Studies by Clinical Specialty (April 18, 2025) – 130 studies (Peer-Reviewed Published Papers, Abstracts, Letters Supporting the Accuracy of Exergen Temporal Artery Thermometry)

Copyrighted papers are available to qualified clinicians.

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ADULT

Artz BA, March KS, Grim RD (WellSpan Health–York Hospital). Clinical Nurse Specialists empowering staff to improve patient outcomes in temperature measurement: from PI/EBP to nursing research. 2011 National Association of Clinical Nurse Specialists National Conference Abstracts, March 10-12, 2011, Baltimore MD.

Bell 2020. Improving the Accuracy of Temporal Artery Thermometry in Pediatric Direct Care Providers: A Performance Improvement Project (2020). Doctor of Nursing Practice Projects. 12. https://digitalcommons.jsu.edu/etds_nursing/12.

Blake S, Fries K, Higginbotham L, Lorei C, McGee M, Murray R, Priest M, Rangel J, Remick-Erickson K, Schneider L, Vodopest B, Moore A. Evaluation of noninvasive thermometers in an endoscopy setting. Gastroenterol Nurs. 2019 Mar/Apr;42(2):123-131. doi: 10.1097/SGA.000000000000367.

Centikaya et al 2017. The predictive value of the modified early warning score with rapid lactate level (ViEWS-L) for mortality in patients of age 65 or older visiting the emergency department. Intern Emerg Med (2017) 12:1253–1257 DOI 10.1007/s11739-016-1559-7.

Espenhein A (County Hospital in Herley, Denmark). Temporal temperature measurement. Sygeplejersken 2006;(17):50-2.

Hansen, Bjørn Åsheim, et al. "The efficacy of pivmecillinam in oral step-down treatment in hospitalised patients with E. coli bacteremic urinary tract infection; a single-arm, uncontrolled treatment study." BMC Infectious Diseases 22.1 (2022): 478.

Harding C, Pompei M, Burmistrov D, Pompei F. Overlooked Bias with Thermometer Evaluations Using Quickly Retaken Temperatures in EHR: Axillary, Oral, Temporal Artery, and Tympanic Thermometry. J Gen Intern Med. 2021 Jun 2:1-3. doi: 10.1007/s11606-021-06930-2. Online ahead of print.

Hussain et al 2021. Proper use of noncontact infrared thermometry for temperature screening during COVID-19. Natureportfolio (2021) 11:11832 | https://doi.org/10.1038/s41598-021-90100-1.

Kerry JA. Exergen TAT-2000 Temporal Scanners and the role fomites play in disease transmission. Biological & Authorised Person Services, Wigan UK. May 2005.

Khan et al 2021. Comparative accuracy testing of non-contact infrared thermometers and temporal artery thermometers in an adult hospital setting. American Journal of Infection Control 49 (2021) 597–602. https://doi.org/10.1016/j.ajic.2020.09.012

McGrory 2018. Letter to the Editor on "Hypothermia in Total Joint Arthroplasty: A Wake-Up Call". The Journal of Arthroplasty 33 (2018) 3056e3059.

Obermeyer, Ziad, Jasmeet K. Samra, and Sendhil Mullainathan. "Individual differences in normal body temperature: longitudinal big data analysis of patient records." *Bmj* 359 (2017).

Park et al. 2018. Diagnostic Accuracy of Temporal Artery Temperatures Measurements. Journal of Korean Clinical Nursing Research Vol.24 No.2, 227-234, August 2018.

Pompei, F., & Pompei, M. (2023). Racial Differences in Detection of Fever Using Temporal vs Oral Temperature Measurements. JAMA, 329(4), 342-342.

Qadir 2019. How normal body temperature relevance with falooda ice cream loving. MOJ Food Processing & Technology. April 5, 2019.

Ravi, N., Vithyananthan, M., & Saidu, A. (2022). Are all thermometers equal? A study of three infrared thermometers to detect fever in an African outpatient clinic. PeerJ, 10, e13283.

