Management of First Seizure in the Emergency Department & Ambulatory Care

Ambulatory Care Pathway

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Management of First Seizure in the Emergency Department and
Ambulatory Care Unit

Overarching principles:

1. First seizures are a frequent reason for attendance to the emergency department (ED), accounting for around 0.4% of attendances. Some studies have shown that at least half of first seizure patients presenting to a first fit clinic are referred from an ED as opposed to other primary care facilities.

2. This guideline covers the management options for patients ≥16 years of age presenting to the emergency department and/or via the acute medical take.

3. Recent NICE Epilepsy clinical guidelines (2012) have for the first time provided a national consensus on the management of first seizure. This pathway is compliant wherever possible allowing for minor local variations in services.

4. Many patients can safely be managed in an Emergency Department or Ambulatory Care setting and referred to a ‘First Seizure Clinic’. Correct initial assessment and management is essential to ensure appropriate investigations are performed, as well as an evaluation of whether the seizure was provoked or unprovoked and risk of further imminent seizures undertaken. Only then can discharge with appropriate follow up be considered.

5. Giving patients and close contacts appropriate information regarding seizures and management of possible further episodes should always be offered. Advice regarding driving in accordance with latest DVLA guidance must always be provided.

6. This guideline does not cover the management of patients who are fitting at the time of assessment as this is covered in alternate national guidance. Following management of the solitary first seizure the use of this guideline may be appropriate.

7. Seizures in children, pregnancy (eclampsia), following head injury and secondary to substance misuse (including alcohol withdrawal) are not covered by this guideline, as management is substantially different.

8. This pathway will operate at all times. Out of hours requests for CT scanning will need to be made in the usual way with consultant to consultant referral. If it is felt clinically that CT scanning can be deferred until working hours the patient should be managed in the ED Observation ward or referred to Medicine at the discretion of senior ED medical staff. These patients should not be discharged to return to Ambulatory care.

9. Clinical assessment is paramount and takes precedence over this pathway.
Management pathway

- The first seizure algorithm should be followed. This will guide appropriate management (Appendix i).

- Any patient being considered for discharge should have the First Fit Pathway checklist (Appendix ii) completed to ensure all essential investigations and referrals have been made.

- A First Fit Clinic Referral letter (Appendix iii) should be completed and faxed to Neurology clinic for the Neurology Consultant of the week on Fax number 02476965210.

- The patient or carer should be given a copy of the First Fit Advice – Information for patients leaflet (Appendix iv) prior to discharge.

- A fully completed GP discharge letter explaining the admission and follow up plan should be completed and sent at time of discharge to the GP in the usual way.

- Please send the notes to Ambulatory Emergency Care just in case more information is required.
Appendix i – First fit management algorithm

Only use this pathway when patient is fully alert and the likely diagnosis is solitary first seizure, not related to Alcohol dependency, illicit substance use, eclampsia or head injury.

For use after Hypoglycaemia has been excluded.

Record Full history and examination
Obtain and record a description of the episode from the patient and eye witness, if possible with contact number.
Establish any history of previous episode of loss of consciousness or altered behaviour.
A CAREFUL DETAILLED NEUROLOGICAL EXAMINATION IS ESSENTIAL.

Neuroimaging required? Yes to any of the following.
- New focal neurological deficit
- Persistent altered mental status
- Fever or persistent headache
- Recent head trauma
- Hx of cancer or HIV infection
- Patients with focal or partial onset seizures.
- Patients whose follow up cannot be ensured
- Anticoagulation or bleeding Diathesis

Obtain CT Brain

Abnormal
- Refer to appropriate speciality

Normal

No

Any evidence of:
- Raised temp
- Meningism
- Sepsis

Obtain Investigations:
- FBC, U&Es, Glucose, Ca2+
- ECG (check QTC)
- CXR (if appropriate)

Results all normal?

Yes

Senior ED doctor or Med Reg

Happy for discharge??

