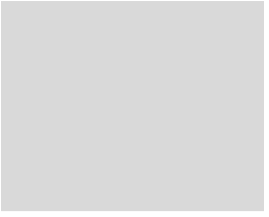


More detailed information to be shown on the JLA website for the questions discussed at the final workshop.

PSP unique identifier (to be allocated by JLA team on receipt of final priorities from PSP)	Record ID (the unique identifier of the uncertainty. To be allocated by JLA team on receipt of final priorities from PSP)	PSP Name	Total number of verified uncertainties identified by the PSP	Uncertainty (PICO formatted indicative uncertainty where possible. Advised minimum requirements are 'Population' and 'Intervention'. Not all submissions may be suitable for PICO structure, but they should be in a format that will ultimately be of value to the research community)	Explanatory note (a plain language summary of up to 150 words, explaining key points of the uncertainty and why it is important, for research funders to begin working on. PSPs may wish to include examples of the original survey submissions here)	Date of the priority setting workshop	Rank of the uncertainty at the final workshop. (If no rank was agreed, please indicate)	Evidence (reference, and weblink where available, to the most recent relevant systematic review identified by the PSP, plus a maximum of 2 other systematic reviews, including protocols for future systematic reviews, that the PSP considers relevant.)	Health Research Classification System (high level HRCS code to be allocated by the JLA team unless the PSP prefers to complete this)
		Obstructive Sleep Apnea PSP	39	Apart from Continuous Positive Airway Pressure (CPAP), what other ways (including alternative therapies and physical or breathing exercises) could effectively treat OSA?	Evidence suggests increasing use of complementary and alternative medicine to ameliorate health problems, particularly as patients are empowered to take an active role in managing their own health. Online searches of potential treatments for OSA can be difficult for patients to evaluate in terms of quality and evidence base. A high proportion of patients with OSA reported previous or current use, and interest in future use, of complementary and alternative medicine in the study by Sood et al.	28-Jan-21	15	Gaisl T, Haile SR, Thiel S, Osswald M, Kohler M. Efficacy of pharmacotherapy Sood A; Narayanan S; Wahner-Roedler DL; Knudsen K; Sood R; Loehrer LL; Hanson AC; Kuzniar TJ; Olson EJ. Use of complementary and alternative medicine treatments by patients with obstructive sleep apnea hypopnea syndrome. J Clin Sleep Med 2007;3(6):575-579. for OSA in adults: A systematic review and network meta-analysis. Sleep Med Rev. Randerath WJ, Verbraecken J, Andreas S, Bettge G, Boudewyns A, Hamans E. et al. ERS Task Force Report. Non-CPAP therapies in obstructive sleep apnoea. Eur Resp J 2011;37:1000-1028. 2019 Aug;46:74-86. doi: 10.1016/j.smrv.2019.04.009. Epub 2019 Apr 19. PMID: 31075665.	
		Obstructive Sleep Apnea PSP	39	How do bed surfaces, pillows and sleeping position affect the symptoms of Obstructive Sleep Apnea?	Because keeping the airway open is critical to breathing better at night, patients are often interested in devices that might help to better position themselves during sleep. There are numerous commercial bed surface, devices and pillows available for purchase online, some of which are expensive. It is often unclear if these products are of any value.	28-Jan-21	16	Epstein LJ, Kristo D, Strollo PJ Jr, Friedman N, Malhotra A, Patil SP, Ramar K, Rogers R, Schwab RJ, Weaver EM, Weinstein MD; Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine. Clinical guideline for the evaluation, management and long-term care of obstructive sleep apnea in adults. J Clin Sleep Med. 2009 Jun 15;5(3):263-76. PMID: 19960649; PMCID: PMC2699173.	
		Obstructive Sleep Apnea PSP	39	Can obstructive sleep apnea (OSA) be permanently eliminated?	This very common question highlights the desire for a cure for OSA that was expressed by many patients and their caregivers. OSA can affect long-term health, quality of life, function and well-being.	28-Jan-21	13	He M, Yin G, Zhan S, Xu J, Cao X, Li J, Ye J. Long-term Efficacy of Uvulopalatopharyngoplasty among Adult Patients with Obstructive Sleep Apnea: A Systematic Review and Meta-analysis. Otolaryngol Head Neck Surg. 2019 Sep;161(3):401-411. doi: 10.1177/0194599819840356. Epub 2019 Jun 11. PMID: 31184261.	
		Obstructive Sleep Apnea PSP	39	How often should Continuous Positive Airway Pressure (CPAP) therapy be re-evaluated by a health care provider?	While many guidelines suggest a minimum of one annual re-evaluation of CPAP therapy by a care provider, follow-up services for OSA patients can be variable depending upon factors such as residence, availability of qualified providers and costs. Patients who are less able to be actively engaged in their care or who are less activated to seek follow-up may also not be re-evaluated as often.	28-Jan-21	10	Epstein LJ, Kristo D, Strollo PJ Jr, Friedman N, Malhotra A, Patil SP, Ramar K, Rogers R, Schwab RJ, Weaver EM, Weinstein MD; Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine. Clinical guideline for the evaluation, management and long-term care of obstructive sleep apnea in adults. J Clin Sleep Med. 2009 Jun 15;5(3):263-76. PMID: 19960649; PMCID: PMC2699173.	

