Discussing NHS access to Mandibular Advancement Splints for patients with OSA

Hosted by OSA Alliance

29 November 2024, London

Promoting excellent OSA care together

OSA Alliance - facilitating collaboration between experts across patient and professional sleep organisations focusing on OSA, including BTS, BSS, ARTP, SATA.

Tim Quinnell, Sonya Craig, Brendan Cooper, Sophie West
Iain Wheatley, Gillian Gibbons

Aim of session 1130-1230

- To discuss the issues around NHS access to mandibular advancement splints (MAS).
- To share possible solutions to access
- To determine next steps of approach

We will not discuss specific makes of MAS or make specific MAS recommendations in this session (other than narrating some sleep centres' experience)

Patient story

- 34 year old woman, BMI 30,
- Sleep clinic in Newcastle
- Mild OSA: AHI 10, no positional OSA, Normal tonsils,
- Sleepiness symptoms, doesn't sit down at work or at home as she falls asleep
- Affects work and life, doesn't drive

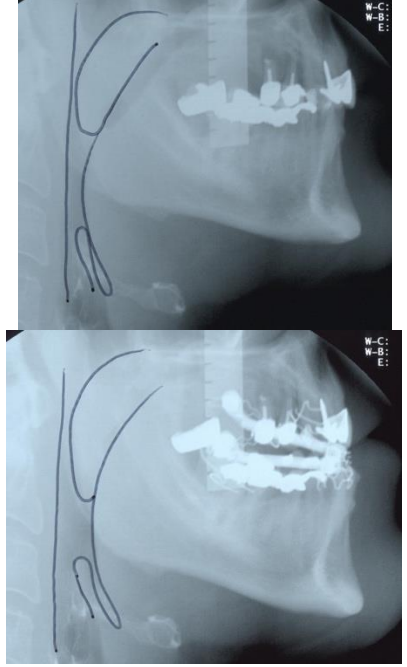
Discussion of therapeutic options:

Tried boil and bite splint £40 – partner says helped snoring but didn't stay in, uncomfy

Can't afford bespoke or semi-bespoke MAS

Try weight loss (ongoing) and listed for CPAP

Role of Mandibular advancement splints, MAS



Principle mode of action is anatomical

- Act to increase the air space pharynx
- Place soft tissues of the pharynx under stretch
- Hold tongue forward

NG202 reviewed the strong evidence base for MAS:

- Effective particularly in mild OSA and snoring.
- Second choice in moderate and severe OSA. Evidence is stronger for CPAP, but there are benefits from MAS (better tolerated?). Suitable for people who cannot use CPAP?
- MAS therefore represents a robust evidence based alternative therapy to CPAP: to reduce OSA severity, associated symptoms and longer-term OSA morbidity. Experts agree that regular nightly use of a MAS will offer better control of OSA and its associated co-morbidities than non-use of prescribed CPAP.

NICE NG202 Mandibular advancement splints – in who?

For mild OSAHS

1.5.7 If a person with mild OSAHS and symptoms that affect their usual daytime activities is unable to tolerate or declines to try CPAP, consider a customised or semi-customised mandibular advancement splint as an alternative to CPAP if they:

•are aged 18 and over **and**

•have optimal dental and periodontal health.

For moderate and severe OSAHS

1.6.6 If a person with moderate or severe OSAHS is unable to tolerate or declines to try CPAP, consider a customised or semi-customised mandibular advancement splint as an alternative to CPAP if they:

•are aged 18 and over **and**

•have optimal dental and periodontal health.

Follow-up for people using mandibular advancement splints

1.9.5 Offer face-to-face, video or phone consultations, including review of downloads from the device (if available), to people with OSAHS using a mandibular advancement splint. This should include: initial follow-up to review adjustment of the device and symptom improvement at 3 months **and** subsequent follow-up according to the person's needs and until optimal control of symptoms and AHI or ODI is achieved.

1.5.8 Be aware that semi-customised mandibular advancement splints may be inappropriate for people with:

- *active periodontal disease or untreated dental decay*
- *few or no teeth*
- *generalised tonic-clonic seizures.*

How to move from NICE approved….

