

LITERATURA

- Cole P. Some aspects of temperature, moisture and heat relationships in the upper respiratory tract. *J Laryngol Otol.* 1953 Aug;67(8):449-56. doi: 10.1017/s0022215100048908. PMID: 13085046.
- Lassen HC. A preliminary report on the 1952 epidemic of poliomyelitis in Copenhagen with special reference to the treatment of acute respiratory insufficiency. *Lancet.* 1953 Jan 3;1(6749):37-41. doi: 10.1016/s0140-6736(53)92530-6. PMID: 13011944.
- Drägerwerk Lübeck. Deutsches Patentamt Patentschrift 1 169 615. Lübeck: Drägerwerk, August 27, 1954 Aug 27.
- Walley RV. Humidifier for use with tracheotomy and positive-pressure respiration. *Lancet.* 1956 May 26;270(6926):781-2. doi: 10.1016/s0140-6736(56)91245-4. PMID: 13320881.
- Koch H, Allander C, Ingelstedt S, Toremalm NG. A method for humidifying inspired air in posttracheotomy care. *Ann Otol Rhinol Laryngol.* 1958 Dec;67(4):991-1004. doi: 10.1177/000348945806700409. PMID: 13606695.
- Déry R, Pelletier J, Jacques A, Clavet M, Houde JJ. Humidity in anaesthesiology. 3. Heat and moisture patterns in the respiratory tract during anaesthesia with the semi-closed system. *Can Anaesth Soc J.* 1967 Jul;14(4):287-98. doi: 10.1007/BF03003698. PMID: 6067948.
- Ingelstedt S. Studies on the conditioning of air in the respiratory tract. *Acta Otolaryngol Suppl.* 1956;131:1-80. PMID: 13381446.
- Chamney AR. Humidification requirements and techniques. Including a review of the performance of equipment in current use. *Anaesthesia.* 1969 Oct;24(4):602-17. doi: 10.1111/j.1365-2044.1969.tb02914.x. PMID: 4900398.
- Esquinas AM. Humidification in the Intensive Care Unit. 2nd ed. Springer Cham; 2023. ISBN 978-3-031-23952-6. doi:10.1007/978-3-031-23953-3.
- Williams R, Rankin N, Smith T, Galler D, Seakins P. Relationship between the humidity and temperature of inspired gas and the function of the airway mucosa. *Crit Care Med.* 1996 Nov;24(11):1920-9. doi: 10.1097/00003246-199611000-00025. PMID: 8917046.
- Chalon J, Loew DA, Malebranche J. Effects of dry anesthetic gases on tracheobronchial ciliated epithelium. *Anesthesiology.* 1972 Sep;37(3):338-43. doi: 10.1097/00000542-197209000-00010. PMID: 4115208.
- American Association for Respiratory Care; Restrepo RD, Walsh BK. Humidification during invasive and noninvasive mechanical ventilation: 2012. *Respir Care.* 2012 May;57(5):782-8. doi: 10.4187/respcare.01766. PMID: 22546299.
- Vargas M, Chiumello D, Sutherasan Y, Ball L, Esquinas AM, Pelosi P, et al. Heat and moisture exchangers (HMEs) and heated humidifiers (HHs) in adult critically ill patients: a systematic review, meta-analysis and meta-regression of randomized controlled trials. *Crit Care.* 2017 May 29;21(1):123. doi: 10.1186/s13054-017-1710-5. PMID: 28552074; PMCID: PMC5447307.
- Al Ashry HS, Modrykamien AM. Humidification during mechanical ventilation in the adult patient. *Biomed Res Int.* 2014; 2014:715434. doi: 10.1155/2014/715434. Epub 2014 Jun 25. PMID: 25089275; PMCID: PMC4096064.
- Gillies D, Todd DA, Foster JP, Batuwitage BT. Heat and moisture exchangers versus heated humidifiers for mechanically ventilated adults and children. *Cochrane Database Syst Rev.* 2017 Sep 14;9(9):CD004711. doi: 10.1002/14651858.CD004711.pub3. PMID: 28905374; PMCID: PMC6483749.
- Al Dorzi HM, Ghanem AG, Hegazy MM, Al Matrood A, Alchin J, Mutairi M, et al. Humidification during mechanical ventilation to prevent endotracheal tube occlusion in critically ill patients: A case control study. *Ann Thorac Med.* 2022 Jan-Mar;17(1):37-43. doi: 10.4103/atm.atm_135_21. Epub 2022 Jan 14. PMID: 35198047; PMCID: PMC8809127.
