

Allied Health Professions

Provincial Integrated Respiratory Services

PAP Adherence Guidance Tool



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This guidance resource has been prepared by the Provincial Integrated Respiratory Services Clinical Advisory Committee in partnership with Alberta Health – Alberta Aids to Daily Living and Alberta Blue Cross. Its intended use is for adults patients only.

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Introduction

Purpose

This document is a guidance tool to support improvement with PAP compliance. This tool can also be used for clients who may be prescribed home oxygen and are experiencing difficulties tolerating PAP therapy. The following guidance and intervention tool must be performed through the guidance of the **most responsible physician (MRP)** who is required to acknowledge that each step of the protocol was performed.

.....
As per AASM
guidelines, compliance
is reached when PAP
therapy is used greater
than 4hrs/day, 70%
percent of the time.

Background

Clients who have sleep apnea and/or sleep hypoventilation can obtain physiologic benefit and symptom improvement from positive airway pressure (PAP). However, some clients either refuse to use the therapy or can't tolerate it. By working with the MRP, and a knowledgeable **Healthcare Professional (HCP)**, client compliance may improve.

Goals and objectives

Goal

- The goal of intervention is to achieve average PAP use greater than or equal to 4 hours per night 70 percent of the time after completing the low PAP-use intervention protocol.

Objectives

- To improve client compliance with **positive airway pressure (PAP) therapies**.
- To determine if **PAP compliance** can be achieved by providing a client's care team with support tools.

References

1. FMC Sleep Clinic Intervention Protocol for Aid in Habituation of PAP Therapy and Improve Compliance, Author, Dr. Ward Flemons
2. AASM Objective Measurement of Patterns of Nasal CPAP Use by Patients with Obstructive Sleep Apnea, Kribbs et al 1994
3. Diagnosis and Treatment of Obstructive Sleep Apnea in Adults; Cheryl R. Laratta, Najib T. Ayas, Marcus Povitz and Sachin R. Pendharkar, CMAJ December 04, 2017 189 (48) E1481-E1488; DOI: <https://doi.org/10.1503/cmaj.170296>
<https://www.cmaj.ca/content/189/48/E1481>
4. The Impact of Device Modifications and Pressure Delivery on Adherence; Roo Killick, MBBS, FRACP, PhD, Nathaniel S. Marshall, PhD; Published: December 07, 2020 DOI: <https://doi.org/10.1016/j.jsmc.2020.10.008>
[https://www.sleep.theclinics.com/article/S1556-407X\(20\)30103-X/fulltext](https://www.sleep.theclinics.com/article/S1556-407X(20)30103-X/fulltext)
5. PAP usage image: [Female CPAP 732x549-thumbnail-732x549.jpg \(732x549\)](#) (rvohealth.io)

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Low PAP-Use Intervention Protocol

The impact of the following interventions (see Appendix for a detailed description) should be documented on a client diary and combined with a compliance download:

1. Client consents to follow applicable steps to reach PAP compliance.
2. MRP or HCP reviews how lack of compliance may impact client's health.
3. Client is assessed for nasal obstruction/congestion – interventions may include but are not limited to:
 - a) assessing for mouth or mask leaks,

- b) ensuring proper use of humidification,
 - c) a trial of nasal steroids or nasal saline rinses/sprays,
 - d) mask trials to find the most appropriate fit.
- 4. Client tolerance of the interface is assessed - trials of alternate interfaces are undertaken when indicated.
- 5. Client tolerance of the prescribed pressure (or if using auto-adjusting PAP, the average and peak pressures) is assessed.
 - a) If the client feels the pressure is excessive the following interventions will be trialed and documented, they may include but are not limited to:
 - 1) Using a pressure ramp
 - 2) End expiratory pressure relief
 - 3) A trial of reducing the PAP levels has been considered/undertaken
 - b) If the client is unable to tolerate prescribed pressure(s) but has habituated to lower pressures which acceptably treat their sleep disordered breathing, a new prescription is required.
- 6. For clients on BPAP with a backup rate who cannot initiate sleep because they feel the backup rate is interfering with their natural breathing rate – a trial of reducing the backup rate will be undertaken.
- 7. For clients complaining of anxiety/claustrophobia – the HCP will work to gradually habituate the clients to PAP in a **controlled, supportive setting**.
- 8. If a client improves their PAP compliance but does not reach compliance requirements, the MRP may request exceptional funding with justification, e.g., increased usage from 1.5 hours/day to 3.5 hours/day.

Appendix

PAP Interventions for Improving Adherence to Therapy

A. Nasal Problems

Nasal Obstruction

During the initial visit the HCP can assess for the presence of nasal obstruction.

Treatment:

If the client has a history of nasal obstruction, start PAP therapy with a full-face mask or a referral to an Ear, Nose & Throat Surgeon may be required.