…to NHS delivered?

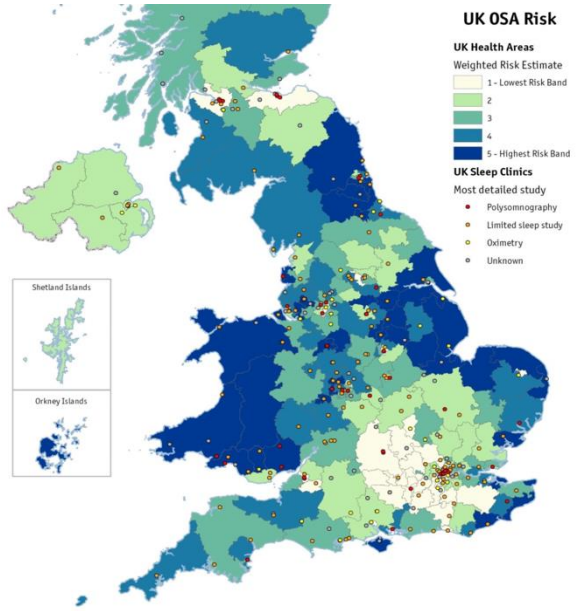
Problems with NHS MAS Access

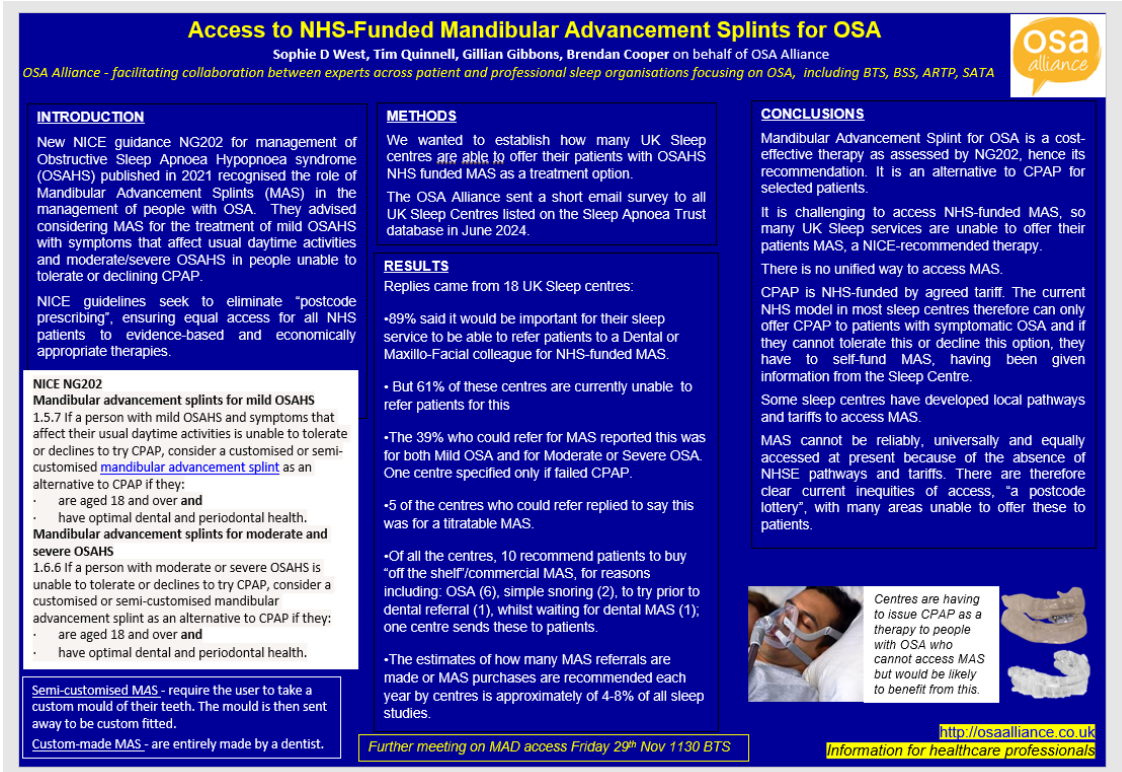
Current “postcode lottery”

