The Need and Considerations for CPAP Reuse

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Our Facilitators

- **Carolyn Phillips**, M.Ed., CPAAC | Interim Director, Services and Education, Center for Inclusive Design & Innovation, College of Design, Georgia Institute of Technology; Director and Principal Investigator, Tools for Life and Pass It On Center

- **Liz Persaud** | Program and Outreach Manager, Tools for Life and Pass It On Center, Center for Inclusive Design & Innovation, Georgia Institute of Technology
Our Guest Speakers Today

CPAP in an AT Reuse Program

- Melisa Cranfield, MOTR/L Program Manager, ABLE Tech Device Reutilization Programs

Guidance for Safe Reuse of PAP Devices

- Connie Daniel, RSPGT; Clinical Director of three hospital-based Sleep Centers for Rush Health Systems, Meridian, MS
Today’s Webinar and Objectives

The webinar will address three objectives:

1. To explain the critical need for expanded reuse of CPAP devices;
2. To provide an overview of an established reuse program that includes CPAP; and
3. To understand the key operational and legal issues in sanitizing and dispensing (matching and re-assigning) the devices.
Carolyn Phillips

The Need for CPAP Reuse
Obstructive sleep apnea, the most frequently diagnosed sleep disorder, manifests in reduced airflow and interruptions of breathing during sleep.

- OSA is a chronic disease that increases the risk of, or exacerbates, other major illnesses including hypertension, stroke, congestive heart failure, cardiac arrhythmias and diabetes.

- OSA affects learning.

- OSA impairs safe operation of motor vehicles (driving and flying).
Incidences of Sleep Disorders

OSA has increased steadily — and in parallel with increasing obesity in the U.S. The estimated prevalence of OSA increased by as much as 50% between 1990 and 2010 in every age and BMI category studied.

Every third man and every sixth woman has sleep apnea.

“The effective treatment of sleep apnea is one of the keys to success as our nation attempts to reduce healthcare spending and improve chronic disease management.”

— Dr. Timothy Morgenthaler, past President, American Academy of Sleep Medicine
About Sleep Medicine

Sleep Medicine is a separately recognized area of specialization.

- A sleep specialist is a medical doctor who has completed additional education and training sleep, sleep disorders, and sleep-related conditions.

- Sleep medicine is a subspecialty within several medical specialties.

- Insurance companies may require testing in an accredited lab and diagnosis by a board-certified sleep physician.
Continuous positive airway pressure (CPAP) is the standard treatment for patients diagnosed with moderate and severe obstructive sleep apnea (OSA).

CPAP is provided by a small powered device connected to a facial mask (or nasal pillows) by a tube.

CPAP works by applying airflow pressure at a level determined to be appropriate to keep the airway open while the individual sleeps.
Why is CPAP reuse needed?

- To bridge the financial barriers to treatment for sleep apnea:
  - Those who are well-insured usually (but not always) have coverage for CPAP devices.
  - Even those who are insured may not be able to afford the deductibles or co-payments to acquire the devices.
  - Affordability of the testing and the devices is a barrier for the uninsured.
  - A barrier to continued compliance is affordability of replacement of accessories, especially masks, which are expensive and are expected to be replaced twice a year.
- To bridge the time gap for some people who are waiting for a device and have an immediate critical need.
Models of CPAP Reuse

- The most common reuse model is Sleep Labs or Centers – for testing.
- The American Sleep Apnea Association has provided a reuse program for more than 20 years.
- The Reggie White Sleep Disorders Foundation was established after OSA was implicated in the football player’s death.
- Some AT Act Programs, including Alabama’s STAR Network and Oklahoma’s Medicaid partnership, include the reuse of much-needed CPAP devices. Melisa Cranfield, Reuse Manager for OKDMERP, will describe the program.
Melisa Cranfield, Reuse Manager
Oklahoma Durable Medical Equipment Reuse Program (OKDMERP)

Reusing CPAP Devices
CPAP reuse has been a part of ABLE Tech’s Reutilization Program since its inception in 2012. BiPAPs were added approximately one year ago with good success.

Due to a contract with the Oklahoma Healthcare Authority (OHCA), CPAPs are given as first priority to SoonerCare (Oklahoma Medicaid) members. If, after 60 days, a SoonerCare member has not requested the device, it then goes to anyone else in the state of Oklahoma, free of charge.
ABLE Tech’s Device Reutilization Program was founded in 2012, through a partnership with OHCA, to provide specific medical items to Oklahomans free of charge. The impetus of this partnership was the Olmstead Act of 1999.

