

Suction Pumps

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Introduction

Suction pumps are addressed in this guideline.

Health Equity Consideration

Health equity is the highest level of health for all individuals; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which individuals are born, grow, live, work, and age. Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include the following: safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

Criteria

A gastric suction pump (HCPCS E2000) and associated supplies (e.g., tubing) are considered medically necessary for individuals unable to evacuate gastric secretions through conventional gastrointestinal function.

A respiratory suction pump (HCPCS E0600) is considered medically necessary for individuals who have difficulty raising or clearing secretions due to **any** of the following conditions:

- cancer or surgery of the throat or mouth
- an impairment of the swallowing muscles
- an unconscious state
- tracheostomy

Tracheal suction catheters (HCPCS A4624) are considered medically necessary when **both** of the following conditions have been met:

- The individual has a tracheostomy.
- The individual requires the use of a respiratory suction pump (HCPCS E0600) for tracheostomy suctioning.

Closed system catheters (HCPCS A4605) are considered medically necessary when **any** of the following conditions are met:

- The individual has a tracheostomy.
- The individual requires the use of a respiratory suction pump (HCPCS E0600) for tracheostomy suctioning.
- The individual requires the use of a covered ventilator.

Non-tracheal suction catheters (HCPCS A4628) are considered medically necessary for suctioning in the oropharynx.

Sterile water/saline solution (HCPCS A4216, A4217) is considered medically necessary when used to clear a suction catheter (HCPCS A4624) after tracheostomy suctioning.

Quantity Limitations

More than three non-tracheal suction catheters (HCPCS A4628) per week are considered not medically necessary.

More than three tracheal suction catheters (HCPCS A4624) per day are considered not medically necessary

Evidence Discussion

The American Association for Respiratory Care (AARC) Clinical Practice Guideline on artificial airway suctioning emphasized suctioning as a critical intervention for maintaining airway patency and preventing complications associated with secretion retention in individuals with tracheostomies or endotracheal tubes. The guideline supports suctioning when there are clinical indications such as visible or audible secretions, increased airway resistance, or decreased oxygen saturation, noting that secretion buildup can lead to hypoxemia, atelectasis, and infection. Studies showed significant associations (e.g., improved SpO₂ after suctioning in pediatrics and strong indicators such as sawtooth flow pattern, visible secretions, and tracheal sounds in adults; several signals reached $p < .001$). Collectively, these evidence-based recommendations supported the medical necessity of access to suction equipment in the home for individuals with artificial airways, given that timely suctioning has been standard of care to maintain airway patency, improve gas exchange, and reduce morbidity (Blakeman et al., 2022).

A 2023 scoping review by Weidlich et al. evaluated individual and caregiver experiences (n=210) with home tracheostomy care, emphasizing secretion management and suctioning as essential components of daily care. Among respondents, 100% reported suctioning as a routine task, with median frequency of 8 times per day (range: 2–20), and 72% indicated that suctioning was required urgently at least once daily. Lack of access to suction pumps had been associated with increased complications, including

mucus plugging in 38% of cases and respiratory infections in 41%, often leading to emergency department visits or readmissions. Conversely, reliable suction equipment had been linked to improved airway patency and reduced acute respiratory distress episodes.

A 2025 longitudinal cohort study by Pandian et al. evaluated 220 individuals with a tracheostomy over a 3-year period to determine the impact of structured follow-up care on post-discharge outcomes, focusing on secretion management and suctioning. Individuals who received comprehensive follow-up, including suction training and equipment checks, experienced a 42% reduction in airway complications and a 36% lower readmission rate compared to those without structured support. Access to reliable suction pumps had been strongly associated with improved airway patency and fewer episodes of mucus plugging, which occurred in only 12% of the follow-up group versus 28% in the control group. Caregivers reported suctioning as a frequent intervention, often performed multiple times daily, and emphasized the necessity of portable, dependable suction devices for maintaining respiratory stability and quality of life at home.