18 sleep centres responded to national survey:

61% can’t access NHS MAS

39% have locally negotiated pathways
– this shows it is possible – we just need to learn how





Access to NHS-Funded Mandibular Advancement Splints for OSA

Sophie D West, Tim Quinnell, Gillian Gibbons, Brendan Cooper on behalf of OSA Alliance

OSA Alliance - facilitating collaboration between experts across patient and professional sleep organisations focusing on OSA, including BTS, BSS, ARTP, SATA

INTRODUCTION

New NICE guidance NG202 for management of Obstructive Sleep Apnoea Hypopnoea syndrome (OSAHS) published in 2021 recognised the role of Mandibular Advancement Splints (MAS) in the management of people with OSA. They advised considering MAS for the treatment of mild OSAHS with symptoms that affect usual daytime activities and moderate/severe OSAHS in people unable to tolerate or declining CPAP.

NICE guidelines seek to eliminate “postcode prescribing”, ensuring equal access for all NHS patients to evidence-based and economically appropriate therapies.

NICE NG202
Mandibular advancement splints for mild OSAHS
1.5.7 If a person with mild OSAHS and symptoms that affect their usual daytime activities is unable to tolerate or declines to try CPAP, consider a customised or semi-customised mandibular advancement splint as an alternative to CPAP if they:
- are aged 18 and over **and**
- have optimal dental and periodontal health.

Mandibular advancement splints for moderate and severe OSAHS
1.6.6 If a person with moderate or severe OSAHS is unable to tolerate or declines to try CPAP, consider a customised or semi-customised mandibular advancement splint as an alternative to CPAP if they:
- are aged 18 and over **and**
- have optimal dental and periodontal health.

Semi-customised MAS - require the user to take a custom mould of their teeth. The mould is then sent away to be custom fitted.

Custom-made MAS - are entirely made by a dentist.

METHODS

We wanted to establish how many UK Sleep centres are able to offer their patients with OSAHS NHS funded MAS as a treatment option.

The OSA Alliance sent a short email survey to all UK Sleep Centres listed on the Sleep Apnoea Trust database in June 2024.

RESULTS

Replies came from 18 UK Sleep centres:

- 89% said it would be important for their sleep service to be able to refer patients to a Dental or Maxillo-Facial colleague for NHS-funded MAS.
- But 61% of these centres are currently unable to refer patients for this
- The 39% who could refer for MAS reported this was for both Mild OSA and for Moderate or Severe OSA. One centre specified only if failed CPAP.
- 5 of the centres who could refer replied to say this was for a titratable MAS.
- Of all the centres, 10 recommend patients to buy “off the shelf”/commercial MAS, for reasons including: OSA (6), simple snoring (2), to try prior to dental referral (1), whilst waiting for dental MAS (1); one centre sends these to patients.
- The estimates of how many MAS referrals are made or MAS purchases are recommended each year by centres is approximately of 4-8% of all sleep studies.

Further meeting on MAD access Friday 29th Nov 1130 BTS

CONCLUSIONS

Mandibular Advancement Splint for OSA is a cost-effective therapy as assessed by NG202, hence its recommendation. It is an alternative to CPAP for selected patients.

It is challenging to access NHS-funded MAS, so many UK Sleep services are unable to offer their patients MAS, a NICE-recommended therapy.

There is no unified way to access MAS.

CPAP is NHS-funded by agreed tariff. The current NHS model in most sleep centres therefore can only offer CPAP to patients with symptomatic OSA and if they cannot tolerate this or decline this option, they have to self-fund MAS, having been given information from the Sleep Centre.

Some sleep centres have developed local pathways and tariffs to access MAS.