		Obstructive Sleep Apnea PSP	39	How do lifestyle changes (such as weight loss, exercise and stress reduction) affect the need for ongoing Continuous Positive Airway Pressure (CPAP) treatment?	Lifestyle changes are often recommended in the management of OSA. Patients may have varying levels of knowledge and skills to enact lasting lifestyle changes. Because of wide variability in health and demographic characteristics, the impact of particular lifestyle changes on the need for CPAP may also vary considerably.	28-Jan-21	9	Hudgei DW, Patel SR, Ahasic AM, Bartlett SJ, Bessesen DH, Coaker MA, Fiander PM, Grunstein RB, Gurubhagavatula J, Kapur VK, Lettieri CJ, Naughton MT, Owens RL, Pepin JL, Tuomilehto H, Wilson KG; American Thoracic Society Assembly on Sleep and Respiratory Neurobiology. The Role of Weight Management in the Treatment of Adult Obstructive Sleep Apnea. An Official American Thoracic Society Clinical Practice Guideline. Am J Respir Crit Care Med. 2018 Sep 15;198(6):e70-e87. doi: 10.1164/rccm.201807-1326ST. PMID: 30215551.	
		Obstructive Sleep Apnea PSP	39	Can Continuous Positive Airway Pressure (CPAP) therapy ever be stopped and under what circumstances?	While between 30% and 50% of patients who are prescribed CPAP either don't fill their prescription or stop using their machines, this questions focuses on how a health care provider would determine that CPAP is no longer needed.	28-Jan-21	14	Certei V, Nishino N, Camacho M, Capasso R. Reviewing the systematic reviews in OSA surgery. Otolaryngol Head Neck Surg. 2013 Dec;149(6):817-29. doi: 10.1177/0194599813509959. Epub 2013 Oct 23. PMID: 24154748.	
		Obstructive Sleep Apnea PSP	39	How can treatment of obstructive sleep apnea (OSA) be more affordable?	Untreated obstructive sleep apnea can lead to serious health problems and lead to higher utilization of health care. The costs of equipment can be a barrier to patients with limited incomes, particularly where insurance coverage is unavailable or insufficient. There is a wide variability in insurance coverage for OSA treatment between jurisdictions.	28-Jan-21	2	Jonas DE, Amick HR, Feltner C, Weber RP, Arvanitis M, Stine A, Lux L, Harris RP. Screening for Obstructive Sleep Apnea in Adults: Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 2017 Jan 24;317(4):415-433. doi: 10.1001/jama.2016.19635. Erratum in: JAMA. 2017 Mar 28;317(12):1278. PMID: 28118460.	
		Obstructive Sleep Apnea PSP	39	What can be done to improve sleep quality for people with obstructive sleep apnea (OSA)?	Many patients with Obstructive Sleep Apnea report poor sleep quality, which can negatively affect quality of life and health. While effective treatment of Obstructive Sleep Apnea using conventional therapies has been shown to improve sleep quality, other therapies may also be beneficial. There is limited evidence to indicate which may work best for people with Obstructive Sleep Apnea.	28-Jan-21	12	Smith J, Lasserson TJ. Pressure modification for improving usage of continuous positive airway pressure machines in adults with obstructive sleep apnoea. Cochrane Database Syst Rev. 2009 Oct 7;(4):CD003531. doi: 10.1002/14651858.CD003531.pub3. Update in: Cochrane Database Syst Rev. 2019 Dec 2;12:CD003531. PMID: 19821310.	
		Obstructive Sleep Apnea PSP	39	Are there other therapies that could be used along with Continuous Positive Airway Pressure (CPAP) to improve obstructive sleep apnea (OSA) and under what circumstances?	While Continuous Positive Airway Pressure is the most effective therapy of Obstructive Sleep Apnea, there may be a role for a range of alternative treatments such as weight loss, oral appliances, positional devices, surgery and emerging therapies such as medications. Tailoring therapies to individual needs has become increasingly important to improve adherence.	28-Jan-21	7	Randerath WJ, Verbraecken J, Andreas S, Bettge G, Boudewyns A, Hamans E, Jalbert F, Paoli JR, Sanner B, Smith J, Stuck BA, Lacassagne L, Marklund M, Maurer JT, Pepin JL, Valipour A, Verse T, Fietze J; European Respiratory Society task force on non-CPAP therapies in sleep apnoea. Non-CPAP therapies in obstructive sleep apnoea. Eur Respir J. 2011 May;37(5):1000-28. doi: 10.1183/09031936.00099710. Epub 2011 Mar 15. PMID: 21406515.	
		Obstructive Sleep Apnea PSP	39	How can a diagnosis of Obstructive Sleep Apnea (OSA) be made easier to obtain?	Obstructive Sleep Apnea is often under-diagnosed, in part because access to facility-based tests like polysomnography can be limited while the demand for testing often exceeds capacity, resulting in long wait-times. Inadequate public funding for diagnostic services has resulted in a strong reliance on private services in some jurisdictions. Delays in diagnosis may particularly affect people who live in rural or remote areas.	28-Jan-21	1	Rosen IM, Kirsch DB, Chervin RD, Carden KA, Ramar K, Aurora RN, Kristo DA, Malhotra RK, Martin JL, Olson EJ, Rosen CL, Rowley JA; American Academy of Sleep Medicine Board of Directors. Clinical Use of a Home Sleep Apnea Test: An American Academy of Sleep Medicine Position Statement. J Clin Sleep Med. 2017 Oct 15;13(10):1205-1207. doi: 10.5664/jcsm.6774. PMID: 28942762; PMCID: PMC5612637.	