Schaeffer A (2022). Temporal Artery (TA) Thermometry; is it as Effective as Axillary or Oral in Detecting Fever in Immunocompromised Children? Johns Hopkins Hospital Poster downloaded June 28, 2022.

ADULT CCU

Barry L, Branco J, et al. The impact of user technique on temporal artery thermometer measurements. Nursing Critical Care: September 2016 - Volume 11 - Issue 5 - p 12–14.

Bridges E, Thomas K (University of Washington). Noninvasive measurement of body temperature in critically ill patients. Crit. Care Nurse. 2009; 29(3): p. 94-97.

Carroll D, Finn C, Gill S, et al (Massachusetts General Hospital). A comparison of measurements from a temporal artery thermometer and a pulmonary artery catheter thermometer. Am J Crit Care. 2004;13:258.

Furlong D, Carroll D, Finn C, Gay D, Gryglik C, Donahue V (2015). Comparison of Temporal to Pulmonary Artery Temperature in Febrile Patients. Dimensions of Critical Care Nursing. 2015 Jan-Feb; 34(1):47-52. doi: 10.1097/DCC.00000000000000000.

Makic MB, VonRueden KT, Rauen CA, Chadwick J. Evidence-based practice habits: putting more sacred cows out to pasture. Crit Care Nurse. 2011 Apr;31(2):38-61; quiz 62.

Lawson L, Bridges E, Ballou I, Eraker R, Greco S, Shively J, Sochulak V. (University of Washington). Accuracy and precision of noninvasive temperature measurement in adult intensive care patients. Am. J. Crit. Care., Sep 2007; 16:5, 485-496.

Lawson L, Bridges E, Ballou I, Eraker R, Greco S, Shively J, Sochulak V. (University of Washington). Temperature measurement in critically ill adults. Am. J. Crit. Care., May 2006; 15: 324 - 346.

JCRC-S-22-01218 submission. 8-10-2022.

ADULT ED

Aydin et al 2020. The Reliability of an Artificial Intelligence Tool, 'Decision Trees', in Emergency Medicine Triage. International Journal of Emergency Medicine. <u>DOI:</u> 10.21203/rs.3.rs-127447/v1 Under review.

Bordonaro S et al. 2016. Human temperatures for syndromic surveillance in the emergency department: data from the autumn wave of the 2009 swine flu (H1N1) pandemic and a seasonal influenza outbreak.

Foy S, McGillicuddy D, Pompei F, Sanchez L (Beth Israel Medical Center, Boston MA). Body Temperature Surveillance and Reporting in the Emergency Department: A Practical Sentinel for Pandemics and Bioterrorism. Presented at Society for Academic Emergency Medicine Annual Meeting, Phoenix AZ, June 3-6, 2010.

Pecoraro, Valentina, et al. "The diagnostic accuracy of digital, infrared and mercury-in-glass thermometers in measuring body temperature: a systematic review and network meta-analysis." *Internal and emergency medicine* 16 (2021): 1071-1083.

Reece R (2022). Are digital oral thermometers readings accurate in adult ED? <u>DOI:</u> 10.7759/cureus 22047.

Routhier D, Hostler D, Wolfson A, Wheeler M, Reynolds J (University of Pittsburgh). Comparison of temporal artery and oral temperatures in the emergency department. ACAD EMERG MED, May 2006, Vol. 13, No. 5, Suppl. 1, www.aemj.org, p. S99.

ADULT ICU

Dybwik K, Nielsen EW. Infrared temporal temperature measurement. Journal of the Norwegian Medical Association 2003; 123: 3025-6.

Myny D, DeWaele J, Defloor T, Blot S, Colardyn F (Ghent University Hospital, Ghent, Belgium). Temporal scanner thermometry: a new method of core temperature measurement in intensive care patients. SMJ 2005 45(1): 15-18.