How CPAP was included:
CPAPs were in the original agreement with OHCA, though BiPAPs have only recently been added as an alternative for those who need more specialized support than a CPAP can provide.
Receive donations from many sources:
- Private consumers (the bulk of the donors)
- SoonerCare consumers who no longer need their device
- Local Long-Term Care Centers
- Local Hospices
- Occasionally, a local DME provider will donate last year’s models – predominantly masks and hoses but occasionally CPAP units as well
Who Refurbishes the Devices

- ABLE Tech’s Device Reutilization Program staff refurbishes the devices at the warehouse location in Oklahoma City.
Each device is checked to ensure functionality. It is plugged in and the employee makes sure the device is running. A CPAP pressure tester is used to ensure the unit is blowing at the stated pressure. Hours are checked on each machine – any machine over 24,000 hours is disposed of as most machines only run for 30,000 hours in perfect circumstances.
Any parts that are broken or missing are replaced. The Device Reutilization Program has an inventory of spare parts that have been donated along with CPAPs/BiPAPs over the years. The item is placed in a sanitized CPAP/BiPAP bag and given a number for redistribution.
Both manual cleaning (described in the next section of the webinar) and semi-automatic cleaning are options for sanitization of donated devices. A trifle expensive, but increasingly popular, the SoClean device is designed to clean machines for consumers.
SoClean Neutralizing Pre-Wash is a cleaning solution used to soak all of the appropriate parts. These parts are then rinsed off in clean water and dried with a paper towel.

Any parts that are not water-safe are sprayed with Clean Smart Disinfectant Spray.

All filters are changed, and the insides are wiped down with a toothbrush and the Clean Smart spray liquid.

The hose port is then attached to a SoClean and the SoClean sanitizes the unit.
As with all Protected Health Information (PHI), all customer data is kept in an encrypted computer system that can only be accessed by specific employees with a need to access that information.

No PHI is shared without the written consent of the customer.
Prescription Requirements

- In order to receive a CPAP or BiPAP, the customer must have:
  1. Prescription for specific device (CPAP vs BiPAP)
  2. Sleep Study performed within the past 5 years

- These are requirements set forth by OHCA in order to maintain the integrity of the program. Medical devices are only provided to those who truly need them.
Matching Devices to Customer

- All devices are categorized as either BiPAP or CPAP and given an inventory number.
- When an application is submitted and all paperwork is deemed complete, a device is issued to that customer based on the prescription and insurance information (Remember that all devices are subject to a 60-day waiting period for non-SoonerCare members.)
- ALL customers are encouraged to have a professional re-set the CPAP/BiPAP pressures to that of the prescription as the program is not qualified to do that, as of yet.
Customers are notified that their sleep doctors or local DME vendors can do this for them either for free or a nominal fee.

When a doctor sends a prescription for a PAP, they usually indicate the size and type of the mask that they would like their patient to receive. When available, these are provided (along with hoses) at no cost to the customer.
Guidance for Safe Reuse of CPAP
Recommendations for Reuse of CPAP

1. Discard used masks, hoses and headgear. Do not reassign.
2. Sanitize donated device for reuse. (more alternatives later).
3. Evaluate device for repair needs.
4. Store in a clean, secure area.
5. Seek donations of new masks and hoses.
6. Require prescriptions before re-assigning a device.
7. Know and follow the dispensing regulations for first-time set-up of a customer in your state.
8. Form partnerships with sleep professionals in your state.
1. Donated Device Intake

- Discard used mask, hose, headgear and chin strap.
- Retain base device with humidifier and any unopened masks, headgear, chin straps or filters.
- Sort any new, unused accessories into appropriate storage areas.

Evaluate the CPAP unit:
Determine the number of hours of usage of the machine to determine life expectancy. This is tracked by the machine itself. There is no fixed rule for life expectancy of the device. Five years is a common guideline for replacement, but the significant factor is how many hours the device has been used.
2. Sanitize Donated Device for Reuse

- Need a cleaning area with appropriate access to water, cleaning supplies and a drying area.
- Recommended supplies: Germicidal wipes, anti-bacterial soap or cleaning solution (e.g., Control III), or vinegar and warm water.
- Detach power cord.
- Remove water chamber (and gaskets inside humidifier if attached.)
- Discard the filter and install new one **after cleaning**.
- Soak water reservoir and gasket (if there is one) in antibacterial soap and water or 50/50 vinegar and water. Rinse thoroughly, then air dry.
- Clean hard surfaces of base unit with wipes, anti-bacterial soap and water, or cleaning solution. Allow to dry.
3. Evaluate Device for Needed Repairs

- CPAP devices are a combination of mechanical and computerized functions.
- Technicians need to be trained in the repair of CPAP devices. (You may be able to get this from a manufacturer, e.g., ResMed, Phillips Respironics, or a local DME provider.) Or, you may contract with a local provider to diagnose and repair devices. In-house repairs will require a properly equipped work area.
- Donated devices should be inspected for obvious defects or condition issues. Likely issues may be the blower motor or the PC board, or both.
  - Symptoms of mechanical problem with motor: noisy, no flow, ramp failure or odor contamination.
  - Symptoms of PC board problem: no power, blank data or download problem, fluctuating pressure, blinking display, or cracked, cloudy or blank display.
4. Storage Needs

As with all reuse operations, CPAP requires adequate storage areas for donated (unsanitized) devices, cleaning area, repair area and a storage area for devices awaiting distribution.

