



## SOP GEN 22: Vagal Nerve Stimulator

Procedure Number	SOP GEN 22
Purpose of Document	To ensure that the correct preparation, procedure & outcome are achieved by implementing a consistent and systematic approach to the procedure of seizure management
Target Audience	All Nurses & appropriately trained carers
Version	V2.1
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About Acacium Group	Details of all Acacium Group trading companies that this policy applies to are detailed within Appendix A



Document History			
Version	Date	Changes made/comments	By whom
V1	Jul 2017	Draft 1	KNF
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V1.1	Feb 2020	Updated to new Community Template	CC
V2	Jun 2020	3 Yearly review	Clinical Advisory Group
V2.1	Oct 2020	Updated re rebrand	CC

# Acacium Group Standard Operating Procedure

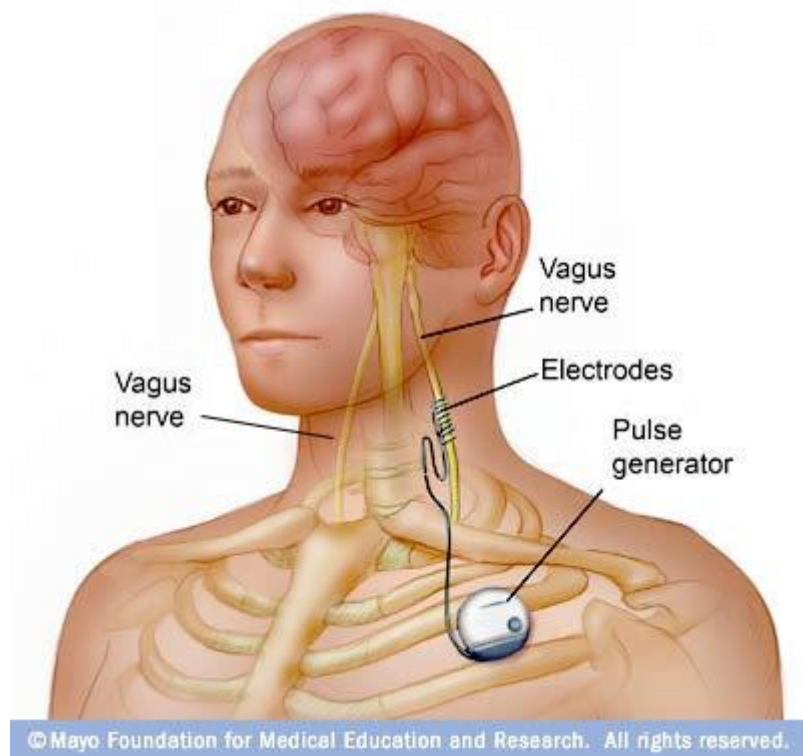
## 1. Introduction

Vagus nerve stimulation (VNS) therapy is a treatment for epilepsy. It involves a stimulator which is connect inside the body to the left vagus nerve in the neck. (The vagus nerves are a pair of nerves that start in the brain and run through the body, they send and receive messages between the brain and body). The stimulator sends regular, mild electrical stimulations through the vagus nerve to reduce the irregular electrical brain activity that can lead to seizures.

Newer models of the VNS generator can also detect increases in heart-rate. In some people with epilepsy an increase in heart-rate can be a sign that they are having a seizure. When the generator detects an increase in heart-rate, it automatically sends more impulses to the vagus nerve. This may help to stop a seizure happening or make it less severe. So, with newer models you may not need to use the magnet so much but this will be identified within the clients individual care plan.

VNS is a form of treatment for clients with epilepsy whose seizures are not controlled by medication.

VNS aims to reduce the number, length and severity of seizures. Client's react to VNS differently some it may reduce seizures and others it has no effect. It can reduce the intensity or reduce the time it takes to recover after a seizure, however it does not completely stop seizures and it does not 'cure' epilepsy.



The stimulator is similar to a heart pacemaker – It is surgically implanted under the skin in the upper chest (under the collar bone). The stimulator, or generator, has a battery life of up to 10 years. When the battery is low the stimulator will be replaced.

A lead connects the stimulator in the chest to the vagus nerve, the electrodes are coiled around the nerve in the neck.

The stimulator is normally switched on within four weeks of being implanted, the stimulator will be programmed (the strength and length of the electrical stimulation given) by the neurology team. Each client could have different settings, but generally it gives 30 seconds stimulation every 5 minutes.

When a client has a seizure or feels they are going to have a seizure the stimulator can be boosted by passing a special magnet over the stimulator to give a stronger stimulation for a slightly longer period. This may stop the seizure from occurring or may reduce how long it takes to recover afterwards.