Kirk D, Rainey T, Vail A, Childs C (University of Manchester, Salford Royal Foundation Trust). Infra-red thermometry: the reliability of tympanic and temporal artery readings for predicting brain temperature after severe traumatic brain injury. Crit Care. 2009 May 27;13(3):R81. [Epub ahead of print].

Rodrigues de Carvalho I, Mariana Avendanha Victoriano II, et. al. "Accuracy and precision of non-invasive thermometers compared with the pulmonary artery temperature: a cross-sectional study" (2024)

ADULT ONCOLOGY

Gates et al (2018). Oral Thermometer, Tympanic, Temporal Artery, Temperature, Measurement

CJON 2018, 22(6), 611-617. DOI: 10.1188/18.CJON.611-617.

Hughes D. Study recommends use of professional temporal thermometer in adults. Oncology Nurse Advisor April 27, 2013.

Mason TM, Reich RR, et al. Equivalence of temperature measurement methods in the adult hematology/oncology population. Clin J Oncol Nurs. 2015 Apr;19(2):E36-40. doi: 10.1188/15.CJON.E36-E40.

ADULT PACU

Fetzer SJ, Lawrence A (Southern New Hampshire Medical Center). Tympanic membrane versus temporal artery temperatures of adult perianesthesia patients. J Perianesth Nurs. 2008 Aug;23(4):230-6.

ADULT SURGERY

Calonder EM, Sendelbach S, Hodges JS, Gustafson C, Machemer C, Johnson D, Reiland L (Abbott Northwestern Hospital). Temperature measurement in patients undergoing colorectal surgery and gynecology surgery: a comparison of esophageal core, temporal artery, and oral methods. Journal of PeriAnesthesia Nursing, Volume 25, Issue 2, April 2010, Pages 71-78.

Haveman, Marjolein E., et al. "Continuous monitoring of vital signs with the Everion biosensor on the surgical ward: a clinical validation study." Expert review of medical devices 18.sup1 (2021): 145-152.

McConnell E, Senseney D, George S, Whipple D. Reliability of temporal artery thermometers. Medsurg Nursing 2013, Nov-Dec 2013, Vol. 22/No. 6, p387.

AMBULANCE

Carleton E, Fry B, Mulligan A, Bell A, Brossart C. Temporal artery thermometer use in the prehospital setting. Canadian Journal of Emergency Medicine 2012;14(1):7-13.

Boland LL et al. 2016. Prehospital Lactate Measurement by Emergency Medical Services in Patients Meeting Sepsis Criteria. West J Emerg Med. (2016).

Hirschhorn et al 2021. Exertional Heat Stroke Knowledge and Management among Emergency Medical Service Providers. Int. J. Environ. Res. Public Health 2021, 18, 5016. https://doi.org/10.3390/ijerph18095016.

BIOMEDICAL

Crossley B. Blanket warmers revisited and temporal thermometers. Biomedical Instrumentation and Technology, March/April 2012 p147.

Stern 2018. Taking the temperature of clinical efficiency. Biomedical Instrumentation and Technology. January/February 2018.

COST REDUCTION USING TAT

Hayes K, Shepard A, Cesarec A, et al. Cost minimisation analysis of thermometry in two different hospital systems. Postgrad Med J Published Online First: 18 January 2017, doi:10.1136/postgradmedj-2016-134630.

Kumana C. Minimising the costs of temperature monitoring in hospitals. Postgrad Med J Published Online First: 1 February 2017 doi:10.1136/postgradmedj-2017-134795.

