Date: 10-01-2023

TECHNION Israel Institute of Technology

<u>TECHNION – RUTH & BRUCE RAPPAPORT FACULTY OF MEDICINE</u> Curriculum Vitae (for physicians only)

1. PERSONAL DETAILS

Full Name: Michael Shalom Halberthal

Identity No: 055437115

Date of birth: 5/8/1958

Place of birth: Tel Aviv

Marital status: married

Phone numbers: 0502062175, 047772389

E-mail: m_halberthal@rambam.health.gov.il

Orcid Account: 0000-0003-3172-7619

2. ACADEMIC DEGREES

2012 M.A (Summa Cum laude) (Magna Cum laude), Health Administration, Recanti

Business School, Tel-Aviv University, Tel-Aviv, Israel,

MD (Summa Cum laude) (Magna Cum laude), Faculty of Medicine, Technion-Israel

Institute of Technology, Haifa, Israel,

3. ACADEMIC APPOINTMENTS

2021 - Present Clinical Associate Professor, Faculty of Medicine, Technion-Israel

Institute of Technology, Haifa, Israel

2019 - 2021 , Faculty of Medicine, Technion-Israel Institute of Technology, Haifa,

Israel

2018 - Present Visiting Professor, Department of Trauma Surgery, All India Institute of

Medical Sciences.India

2002 - 2005 Clinical-educator lecturer, Faculty of Medicine, Technion-Israel Institute

of Technology, Haifa, Israel

4. PROFESSIONAL EXPERIENCE (OUTSIDE ACADEMIA)

2019 - Present General Director, Rambam Medical Center

2014 - Present	Chairman, Teaching Center for Trauma, Emergency, and Mass Casualty Situations (MCS), Rambam Medical Center
2013 - 2019	Deputy Director, Rambam Medical Center
2012 - 2017	Director, Allied Medical Professions, Rambam Medical Center
2012 - 2017	Director, Quality, Safety, and Risk Management, Rambam Medical Center
2009 - 2013	Director of Medical Operations, Rambam Medical Center
2009 - 2013	Health Administration—Fellow, Rambam Medical Center
2002 - 2013	Director, Pediatric Critical Care Unit, Rambam Medical Center
2001 - 2002	Medical Management Certification, University of Haifa
1998 - 2009	Staff Physician, Pediatric Critical Care Unit, Rambam Medical Center
1998 - 2014	Chief of Triage, Mass Casualty Scenarios, Rambam Medical Center
1997 - 1998	Research Fellow, Pediatric Critical Care Medicine, Hospital for Sick Children, Toronto, Canada
1996 - 1997	Clinical Fellow, Pediatric Critical Care Medicine, Hospital for Sick Children, Toronto, Canada
1994 - 1996	Staff Physician, Pediatric Critical Care Unit, Rambam Medical Center
1992 - 1992	Clinical Fellow, Pediatric Cardiology and Post Cardiac Surgery Intensive Care, National Heart & Lung Institute, Brompton Hospital, Haifa, Israel
1992 - 1994	Chief Resident, Pediatrics, Rambam Medical Center
1989 - 1992	Residency, Pediatrics, Rambam Medical Center
1988 - 1989	Residency, Department of General Intensive Care and Pediatric Intensive Care, , Rambam Medical Center
1987 - 1988	Internship Rotations, Rambam Medical Center
1981 - 1986	Paramedic, Mobile ICU, Mogen David Adom

5. RESEARCH INTERESTS

- Fluid and electrolyte management in children
- Big data utilization for supporting clinical decisions
- Acid-base balance in low perfusion states
- Trauma and system preparedness to mass casualty incidents
- COVID-19 effect on health, economy, and society

6. TEACHING EXPERIENCE

1992 - 2009 Cardiopulmonary Resuscitation (CPR) and Intensive Care, Paramedics, emergency medical staff and air force air rescue teams

1992 - 2009	Pediatrics and Intensive Care, Medical school pre-clinical
2001 - 2003	Exposure to Medicine, Medical school pre-clinical
2004 - 2009	Pediatric Advanced Life Support, Residents
2012 - Present	Medical Administration, Medical school pre-clinical
2014 - Present	Chairman, Teaching Center for Trauma, Emergency, and Mass Casualty Situations (MCS), National and International medical staff and administrators,
	Technion-Israel Institute of Technology, Haifa