		Obstructive Sleep Apnea PSP	39	What are important considerations when treating a patient with obstructive sleep apnea (OSA) who has other chronic health conditions?	Obstructive Sleep Apnea is often associated with metabolic (e.g., diabetes), respiratory (e.g. Chronic Obstructive Pulmonary Disease) and cardiovascular (e.g., high blood pressure) diseases. Patients with Obstructive Sleep Apnea and other conditions may be taking multiple medications, which can sometimes result in adverse reactions. Effective management of OSA and other conditions at the same time can be difficult for both health care providers and for patients. Treating each condition in isolation can lead to less effective management and complicated interactions for the patient with the healthcare system.	28-Jan-21	4	Singh G, Agarwal A, Zhang W, Kuo YF, Sultana R, Sharma G. Impact of PAP therapy on hospitalization rates in Medicare beneficiaries with COPD and coexisting OSA. Sleep Breath. 2019 Mar;23(1):193-200. doi: 10.1007/s11325-018-1680-0. Epub 2018 Jun 22. PMID: 29931497; PMCID: PMC6309578.
		Obstructive Sleep Apnea PSP	39	How can obstructive sleep apnea (OSA) services to rural areas be improved?	Travel distances from rural areas to diagnostic and treatment services have the potential to affect the outcomes of patients with suspected or confirmed Obstructive Sleep Apnea. Family physicians and other health care providers in rural areas have an important role in educating and caring for patients with Obstructive Sleep Apnea. Increasing use of virtual health care delivery and portable testing may be helpful. New technologies such as wearable devices may also be of benefit.	28-Jan-21	5	Rosen IM, Kirsch DB, Chervin RD, Carden KA, Ramar K, Aurora RN, Kristo DA, Malhotra RK, Martin JL, Olson EJ, Rosen CL, Rowley JA; American Academy of Sleep Medicine Board of Directors. Clinical Use of a Home Sleep Apnea Test: An American Academy of Sleep Medicine Position Statement. J Clin Sleep Med. 2017 Oct 15;13(10):1205-1207. doi: 10.5664/jcsm.6774. PMID: 28942762; PMCID: PMC5612637.
		Obstructive Sleep Apnea PSP	39	What should be done if the patient does not notice any difference after beginning/receiving Continuous Positive Airway Pressure (CPAP) treatment?	Patients who do not notice any benefits from using CPAP may be more inclined to stop their treatments, which can result in the serious complications associated with untreated Obstructive Sleep Apnea. Patients may be hesitant to contact their sleep specialist if they have experienced long wait times in the past. They may also not know how to interpret the results of the information that may be provided through CPAP machines that monitor use and other outcomes.	28-Jan-21	11	Fung CH, Alessi C, Tuong C, Josephson K, Hays RD, Col N et al. Patient-provider communication with older adults about sleep apnea diagnosis and treatment. Behav Sleep Med. 2017;15:423-437.
		Obstructive Sleep Apnea PSP	39	How can access, coordination, and quality of public services be improved for persons with obstructive sleep apnea (OSA)?	Obstructive Sleep Apnea can be considered a chronic condition that would benefit from a patient-centred approach that includes: a) evaluating patient-specific needs to guide treatment decisions; b) including patient preferences, values and other factors in a shared decision-making process; c) promoting patient and caregiver education and support to maximize adherence to treatment; and d) evaluating patient-centred outcomes. Use of interdisciplinary teams, home-based testing, involving primary care partner, and use of virtual technologies may be helpful.	28-Jan-21	3	Kunisaki KM, Greer N, Khalil W, Koffel E, Koeller E, MacDonald R, Wilt TJ. Provider Types and Outcomes in Obstructive Sleep Apnea Case Finding and Treatment: A Systematic Review. Ann Intern Med. 2018 Feb 6;168(3):195-202. doi: 10.7326/M17-2511. Epub 2018 Jan 30. PMID: 29379962.
		Obstructive Sleep Apnea PSP	39	How can the treatment and care of obstructive sleep apnea (OSA) in long-term and residential care settings be improved?	Little research has been conducted on how residents with Obstructive Sleep Apnea are cared for in long-term care and residential settings, although it is likely that this is an under-studied area. In adults aged 65 years or older, it is estimated that between 13% and 32% may suffer from Obstructive Sleep Apnea. This is because age-related changes in the size of the upper airway and a predisposition to airway collapse. For younger people in residential care, some may also be at higher risk. For example, it is estimated that between 30% and 60% of people with Down syndrome have Obstructive Sleep Apnea.	28-Jan-21	8	
		Obstructive Sleep Apnea PSP	39	How can obstructive sleep apnea (OSA) services to Indigenous peoples be improved?	Indigenous people in high-income countries often experience poorer health and poorer access to health care services than non-Indigenous persons. In the few studies that have looked at rates of Obstructive Sleep Apnea in Indigenous populations, they appear more at risk for have Obstructive Sleep Apnea. Long travel distances, high costs of treatment and travel, cultural barriers such as mistrust of the health care system and other social determinants of health may be factors.	28-Jan-21	6	Systematic review - Cui A, Jin XG, Zhai K, Tong ZH, Shi HZ. Diagnostic values of soluble mesothelin-related peptides for malignant pleural mesothelioma: updated meta-analysis. BMJ Open. 2014 Feb 24;4(2):e004145. doi: 10.1136/bmjopen-2013-004145



Data management spreadsheet for use by Priority Setting Partnerships for all questions received. Spreadsheet to be published on the JLA website at www.jla.nihr.ac.uk on completion of the PSP.