DIABETIC FOOT ULCERS (DFU's)

Observational Study- Adv Skin Wound Care.2015 Jan;28(1):11-6. doi: 10.1097/01.ASW.0000459039.81701.b2. - <u>Validation of commercially available infrared</u> thermometers for measuring skin surface temperature associated with deep and surrounding wound infection

Observational Study- Adv Skin Wound Care2018 Jan;31(1):607-611. doi: 10.1097/01.ASW.0000527352.75716.70.- <u>Infrared Skin Thermometry: Validating and Comparing Techniques to Detect Periwound Skin Infection</u>

DOI https://doi.org/10.33235/wcet.39.1.18-22 - <u>Validation and inter-rater reliability of inexpensive</u>, mini, no-touch infrared surface thermometry devices as an assessment tool for <u>prediction of wound-related deep and surrounding infection</u>

Asfandyar Mufti, BMSc; Patricia Coutts, RN; and R. Gary Sibbald, BSc, MD, MEd, FRCPC(Med)(Derm), MACP, FAAD, MAPWCA, DSc(Hons) - <u>Validation of Commercially Available Infrared Thermometers for Measuring Skin Surface Temperature Associated with Deep and Surrounding Wound Infection</u>

Wound Reference - Exergen DermaTemp, Long Probe Model

<u>Journal of Foot and Ankle Research</u> **volume 13**, Article number: 56 (2020) - <u>Infrared dermal thermometry is highly reliable in the assessment of patients with Charcot neuroarthropathy</u>

Podiatry Institute - <u>CLINICAL USEFULNESS OF INFRARED THERMOGRAPHY</u>

METHODS PAPER

Bartolomé et al 2021. Effect of Handgrip Training in Extreme Heat on the Development of Handgrip Maximal Isometric Strength among Young Males. Int. J. Environ. Res. Public Health 2021, 18, 5240. https://doi.org/10.3390/ijerph18105240

Beall, Erik B., et al. "Principles and test methods of non-contact body thermometry." medRxiv (2022): 2022-01.

Byrne, Michelle L., et al. "Using mobile sensing data to assess stress: Associations with perceived and lifetime stress, mental health, sleep, and inflammation." Digital Health 7 (2021): 20552076211037227.

52. Byrne, Michelle L.,"Using mobile sensing data to assess stress: Associations with perceived and lifetime stress, mental health, sleep, and inflammation." PSYCHOLOGICAL STRESS AND MOBILE SENSING DATA. Digital Health 7 (2022).

Dursch et al 2018. Tear-Film Evaporation Rate from Simultaneous Ocular-Surface Temperature and Tear-Breakup Area. Optom Vis Sci 2018;95:5–12. doi:10.1097/OPX.00000000001156,

Harding C, Pompei F, Bordonaro SF, McGillicuddy DC, Burmistrov D, Sanchez LD. 2019. The daily, weekly, and seasonal cycles of body temperature analyzed at large scale. Chronobiol Int. 2019 Sep 17:1-12. doi: 10.1080/07420528.2019.1663863. [Epub ahead of print],

Hicks et al 2018. The Transcriptional Signature of a Runner's High. Med. Sci. Sports Exerc., Vol. 51, No. 5, pp. 970–978, 2019. DOI: 10.1249/MSS.000000000001865,

Jones et al 2019. Impacts of Hands-On Science Curriculum for Elementary School Students and Families Delivered on a Mobile Laboratory. Journal of STEM Outreach Vol. 2, January 2019. DOI: https://doi.org/10.15695/jstem/v2i1.02

O'Brien, Diane M., et al. "The breath carbon isotope ratio reflects Short-term added-sugar intake in a dose-response, crossover feeding study of 12 healthy adults." The Journal of Nutrition 151.3 (2021): 628-635.

Pompei F, Pompei M. Non-invasive temporal artery thermometry: Physics, Physiology, and Clinical Accuracy, presented at *Medical Thermometry for SARS Detection, SPIE Defense and Security Symposium*, available in *Conference Proceedings*, April, 2004.

Pompei F. Insufficiency in thermometer data. Anesth Analg. 2003 Mar;96(3):908-9.

Pompei F. RE: A brief report on the normal range of forehead temperature as determined by noncontact, handheld, infrared thermometer. Am J Infect Control. 2006 May;34(4):248-9.