MAS cannot be reliably, universally and equally accessed at present because of the absence of NHSE pathways and tariffs. There are therefore clear current inequities of access, “a postcode lottery”, with many areas unable to offer these to patients.

Centres are having to issue CPAP as a therapy to people with OSA who cannot access MAS but would be likely to benefit from this.

http://osaalliance.co.uk
Information for healthcare professionals

Solutions?

- National work

-NICE guidance 2021

-GIRFT work (Getting it Right First Time) – Further, faster

-Supply chain - codes

-How to ask Integrated Care Boards (ICB)

- Local pathways

- Examples from some sleep centres will follow
- Possible models to take back to local centre
- OSA Alliance standard letter all could use to write to ICB

National standard codes for acute providers - England

Authored by Martin Allen and National Case-mix Office and Classification Service.

OPCS codes:

- F67.1 Creation Impression Mandible Advancement Device/Splint
- F67.2 Fitting Mandible Advancement Device/Splint
- F67.3 Adjustment Mandible Advancement Device/Splint

These map to HRGs:

• F671 Creation of impression for intraoral appliance	CD10	£166
• F672 Fitting of intraoral appliance	CD11	£151
• F673 Adjustment of intraoral appliance	CD12	£124

- The Healthcare Resource Groups (HRGs) allow tariffs to be set, but these will vary for each provider because of local funding arrangements.
- There is a national tariff but this may not count for some providers if their Integrated Care Board (ICB) use the block contract argument and decline to count or pay for MAS activity as it is “in block”.
- Seems to vary for each provider / ICB relationship and is difficult to control.
- Local relationships and understanding: Clinicians, managers, contracting may not know what the block covers and may not be able to sort out.

Understanding your current local arrangements - Procurement

1. Diagnostics ***SEPARATE to TREATMENT***

Are you on block contract? Or Payment By Results PBR?

Talk to Finance Manager

Whilst you are checking:

Income for sleep studies – is this optimised?

Code as sleep study vs ERF initial outpatient attendance

National vs. locally agreed tariff

Outpatient procedure code DZ50Z £418

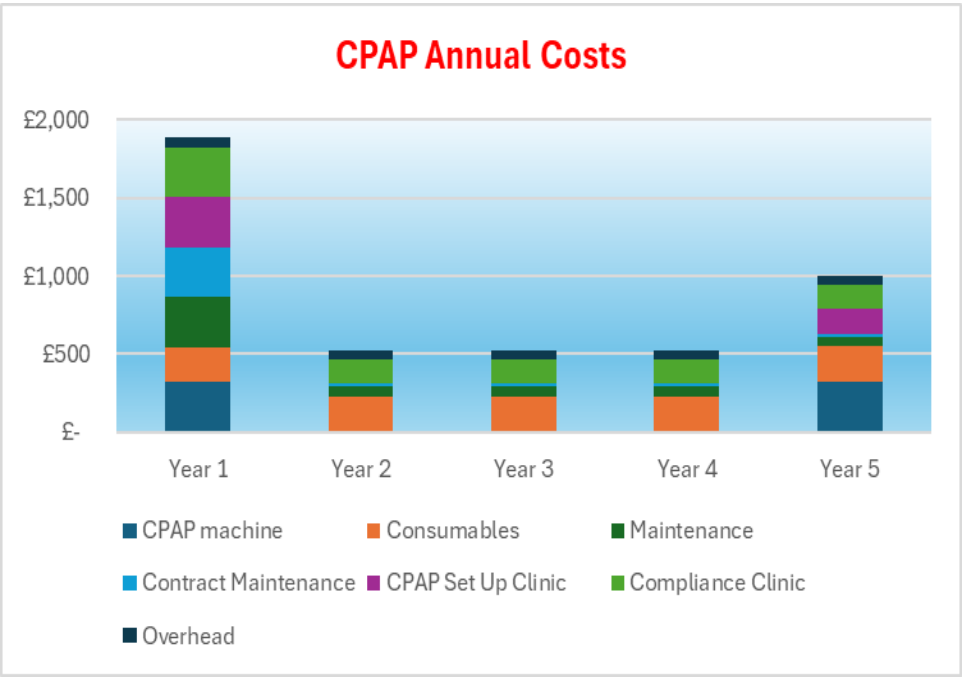
BTS reference document https://www.brit-thoracic.org.uk/media/454778/respiratory-coding-and-tariff-update-19_20.pdf