ID	Uncertainty (PICO formatted indicative uncertainty where possible. Advised minimum requirements are 'Population' and 'Intervention'. Not all submissions may be suitable for PICO structure, but they should be in a format that will ultimately be of value to the research community)	Original uncertainty	Evidence (reference, and weblink where available, to the most recent relevant systematic review identified by the PSP, plus a maximum of 2 other systematic reviews, including protocols for future systematic reviews, that the PSP considers relevant.)	Source of Uncertainty (if there are multiple sources, a PSP may wish to show them e.g. 1 x patient, 19 x clinician, 4 x research recommendations)
64	Are there other ways besides Continuous Positive Airway Pressure (CPAP) that could effectively treat Obstructive sleep apnea (OSA)?	What are alternative methods other than cpap to deal with apnea?;What options exist for CPAP intolerant patients ?; What other therapies beside CPAP give next best treatment option?; Can research find effective treatment for Obstructive Apnea rather than use CPAP machine?	Gaisl T, Haile SR, Thiel S, Osswald M, Kohler M. Efficacy of pharmacotherapy for OSA in adults: A systematic review and network meta-analysis. Sleep Med Rev. 2019 Aug;46:74-86. doi: 10.1016/j.smrv.2019.04.009. Epub 2019 Apr 19. PMID: 31075665.	Patients (63), family members (23) and, clinicians(6)
68	How do bed surfaces, pillows and sleeping position affect the symptoms of Obstructive Sleep Apnea?	What role does comfort (proper pillow, mattress) play in sleep apnea?; Does a sleeping position helps this condition; Is sleeping a certain position helpful in this situation?	Epstein LJ, Kristo D, Strollo PJ Jr, Friedman N, Malhotra A, Patil SP, Ramar K, Rogers R, Schwab RJ, Weaver EM, Weinstein MD; Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine. Clinical guideline for the evaluation, management and long-term care of obstructive sleep apnea in adults. J Clin Sleep Med. 2009 Jun 15;5(3):263-76. PMID: 19960649; PMCID: PMC2699173.	Patients (15), family members (2)
78	Can obstructive sleep apnea (OSA) be permanently eliminated?	Can my sleep apnea be permanently fixed?; Is there a cure; Is there a permanent solution other than CPAP?;	He M, Yin G, Zhan S, Xu J, Cao X, Li J, Ye J. Long-term Efficacy of Uvulopalatopharyngoplasty among Adult Patients with Obstructive Sleep Apnea: A Systematic Review and Meta-analysis. Otolaryngol Head Neck Surg. 2019 Sep;161(3):401-411. doi: 10.1177/0194599819840356. Epub 2019 Jun 11. PMID: 31184261.	Family members (12); patients (45)

71	How often should Continuous Positive Airway Pressure (CPAP) therapy be re-evaluated by a health care provider?	When would be the best time to transition the patient to BIPAP therapy if CPAP is failing; PAP titration algorithm for complex sleep apnoea in community population; Pressure reassessment timeframe?	Epstein LJ, Kristo D, Strollo PJ Jr, Friedman N, Malhotra A, Patil SP, Ramar K, Rogers R, Schwab RJ, Weaver EM, Weinstein MD; Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine. Clinical guideline for the evaluation, management and long-term care of obstructive sleep apnea in adults. J Clin Sleep Med. 2009 Jun 15;5(3):263-76. PMID: 19960649; PMCID: PMC2699173.	Clinicians (5), patient (1)
27, 67	What alternative therapies are available for treatment of obstructive sleep apnea (OSA)?	Are there any new, effective treatments for it?; Are there any natural solutions to alleviate symptoms?; Are there any treatments that help change the physical relaxation of the throat muscles (as opposed to sleep apnea machines that just pump oxygen into you)?; Are there traditional medicine methods that can be used instead?	Camacho M, Certal V, Abdullatif J, Zaghi S, Ruoff CM, Capasso R, Kushida CA. Myofunctional Therapy to Treat Obstructive Sleep Apnea: A Systematic Review and Meta-analysis. Sleep. 2015 May 1;38(5):669-75. doi: 10.5665/sleep.4652. PMID: 25348130; PMCID: PMC4402674.	Family members (10); patients (45); clinicians (4)
77	How do lifestyle changes (such as weight loss, exercise and stress reduction) affect the need for ongoing Continuous Positive Airway Pressure (CPAP) treatment?	What % of patients no longer need PAP therapy after significant weight loss?; What are other ways to help someone with osa (nutrition, exercise, lifestyle) that can help someone get off cpap or to decrease pressures;what lifestyle changes could I make to improve condition	Hudgel DW, Patel SR, Ahasic AM, Bartlett SJ, Bessesen DH, Coaker MA, Fiander PM, Grunstein RR, Gurubhagavatula I, Kapur VK, Lettieri CJ, Naughton MT, Owens RL, Pepin JL, Tuomilehto H, Wilson KC; American Thoracic Society Assembly on Sleep and Respiratory Neurobiology. The Role of Weight Management in the Treatment of Adult Obstructive Sleep Apnea. An Official American Thoracic Society Clinical Practice Guideline. Am J Respir Crit Care Med. 2018 Sep 15;198(6):e70-e87. doi: 10.1164/rccm.201807-1326ST. PMID: 30215551.	Patients (4), clinicians (4)
