

MEDICA®

UTILIZATION MANAGEMENT POLICY

TITLE: UVULOPALATOPHARYNGOPLASTY (UPPP or U3P) FOR OBSTRUCTIVE SLEEP APNEA/HYPOPNEA SYNDROME

EFFECTIVE DATE: August 20, 2018

This policy was developed with input from specialists in otolaryngology, dental/oral surgery, neurology and pulmonology, and endorsed by the Medical Policy Committee.

IMPORTANT INFORMATION – PLEASE READ BEFORE USING THIS POLICY

These services may or may not be covered by all Medica plans. Please refer to the member's plan document for specific coverage information. If there is a difference between this general information and the member's plan document, the member's plan document will be used to determine coverage. With respect to Medicare and Minnesota Health Care Programs, this policy will apply unless these programs require different coverage. Members may contact Medica Customer Service at the phone number listed on their member identification card to discuss their benefits more specifically. Providers with questions about this Medica utilization management policy may call the Medica Provider Service Center toll-free at 1-800-458-5512.

Medica utilization management policies are not medical advice. Members should consult with appropriate health care providers to obtain needed medical advice, care and treatment.

PURPOSE

To promote consistency between reviewers in utilization management decision-making by providing the criteria that generally determine the medical necessity of uvulopalatopharyngoplasty (UPPP or U3P). The Benefit Considerations box below outlines the process for addressing the needs of individuals who do not meet these criteria.

BACKGROUND

I. Definitions

- A. **Apnea** is a cessation of airflow for 90% or greater of baseline for 10 or more seconds.
- B. **Hypopnea** as defined by the Centers for Medicare and Medicaid Services (CMS) is an abnormal respiratory event lasting at least 10 seconds with at least a 30 percent reduction in thoracoabdominal movement or airflow as compared to baseline, and with at least a 4 percent oxygen desaturation.
- C. **Apnea-Hypopnea Index (AHI)** is calculated as the number of episodes of apnea plus hypopnea per hour of sleep.
- D. **Continuous Positive Airway Pressure (CPAP) Devices** deliver air under continuous pressure through a nasal mask or face mask. This opens the airway and prevents collapse of the oropharynx that occurs during sleep by forming a pneumatic splint.
- E. **Obstructive Sleep Apnea/Hypopnea Syndrome (OSAHS).** Epidemiologic data indicate that approximately two percent of women and four percent of men in the middle-aged work force meet the minimal diagnostic criteria for OSAHS.
 1. The syndrome is confirmed by test results that indicate the following:
 - a. AHI greater than or equal to 15 events per hour confirmed by polysomnography (PSG).
 - b. AHI greater than or equal to 5 and less than or equal to 14 events per hour confirmed by PSG and accompanied by symptoms of OSAHS, which include unexplained excessive daytime sleepiness, mood disorders, insomnia; impaired cognition, or documented hypertension, ischemic heart disease, or history of stroke.
 2. Severity of OSAHS is categorized as:
 - a. Mild: AHI of 5 to 15 with a minimum oxygen saturation of 85% or greater **and** mean oxygen saturation remains at 90% or greater.
 - b. Moderate: AHI of 16 to 30 with a minimum oxygen saturation of 70% or greater **and** mean oxygen that saturation remains at 90% or greater.

c. Severe: AHI greater than 30 with minimum oxygen saturation that remains less than 70% **or** mean oxygen saturation remains less than 90%.

F. **Polysomnography (PSG)** refers to multimodal measurement of physiologic indicators during phases of sleep. Most consensus statement definitions of facility-based polysomnography assume the measurement of at least seven parameters including measurement of brain activity, heart and respiratory function, oxygen saturation, eye movement, and movement of abdominothoracic muscles. PSGs are administered over a full night or split-night. In a split-night study, the presence and severity of sleep apnea is confirmed during the first half of the study. During the remainder of the night, positive airway pressure devices are titrated to determine therapeutic pressure levels.