2. Treatment

If block contract:

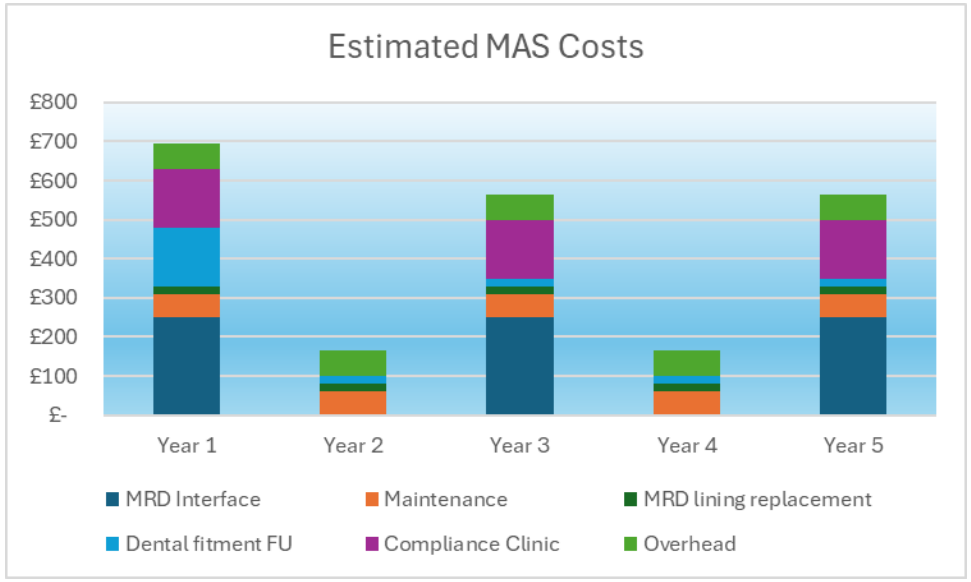
- No additional income for follow up attendances and CPAP (if issued) –all under a block contract arrangement
- Potential to issue CPAP or MAS from block contract with no change in income
- Possible cost-saving over the longer term as, although MAS has a higher initial cost, no ongoing maintenance costs.
- Modelling how often new MAS device issued - every 3, 4 or 5 years affects cost –the longer we wait to replace it then the greater the saving.