28	Can Continuous Positive Airway Pressure (CPAP) therapy ever be stopped and under what circumstances?	Is there anyway to reduce your dependency on the machine ?; Will it ever be fully treated where a cpap machine will no longer be needed?	Certal V, Nishino N, Camacho M, Capasso R. Reviewing the systematic reviews in OSA surgery. Otolaryngol Head Neck Surg. 2013 Dec;149(6):817-29. doi: 10.1177/0194599813509959. Epub 2013 Oct 23. PMID: 24154748.	Patient/family (5), clinician (1)
75	How can treatment of obstructive sleep apnea (OSA) be more affordable?	How can treatment be made more affordable?; How do you get a different type of face mask when you don't want to pay the outrageous price from the sleep apnea centre?; Any cheaper alternatives to CPAP/BIPAP (extremely costly - especially when having to go through several masks)?	Jonas DE, Amick HR, Feltner C, Weber RP, Arvanitis M, Stine A, Lux L, Harris RP. Screening for Obstructive Sleep Apnea in Adults: Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 2017 Jan 24;317(4):415-433. doi: 10.1001/jama.2016.19635. Erratum in: JAMA. 2017 Mar 28;317(12):1278. PMID: 28118460.	Patients

69	Are there any physical or breathing exercises that are effective in managing obstructive sleep apnea (OSA)?	Do exercises strengthen muscles and reduce airway obstructions?; Are there ways of strengthening the associated tissues/muscles so as to not need a CPAP machine?;	Aiello KD, Caughey WG, Nelluri B, Sharma A, Mookadam F, Mookadam M. Effect of exercise training on sleep apnea: A systematic review and meta-analysis. Respir Med. 2016 Jul;116:85-92. doi: 10.1016/j.rmed.2016.05.015. Epub 2016 May 21. PMID: 27296826.	Patients (12), family members (2), clinician (1)
10	What can be done to improve sleep quality for people with obstructive sleep apnea (OSA)?	What can I do as a patient to improve my sleep?; How to improve sleeping?; What would help me to sleep as I don't sleep well?	Smith I, Lasserson TJ. Pressure modification for improving usage of continuous positive airway pressure machines in adults with obstructive sleep apnoea. Cochrane Database Syst Rev. 2009 Oct 7;(4):CD003531. doi: 10.1002/14651858.CD003531.pub3. Update in: Cochrane Database Syst Rev. 2019 Dec 2;12:CD003531. PMID: 19821310.	Patients (10), family members (2)
33	Are there other therapies that could be used along with Continuous Positive Airway Pressure (CPAP) to improve obstructive sleep apnea (OSA) and under what circumstances?	I am currently using a cpap machine and still finding that I am tired and don't get a good sleep at night, is there any other treatments to use in conjunction with the cpap machine treatment?; Are the adjuncts with CPAP (example: a-flex/c-flex/EPR) useful in the treatment and compliance with therapy?	Randerath WJ, Verbraecken J, Andreas S, Bettega G, Boudewyns A, Hamans E, Jalbert F, Paoli JR, Sanner B, Smith I, Stuck BA, Lacassagne L, Marklund M, Maurer JT, Pepin JL, Valipour A, Verse T, Fietze J; European Respiratory Society task force on non-CPAP therapies in sleep apnoea. Non-CPAP therapies in obstructive sleep apnoea. Eur Respir J. 2011 May;37(5):1000-28. doi: 10.1183/09031936.00099710. Epub 2011 Mar 15. PMID: 21406515.	Clinicians (2), patient (1)
3, 4	What is the relationship between ear, nose, throat, and sinus infections and obstructive sleep apnea (OSA)?	How does my apnea and apnea treatment affect the severity of ear, nose and throat infections?; Sleep apnea treatment for those with sinusitis;	Nagappa M, Wong DT, Cozowicz C, Ramachandran SK, Memtsoudis SG, Chung F. Is obstructive sleep apnea associated with difficult airway? Evidence from a systematic review and meta-analysis of prospective and retrospective cohort studies. PLoS One. 2018 Oct 4;13(10):e0204904. doi: 10.1371/journal.pone.0204904. PMID: 30286122; PMCID: PMC6171874.	Patients (5), family members (2)
102	How can a diagnosis of Obstructive Sleep Apnea (OSA) be made easier to obtain?	Is there an easier way to detect that a sleep test that has a 2 year waitlist?; Why wasn't I diagnosed and treated as soon as I needed it - should have been treated at least ten years sooner!	Rosen IM, Kirsch DB, Chervin RD, Carden KA, Ramar K, Aurora RN, Kristo DA, Malhotra RK, Martin JL, Olson EJ, Rosen CL, Rowley JA; American Academy of Sleep Medicine Board of Directors. Clinical Use of a Home Sleep Apnea Test: An American Academy of Sleep Medicine Position Statement. J Clin Sleep Med. 2017 Oct 15;13(10):1205-1207. doi: 10.5664/jcsm.6774. PMID: 28942762; PMCID: PMC5612637.	Patients (6). Family members (2), clinicians (1)

2	What is the impact of nasal (nose) blockage and congestion on the development of obstructive sleep apnea (OSA)?	From my readings, I found that Apnea is a symptom of nose polyps. Does treating nose polyps help to increase the incidence of developing Apnea?; Why is nasal congestion at night indicative of OSA and can this be treated with antihistamines?	Verse T, Dreher A, Heiser C, Herzoq M, Maurer JT, Pirsiq W, Rohde K, Rothmeier N, Sauter A, Steffen A, Wenzel S, Stuck BA. ENT-specific therapy of obstructive sleep apnoea in adults : A revised version of the previously published German S2e guideline. Sleep Breath. 2016 Dec;20(4):1301-1311. doi: 10.1007/s11325-016-1353-9. Epub 2016 May 14. PMID: 27179662.	Patients/family