7. ACTIVITIES

2019 - Present Technion-Rambam Committee for Promotion of Organization Corporation

8. FACULTY ACTIVITIES

2019 - Present	Coordinator, Licensing Exam Training Course for physicians studying
	abroad, Technion-Israel Institute of Technology, Haifa
2019 - Present	The Faculty Committee for Promoting Women Physicians-Researchers,
	Technion-Israel Institute of Technology, Haifa

9. PUBLIC PROFESSIONAL ACTIVITIES

2013 - 2018	Member, Ministry of Health, High Committee for National Measures
2014 - Present	Member, #National Council for Trauma & Emergency Medicine, #National Council for Digital Health, #Israeli Society of Hospital Directors
2015 - Present	Member of Board of Directors, Institute for Medical Quality of the Israel Medical Association
2016 - Present	Chairman, Israel Medical Administration Association
2019 - Present	Chairman of the Board, Rambam MedTech, Ltd. (Technology Transfer Company)
2019 - Present	Chairman of the Board, K.M.R. Advancement of Medical Centers, LTD. (CC)
2019 - Present	Member, Stanford-Rambam Join Steering Committee
2019 - Present	Member and Chairman of the Executive Committee, Rambam Health Corporation Society
2019 - Present	Representative on the Board, K.M.R. 1, LTD. of KMR Advancement of Medical Centers, LTD (CC)
2020 - Present	Chairman, Israel Medical Association's Forum for Government Hospital Directors
2020 - Present	Editorial Board Member, Journal of All India Institute of Medical Sciences, Rishikesh, India

2020 - Present	Member, National Committee for National Outline Plan Need for Medical Facilities
2021 - Present	Member, National Committee for Restructuring Medical Studies and Mapping of Clinical Fields in Israel
2021 - Present	Member, High-Level Working Group at the Ministry of Health on the development of medical standards for facility management in hospitals in Romania., Ministry of Health, Romania
2022 - Present	Member of Board of Directors, The Israeli Medicine and Science Museum, Hadera, Israel

10. MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Member, Society for Critical Care Medicine (SCCM), 1992–2002
- Member, Society for Pediatric Cardiac Critical Care Medicine, 1994–2009
- Member, Israeli Society for Clinical Pediatrics, 1992–Present
- Member, Israeli Trauma Society, 1992–Present
- Member, Israeli Society of Intensive Care, 1996–Present
- Member, Israeli Society for Pediatric Critical Care, 1996–Present
- Member, Israeli Society of Hospital Directors, 2013–Present
- Member, Israeli Institute for Medical Quality, 2015–Present
- Member, Israeli Society for Medical Administration, 2016–Present

Member of the Steering Committee, Institute for the Advancement of Medical Education in Israel,

2021–Present

11. AWARDS AND HONORS

2003-2006 Excellent Lecturer, Faculty of Medicine, Technion-Israel Institute of Technology,

Haifa

Wexner Senior Leader, 2022 Cohort, Harvard Kennedy School of Executive

Education, The Wexner Foundation, USA

12. GRADUATE STUDENTS

Completed MD Theses

Completed Basic Science Theses

Completed MSc Theses

Completed PhD Thesis

MD Theses in Progress

Basic Science Theses in Progress

MSc Theses in Progress

PhD Theses in Progress

13. FORMER TRAINEES AT KEY POSITIONS

14. RESEARCH GRANTS

Competitive

2017 - 2020	Ministry of Science & Technology and National Emergency Management Authority,
	Establishment of the Knowledge and Research Center in Emergency Situation
	Preparedness, 3,000,000 NIS, Michael Shalom Halberthal (Senior Co-investigator),
	Associate Professor Deborah Shmueli (University of Haifa), Senior Investigator with
	60 co-investigators (Senior Co-investigator)
2022 - 2024	National Institute for Health Services Research and Health Policy, Effect of
	Decreased Occupancy in internal medicine departments on Mortality Readmission
	Rates and acquiring of Nosocomial Infections, versus the Increase in cost Per
	Patients - A Cost Benefit Analysis, 158,500 NIS, Michael Shalom Halberthal (CO),
	Professor Michael Halberthal (CO)