Yes

Admit to AMU

Discharge Patient

No

Complete:
1. First Fit Referral Form
2. First fit discharge check list
3. Put Consultant of the week for Ambulatory care as responsible consultant

*Admission should be considered in all patients with: Alcoholism, Poor social circumstances or those without a responsible adult to stay with.
Appendix ii

Discharge Check List

Check List

1) Put patient sticker in box on right □

2) Complete this “First Generalised Seizure Protocol” (ensure bloods / blood glucose documented on CAS Card)........................................... □

3) Patient safe for outpatient management according to first fit flowchart (page 4)
   a) No – Refer........................................................... □
   b) Yes – Complete steps below............................... □

4) Discuss with ED or medical senior (consultant or registrar)
   ........................................................................... (Name of Senior)

5) Give the patient a copy of the “First Fit Advice Information for patients” leaflet................................. □

6) Advise patient to stop driving and inform DVLA. Record on CAS card / patient notes......................... □

7) Complete GP discharge letter in usual way □

8) Put in Fairfax Ambulatory clinic trolley (they will check results):
   a) Copy of “First Fit Referral Proforma”........... □
   b) Copy of notes...................................................... □

Completed by Signature.................................................................

Completed by Print Name and GMC Number.................................
Appendix iii – First Seizure Clinic Referral Letter

Dr Tahir Malik Ext 4897
Dr Abdul Zafar Ext 4897
Dr Amin Rehman Ext 4897
Dr Viviana Elliott Ext 4897
Dr Amy Daniel Ext 4897

Date of Referral: ____/____/_____

Neurology Oncall Consultant of the week,
Neurology Department,
Level 4,
University Hospital Coventry and Warwickshire,
Clifford Bridge Road,
Coventry, CV2 2DX

Fax Number: 02476965210.

Dear Colleague,

RE:

We would be grateful if you could see the above patient in your acute neurology / first seizure clinic following their attendance at Warwick Hospital.

The history and relevant investigations are as follows:

Enclosed is a copy of the ECG and investigations performed so far. If you require any further information please do not hesitate to get in touch.

Yours faithfully

Dr ____________________________
PALS

We offer a Patient Advice Liaison Service (PALS). This is a confidential service for patients and their families to help with any questions or concerns about local health services.

You can contact the service by the direct telephone line on 01926 600054 or using the phone links which are available in both hospitals or calling in at the office located in the main entrance at Warwick Hospital.

Our information for patients can also be made available in other languages, Braille, audio tape, disc or in large print – please contact our PALS office.

As a key provider of acute healthcare and as an employer, the Trust has a statutory obligation to promote and respect equality and human rights. This is set out in various pieces of legislation including: Race Relations (Amendment) Act 2000, Disability Discrimination Act (2005), Sex Discrimination Act (1975) and the Age Discrimination Act (2006)

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The doctor who saw you today thinks you may have had a fit. He or she has referred you to see a neurologist (a doctor who specializes in problems with the brain and nervous system) in a neurology outpatient clinic. The neurologist will try to find out if and why you had a fit, give you an accurate diagnosis and advice about further management, if needed.

This leaflet gives advice to help you to stay safe in case you have any more fits and explains what will happen at your neurology outpatient appointment.

What is a fit?

A fit may be known by a number of different names, including seizures or convulsions. They are caused by sudden episodes of electrical activity in the brain.

Epileptic-type seizures start in the brain, but other things can cause seizures. A high fever can cause a ‘febrile convulsion,’ and lack of oxygen, too much alcohol, a low blood sugar and some medications can all cause seizures. These are not classed as epilepsy.

About 1 person in every 20 will have a fit at some point in their life.¹ It may be the only one they have. About 3 - 4 people in every 10 who have a fit may have further fits.²

The risk of having another fit is greater within 6 months of having the first one.