Pompei F. Misguided guidelines on noninvasive thermometry. Crit Care Med. 2009 Jan;37(1):383; author reply 383-4.

NEONATES

Bindu et al. 2015. Newborn friendly thermometry – Comparative study of body temperature with an infrared versus digital thermometer. Indian J Child Health Vol 2 | Issue 2 | Apr - Jun 2015.

Haddad, L., Smith, S., Phillips, K.D., and Heidel, R.E. (2012). Comparison of temporal artery and axillary temperatures in healthy newborns. Journal of Obstetric, Gynecologic, & Neonatal Nursing, 41, 383-388; doi: 10.1111/j.1552-6909.2012.01367.x

Chiu SH, Anderson GC, Burkhammer MD (University of Akron/Case Western Reserve University). Newborn temperature during skin-to-skin breastfeeding in couples having breastfeeding difficulties. Birth. 2005 Jun;32(2):115-21.

Hargreaves L. (2017) Toolkit for implementation of temporal artery thermometers for neonates. ProQuest Number 10603156, Published by ProQuest LLC (2017).

Gunawan M, Soetjiningsih I (Udayana University, Sanglah Hospital, Denpasar, Indonesia). Comparison of the accuracy of body temperature measurements with temporal artery thermometer and axillary mercury thermometer in term newborns. Paediatr Indones, Vol. 50, No. 2, March 2010.

Ming Ann Sim, Syen Yee Leow, Ying Hao, Cheo Lian Yeo. A practical comparison of temporal artery thermometry and axillary thermometry in neonates under different environments. Journal of Paediatrics and Child Health, First published: 03 May 2016. https://doi.org/10.1111/jpc.13107

Ridvan Duran, Ülfet Vatansever, Betül Acunaş, Necdet Süt. Comparison of temporal artery, mid-forehead skin and axillary temperature recordings in preterm infants <1500g of birthweight* First published: 31 July 2009 *Presented as a 'Poster Presentation' at the 3rd Europaediatrics Congress, 14–17 June 2008, Istanbul, Turkey. https://doi.org/10.1111/j.1440-1754.2009.01526.x

Sandra Smith, Carlotta Keltner, Reetta Stikes, Pauline Hayes, Timothy N. Crawford. Comparison of Axillary and Temporal Artery Thermometry in Preterm Neonates. Journal of Obstetric, Gynecologic & Neonatal Nursing, 03 April 2018, https://doi.org/10.1016/j.jogn.2018.02.013

NICU

Burdjalov VF, Combs A, Nachman S, Baumgart S (SUNY at Stony Brook). Non-Invasive infrared temperature assessment of the temporal artery for core temperature determination in premature neonates, Presented American Pediatric Society and the Society for Pediatric Research, May 1, 2001.

Lee G, Flannery-Bergey D, Randall-Rollins K, Curry D, Rowe S, Teague M, Tuininga C, Schroeder S (Exempla Lutheran Medical Center). Accuracy of temporal artery thermometry in neonatal intensive care infants. Advances in Neonatal Care, Vol. 11, No. 1, pp. 62-70, Feb 2011.

Rollins K, Flannery-Bergey D. Accuracy of temporal artery thermometry in neonatal intensive care unit infants. JOGNN, 40, S85-S119; 2011. DOI: 10.1111/j.1552-6909.2011.01243.x.

Smith et al. Comparison of axillary and temporal artery thermometry in preterm neonates. J Obstet Gynecol Neonatal Nurs. 2018 Apr 3. pii: S0884-2175(18)30052-2. doi: 10.1016/j.jogn.2018.02.013. [Epub ahead of print].

PACU

Barringer LB, Evans CW, Ingram LL, Tisdale PP, Watson SP, Janken JK (Presbyterian Hospital Matthews). Agreement between temporal artery, oral, and axillary temperature measurements in the perioperative period. *J Perianesth Nurs*. 2011 Jun;26(3):143-50.

