

Obstructive sleep apnoea pathway

Approval date:	February 2021
Version number:	1.3
Author:	Amanda McDermott, Acting Chief Nurse Acute and Specialist Services Ann Marie Wood, Chief Sleep Technologist
Review date:	February 2024
Security classification:	Official – Green: unclassified information

If you would like this document in an alternative language or format, please contact Corporate Services on 01595 743069.

Document reference number: NAPAT001

NHS SHETLAND DOCUMENT DEVELOPMENT COVERSHEET*

Name of document	Obstructive sleep apnoea pathway		
Registration Reference Number	NAPAT001	New or Review?	New
Author	Amanda McDermott, Acting Chief Nurse Acute and Specialist Services Ann Marie Wood, Chief Sleep Technologist		
Executive Lead	Kathleen Carolan, Director of Nursing and Acute Services		

Proposed groups to present document to:		

Date	Version	Group	Reason	Outcome
20/1/21	1	ANMAC	PI	MR
	1.1	Consultants group	PI	AC&R
	1.2	Consultants group	PI	PRO
08/02/21	1.3	Grampian SA team	FA	A

Examples of reasons for presenting to the group	Examples of outcomes following meeting
<ul style="list-style-type: none"> Professional input required re: content (PI) 	<ul style="list-style-type: none"> Significant changes to content required – refer to Executive Lead for guidance (SC)
<ul style="list-style-type: none"> Professional opinion on content (PO) 	<ul style="list-style-type: none"> To amend content & re-submit to group (AC&R)
<ul style="list-style-type: none"> General comments/suggestions (C/S) 	<ul style="list-style-type: none"> For minor revisions (e.g. format/layout) – no need to re-submit to group (MR)
<ul style="list-style-type: none"> For information only (FIO) 	<ul style="list-style-type: none"> Recommend proceeding to next stage (PRO)
<ul style="list-style-type: none"> For proofing/formatting (PF) 	<ul style="list-style-type: none"> For upload to Intranet (INT)
<ul style="list-style-type: none"> Final Approval (FA) 	<ul style="list-style-type: none"> Approved (A) or Not Approved, revisions required (NARR)

***To be attached to the document under development/review and presented to the relevant group**

Please record details of any changes made to the document in the table below

Date	Record of changes made to document
Dec 2019	New document
Jan 21	Following ANMAC meeting document amended to reflect pathway is for adults only. Purpose section amended.
Feb 21	Amendments from physicians, grammatical. Ordering of symptoms and risk factors.
Feb 21	Thyroid function is not necessary on all patients (selective only depending on other symptoms).

Contents

1. Purpose	5
2. Introduction	5
3. Assessment for suspected OSA	5
4. Diagnosis	7
5. Treatment.....	7
6. Management	8
7. Referral destinations for medical records staff	9
8. References	9

1. Purpose

This pathway document describes the adult patient pathway from referral to assessment, diagnosis through to treatment, management and follow up. This pathway includes joint working between NHS Shetland and NHS Grampian.

2. Introduction

Obstructive Sleep Apnoea (OSA) is a sleep related respiratory condition, leading to repeated temporary cessation of breathing because of a narrowing or closure of the upper airway during sleep.

Core symptoms of OSA include excessive daytime sleepiness, snoring, and witnessed episodes of apnoea or hypopnoea (blockages or partial blockages of the airway leading to breathing cessation).

Research published in 2008 estimated that using CPAP over a period of 14 years could result in savings to the NHS close to £1,000 per patient, and health benefits to patients, including reduction in risks of strokes, cardiovascular events, and road traffic accidents. Trial evidence suggests CPAP increases survival by 25% over 14 years of treatment compared with non-treated patients. These estimates of NHS cost savings are due to reductions in acute events (including stroke, cardiovascular events and road accidents) resulting from treatment with CPAP.

3. Assessment for suspected OSA

Physical signs and symptoms suggestive of OSA

- Loud Snoring
- Day time tiredness
- Observed episodes of apnoea
- Morning headache
- Impaired cognitive function
- Reduced quality of life
- Mood or personality change
- Nocturia
- Reduced Libido
- Sex, M:F in the region of 2:1
- Evening alcohol
- Hypertension
- Polycythaemia
- Obesity with BMI over >30kg/m²
- More common with increasing Age
- Neck size >17" (43cm) in men

- Nasal patency inspect for congestion / blockage
- Upper Airway obstruction, macroglossia, absence of teeth allowing collapse of airway, tonsillar size, uvular size, lumen size
- Receding lower jaw, small mandible size
- It is also important to note that symptomatology in women often differs from that in men. Women may suffer poor quality sleep, insomnia, headache, anxiety, depression, restless legs, nightmares, palpitations or fatigue and excessive daytime sleepiness. Sleepiness frequently presents somewhat differently in women, with lower subjective Epworth Sleepiness Scale scores than in men.