A 2021 retrospective cohort analysis of individuals undergoing endoscopically placed venting percutaneous gastrostomy showed statistically significant improvement in core symptoms including nausea ($p=0.006$), vomiting ($p<0.001$), abdominal distension ($p<0.001$), and abdominal pain ($p=0.002$) following venting percutaneous endoscopic gastrostomy (vPEG) placement, with no major procedure-related complications such as bleeding, perforation, or peritonitis (Porter et al.). These findings underscored the utility of venting gastrostomy as a durable and low-risk method for long-term symptom control in both benign and malignant gastrointestinal obstruction.

The Society of Interventional Radiology (SIR) and the American Gastroenterological Association (AGA) have issued multidisciplinary guidelines outlining the indications for gastrostomy placement for enteral nutrition and gastrointestinal decompression, emphasizing the role of long-term drainage support in individuals with chronic obstruction or motility disorders. These guidelines detail individual selection considerations, procedural techniques, and maintenance practices, noting that gastrostomy-based decompression is clinically appropriate when persistent gastric or small bowel distension results in functional impairment, nutritional compromise, or recurrent healthcare utilization (Itkin et al., 2011).

Codes

HCPCS code descriptions

HCPCS Code	Description
E0600	Respiratory suction pump, home model, portable or stationary, electric
E2000	Gastric suction pump, home model, portable or stationary, electric
E2001	Suction pump, home model, portable or stationary, electric, any type, for use with external urine and/or fecal management system
A4605	Tracheal suction catheter, closed system, each
A4216	Sterile water, saline and/or dextrose, diluent/flush, 10 mL
A4217	Sterile water/saline, 500 mL
A4624	Tracheal suction catheter, any type other than closed system, each
A4628	Oral and/or oropharyngeal suction catheter, each
A7001	Canister, non-disposable, used with suction pump, each
A7002	Tubing, used with suction pump, each
A7047	Oral interface used with respiratory suction pump, each

References

Blakeman, T. C., Scott, J. B., Yoder, M. A., Capellari, E., & Strickland, S. L. (2022). *AARC clinical practice guidelines: Artificial airway suctioning*. *Respiratory Care*.67(2), 258–271. <https://doi.org/10.4187/respcare.0954>

Centers for Medicare & Medicaid Services. (2023). *LCD – Suction pumps* (L33612). <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=33612&ver=26>

Centers for Medicare & Medicaid Services. (2024). *Suction pumps – Policy article* (A52519). <https://www.cms.gov/medicare-coverage-database/view/article.aspx?articleid=52519&ver=39>

Itkin, M., DeLegge, M. H., Fang, J. C., McClave, S. A., Kundu, S., d'Othee, B. J., Martinez-Salazar, G. M., Sacks, D., Swan, T. L., Towbin, R. B., Walker, T. G., Wojak,

J. C., Zuckerman, D. A., Cardella, J. F., Society of Interventional Radiology, American Gastroenterological Association Institute, Canadian Interventional Radiological Association, & Cardiovascular and Interventional Radiological Society of Europe (2011). *Multidisciplinary practical guidelines for gastrointestinal access for enteral nutrition and decompression from the Society of Interventional Radiology and American Gastroenterological Association (AGA) Institute, with endorsement by Canadian Interventional Radiological Association (CIRA) and Cardiovascular and Interventional Radiological Society of Europe (CIRSE)*. *Gastroenterology*, 141(2), 742–765. <https://doi.org/10.1053/j.gastro.2011.06.001>

Pandian, V., Maragos, C. S., Panickar, A., et al. (2025). *The impact of follow-up care on tracheostomy management post-hospital discharge: A longitudinal cohort study of clinical outcomes, quality of life, and long-term recovery*. *Tracheostomy*, 2(1). <https://doi.org/10.62905/001c.132162>

Porter, R. J., McKinlay, A. W., & Metcalfe, E. L. (2021). *Endoscopically placed venting gastrostomy can be a safe and effective palliative intervention in benign and malignant gastrointestinal obstruction*. *Frontline Gastroenterology*, 13(4), 309–315

Weidlich, S., Pfeiffer, J. P., & Kugler, C. (2023). *Self-management of patients with tracheostomy in the home setting: A scoping review*. *Journal of Patient-Reported Outcomes*, 7(1). <https://doi.org/10.1186/s41687-023-00643-2>