Bradley SL, Kwater AP, et al. Is skin temperature measurement in PACU an accurate reflection of core temperature? ASA Abstract A3182, the Anesthesiology Annual Meeting 2016, http://www.asaabstracts.com

Langham GE, Maheshwari A, Contrera K, You J, Mascha E, Sessler DI (Case Western Reserve University). Noninvasive temperature monitoring in postanesthesia care units. Anesthesiology, V 111, No 1, Jul 2009

Martinez EA, Krenzischek D, Hobson D, Hunt D (Johns Hopkins Medical Institutions). The structure and processes of care delivery impact postoperative normothermia. Anesthesiology 2007; 107: A496.

Pittman R and Waters R (CaroMont Health Care, Gastonia, NC). Do our patients have hypothermia? Temporal versus oral thermometers. Journal of PeriAnesthesia Nursing Volume 24, Issue 3, June 2009, Page e18.

Sandlin D (Southern Hills Medical Center, Nashville TN). New Product Review: Temporal Artery Thermometry, Journal of PeriAnesthesia Nursing, Vol. 18, No 6 (December) 2003, pp 419-421.

PEDIATRIC CCU

Hebbar K, Fortenberry JD, Rogers K, Merritt R, Easley K. (Children's Healthcare of Atlanta at Egleston). Comparison of temporal artery thermometer to standard temperature measurements in pediatric intensive care unit patients. Pediatr Crit Care Med. 2005 Sep;6(5):557-61.

Merrill, K. (Seattle Children's Hospital). Comparison of temporal artery temperature measurement with standard temperature measurement in critically ill children. American Journal of Critical Care. 2014, May, 23(3), e23.

Opersteny, Esther et al. Precision, sensitivity and patient preference of non-invasive thermometers in a pediatric surgical acute care setting. Journal of Pediatric Nursing: Nursing Care of Children and Families, 2017, Volume 35, 36-41.

PEDIATRIC ED

Batra P, Saha A, Faridi MM. Thermometry in children. J Emerg Trauma Shock. 2012 Jul;5(3):246-9.

Batra P, Goyal S. Comparison of rectal, axillary, tympanic, and temporal artery thermometry in the pediatric emergency room. Pediatr Emerg Care. 2013 Jan;29(1):63-6. doi: 10.1097/PEC.0b013e31827b5427.

Greenes DS, Fleisher GR. (Boston Childrens Hospital and Harvard Medical School). When body temperature changes, does rectal temperature lag? Journal of Pediatrics, 02.037, pp 824-826, September 2004.

Greenes DS, Fleisher GR. (Boston Childrens Hospital and Harvard Medical School). Accuracy of a noninvasive temporal artery thermometer for use in infants. Arch Pediatr Adolesc Med, Vol 155, pp 376-381, Mar 2001.

Hurwitz B1, Brown J, Altmiller G. Improving pediatric temperature measurement in the ED. Am J Nurs. 2015 Sep;115(9):48-55. doi:10.1097/01.NAJ.0000471249.69068.73.

Isler, A., et al. Comparison of temporal artery to mercury and digital temperature measurement in pediatrics. Int. Emerg.Nurs. (2013), http://dx.doi.org/10.1016/j.ienj.2013.09.003

Moore AH, Carrigan JD, Solomon DM, Tart RC. Temporal artery thermometry to detect pediatric fever. Clin Nurs Res. 2015 Oct;24(5):556-63. doi: 10.1177/1054773814557481. Epub 2014 Nov 14.

Reynolds M, et al. Are temporal artery temperatures accurate enough to replace rectal temperature measurement in pediatric ED patients? J Emerg Nurs. 2012 Nov 8. pii: S0099-1767(12)00329-7. doi: 10.1016/j.jen.2012.07.007. [Epub ahead of print]

Schuh S, Komar L, Stephens D, Chu L, Read S, Allen U (University of Toronto/Hospital for Sick Children). Comparison of the temporal artery and rectal thermometry in children in the emergency department. Pediatric Academic Societies Annual Meeting, May 3-6, 2003, Seattle, WA.