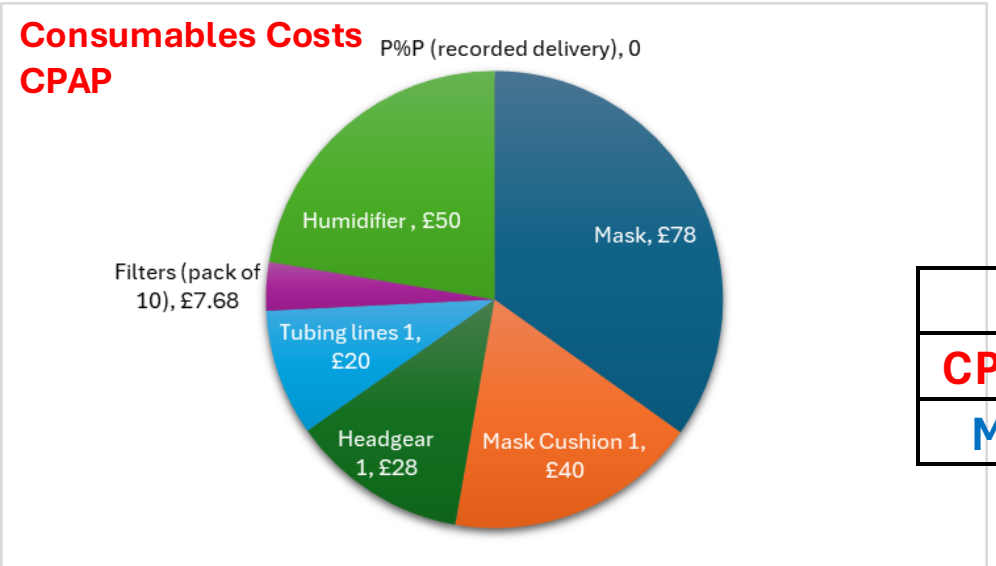
Current CPAP costs



Suggested MAS costs

assuming warranty for 2 years and does not require replacement





Cost comparison MAS vs CPAP based on national tariffs

	Year 1	Year 2	Year 3	Year 4	Year 5	5 YEAR
CPAP TOTAL	£ 1,889	£ 527	£ 527	£ 527	£ 1,004	**£ 4,474**
MAS TOTAL	£ 695	£ 165	£ 565	£ 165	£ 565	£ 2,155

	East and North Herts	Swindon	Guys/Royal Brompton	Northumbria	Bristol
Who gets referred for MAS?	CPAP first line declined, or not tolerant of CPAP		Mild-moderate OSA if CPAP first line declined	Mild-moderate OSA if CPAP first line declined, or not tolerant of CPAP	Mild-moderate OSA if CPAP first line declined, or most are not tolerant of CPAP
	Generally younger, slimmer, Asymptomatic or low symptom scores		Brompton refers more severe patients who can't tolerate CPAP for DISE for consideration of nerve stimulation.		
	Mild/mod or positional OSA or suggestive of REM OSA				
MAS service	Local Maxillofacial	Local Maxillofacial	Local Dental Hospital	Dovetail, local commissioned Dental service	Local Dental Hospital orthodontics
Device			Titratable	Sleepwell adjustable	Sleepwell
Number referred to date		Three devices		60-70 in 12 month period	

	East and North Herts	Swindon	Guys/Royal Brompton	Northumbria	Bristol
Dentition and mouth check	By us - estimate 70-90% of patient we see do not have suitable dentition or known contraindications			Usual review to check dentition pre-referral and whether we think they are technically suitable. If fillings/crowns/caps etc and no recent dental review advise to see their own dentist first to make sure everything well attached etc.	Presume via Bristol Dental Hospital
Follow up			In sleep clinic where possible	In sleep clinic 3-4/12 after starting treatment (our standard CPAP review time). If all well then annual/biannual or PIFU depending on driving status etc.	PIFU from sleep service, followed up by dental service for titration and symptom check. If not improving/want to try CPAP referred back.
Tariff		Struggled to find a tariff so use a different one to national		We don't routinely repeat sleep studies if symptoms improve but will if still symptomatic and we aren't convinced it is still uncontrolled OSA.	Don't routinely perform sleep study with MAS
				We are still officially in a trial phase, need to formally tender soon. Agreed with ICB to fund as per existing CPAP pathway and at the same level as CPAP issue. Hence cost neutral to ICB. Trust agreed to work at risk on the assumption that with reasonable judgement this would be cost neutral to the existing service.	

More on Funding tips Northumbria:

Thanks to Mark.Weatherhead@northumbria-healthcare.nhs.uk

1) We agreed with the Clinical Commissioning Group (pre Integrated Care Board) that they would pay the same for a MAS as per our current CPAP issue tariff

(and if we went for CPAP first then MAS we wouldn't charge a second time as CPAP machine returned to re-use, and similarly if going to CPAP after MAS failure).