G. **Uvulopalatopharyngoplasty (UPPP or U3P)** is a resection of the uvula, distal portion of the soft palate, posterior tonsillar pillars, and redundant lateral pharyngeal wall mucosa to create an unobstructed, widened nasopharyngeal and oropharyngeal opening. Overall long-term response to UPPP has been reported to be 41 to 52.3 percent. However, the long-term success rate of UPPP is highly variable depending upon anatomical characteristics of the upper airway and presence of comorbidities. UPPP is most successful in patients whose obstruction is limited to the retropalatal airway. In some instances, UPPP can compromise subsequent use of nasal CPAP.

II. Comments

A. OSAHS is diagnosed by facility-based PSG or home-based sleep study.

B. CPAP is the treatment of choice for OSAHS in adults. Non-compliance with CPAP has been reported to be greater than 40 percent. However, compliance has been shown to improve with patient training and support, ensuring proper fit of nasal or face masks and device types along with use of humidifiers and heaters for appropriate patients. If the patient is unable to tolerate CPAP, all alternative treatments should be explored as viable options.

C. Treatment of pediatric sleep apnea depends on the cause of the disorder, the severity of the symptoms, the risk factors involved and the age of the child.

D. The following procedures are considered *investigative and are not covered by Medica*:

1. **Laser-Assisted Uvulopalatoplasty (LAUP)** involves use of a carbon dioxide laser to administer heat to create full-thickness trenches on the free edge of the soft palate on both sides of the uvula.
2. **Palatal implants** are being evaluated for use in the treatment of obstructive sleep apnea. During the implantation procedure, three woven polyethylene cylinders are inserted in the soft palate with the intent of stiffening its structure. This stiffening is intended to change the airflow characteristics of the soft palate, which in theory should lead to a reduction in airflow obstruction and reduction in episodes of sleep apnea.
3. **Radio Frequency Volumetric Tissue Reduction (Somnoplasty, Radiofrequency ablation (RFA))** is a method of reducing submucosal tissue through the use of heat generated by a low-intensity radiofrequency signal. This process causes thermocoagulation of the soft tissue. The low temperature is purported to result in a localized thermal lesion, followed by scarring and resorption of the treated tissue.
4. **Uvulopalatoplasty (UPP or U2P)** is performed using radiofrequency or laser energy (Laser-Assisted Uvulopalatoplasty [LAUP or LAUPP]). These procedures are intended to prevent airway collapse by removing soft tissue of the oropharynx.
5. **Nasal Expiratory Positive Airway Pressure** consists of a small nasal valve that acts as a one-way resistor, producing expiratory resistance while leaving inspiration unaffected. Its fundamental difference from CPAP is that it provides no positive pressure to the airway during inspiration and does not require an external power source.

BENEFIT CONSIDERATIONS

1. Prior authorization **is required** for uvulopalatopharyngoplasty. Please see the prior authorization list for product specific prior authorization requirements.
2. Coverage may vary according to the terms of the member's plan document.
3. AHI values greater than 40 or retrolingual involvement require Medical Director review.
4. The following additional treatments (i.e., surgical, laser, etc.) in conjunction with UPPP require medical director review:
 - A. Tracheostomy
 - B. Rhinoplasty procedure with or without septoplasty
 - C. Inferior mandibular sagittal osteotomy
 - D. Geniohyoid advancement
 - E. Genioglossus advancement