- Lucato JJ, Tucci MR, Schettino GP, Adams AB, Fu C, Forti G Jr, et al. Evaluation of resistance in 8 different heat-and-moisture exchangers: effects of saturation and flow rate/profile. *Respir Care.* 2005 May;50(5):636-43. PMID: 15871758.
- Dräger. Drägerwerk AG & Co: Dräger Medical, s. r. o. (Česká republika); 2022. DMC-103371 | 22.09-1.
- ČSN EN ISO 9360-2 (852769). Anestetická a respirační zařízení – Výměníky tepla a vlhkosti pro zvlhčování vdechovaných plynů u lidí: Část 2: Výměníky tepla a vlhkosti pro použití u pacientů při tracheostomii s minimálními dechovými objemy od 250 ml. Praha: ČSN; říjen 2009.
- Filippini M, Serpelloni M, Quaranta V, Bellitti P, Sardini E, Latronico N. A New Method for In Vivo Analysis of the Performances of a Heat and Moisture Exchanger (HME) in Mechanically Ventilated Patients. *Pulm Med.* 2019 Feb 26;2019:9270615. doi: 10.1155/2019/9270615. PMID: 30937191; PMCID: PMC6413364.
- American Association for Respiratory Care; Restrepo RD, Walsh BK. Humidification during invasive and noninvasive mechanical ventilation: 2012. *Respir Care.* 2012 May;57(5):782-8. doi: 10.4187/respcare.01766. PMID: 22546299.
- Cheirón. HME Booster [Internet]. Praha: Cheirón, a. s.; 2023 [cited 28. 8. 2023].
- Cheirón. Anestezie a plicní ventilace [Internet]. Praha: Cheirón, a. s.; 2023 [cited 28. 8. 2023].
- Amimedical. H900 - aktivní zvlhčovač pro plicní ventilaci [Internet]. Praha: Analytical Medical Instruments, s. r. o.; 2023 [cited 28. 8. 2023].
- Shimoda T, Sekino M, Higashijima U, Matsumoto S, Sato S, Yano R, et al. Removal of a catheter mount and heat-and-moisture exchanger improves hypercapnia in patients with acute respiratory distress syndrome: A retrospective observational study. *Medicine (Baltimore).* 2021 Sep 10;100(36):e27199. doi: 10.1097/MD.00000000000027199. PMID: 34516524; PMCID: PMC8428744.
- Ahmed SM, Mahajan J, Nadeem A. Comparison of two different types of heat and moisture exchangers in ventilated patients. *J Emerg Trauma Shock.* 2009 Sep;2(3):164-9. doi: 10.4103/0974-2700.55327. PMID: 20009305; PMCID: PMC2776363.
- Suliman HS, Fecura SE, Baskin J, Kalns JE. Laboratory evaluation of 10 heat and moisture exchangers using simulated aeromedical evacuation conditions. *Mil Med.* 2011 Jun;176(6):656-9. doi: 10.7205/milmed-d-10-00198. PMID: 21702383.
- Dewasurendra AM, McHugh SM. High Peak Inspiratory Pressures After a Change of Heat and Moisture Exchangers: A Case Series. *A J Pract.* 2021 Jun 10;15(6):e01483. doi: 10.1213/XAA.0000000000001483. PMID: 34111034.
- Hallo-Carrasco A, Gruenbaum BF, Gruenbaum SE. Heat and Moisture Exchanger Occlusion Leading to Sudden Increased Airway Pressure: A Case Report Using ChatGPT as a Personal Writing Assistant. *Cureus.* 2023 Apr 8;15(4):e37306. doi: 10.7759/cureus.37306. PMID: 37168205; PMCID: PMC10166637.
- Patel V, Dean J, Vayalil Lawrence J, Selvanayagam S, Blunt MC, Young PJ. Humidicare - an implementation study of a novel HME safety device designed to prevent ventilator circuit occlusion due to inadvertent dual humidification. *J Med Eng Technol.* 2021 Feb;45(2):129-135. doi: 10.1080/03091902.2021.1873440. Epub 2021 Feb 8. PMID: 33554700.
- Doyle A, Mariyaselvam M, Wijewardena G, English N, Gent E, Young P. The simultaneous use of a heat and moisture exchanger and a heated humidifier causes critical airway occlusion in less than 24 hours. *J Crit Care.* 2015 Aug;30(4):863.e1-3. doi: 10.1016/j.jcrc.2015.03.033. Epub 2015 Apr 8. PMID: 25937239.
- Udeshi A, Cantie SM, Pierre E. Postobstructive pulmonary edema. *J Crit Care.* 2010 Sep;25(3):508.e1-5. doi: 10.1016/j.jcrc.2009.12.014. Epub 2010 Apr 22. PMID: 20413250.