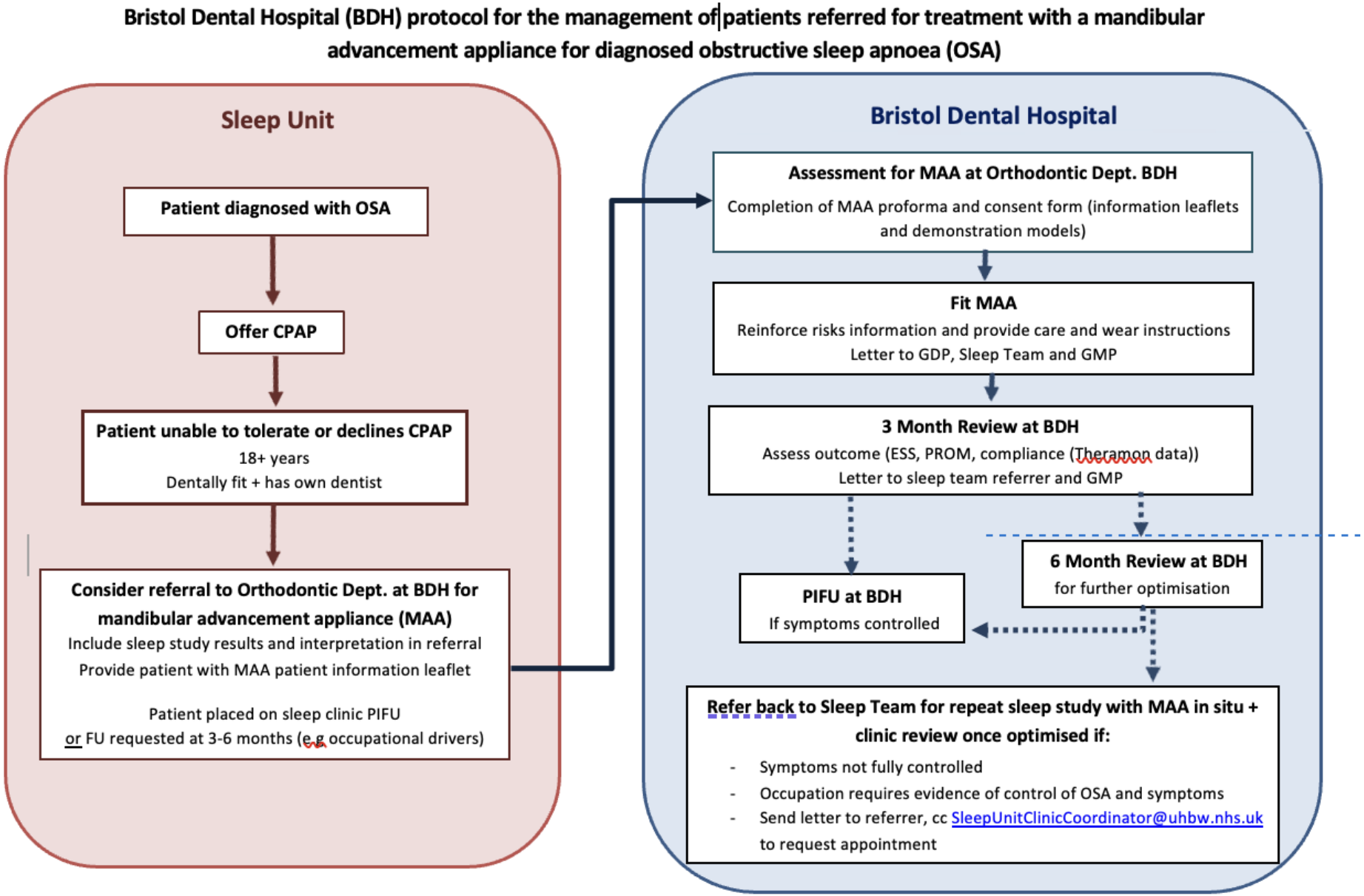
This meant **cost neutral** for CCG/ICB and was an easy one to agree.

2) In Trust took a bit longer:

- as long as we were moderately accurate in our judgement for use of MAS, it is cost neutral at worst for the trust (even if we have a number who don't tolerate a MAS and then need CPAP again).
- Dental agency bills the trust and then we bill ICB etc once for the patient at CPAP tariff (irrespective of whether MAS/CPAP or both at some point).

Bristol

flow diagram
may be helpful
for local teams
to adapt



What do you need to do next for your local service?

Our own learning journey….