A significant storage need is an area for a variety of masks, if your program is planning to dispense a full setup for the patient. There are many types, and customer compliance depends on a comfortable mask.
5. Seek Donations of Masks and Hoses

- There are many, many types of masks.
- Possible sources:
  - Local sleep labs or hospitals who often get samples or must discard after fixed time periods.
  - CPAP manufacturers who introduce new styles.
6. Comply with Prescription Requirements

- CPAP devices are prescribed medical therapy. All states require prescriptions for PAP devices.
  - Those prescriptions detail exactly WHAT is to be dispensed, the pressure setting(s), and all supplemental supplies to be used with the PAP device. [We will see one on next slide.]
  - It indicates the type of mask (i.e., full face, nasal, etc.)
  - The ID of the medical provider ordering the device.
- Do not dispense devices without a prescription. That is a legal violation.
## Detailed Written Order

**Date:**

**Patient:**

**DOB:**

**Device:**

**Setting:**

**Diagnosis:**

**ICD-10:**

**AHI:**

**Length of Need:**

**Please provide the following supplies as needed:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A7030</td>
<td>Full Mask – 1 per 3 months</td>
<td></td>
</tr>
<tr>
<td>A7031</td>
<td>Full Face Mask Cushion – 1 per month</td>
<td></td>
</tr>
<tr>
<td>A7034</td>
<td>Nasal Pillow Interface – 1 per 3 months</td>
<td></td>
</tr>
<tr>
<td>A7033</td>
<td>Nasal Pillows – 2 per month</td>
<td></td>
</tr>
<tr>
<td>A7034</td>
<td>Nasal Mask – 1 per 3 months</td>
<td></td>
</tr>
<tr>
<td>A7032</td>
<td>Nasal Cushion – 2 per month</td>
<td></td>
</tr>
<tr>
<td>A7035</td>
<td>Headgear – 1 per 6 months</td>
<td></td>
</tr>
<tr>
<td>A7038</td>
<td>Chin Strap – 1 per 6 months</td>
<td></td>
</tr>
<tr>
<td>A7037</td>
<td>Tubing – 1 per 3 months, 15 mm / 22 mm</td>
<td></td>
</tr>
<tr>
<td>A4604</td>
<td>Heated Tubing – 1 per 3 months, 16 mm / 22 mm</td>
<td></td>
</tr>
<tr>
<td>A7038</td>
<td>Disposable Filters – 2 per month</td>
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<tr>
<td>A7039</td>
<td>Non-disposable filter – 1 per month</td>
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</tr>
<tr>
<td>E0601</td>
<td>CPAP Machine with auto capabilities</td>
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</tr>
<tr>
<td>E0470</td>
<td>BIPAP Machine with auto capabilities</td>
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</tr>
<tr>
<td>E0471</td>
<td>BIPAP ASV Machine</td>
<td></td>
</tr>
<tr>
<td>E0582</td>
<td>Heated Humidifier / 70MB Chamber</td>
<td></td>
</tr>
</tbody>
</table>

*Please discuss possible purchase of SoClean device to facilitate sanitization of CPAP/BIPAP device and supplies.*

**Additional Information:**

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Is the patient's AHI > 15 events per hour or 5-15 events per hour with documented symptoms of excessive daytime sleepiness, impaired cognition, mood disorders, insomnia, hypertension, ischemic heart disease, or history of stroke? **YES** | **NO**

AHI is calculated based on a minimum of two hours of recorded sleep and calculated using the actual recorded
7. Matching Devices to Customer

- In medicine, this is called “dispensing” – just like drugs.
- Most states have laws that define the credentials of the personnel allowed to “dispense” a CPAP machine – that is, who can set up a new user with a CPAP device.
- In many states, the designated person must be a registered sleep technologist or a registered respiratory therapist.
- The person who “dispenses” the device must ensure that the pressure setting matches the prescription and that the mask is properly fitted.
Partnership Suggestions for CPAP Reuse

- As with most reuse, we want commercial DME providers to understand that we are not diverting revenue from them, but trying to serve those who cannot afford to purchase their products.
- Introduce yourself and the program to marketing reps from CPAP manufacturers.
- CPAP reuse can have an impact on one of our biggest health crises. Medical professionals need this resource and will appreciate it for their patients. You may get some reciprocal assistance from them.
  - Get to know local sleep professionals (physicians, clinic/lab managers, techs).
  - Get acquainted with folks who participate in your state sleep association. You may be able to get on their annual or semi-annual meeting program to discuss the reuse program. (Some states are more active than others.)
Questions?
We Need Your Feedback!

Please follow the link for an evaluation of today’s webinar.

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