When the onset of a seizure is observed, the implant is stimulated by a swipe of the magnet. This is achieved by one slow swipe (or more slow swipes if indicated in the client's care plan). The magnet can be used through clothing. It is important to remember that the magnet is powerful and therefore workers must avoid it coming into contact with other medical equipment, mobile phones and credit cards.

## **2. Aim**

The aim of seizure management is to ensure that during a seizure the safety of the client is considered paramount and to identify when emergency treatment may be required. Following a seizure, the aim of care is to provide a safe and calm environment to aid full recovery. The aim of this SOP is to give guidance for workers when using the VNS magnet as part of seizure management.

## **3. Who may undertake this procedure**

All Acacium Group workers who are trained and deemed competent in the use of the VNS magnet.

## **4. Side effects**

VNS therapy can cause side effects. These usually occurs during the time that the nerve is being stimulated, this includes:

- Discomfort in the throat
- Coughing
- Difficulty swallowing
- Hoarse voice
- Shortness of breath
- Tingling or Prickling of skin
- Abdominal discomfort
- Palpitations

## 5. Consent

Clients have a fundamental legal and ethical entitlement to determine what happens to their bodies. Valid consent to treatment is central to all forms of healthcare. Consent is a client agreement for a health professional to provide care. This may be indicated nonverbally, orally or in writing. For consent to be valid the client must be competent to take that decision, be fully informed of the action and its consequences, and not be under duress.

*Please refer to Acacium Group policy on consent for full details.*

## 6. Client and relatives/carers involvement

The client and relatives or carers should be fully involved in the care of a person with epilepsy. It is expected that the client, relatives and carers are all familiar with the first aid seizure management plan and can identify instances when escalation to emergency intervention is required.

## 7. Client information

As part of obtaining valid consent, the risks, benefits and alternatives to treatment will have been discussed.

Procedures must be explained fully in order to gain full cooperation with the procedure.

The client and or their relatives or carers should be advised to contact the GP if they are concerned about deterioration such as increase in the frequency of seizures or severity or feel that their current treatment is not being tolerated. Additionally, they may contact Acacium Group if they feel they have concerns that Acacium Group may be best to answer.

## 8. Documentation

All episodes of care and observations must be recorded clearly in the clients care records. The following should be documented:

- start time of seizure;
- time finished;
- any injuries incurred;
- type of movements and parts of the body involved;
- sleep post-seizure; if consciousness was lost;
- how many swipes of the VNS was required
- if any other medication was administered including name, dose and route.

Any review of care and changes must be clearly documented in the care plan.

## 9. First aid management of seizures

Clients who have had epilepsy for some time may have a warning sign before a seizure called an aura. This is an ideal time to take safety measures in preparation for the seizure to promote safety. This is also an ideal time to swipe the stimulator with the magnet as you may be able to prevent the seizure occurring.

## 10. Procedure

	Action	Rationale
1.	Stay calm	Observing an epileptic seizure can be quite frightening but it is important for the client that you remain calm to support them
2.	Check the safety of the client and ensure that any objects that could cause harm are moved. Do not move the client	It is important that the client is not put at additional risk
3.	Note the time the seizure starts	To measure how long the seizure lasts in order to gauge next steps
4.	Don't hold them down	Restricting movement is likely to increase harm
5.	Don't put anything in their mouth	Forcing something in to the mouth can add to injury
6.	Observe the client	To monitor condition
7.	If the seizure continues over a 60 seconds re-swipe the magnet (refer to the client's individual care plan and seizure protocol for the number of swipes that is allowed)	The increased stimulation from the swipe of the magnet last 30-60 seconds
8.	Observe the client	To monitor condition
9.	If the seizure continues for another 60 seconds re-swipe the magnet in accordance with the client's individual care plan	The increased stimulation from the swipe of the magnet last 30-60 seconds
10.	If the client is still seizing, follow client protocol for rescue medication if applicable	To assist in stopping the seizure
11.	Check the time again. If they have been having a convulsive seizure for more than five minutes or as directed within the clients care plan, <b>call for an ambulance by dialling 999.</b>	There is evidence that the seizure may take a long time to resolve and further medication and emergency procedures may need to be performed
12.	If administering diazepam or buccal midazolam, check: <ul style="list-style-type: none"> <li>• Drug name and dose</li> <li>• Expiry date</li> <li>• Route for administration</li> <li>• Allergies</li> <li>• Prescription</li> </ul>	To ensure medication remains in license and is safe to administer.
13.	After the seizure has stopped, put the client into the recovery position if possible or a position that protects the airway and check that their breathing is returning to normal. Gently check their mouth to see that nothing is blocking their airway such as food or false teeth	To aid gentle recovery and maintain an open airway