Nasal Congestion

1. Humidification use and a client demonstration may include but is not limited to:
 - a) Ask client about humidifier use,
 - b) Ensure client is checking water levels and refilling as needed,
 - c) Ensure the client is using heated humidification and the humidifier has correct settings and is as comfortable as possible,
 - d) Consider a trial of heated tubing which can increase compliance,
 - Trial for a minimum of 2 weeks
 - e) Check that the mask fit is appropriate or ensure there are minimal mouth leaks,
 - Trial for a minimum of 2 weeks
 - Trial of a full-face mask
2. Trial of a saline rinse or spray
3. Nasal steroid spray
 - a) An **adequate** trial of daily use

B. Claustrophobia or Anxiety Issues

A small percentage of clients have true claustrophobia. In a controlled, supportive setting, ask the client to place their mask on their face. The client may exhibit signs or inability to apply the mask to their face. If a client is unable to tolerate a mask on their face the therapy choices are:

1. Gradual Exposure may include but is not limited to
 - a) Client wears mask alone for short daytime periods,
 - b) Lengthen periods,

- c) Progress to adding lower PAP pressures,
- d) Progress to higher PAP pressures,
- e) Falling asleep on PAP therapy.
- 2. Interface Trials
 - a) Mask troubleshooting
 - a. try using other interfaces, a minimum of 2*

C. Pressure Intolerance Issues

- 1. Difficulty exhaling against PAP pressure
 - a) Ramp settings adjusted
 - b) Daytime trials to help habituate the client to exhaling against the PAP pressure
 - c) Pressure relief option considered
 - d) Adjust PAP settings for optimal comfort
- 2. Pressure setting too low
 - a) Ramp setting too low where client can't draw in enough air
 - b) For CPAP users, auto-CPAP settings should be reviewed with most responsible physician to achieve optimal therapy

D. BPAP Habituation

The following guidelines should be used:

- 1. PSG Report Recommendations
 - a) The HCP should refer to the PSG report to assess if guidelines for habituation are available.
- 2. The MRP may provide guidance to determine the optimal PAP settings
- 3. Daytime trials
 - a) If PAP habituation guidelines are not available, the HCP will adjust pressures/rate as tolerated in an outpatient setting and ensure clients practice daytime trials only until habituation settings are reviewed and approved by the MRP

* Client may be charged by their specialty suppliers for additional masks

Definitions

Adequate means the prescribing physician's/nurse practitioner's agreed trial period to determine efficacy.

Controlled supportive setting means any outpatient setting such as a hospital clinic or doctor's office intended to provide initial and ongoing care to clients.

Health care professional (HCP) means any Allied Health or Nursing staff member who assists the MRP with PAP therapy clients.

Most responsible physician (MRP) means the primary physician or specialist who supports the client's PAP therapy initial and ongoing care.

PAP compliance standard means a minimum of 70 percentage PAP usage for greater than or equal to 4 hours per day.

Positive airway pressure (PAP) therapies means any non-invasive PAP device such as CPAP, BPAP, or ASV.

Record of Interventions for Improving Adherence to PAP Therapy means accompanying form to document interventions made to increase a client's PAP therapy compliance.



Record of Interventions for Improving Adherence to PAP Therapy

Last Name <i>(Legal)</i>		First Name <i>(Legal)</i>	
Preferred Name <input type="checkbox"/> Last <input type="checkbox"/> First		DOB <i>(dd-Mm-yyyy)</i>	
PHN	ULI <input type="checkbox"/> Same as PHN	MRN	
Administrative Gender <input type="checkbox"/> Male <input type="checkbox"/> Female		<input type="checkbox"/> Non-binary/Prefer not to disclose (X) <input type="checkbox"/> Unknown	

Most Responsible Physician Last Name	Most Responsible Physician First Name
Health Care Professional Last Name	Health Care Professional First Name
Designation	
Intervention Record	
Nasal Congestion? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If client experiences nasal congestion as a barrier to PAP adherence, complete the following:	
▶ Is humidification adequate?	<input type="checkbox"/> Yes <input type="checkbox"/> No
▶ Was a nasal rinse/nasal steroid spray trialed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Claustrophobia/Anxiety? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If client experiences claustrophobia or anxiety, complete the following:	
▶ Gradual Exposure (please see appendix for documentation):	
▶ Daytime Mask Habitation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
▶ Nasal Interface Trial?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Pressure Intolerance? <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	
▶ Were ramp settings adjusted?	<input type="checkbox"/> Yes <input type="checkbox"/> No
▶ Was a pressure relief setting option used?	<input type="checkbox"/> Yes <input type="checkbox"/> No
▶ Is there a significant mask leak present?	<input type="checkbox"/> Yes <input type="checkbox"/> No
BPAP Habituation Daytime Trials? <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	
Patient to complete habituation chart (see appendix)	
Other Interventions: _____	

Has the client/ attempted all the interventions listed above? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Has the client/ decided to proceed with therapy? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Has the Most Responsible Physician been made aware of interventions made to date?	
If yes, please have them sign below:	
Most Responsible Physician <i>(last name)</i>	Most Responsible Physician <i>(first name)</i>
Signature	Date

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