107	How does variability in affordability and insurance coverage for obstructive sleep apnea (OSA) diagnosis and treatment affect patient outcomes?	What is the impact of funding for testing/treatment on patient outcomes?; Is the current SAIL model an effective way to manage sleep apnea treatment?; The cost of provincial suppliers of equipment is often 200% more than online stores. Does the cost of equipment stop people from continuing with treatment?		clinicians (3), family member, patients (5)
66	How effective are oral appliances in treating obstructive sleep apnea (OSA)?	Are oral protheses effective at treating apnea?; Has there been RCT efficacy studies for a sample collection of Health Canada approved mandibular advancement devices?; At what level of obstructive sleep apnea (severe, moderate, mild) are dental appliances not recommended? Is it more to do with anatomy than severity of sleep?	Noller MW, Guilleminault C, Gouveia CJ, Mack D, Vivian C, Abdullatif J, Manqili S, Liu SY, Zaqhi S, Camacho M. Mandibular advancement for adult obstructive sleep apnea: A systematic review and meta-analysis. J Craniomaxillofac Surg. 2017 Dec;45(12):2035-2040. doi: 10.1016/j.jcms.2017.10.006. Epub 2017 Oct 13. PMID: 29113702.	Patients (8); clinicians (6), family member
9	What is the relationship between obstructive sleep apnea (OSA) and sleep quality?	does a regular sleep schedule (7-8 hrs per night) decrease the number of apneas experienced or the severity of apneas?; Why do we wake up at almost exactly the same time every night?; when on therapy ... does the number of apneas increase with long term sleep deprivation?	Jonas DE, Amick HR, Feltner C, Weber RP, Arvanitis M, Stine A, Lux L, Harris RP. Screening for Obstructive Sleep Apnea in Adults: Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 2017 Jan 24;317(4):415-433. doi: 10.1001/jama.2016.19635. Erratum in: JAMA. 2017 Mar 28;317(12):1278. PMID: 28118460.	Patients (10), family member
1, 5, 6	How do the tongue, tonsils and throat influence the development of Obstructive Sleep Apnea (OSA)?	Impact of high arched palate (secondary to tongue tie) on nasal breathing/obstruction; Is it true "fat" tongues contribute to the obstruction?; How does the presence of tonsils affect OSA in adulthood. Are they ever removed as a treatment of OSA?	Holty JE, Guilleminault C. Maxillomandibular advancement for the treatment of obstructive sleep apnea: a systematic review and meta-analysis. Sleep Med Rev. 2010 Oct;14(5):287-97. doi: 10.1016/j.smrv.2009.11.003. Epub 2010 Mar 2. PMID: 20189852.	Patients (5), family members (2)

70	What are the effects of cannabis use on obstructive sleep apnea (OSA)?	Does cannabis use have an effect? Positive or negative?; What are the effects of cannabis on sleep apnea?		Patients
76	How can the public be better informed about obstructive sleep apnea (OSA), the risks of not being treated and benefits of treatment?	Why is it not widely informed to patients as to how severe of damage will happen if you don't follow thru and use your machine?; How risky is it to go untreated?	Madbouly EM, Nadeem R, Nida M, Molnar J, Aqgarwal S, Loomba R. The role of severity of obstructive sleep apnea measured by apnea-hypopnea index in predicting compliance with pressure therapy, a meta-analysis. Am J Ther. 2014 Jul-Aug;21(4):260-4. doi: 10.1097/MJT.0b013e318249a09d. PMID: 22407199.	Patients (12), family members (2), clinician (2)
18	What are important considerations when treating a patient with obstructive sleep apnea (OSA) who has other chronic health conditions?	Will it really treat other things if sleep apnea is controlled with machine?; Do medications (syntroid & blood thinner) affect my sleep apnea. (also in thyroid theme)Do valve replacements have an affect as well?	Singh G, Aqgarwal A, Zhang W, Kuo YF, Sultana R, Sharma G. Impact of PAP therapy on hospitalization rates in Medicare beneficiaries with COPD and coexisting OSA. Sleep Breath. 2019 Mar;23(1):193-200. doi: 10.1007/s11325-018-1680-0. Epub 2018 Jun 22. PMID: 29931497; PMCID: PMC6309578.	patients (8); clinicians (2), family members (3)
32	How important is the regular use of Continuous Positive Airway Pressure (CPAP) to achieving positive outcomes?	How dangerous is sleep apnea if I don't use my mask regularly?; Is there a measurable difference between using my CPAP machine and not? How much of a difference is skipping one or two nights?	Wozniak DR, Lasserson TJ, Smith I. Educational, supportive and behavioural interventions to improve usage of continuous positive airway pressure machines in adults with obstructive sleep apnoea. Cochrane Database Syst Rev. 2014 Jan 8;(1):CD007736. doi: 10.1002/14651858.CD007736.pub2. Update in: Cochrane Database Syst Rev. 2020 Apr 7;4:CD007736. PMID: 24399660.	Patients (9); family members (2)