Contact numbers
If you need any further advice or have any problems, please telephone the Accident & Emergency Department:

Warwick Hospital telephone: 01926 495321 extension 4035

Further information is available from: NHS Direct 24 hours helpline 08454647
Or via the website at www.nhsdirect.nhs.uk

Further information on driving and informing the DVLA at: http://www.dft.gov.uk/dvla

DVLA Telephone Helpline (staffed in working hours)
For car or motorcycle driving licence holders: 0300 790 6806
For bus, coach or lorry driving licence holders: 0300 790 6807

References

3. The management of health and safety at work regulations 1999.HSMO
After the fit has stopped

Most seizures will stop after a few seconds to minutes. Anyone with you should do the following:

- place you in the recovery position if they know how
- check you are breathing normally – if not they should
- check there is nothing in your mouth for example vomit
- or false teeth
- stay with you until you come around fully
- not give you anything to eat or drink until you are fully
- alert and feel back to normal
- make a note of when the seizure stopped
- always let your doctor or NHS Direct know following a
- new fit so they can advise on what to do next

When to call 999 for an ambulance

- you have difficulty in breathing at any time
- the fit goes on for longer than 5 minutes
- you may have inhaled water for example in a swimming
- pool or bath
- you have sustained an injury requiring medical attention
- you have more than one fit without becoming alert in
- between

Further information

If you have any worries or concerns before your clinic
appointment, please contact your GP. We will send them a
letter letting them know we have seen you today and what we
intend to do next.

What happens next?

Your local neurology department may not be based at the
hospital you visited following your fit. Your local neurology
department will contact you by post offering you an
appointment within 2 weeks following your discharge from
hospital. This letter will also contain directions to your local
neurology department so you can easily find it. If you do not
hear about this within two weeks, please contact your GP for
advice.

What precautions will I need to take?

Until you are seen by a neurologist you should try to follow
your normal lifestyle but you:

- must not drive or ride a motorcycle until you have seen a
  neurologist. It is an offence to drive while unfit to do so and it
  will invalidate your insurance policy. You should also inform the
  DVLA. Your neurologist will give you more advice about driving
  at the time of your appointment. Do not start driving again until
  the DVLA has told you it is okay to do so.

If your job involves:

- driving
- working at heights
- working with machinery there may be some restrictions.
To meet the requirements of Health and Safety at Work
legislation you must tell your employer you have had a fit.³
You may be putting yourself, people you work with and
members of the public at risk of harm. If you do not tell your
employer and you have an accident you may not be covered
by insurance.

Your employer is expected to make reasonable adjustments to
your job to allow you to continue to work.
You are advised:  
not to lock the toilet or bathroom door in case you need any help  
to only have a bath or shower when someone else is in the house. It may be safer to take a shower.  
not to do any sports or leisure activities alone.  
Some activities can make another seizure more likely: try to avoid sleep deprivation and alcohol excess.

You must tell people you are with that you are at risk of having a fit. You must not put yourself and others at risk.

What will happen at the neurology clinic?
You will be seen by a neurologist who will ask about your medical history and what happened when you had your fit. It is helpful if a person who saw what happened can go with you to the clinic.

Sometimes a diagnosis can be given from the description of the fit and after examining you. The neurologist may need to arrange for further tests. These can include:

- a brain scan (usually an MRI or CT scan).
- CT scan (Computerised Axial Tomography). This is a series of x-rays of the body or head taken using a special computer to show the body as if it were a number of layers.
- MRI scan (Magnetic Resonance Imaging). This is similar to a CT scan but shows more detail.

These can show abnormalities (unusual areas) in different parts of the brain.

possibly an EEG (electro-encephalogram). This test records the electrical signals in your brain. Special sticky pads are placed on parts of your scalp and are attached by leads to a machine that records the electrical messages and show any abnormalities in your brain. The test is painless.

blood tests to check your general wellbeing.

You may then have a discussion with the neurologist about the pros and cons of starting on treatment to try to prevent any further seizures. This may be the only seizure you ever have; most people do not start on treatment after their first episode.

The neurologist may also look into other possible causes of your fit.

What should I do if it happens again?
You or your family may be concerned about what to do if you were to have another fit. These simple measures will help to keep you and any bystanders as safe as possible.

Do
- make space around you
- remove potentially dangerous items, such as hot drinks and sharp objects
- note the time when the seizure started
- if possible, protect the head by placing soft padding underneath it for example a pillow or cushion
- loosen clothing around the neck

Don’t
- attempt to put anything in the mouth or between teeth
- attempt to move you unless you are in danger
- try to hold you still or restrain you
References