- Ari A, Alwadeai KS, Fink JB. Effects of Heat and Moisture Exchangers and Exhaled Humidity on Aerosol Deposition in a Simulated Ventilator-Dependent Adult Lung Model. *Respir Care.* 2017 May;62(5):538-543. doi: 10.4187/respcare.05015. Epub 2017 Mar 7. PMID: 28270542.
- Ari A, Dang T, Al Enazi FH, Alqahtani MM, Alkhatami A, Qoutah R, et al. Effect of Heat Moisture Exchanger on Aerosol Drug Delivery and Airway Resistance in Simulated Ventilator-Dependent Adults Using Jet and Mesh Nebulizers. *J Aerosol Med Pulm Drug Deliv.* 2018 Feb;31(1):42-48. doi: 10.1089/jamp.2016.1347. Epub 2017 Aug 22. PMID: 28829202.
- Meneguetti MG, Auxiliadora-Martins M, Nunes AA. Effectiveness of heat and moisture exchangers in preventing ventilator-associated pneumonia in critically ill patients: a meta-analysis. *BMC Anesthesiol.* 2014 Dec 13;14:115. doi: 10.1186/1471-2253-14-115. PMID: 25844065; PMCID: PMC4384307.
- Lucato JJJ, Barbosa RCC, Picanço PSA, Cunha TMND, Righetti RF. Influence of a heat and moisture exchanger with a microbiological filter on measurements of maximal respiratory pressures and vital capacity in patients with COPD. *J Bras Pneumol.* 2019 Dec 13;46(1):e20190054. doi: 10.1590/1806-3713/e20190054. PMID: 31851222; PMCID: PMC7462669.
- Schreiber AF, Ceriana P, Ambrosino N, Piran M, Malovini A, Carlucci A. Short-Term Effects of an Active Heat-and-Moisture Exchanger During Invasive Ventilation. *Respir Care.* 2019 Oct;64(10):1215-1221. doi: 10.4187/respcare.06799. Epub 2019 Jul 3. PMID: 31270176.
- Tamashiro S, Nakayama I, Gibo K, Izawa J. Comparison of mainstream end tidal carbon dioxide on Y-piece side versus patient side of heat and moisture exchanger filters in critically ill adult patients: a prospective observational study. *J Clin Monit Comput.* 2023 Apr;37(2):399-407. doi: 10.1007/s10877-022-00901-6. Epub 2022 Aug 3. PMID: 35920950; PMCID: PMC9362078.
- Lucato JJ, Nogueira da Cunha TM, Rocha SS, Palmieri de Carvalho FM, Botega DC, Torquato JA, Gimenes AC et al. Influence of heat and moisture exchanger use on measurements performed with manovacuometer and respirometer in healthy adults. *Multidiscip Respir Med.* 2015 Dec 19;11:1. doi: 10.1186/s40248-015-0037-9. PMID: 26753093; PMCID: PMC4705747.
- Hess DR, Kallstrom TJ, Mottram CD, Myers TR, Sorenson HM, Vines DL; American Association for Respiratory Care. Care of the ventilator circuit and its relation to ventilator-associated pneumonia. *Respir Care.* 2003 Sep;48(9):869-79. PMID: 14513820.
- Liu H, Wang H, Mu Z, Ye L, Jiang Y. Heat and moisture exchanger used in a cardiothoracic surgery intensive care unit: Airway resistance and changing interval. *Turk Gogus Kalp Damar Cerrahisi Derg.* 2020 Oct 21;28(4):593-600. doi: 10.5606/tgkdc.dergisi.2020.20088. PMID: 33403131; PMCID: PMC7759046.
- Markowicz P, Ricard JD, Dreyfuss D, Mier L, Brun P, Coste F, et al. Safety, efficacy, and cost-effectiveness of mechanical ventilation with humidifying filters changed every 48 hours: a prospective, randomized study. *Crit Care Med.* 2000 Mar;28(3):665-71. doi: 10.1097/00003246-200003000-00011. PMID: 10752812.
- Ševčíková K. Důvody rozpojování ventilačního okruhu a jejich četnost u pacientů na umělé plicní ventilaci. Diplomová práce. Praha: 3. LFUK; 2023.
- Boyer A, Thiéry G, Lasry S, Pigné E, Salah A, de Lasseuse A, et al. Long-term mechanical ventilation with hygroscopic heat and moisture exchangers used for 48 hours: a prospective clinical, hygrometric, and bacteriologic study. *Crit Care Med.* 2003 Mar;31(3):823-9. doi: 10.1097/01.CCM.0000055382.87129.DD. PMID: 12626991.