- How is CPAP provided at your Trust ?

  Block contract/On Tariff /pass through contract ?

  – ask managers to find out or discuss with Finance team
- Procurement – using agreed national tariffs
- *May need to get clarity from contracting vs procurement, or involve Business team*

- Contacting ICB- suggest we can all use standard letter from OSA Alliance –

  - Probably needs commissioning to guarantee ongoing robustness

  -please feedback and help our community learn!

- Tender to local dentists/MAS suppliers – how to find these?
- Estimating numbers based on local nos or from our exemplars
- Clarity on whether patients need to see (or have) GDP first or can commissioned unit provide this review?
- Follow up sleep studies in sleep centres after treatment – *resource?*

Suggested MAS narrative for commissioners from OSA Alliance

Written by Sophie West, Brendan Cooper, Tim Quinell, Gillian Gibbons on behalf of the OSA Alliance

- NICE Guidelines (NG202) recommended customised, or semi-customised, mandibular advancement splints (MAS) for the treatment of people with mild, moderate and severe symptomatic OSAHS as an alternative to CPAP, if CPAP is not tolerated or declined.
- **Many people cannot adjust to CPAP therapy** despite their best efforts. NG202 reviewed the strong evidence base for MAS:
    - Treatment efficacy particularly in mild OSA and snoring
    - Treatment efficacy as a second choice in moderate and severe OSA. Here, the evidence is stronger for CPAP in people with OSA, but there are benefits from MAS. This would be suitable therefore in people with OSA who cannot use CPAP.
- **MAS therefore represents a robust evidence based alternative therapy to CPAP**: to reduce OSA severity, associated symptoms and longer-term OSA morbidity. Experts agree that regular nightly use of a MAS will offer better control of OSA, and its associated co-morbidities, than non-use of prescribed CPAP.
- **MAS is a cost-effective therapy**, as assessed by NG202, hence its recommendation. In the NHS, MAS cannot be reliably, universally and equally accessed at present because of the absence of NHSE pathways and tariffs. There are current inequities of access, with many areas unable to offer these to any patients. The current NHS model therefore can only offer CPAP to patients with symptomatic OSA and if they cannot tolerate this or decline this option, they have to self-fund MAS, having been given the information about these from the Sleep Centre.
- **We are seeking NHS access to a MAS pathway with suitable tariffs**, so that NHS sleep professionals can access this therapy for selected suitable patients.

- All patients referred for sleep assessment would have a diagnostic sleep study and initial consultation with a sleep professional. For some patients, MAS will be determined to be the appropriate therapy instead of CPAP. This would be following review of the patient data and discussion with the patient to advise on best therapy and to ascertain patient choice.
- The initial pathway model should be appropriate to whichever therapy option (CPAP or MAS) is considered appropriate by the sleep professional, with the patient's response to treatment measured, further titration as needed to optimise response and ongoing input from dental team (MAS) or Sleep team (CPAP) as required for long term therapy use. Sleep and dental teams may be a combined team with a single point of contact in some centres.
- Adjustments to either therapy (CPAP or MAS) would be made in response to patient symptom improvement, or lack thereof (ESS, subjective report), side effects (CPAP mask/machine issues or MAS discomfort) and patient adherence (Hours used per night from CPAP download or remote monitoring, or self-reported use with MAS diary/App). A repeat sleep study with therapy may be needed to demonstrate treatment efficacy with either therapy (although CPAP devices now provide nightly data on treatment efficacy when worn).
- *Note MAS adherence chips are not standard in clinical practice only research, so direct adherence data not possible. MAS remote monitoring is said to be in development but with associated higher MAS costs.*

Thanks

- To the OSA Alliance for hosting and ongoing work for patients with OSA
- To those centres who shared their stories for us to present
- To our dental colleagues who share our desire to provide patients access to MAS via NHS

“all these formal pathways aside– on the ground there is nothing as strong as a direct partnership with someone on the other side who wants to make it work as well.

I think we cannot achieve MAS delivery without having the dentists onboard.”