72	What are options to effectively manage the common side-effects of Continuous Positive Airway Pressure (CPAP) therapy?	How to combat tissue breakdown from contact with the facemask?; There can be side effects to CPAP machines, excessive tiredness, headaches, chest tightness - guideline and suggestions on how to effectively deal with these?; Is there any way to stop or reduce the amount of stomach bloating that seems to happen with the use of a CPAP?	Kushida CA, Littner MR, Hirshkowitz M, Morqenthaler TI, Alessi CA, Bailey D, Boehlecke B, Brown TM, Coleman J Jr, Friedman L, Kapen S, Kapur VK, Kramer M, Lee-Chiong T, Owens J, Pancer JP, Swick TJ, Wise MS; American Academy of Sleep Medicine. Practice parameters for the use of continuous and bilevel positive airway pressure devices to treat adult patients with sleep-related breathing disorders. Sleep. 2006 Mar;29(3):375-80. doi: 10.1093/sleep/29.3.375. PMID: 16553024.	Patients

98	How can obstructive sleep apnea (OSA) services to rural areas be improved?	How can we get more treatment options available in rural areas?; How to be tested in rural areas when travel is not an option?;	Rosen IM, Kirsch DB, Chervin RD, Carden KA, Ramar K, Aurora RN, Kristo DA, Malhotra RK, Martin JL, Olson EJ, Rosen CL, Rowley JA; American Academy of Sleep Medicine Board of Directors. Clinical Use of a Home Sleep Apnea Test: An American Academy of Sleep Medicine Position Statement. J Clin Sleep Med. 2017 Oct 15;13(10):1205-1207. doi: 10.5664/jcsm.6774. PMID: 28942762; PMCID: PMC5612637.	Patients (3), Family members (3), clinicians (2)
89	How can the knowledge of healthcare providers regarding obstructive sleep apnea (OSA) be improved?	Could additional research provide better education/information to health care providers?; Should an effort be made to improve knowledge and information for front line family physicians?; Why do Canadian RRT schools offer such limited instruction on OSA?	Wozniak DR, Lasserson TJ, Smith I. Educational, supportive and behavioural interventions to improve usage of continuous positive airway pressure machines in adults with obstructive sleep apnoea. Cochrane Database Syst Rev. 2014 Jan 8;(1):CD007736. doi: 10.1002/14651858.CD007736.pub2. Update in: Cochrane Database Syst Rev. 2020 Apr 7;4:CD007736. PMID: 24399660.	Patients (5), family members (2), clinicians (2)
51	What should be done if the patient does not notice any difference after beginning/receiving Continuous Positive Airway Pressure (CPAP) treatment?	For people diagnosed with sleep apnea, using CPAP machine but not seeing a noticeable difference in level of fatigue, what is the treatment plan? Continue to use CPAP, further testing?; Why does someone still feel tired even when using cpap?	Fung CH, Alessi C, Tuong C, Josephson K, Hays RD, Col N et al. Patient-provider communication with older adults about sleep apnea diagnosis and treatment. Behav Sleep Med 2017;15:423-437.	Clinicians (2), patient (4), family member
63	What approaches would best help people to adhere to prescribed Continuous Positive Airway Pressure (CPAP) treatment?	How can treating UARS and Mild OSA help the health of those patients (and therefore have insurance pay)?; Recommended strategies for people resistant to treatment; how to achieve compliance with use and measure benefits achieved	Epstein LJ, Kristo D, Strollo PJ Jr, Friedman N, Malhotra A, Patil SP, Ramar K, Rogers R, Schwab RJ, Weaver EM, Weinstein MD; Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine. Clinical guideline for the evaluation, management and long-term care of obstructive sleep apnea in adults. J Clin Sleep Med. 2009 Jun 15;5(3):263-76. PMID: 19960649; PMCID: PMC2699173.	Patients (4), clinicians (13), family members (3)
94	How can access, coordination, and quality of public services be improved for persons with obstructive sleep apnea (OSA)?	Is there a procedure setup for monitoring OSA patients?; I could not find any diagnosis or treatment provided by SHA or a public owned service provider. Why?; Is there a way to get the Lung Association, community services such as home care and the oxygen companies working together to streamline services?	Kunisaki KM, Greer N, Khalil W, Koffel E, Koeller E, MacDonald R, Wilt TJ. Provider Types and Outcomes in Obstructive Sleep Apnea Case Finding and Treatment: A Systematic Review. Ann Intern Med. 2018 Feb 6;168(3):195-202. doi: 10.7326/M17-2511. Epub 2018 Jan 30. PMID: 29379962.	Patients (15), clinicians (5), family member

42	At what level of disease severity is the best time to initiate treatment for obstructive sleep apnea (OSA)?	When is the best time to initiate treatment of adult OSA?	Jonas DE, Amick HR, Feltner C, Weber RP, Arvanitis M, Stine A, Lux L, Harris RP. Screening for Obstructive Sleep Apnea in Adults: Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 2017 Jan 24;317(4):415-433. doi: 10.1001/jama.2016.19635. Erratum in: JAMA. 2017 Mar 28;317(12):1278. PMID: 28118460.	clinician
100	How can the treatment and care of obstructive sleep apnea (OSA) in long-term and residential care settings be improved?	What is being done to address the low level of care for Sleep Apnea in long term care?		clinicians
