State of New Jersey
DEPARTMENT OF HEALTH
OFFICE OF EMERGENCY MEDICAL SERVICES
PO BOX 360
TRENTON, N.J. 08625-0360
www.nj.gov/health

PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

KAITLAN BASTON, MD, MSC, DFASAM
Commissioner

To: New Jersey EMS Community

From: Candace Gardner, Director, Office of Emergency Medical Services
Dr. Novneet Sahu, Medical Director, Office of Emergency Medical Services

Date: February 11, 2025

Subject: Anti-Choking ad Suction-Based Airway Clearance Devices

The New Jersey Department of Health (Department) Office of Emergency Medical Services (OEMS) recognizes that there are several devices marketed to be used in the case of a foreign body airway obstruction (choking) in the community setting.

There is evolving information on the safety and efficacy of anti-choking and suction-based airway clearance device marketed products. Based upon the most recent information available regarding these products, the OEMS conducted an additional review to determine whether they are safe and effective for use by emergency medical service providers regulated by OEMS. From this review, OEMS came to the following determinations:

- These devices are not approved or cleared by the United States Food and Drug Administration (FDA). The FDA issued a safety communication on April 22, 2024, detailing concerns with such devices. The safety and effectiveness of anti-choking devices that are being sold over-the-counter have not been established; they are not FDA approved or cleared. Per the FDA, "[c]onsumers should be aware that using anti-choking devices first could delay action, as consumers usually have to take them out of packaging, assemble them, and follow device instructions, which may delay the use of established rescue protocols." See https://www.fda.gov/medical-devices/safety-communications/fda-encourages-public-follow-established-choking-rescue-protocols-fda-safety-communication

- The current evidence is insufficient to confirm the efficacy and safety of these devices in clinical practice.

    - According to updated American Red Cross guidelines, suction-based, negative pressure anti-choking devices should not be used routinely, however, if standard first aid for management of choking or foreign body airway obstruction is not effective or not feasible, anti-choking devices may be considered for attempted relief of airway obstruction.

    - Other organizations that develop guidelines for first aid such as the American Heart Association do not include the use of these devices in guidelines. The International Liaison Committee on Resuscitation suggests against the routine

use of suction-based airway clearance devices. (American Red Cross 2023; Couper et al. 2020; Dunne et al.2020; Dunne, Osman, et al. 2022; Dunne, Queiroga, et al. 2022, Parri et al 2024, Wyckoff et al. 2022).

- OEMS guidance is grounded in evidence-based, peer-reviewed research and medical expert consensus, including the Mobile Intensive Care Advisory Council, the members of which are the medical directors from each of the mobile intensive care programs in the State with oversight over advanced and the majority of basic life support emergency medical services in the State.

The Department is committed to patient safety and, to this end, will continue to review the equipment and supplies that are necessary and appropriate for the provision of high-quality emergency medical care in this State. Accordingly, the Department will continue to monitor anti-choking and suction-based airway clearance devices for further developments and research on their use in the provision of emergency medical care.

However, in conclusion, OEMS neither endorses nor approves of the utilization of these devices by pre-hospital health care providers (EMTs, paramedics, etc.) in pre-hospital settings or during non-emergency medical transports. As such, OEMS continues to endorse that pre-hospital providers follow AHA guidelines for the management of foreign body airway obstruction appropriate to their level of training.

References

American Red Cross. Proceedings of the American Red Cross Scientific Advisory Council Summer Meeting June 2023. Volume 11, Number 2. https://arc-phss.my.salesforce.com/sfc/p/#d0000000bxKz/a/3o000001yi4X/C2C6vMMUzLahjOdtGuqdCBylDS91536O2yRVI5hsMGg

American Red Cross. Management of Foreign Body Airway Obstruction. 2023. https://redcrossdb.wpengine.com/guidelines-database/foreign-body-airway-obstruction/?_gl=1*19zijez*_ga*MTk2Nzk4NzA5NS4xNzM2NTE3MDA1*_ga_1VSV5D0X2T*MTczNjUyMDA5MC4xLjAuMTczNjUyMDA5MC4wLjAuMA..*_fplc*NzAxenZtQ1I1TnI1b09FTkVRR0glMkJiMDFQNjZQeUFpUDVMWnVubVRyUEQ5UE9Ub013JTJGUXElMkZaZnRQY2tjeWhxTHhjdVlKU3VKY2pVUnJlSnZQbG9KS08wZjRNVVlaekdTd2tmbHdtSUJPVjVoSSUyRk1hUWp6JTJGQVclMkJXJTJCYzJ5TUElM0QlM0Q.

Couper K, Abu Hassan A, Ohri V, et al. Foreign body airway obstruction in Adults and Children Consensus on Science with Treatment Recommendations: International Liaison Committee on Resuscitation (ILCOR) Basic Life Support Task Force. 2020 Accessed October 11, 2024. **https://costr.ilcor.org/document/removal-of-foreign-body-airway-obstruction-tfsr-costr**

Dechoker. (n.d.). Dechoker - choking airway clearing device. Retrieved March 8, 2023, from https://www.dechoker.com/

Dunne, C. I., Peden, A. E., Queiroga, A. C., Gomez Gonzalez, C., Valesco, B., & Szpilman, D. (2020). A systematic review on the effectiveness of anti-choking suction devices and

identification of research gaps. Resuscitation, 153, 219–226. https://doi.org/10.1016/j.resuscitation.2020.02.021

Dunne, C. L., Osman, S., Viguers, K., Queiroga, A., Szpilman, D., & Peden, A. E. (2022). Phase one of a global evaluation of suction-based airway clearance devices in foreign body airway obstructions: A retrospective descriptive analysis. International Journal of Environmental Research and Public Health, 19(7), 3846. https://doi.org/10.3390/ijerph19073846

Dunne, C. L., Queiroga, C., Szpiman, D., Viguers, K., Osman, S., & Peden, A. E. (2022). A protocol for the prospective evaluation of novel suction-based airway clearance devices in the treatment of foreign body airway obstructions. Cureus. https://doi.org/10.7759/cureus.20918

Food and Drug Administration. (n.d.). Devices@fda. U.S. Food and Drug Administration. https://www.accessdata.fda.gov/scripts/cdrh/devicesatfda/index.cfm

Food and Drug Administration. FDA Encourages the Public to Follow Established Choking Rescue Protocols: FDA Safety Communication. April 22, 2024. https://www.fda.gov/medical-devices/safety-communications/fda-encourages-public-follow-established-choking-rescue-protocols-fda-safety-communication

Lifevac. (n.d.). Official site of lifevac. LifeVac. Retrieved March 8, 2023, from https://lifevac.net/
Parri, Niccolò ; Madera, Anna ; D'Aiuto, Francesca ; Zampogna, Stefania ; Milani, Gregorio Paolo. Systematic review shows that suction-based airway clearance devices for foreign body airway obstruction are promising. Acta Paediatrica, 2024-07, Vol.113 (7), p.1701-1702

Wyckoff et al, “2022 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations: Summary From the Basic Life Support; Advanced Life Support; Pediatric Life Support; Neonatal Life Support; Education, Implementation, and Teams; and First Aid Task Forces” https://www.ahajournals.org/doi/pdf/10.1161/cir.0000000000001095