Schuh S, Komar L, Stephens D, Chu L, Read S, Allen U (University of Toronto/Hospital for Sick Children). Comparison of the temporal artery and rectal thermometry in children in the emergency department. Pediatric Emergency Care, Vol 20, No. 11, Nov 2004.

Szmuk P, Curry BP, Sheeran PW, Farrow-Gillespie AC, Ezri T (UT Southwestern and Children's Medical Center, Dallas, Texas). Perioperative temperature audit in a large pediatric hospital. Anesthesiology 2007; 107: A1612.

Titus MO, Hulsey T, Heckman J, Losek JD (Medical University of South Carolina and Children's Hospital). Temporal artery thermometry utilization in pediatric emergency care. Clinical Pediatrics, Mar 2009; vol. 48: pp. 190 - 193.

PEDIATRIC PACU

Beedle SE, Phillips A, et al. Preventing unplanned perioperative hypothermia in children. AORN J. 2017 Feb;105(2):170-183. doi: 10.1016/j.aorn.2016.12.002.

Fratto L, Hogan K, Kenney K. Temporal artery thermometry use in pediatric patients in the post-anesthesia care unit. 2012 Research and EBP Abstracts ASPAN's 31st National Conference April 15-19, 2012, Orlando, FL Inf...2012 Research and EBP Abstracts - 8/1/2012 12:43:08 PM.

PEDIATRIC SURGERY

Tan GM, Galinkin JL, Pan Z, Polaner DM. Laryngeal view and temperature measurements while using the perilaryngeal airway (Cobra-PLUSTM) in children. Pediatric Anesthesia 2013, Dec; 23(12):1180-6. doi: 10.1111/pan.12266. Epub 2013 Sep 25.

PEDIATRICS

Allegaert K, Casteels K, van Gorp I, Bogaert G. Tympanic, infrared skin, and temporal artery scan thermometers compared with rectal measurement in children: a real-life assessment. Curr Ther Res Clin Exp. 2014 May 8;76:34-8. doi: 10.1016/j.curtheres.2013.11.005. eCollection 2014.

Al-Mukhaizeem F, Allen U, Komar L, et al (University of Toronto/Hospital for Sick Children). Validation of the temporal artery thermometry by its comparison with the esophageal method in children. Pediatric Academic Societies Annual Meeting, May 3-6, 2003, Seattle, WA.

Al-Mukhaizeem F, Allen U, Komar L, et al (University of Toronto/Hospital for Sick Children). Comparison of temporal artery, rectal and esophageal core temperatures in children: Results of a pilot study. Journal of Pediatric and Child Health, Vol 9, No 7, pp 461-465, 2004.

Asher C and Northington L. Position Statement for Measurement of Temperature/Fever in Children. Journal of Pediatric Nursing, Vol 23, No 3 (June), 2008.

Bahorski J, Repasky T, Ranner D, Fields A, Jackson M, Moultry L, Pierce K, Sandell M (Tallahassee Memorial Healthcare). Temperature measurement in pediatrics: a comparison of the rectal method versus the temporal artery method. In Press, Corrected Proof, Available online 24 February 2011, Journal of Pediatric Nursing (2011).

Carr EA, Wilmoth ML, Eliades AB, Baker PJ, Shelestak D, Heisroth KL, Stoner KH (Akron Children's Hospital). Comparison of Temporal Artery to Rectal Temperature Measurements in Children Up to 24 Months, Journal of Pediatric Nursing, In Press, [Epub ahead of print], Jan 25, 2010.

Callanan D (Christus Santa Rosa Children's Hospital). Detecting fever in young infants: reliability of perceived, pacifier, and temporal artery temperatures in infants younger than 3 months of age. Pediatr Emerg Care. 2003 Aug;19(4):240-3.

