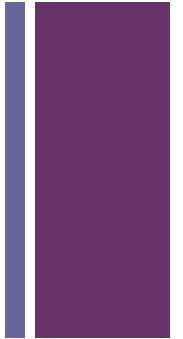
# + Blackouts

- All in the history.....
- One test remains important



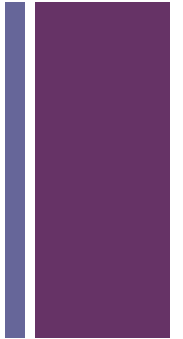
# + Differential diagnosis:

- Syncope
  - Cardiac
  - Non cardiac
- Epilepsy
- Psychogenic
  - Panic / flashback
  - Non epileptic
- (Stroke/TIA)
- Parasomnia
- Hypoglycaemia
- Vertigo

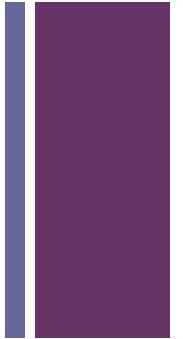


# + Definitions

- Syncope
  - Sudden transient LOC; fall; self limiting
    - tiredness is common
    - cardiac vs. non cardiac
- Seizure
  - excessive / hypersynchronous discharge
  - usually self limiting
- Non epileptic events



# + Epilepsy: epidemiology

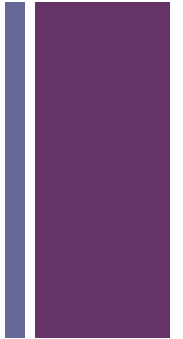


- lifetime risk of single seizure - 9%
- c.f. syncope approximately - 40%
- lifetime risk of epilepsy - 3%
- prevalence approx. 0.8%

# + Epilepsy Risk factors

- Preterm / CP
- Febrile convulsions:
  - prolonged (5mins), focal onset,  $\geq 1$  per 24hrs
- TBI
- Drugs / alcohol
- FHx
  - Type of epilepsy generalised vs. partial
  - RR  $\geq 3$

# + Following 1<sup>st</sup> adult seizure



- Not epilepsy
- 50% lifetime recurrence
  - higher if symptomatic, nocturnal
- EEG useful for
  - classification
  - Prognosis: 2yr risk
    - epileptiform 83%, non-epileptiform 41%, normal 12%

# + Differentiation

	<b>Seizure</b>	<b>Syncope</b>	<b>NEAD</b>
<b>Precipitant</b>	Variable, sleep related	Pain, fright, standing; rarely lying down	Variable, usually in company
<b>Premonitory Symptoms</b>	Rarely identified	Dizziness, sweating, nausea, visual and hearing changes	Variable
<b>Duration</b>	Minutes	Seconds	Minutes
<b>Eyes</b>	Open	Open	Variable
<b>Rigidity</b>	+	+/-	Usually not sustained
<b>Clonic movements</b>	+/-	+/-	Flailing, not jerks Variable intensity over time
<b>Colour change</b>	Variable, blue	Marked pallor	-
<b>Breathing change</b>	+	-	-
<b>Self-injury</b>	+ / side of tongue	+/-	Rare
<b>Incontinence</b>	+	+	Rare
<b>Post-ictal confusion</b>	+	-	-

In favour of:	Factual event	Sensitivity	Specificity	OR
Seizure	Tongue biting	0.45	0.97	16.5
Seizure	Head turning	0.43	0.95	13.5
Seizure	Muscle pain	0.16	0.95	3.4
Seizure	Unconscious > 5min	0.68	0.55	1.5
Seizure	Postictal confusion	0.85	0.83	5
Seizure	Cyanosis	0.29	0.98	16.9
Syncope	Prolonged upright	0.4	0.98	20.4
Syncope	Sweating	0.36	0.98	18
Syncope	Pallor	0.81	0.66	2.8

**Quick reference guide**

Issue date: August 2010

**Transient loss of consciousness**

Transient loss of consciousness ('blackouts') management  
in adults and young people