	<p>If their breathing sounds difficult after the seizure has stopped or if concerned at all about the clients condition, call for an ambulance</p> <p>Administer O2 if available and prescribed</p>	
14.	<p>Stay with them until they are fully recovered.</p> <p>If they are injured, or they have another seizure without recovering fully from the first seizure, call for an ambulance</p>	<p>To support smooth recovery</p> <p>To ensure timely emergency seizure management or management of uncontrolled epilepsy</p>
15.	<p>Document details of seizure, the number of swipes required and/or medications administered in the progress notes and seizure record form and sign for medication administered on the MAR chart</p>	<p>To provide evidence of the seizure type, duration and interventions carried out</p>

## 11. Related Documents

### POLICY

CLIN 06 Consent Policy  
CLIN 22 General Care Policy

### SOP

SOP MEDS 16 Administration of Buccal or Sublingual Meds  
SOP MEDS 03 Administration of Rectal Medication  
SOP GEN 08 Seizure Management

## 12. References

- [www.epilepsysociety.org.uk](http://www.epilepsysociety.org.uk)
- The National Society for Epilepsy; Ten first aid steps when someone has a seizure – August 2018
- NICE – The Epilepsies 2012  
<https://www.nice.org.uk/guidance/cg137/evidence/full-guideline-pdf-4840753069>

## Appendix A: About Acacium Group

Acacium Group consists of a number of trading companies, each providing services within core niche areas of the health and social care industries. Therefore, as this document is a Group standard operating procedure (SOP), the SOP herein applies to all trading companies detailed below:

### Thornbury Community Services (TCS)

At Thornbury Community Services (TCS), high quality care is our number one priority. With a team of exceptional and conscientious nurses and care staff, we're able to deliver the best complex care at home or in the community, 24/7 or whenever you need it. With compassion, integrity and dedication, we help empower individuals to achieve personal aspirations, as well as providing care tailored to their needs. Making a positive difference to our client's lives is our passion and it's this that sets us apart.



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### Thornbury Community Services Learning Disability & Autism (TCS LDA)

Thornbury Community Services (TCS), provide specialist outcome-focused support for children and adults who are diagnosed with a learning disability and/or autism, who may present with behaviours of concern. Working in close partnership with commissioners, local authorities, hospital teams, our clients and their families; providing bespoke healthcare services, offering tailored care for every individual we support. We have a proven track record of supporting individuals with learning disabilities and/or autism and a reputation for delivering excellence across all aspects of case management.



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Our vision is to increase personal choice and to empower people with a learning disability and/or autism to live fulfilling and rewarding lives and be an active member of their own community.

### Pulse Nursing at Home

Pulse Nursing at Home provides flexible, bespoke care for people living in their own homes and communities. We provide a lifetime solution that can adapt to changing healthcare needs.

We're passionate about our people and proud that the services we provide achieve the highest standards of compassionate care, supporting choice and empowering our clients to live the life they want.



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## Thornbury Nursing Services (TNS)

Established in 1983, TNS is one of the UK's leading independent nursing agencies, providing skilled nurses on a temporary or permanent basis throughout England and Wales.



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TNS believe it is more important than ever to offer high quality, clinical care at home and in the community.

TNS specialist community nurses and carers provide temporary nursing and care support for clients at home. They're ready to step in to support discharge plans, prevent hospital admissions, maintain client safety and support uncertain rosters.

Service TNS offers

- Temporary staffing to cover shortfalls in existing shift rotas
- Backfilling for interim cover during recruitment periods
- Rapid response to facilitate early discharge and to avoid hospital admission
- A staffing solution to stabilise complex mental health cases in crisis
- A CQC registered staffing service – currently rated 'outstanding'
- Assistance in stabilising staffing in long term complex care packages
- Support for both adults and paediatrics
- A nurse-led team contactable 24 hours a day, 7 days a week

## Scottish Nursing Guild (SNG)

Established in 1995, SNG, as part of Acacium Group, is one of Scotland's leading independent nursing agencies, providing skilled nurses on a temporary basis to major NHS trusts, and private sector clients, throughout Scotland, Northern Ireland and Republic of Ireland.



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Service SNG offers

- A nurse-led team with full case management if needed, including compiling individualised care plans and risk assessments with ongoing support from Case Manager
- Care support for as long as you need us, from a few hours to 24/7
- Our office is contactable 24 hours a day, 7 days a week
- Rapid response to make early discharge possible or to avoid hospital admission
- Highly skilled nurses to provide home-based specialist care tailored to the specific needs of clients with complex care requirements
- Ad-hoc staffing to cover shortfalls in existing shift rotas or provide interim cover during recruitment periods
- Help stabilising staffing in long term complex care packages
- Palliative / end of life nursing care for clients who wish to remain at home
- Care provision for clients who need assistance with personal and/or social care support
- Support for both adults and children
- Support for clients no matter how complex their care needs
- Respite care to support clients either at home or away from home