Cronin et al 2019. Association Between Magnetic Resonance Imaging in Anesthetized Children and Hypothermia. Pediatric Quality and Safety (2019) 4:4;e181 DOI: 10.1097/pq9.000000000000181

Dang et al - 2022-A cross sectional study pediatric temps well-child visits- Academic Pediatrics xx 2022.

Erdem 2021. The comparison and diagnostic accuracy of different types of thermometers. The Turkish Journal of Pediatrics 2021; 63: 434-442 https://doi.org/10.24953/turkjped.2021.03.010

Health Canada (2017). Summary Safety Review - Ear and Forehead (contact) Infrared Thermometers (various brands) - Assessing the potential risk of inaccuracy in children under 2 years old. https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada/safety-reviews/summary-safety-review-forehead-contact-infrared-thermometers-various-brands-assessing-potential-risk-inaccuracy-children-under-2-years-old.html

Kurnat-Thoma E, Edwards V, Emery K. Axillary, tympanic, and temporal thermometry comparison in a community hospital pediatric unit.- PEDIATRIC NURSING/September-October 2018/Vol. 44/No. 5.

Paul IM, Sturgis SA, Yang C, Engle L, Watts H, Berlin CM Jr (Penn State College of Medicine). Efficacy of standard doses of Ibuprofen alone, alternating, and combined with acetaminophen for the treatment of febrile children. Clin Ther. 2010 Dec;32(14):2433-40.

Roy S, Powell K, Gerson LW (Akron Children's Hospital). Temporal artery temperature measurements in healthy infants, children, and adolescents. Clinical Pediatrics, pp 433-437, June 2003.

Siberry GK, Diener-West M, Schappell E, Karron RA (Department of Pediatrics, School of Medicine, The Johns Hopkins University). Comparison of temple temperatures with rectal temperatures in children under two years of age. Clinical Pediatrics, pp 405-414, July/August 2002.

Sugiarty 2018. Non-Invasive Thermometer: Temporal Artery Thermometer (TAT) Integrated with Electronic Medical Record as the Top-Ranking Temperature Measurement Method for Infants and Children. *Health Journal* Volume 9, Number 1, April 2018 ISSN 2086-7751 (Print), ISSN 2548-5695 (Online) http://ejurnal.poltekkes-tjk.ac.id/index.php/JK

Yang WC, Kuo HT, et al. Tympanic temperature versus temporal temperature in patients with pyrexia and chills. Medicine (Baltimore). 2016 Nov;95(44):e5267.

Tobias, Carmen, et al. "Heat Check: Comparing Temporal and Axillary Temperatures" (2024).

Savaş et al. "What is the Difference Between the Different Types of Thermometers?." Turkish Archives of Pediatrics 60.1 (2025): 78.

PERI-OPERATIVE

Harper CM (Royal Sussex County Hospital Brighton, UK). The need for an accurate noninvasive thermometer. Anesth Analg. 2009 Jul;109(1):288; author reply 288-9.

John et al 2016. Comparison of resistive heating and forced-air warming to prevent inadvertent perioperative hypothermia. British Journal of Anaesthesia, 116 (2): 249–54 (2016)

Scanlan Z (2019). Barriers to Accurate Postoperative Temperature Assessment. Dissertation available at University of Arizona Libraries.

115. Aykanat et al. Reliability of alternative devices for postoperative patient temperature measurement: two prospective, observational studies. 26 August 2020 https://doi.org/10.1111/anae.15248/

PHARMACY

Canales, Ann E. "OTC device: temporal scanner TAT-2000C." Journal of the American Pharmacists Association 47.1 (2007): 112.

SCHOOL NURSE

Pappas M. Understanding the Different Methods for Taking a Temperature. NASN School Nurse. 2012;27(5):254-255. doi:10.1177/1942602X12451914.

Exergen Part #: 850412