# + Priorities..



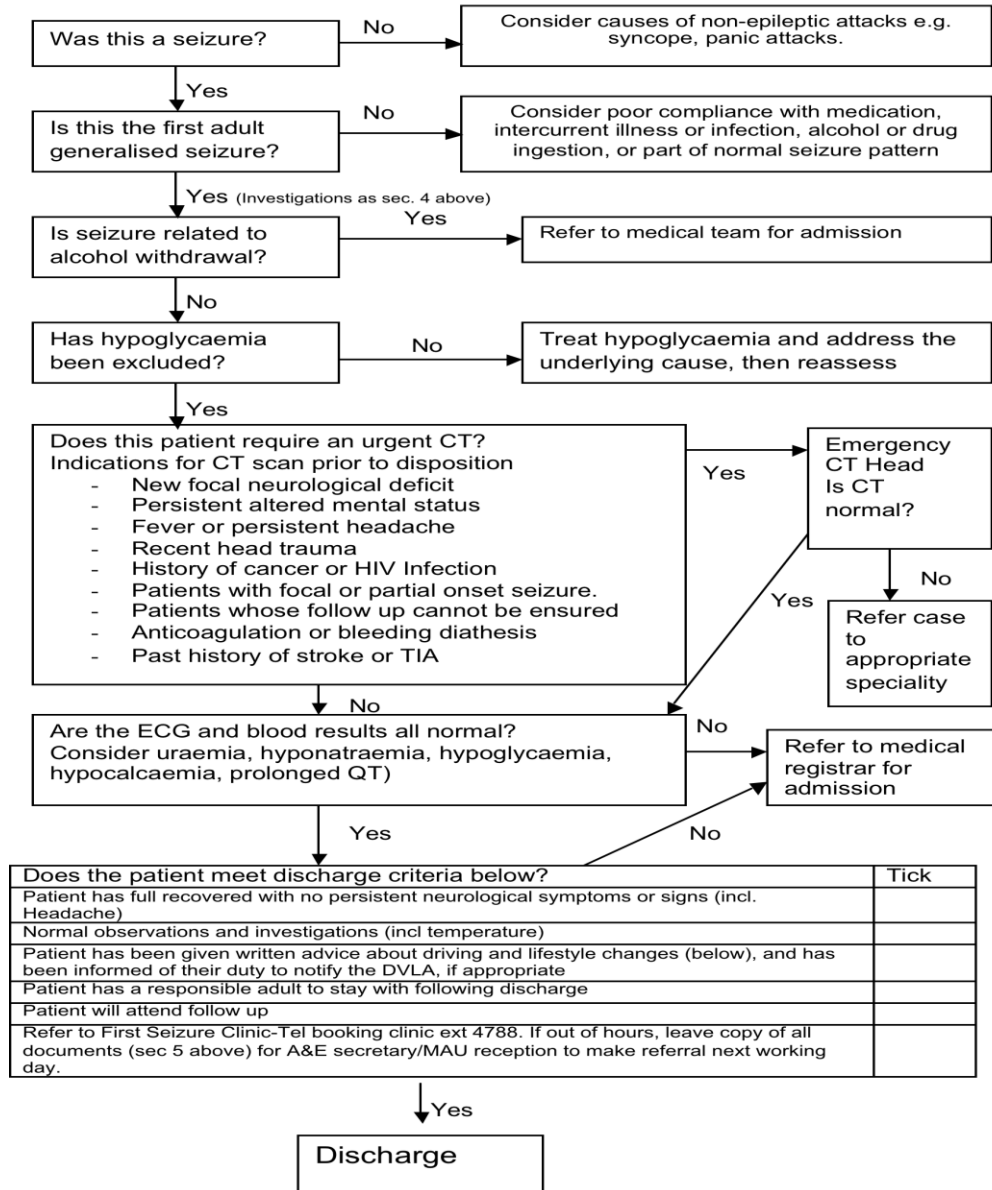
- History, witness
- 12 lead ECG
- Refer  $\leq 2/52$  to neurology if seizure
- Threshold for cardiac referral



## Adult uncomplicated first generalised seizure;

### Management flow chart – Circle Yes or No

See inclusion and exclusion criteria above



# + Remember..



- Neurologists sometimes get it wrong ( $\leq 30\%$ )
- Tests will not give you the answer, time may well
- Advise patient to bring a witness
  
- Gestalt

# + Persistent doubt...



- Be persistent
- Hold your nerve
- Challenge ones own attitude to uncertainty
- Stop people driving