GPs, ANPs or Secondary care clinicians who suspect OSA should ask the patient to complete the Epworth Sleepiness Scale (ESS) and consider the questions below;

Specific questions

- Loud snoring
- Restless sleep
- Witnessed episodes of apnoea
- Disturbed sleep - frequent awakenings
- Choking sensation with abrupt awakening
- Unrefreshing sleep
- Morning headache
- Excessive Daytime Sleepiness
- Pre-existing conditions which predispose to OSA
- Past procedures
- Family history
- Current medication - particularly those with potential sedative action
- Other medication/recreational drugs
- Thyroid function may be checked depending on symptoms.

Lifestyle risks

- Weight / Height / BMI
- Smoking
- Alcohol

If the above preliminary assessment indicates potential OSA, the patient should be referred through gateway to NHS Grampian Respiratory Team Sleep Apnoea. If the patient is a vocational driver or working in a hazardous occupation their referral should be marked urgent. The referral will be vetted by NHS Grampian sleep specialists, if vetted as potential OSA the patient will be listed for a sleep study in NHS Shetland.

The referral is passed to NHS Shetland physiological measurements and the patient is booked to attend for a multi-channel sleep study. The patient attends for a sleep study. An associate practitioner will fit the patient with multi-channel sleep study equipment and retrieve the data from the machine the following day. The data is uploaded on to the Domino Light software. The process for fitting a patient for a sleep study and retrieval of data should be in accordance with the standard operating procedure for using such equipment.

4. Diagnosis

The raw data from the multi-channel sleep study is stored on Domino Light and is analysed and 'scored' by NHS Shetlands Polysomnographer / sleep specialist nurse. This analysis is then transferred to NHS Grampians sleep consultant for formal diagnosis / differential diagnosis or onwards referral where OSA is not proven.

The NHS Grampian sleep consultant will schedule a phone call to the patient and inform them of the results of the study. Where OSA is confirmed and treatment with CPAP recommended the consultant will refer the patient to NHS Shetland sleep apnoea clinic.

5. Treatment

Treatments for OSA aim to reduce daytime sleepiness, improve quality of life, and reduce the risk of health complications and accidents. Treatment consists of measures to reduce frequency of apnoea and hypopnoea during sleep. Continuous Positive Airway Pressure (CPAP) is recommended for adults with moderate or severe symptomatic OSA. It is only recommended for patients with mild OSA if they have symptoms affecting their quality of life and where lifestyle advice and other treatment options have been unsuccessful or are considered inappropriate. CPAP is a lifetime commitment for most patients. It can be hard to get used to, and several factors can affect whether people persevere with treatment. These include having the correct equipment, such as the mask and tubing, and receiving the right support and education. Long term patterns of CPAP use are established in the first week of treatment. It has been shown that CPAP use and outcomes of therapy can be improved by the provision of a nurse-led intensive CPAP education and support programme, which highlights the importance of such CPAP education and support.

Patients who are referred to NHS Shetland for initiation of CPAP for OSA will be booked for a New Sleep Apnoea Clinic appointment with a registered polysomnographer / nurse specialist in sleep apnoea. In this appointment the clinician will cover;

- Patient education about treatment and equipment set-up
- Advice about driving
- Advice about lifestyle
- Data management of their CPAP machine and data card.

Upon completion of initiation on CPAP the polysomnographer / nurse specialist will detail the content of the clinic appointment in a letter to the patient's consultant in ARI, who will review the patient in 6 weeks over the phone. This letter should be copied to the patient's GP and any hospital clinician who may have been involved in their referral, diagnosis or management.

6. Management

Regular monitoring and follow-up of patients will include:

- Open clinic access for CPAP-related problems
- Telephone support line
- Provision of replacement machines and parts as required
- Monitoring of patient compliance, symptoms and side-effects of treatment via Air View, the database that receives data from CPAP machines when they are in a house with WiFi.
- Providing advice and recommendations on alternative or adjunctive treatment.
- The Majority of established patients will be offered an annual face to face follow up in OPD. For stable patients this review will be carried out by a healthcare technician. For new patients and HGV drivers this will be with a Technologist / nurse specialist
- For complex patients the review will be with a Technologist / nurse specialist

7. Referral destinations for medical records staff

Clinician suspects OSA, patient requires referral

(sleep diagnostic pathway AQGD)



NHS Grampian vet referral, if patient needs sleep study this is sent to

(shet.Patientfocusbooking@nhs.scot)



NHS Shetland patient focus booking dept. make booking with OPD physiological measurements (SHBRE)



Sleep study complete, analysed, scored and sent to

(Grampian Respiratory Secretaries)



NHS Grampian book telephone appointment and if patient requires CPAP refer to NHS Shetland sleep apnoea clinic

(shet.Patientfocusbooking@nhs.scot)



NHS Shetland book patient into New Sleep Apnoea Clinic with polysomnographer / nurse specialist (SHBAQ)



CPAP initiation clinic letter sent to Grampian for 6 week review

(Grampian Respiratory OP)



NHS Shetland add patient to WL for annual review (SHBAQ)

8. References

British Lung Foundation, 2015. Obstructive sleep apnoea (OSA). Toolkit for commissioning and planning local NHS services in the UK.