22	Why isn't weight loss a factor in resolving obstructive sleep apnea (OSA) in all patients?	How does weight gain/loss affect sleep apnea?; How important is weight loss to correcting or alleviating sleep apnea? Why not encourage wt loss vs purchasing a machine?	Hudgel DW, Patel SR, Ahasic AM, Bartlett SJ, Besesen DH, Coaker MA, Fiander PM, Grunstein RR, Gurubhagavatula I, Kapur VK, Lettieri CJ, Naughton MT, Owens RL, Pepin JL, Tuomilehto H, Wilson KC; American Thoracic Society Assembly on Sleep and Respiratory Neurobiology. The Role of Weight Management in the Treatment of Adult Obstructive Sleep Apnea. An Official American Thoracic Society Clinical Practice Guideline. Am J Respir Crit Care Med. 2018 Sep 15;198(6):e70-e87. doi: 10.1164/rccm.201807-1326ST. PMID: 30215551.	Patients (34), family members (5)
41	How can the care of hospitalized patients with obstructive sleep apnea (OSA) be improved?	What is best practice when treating patients with OSA when they are acutely ill in a hospital setting?; How should we best treat these patients after they have surgery?	Joshi GP, Ankichetty SP, Gan TJ, Chung F. Society for Ambulatory Anesthesia consensus statement on preoperative selection of adult patients with obstructive sleep apnea scheduled for ambulatory surgery. Anesth Analg. 2012 Nov;115(5):1060-8. doi: 10.1213/ANE.0b013e318269cfd7. Epub 2012 Aug 10. PMID: 22886843.	Clinicians
36	Is bariatric surgery a treatment option for obstructive sleep apnea (OSA)?	If being overweight is the reason I have sleep apnea, can I be fast tracked for bariatric surgery?	Dong Z, Hong BY, Yu AM, Cathey J, Shariful Islam SM, Wang C. Weight loss surgery for obstructive sleep apnoea with obesity in adults: a systematic review and meta-analysis protocol. BMJ Open. 2018 Aug 29;8(8):e020876. doi: 10.1136/bmjopen-2017-020876. PMID: 30158220; PMCID: PMC6119449.	Patient

30	How long should each session of Continuous Positive Airway Pressure (CPAP) be to be effective?	Is there an optimum length of time to wear a CPAP?; How many hours a night should a cpap machine be used?		Patients
99	How can obstructive sleep apnea (OSA) services to Indigenous peoples be improved?	How do we improve access for indigenous peoples and those living in rural communities?; How to increase access to care and services and compliance in CPAP usage for northern communities and first nations people?	Systematic review - Cui A, Jin XG, Zhai K, Tong ZH, Shi HZ. Diagnostic values of soluble mesothelin-related peptides for malignant pleural mesothelioma: updated meta-analysis. BMJ Open. 2014 Feb 24;4(2):e004145. doi: 10.1136/bmjopen-2013-004145	Clinicians
101	What can be done to improve care for people with mental or physical disabilities to manage obstructive sleep apnea (OSA)?	How to manage cpap in population with mental or physical disabilities?;	Garbarino S, Bardwell WA, Guaglielmi O, Chiorri C, Bonanni E, Magnavita N. Association of Anxiety and Depression in Obstructive Sleep Apnea Patients: A Systematic Review and Meta-Analysis. Behav Sleep Med. 2020 Jan-Feb;18(1):35-57. doi: 10.1080/15402002.2018.1545649. Epub 2018 Nov 19. PMID: 30453780.	Clinicians
90, 91	What resources are available to help patients adapt emotionally to Continuous Positive Airway Pressure treatment?	How can I adapt to my treatment?; Peer support opportunities?; I felt I was more anxious using the machine and got a lower quality of sleep using the machine. How can the question of anxiety around using the machine be addressed?	Wozniak DR, Lasserson TJ, Smith I. Educational, supportive and behavioural interventions to improve usage of continuous positive airway pressure machines in adults with obstructive sleep apnoea. Cochrane Database Syst Rev. 2014 Jan 8;(1):CD007736. doi: 10.1002/14651858.CD007736.pub2. Update in: Cochrane Database Syst Rev. 2020 Apr 7;4:CD007736. PMID: 24399660.	Patients (13), Family members (3)
13	How do sex and gender affect the development and treatment of obstructive sleep apnea?	Do women with sleep apnea present differently than men do? If so, do we have varying recommendations for women (ie different recommendations for women?; What influence does menopause have on the development of OSA?;		Patients (4); family member, clinicians (2)

88	<i>How can the knowledge of patients regarding OSA and its treatment best be promoted?</i>	<i>How to communicate the benefits of therapy for quality life improvement?; Could more thorough testing and more patient training/support help?; Why is there such a lack of information available? I know there is now, but not when I was diagnosed. What are educational tool could we provide to client re OSA</i>	<i>Wozniak DR, Lasserson TJ, Smith I. Educational, supportive and behavioural interventions to improve usage of continuous positive airway pressure machines in adults with obstructive sleep apnoea. Cochrane Database Syst Rev. 2014 Jan 8;(1):CD007736. doi: 10.1002/14651858.CD007736.pub2. Update in: Cochrane Database Syst Rev. 2020 Apr 7;4:CD007736. PMID: 24399660.</i>	<i>Patients (11), family members (4), clinicians (8)</i>
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