- F. Bimaxillar advancement
- G. Base of tongue resection
- 5. Pediatric obstructive sleep apnea syndrome (OSAS) and criteria for surgical interventions differ from those with adult OSAHS. All requests for surgical interventions used to treat OSAS in members younger than 18 years of age require medical director review.
- 6. Orthognathic surgery performed in conjunction with UPPP requires medical director review.
- 7. The following procedures are considered *investigative and therefore are not eligible for coverage*:
Nasal Expiratory Positive Airway Pressure (Provent®) for Obstructive Sleep Apnea
Palatal Implants for Obstructive Sleep Apnea,
Tongue Base Suspension Procedures for Obstructive Sleep Apnea
Radiofrequency Volumetric Tissue Reduction (RFVTR) for Breathing Disorders,
Uvulopalatoplasty for Sleep Disorders (Including Radiofrequency Uvulopalatoplasty [UP2 or UPP] and Laser-Assisted Uvulopalatoplasty [LAUP])
- 8. If the Medical Necessity and Coverage Criteria are met, Medica staff will authorize benefits within the limits in the member's plan document.
- 9. If it appears that the Medical Necessity and Coverage Criteria are not met, the individual's case will be reviewed by the medical director or an external reviewer. Practitioners are reminded of the appeal process in their Medica Provider Administrative Manual.

MEDICAL NECESSITY CRITERIA
 The general treatment course for OSAHS includes a period of non-surgical, non-invasive therapy. Invasive or surgical treatment options are appropriate when a reasonable attempt at non-invasive treatment modalities has been ineffective.

- I. Indications for uvulopalatopharyngoplasty (UPPP)
 UPPP is considered medically necessary for members 18 years of age and older with a confirmed diagnosis of OSAHS, when documentation in the medical records indicates that **all of the following** are met:
 - A. BMI less than 40. (See APPENDIX 1 – Body Mass Index (BMI) Conversion Table)
 - B. Documented history of failed CPAP after a trial of at least eight weeks **OR** the patient cannot tolerate CPAP. If the patient is unable to tolerate standard CPAP, alternative therapies such as flexible CPAP, various models of facial masks and nasal pillows should be tried prior to consideration of UPPP.
 - C. Polysomnography performed within the past 12 months that demonstrates **one of the following**:
 - 1. AHI between 16 and 30 and a mean oxygen saturation of less than 85 percent
 - 2. AHI values greater than 30 per hour.
 - D. Physical Examination
 The examination must demonstrate that the uvula, distal portion of the soft palate, posterior tonsillar pillars, and redundant lateral pharyngeal wall mucosa are the only areas of anatomical obstruction, determined through studies including but not limited to nasopharyngoscopy or cephalometry.
- II. Written documentation from the medical record **must include all** of the following:
 - A. A complete summary from the most recent PSG that includes the AHI along with the minimum and mean oxygen saturation
 - B. A complete description of all trials of noninvasive medical treatments including the length and results of the trials. This should include a description of CPAP therapies tried, level of success achieved, and whether more than one CPAP modality was attempted.
 - C. A complete description of the anticipated surgical treatment.

CENTERS FOR MEDICARE & MEDICAID SERVICES (CMS)

- For Medicare members, refer to the following, as applicable at: <http://www.cms.hhs.gov/mcd/search.asp>?

DOCUMENT HISTORY

Original Effective Date	April 1998
MPC Endorsement Date(s)	04/1999, 04/2000, 09/2000, 04/2001, 03/2002, 05/2003, 06/2004, 06/2005, 06/2006, 06/2007, 06/2008, 06/2009, 06/2010, 06/2011, 06/2012, 06/2013, 09/2014, 06/2016, 06/2017, 06/2018
Administrative Update(s)	05/01/2017

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Pre-06/2016 MPC:

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No new references.

APPENDIX 1 – Body Mass Index (BMI) Conversion Table

		Normal										Overweight										Obese										Extreme Obesity									
		19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54				
BMI	Height (Inches)	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258				
	58	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267				
	59	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276				
	60	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285				
	61	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295				
	62	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	276	282	287	293	299	304				
	63	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314				
	64	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324				
	65	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334				
	66	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344				
	67	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354				
	68	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365				
	69	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376				
	70	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386				
	71	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397				
	72	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408				
	73	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420				
	74	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431				
	75	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443				
	76																																								