Industrial

15. PUBLICATIONS

15.1 Theses

1. **Halberthal M**, "Compulsory wearing of seat belts in urban areas: Influence on the pattern of injury in motor vehicle accidents," Gad Bar Joseph (Advisor), The Ruth & Bruce Rappaport Faculty of Medicine, Technion–Israel Institute of Technology, Haifa, Israel. 1986

15.2 Refereed papers in professional journals

Published papers

Accepted (or in press) papers

Submitted papers

1. Pashkos S, Harris MC, Weissman A, Mekel M, Shachor-Meyouhas Y, Michlin S, Hallif L, **Halberthal M**, Hororwitz NA. Targeting hospital bed occupancy to reduce patient mortality: An impractical mission? Eur J Health Econ, Submitted, 2022. IF=3.689, HEALTH POLICY & SERVICES – Q1

Basic research

Clinical research

- 1. Bar-Joseph G, Michaelson M, **Halberthal M**, Tal-Or E. The effect of seat belt wearing on magnitude, severity and pattern of injuries in accidents in urban areas. In: Safety Belt Use in Urban Areas: Analysis of Usage Patterns and Safety Evaluation. (Eds. Ceder A, Moukhwas D, Hakkert AS et al.). Research Report to the Ministry of Transportation, 1989; pages 89-145.
- 2. Makhoul IR, Bar-Joseph G, Blazer S, **Halberthal MS**, Oren R, Sujov P. Reversed-flow trachael gas insufflation (RF-TGI) alleviates intractable hypercapnia in ventilated premature infants and children. 1351. Pediatric Research 1996;39:228.
- 3. Bar-Joseph G, **Halberthal M**, Sweed Y, Bialik V, Shoshani O, Etzioni A. Clostridium septicum infection in children with cyclic neutropenia. J Pediatr 1997 Aug;131(2):317-319.
- 4. Milo S, Bar-el Y, Adler Z, **Halberthal M**, Lorber A. Punch pulmonary valvectomy: another alternative to treat critical pulmonary stenosis. Ann Thorac Surg 1997 Jul;64(1):261-264.
- 5. Makhoul IR, Bar-Joseph G, Blazer S, **Halberthal MS**, Oren R, Sujov P. Intratracheal pulmonary ventilation in premature infants and children with intractable hypercapnia. ASAIO J 1998 Jan–Feb;44(1):82-88.
- 6. **Halberthal M**, McCrindle B, Seto WB, Adatia I, Williams W, Shemie S. Amrinone in pediatric cardiac surgical patients. Critical Care Medicine 1999;27:97A.
- 7. Lam SSM, Halberthal M, Oh MS, Halperin ML. Sodium and water. Best Practice in Medicine Vol.
- 4, Merck Medicus, August 1999.
- 8. Porzio P, **Halberthal M**, Bohn D, Halperin ML. Treatment of acute hyponatremia: ensuring the excretion of a predictable amount of electrolyte-free water. Crit Care Med. 2000 Jun;28(6):1905-10.
- 9. Beck R, **Halberthal M**, Zonis Z, Shoshani G, Hyari L, Bar-Joseph G. Abdominal compartment syndrome in children. Pediatric Crit. Care Med. 2001 Jan:2(1):51-6.
- 10. **Halberthal M**, Halperin ML, Bohn D. Lesson of the week: Acute hyponatraemia in children admitted to hospital: retrospective analysis of factors contributing to its development and resolution. BMJ. 2001 Mar 31;322(7289):780-2.
- 11. Epelman M, Soudack M, Engel A, **Halberthal M**, Beck R. Abdominal compartment syndrome in children: CT findings. Pediatr Radiol. 2002 May;32(5):319-22.
- 12. Kornecki A, Constantini S, Adani B, Nagar H, **Halberthal M**, Sivan Y. Survey of critical care management of severe traumatic head injury in Israel. Childs Nerv Syst. 2002 Aug;18(8):375-9.
- 13. Bar-Joseph G, Michaelson M, **Halberthal M**. Managing mass casualties. Curr. Opin. Anaestheriol 16:193-199, 2003.
- 14. Ghersin E, Khoury A, Litmanovich D, Lorber A, **Halberthal M**, Engel A, Lessick J. Comprehensive multidetector computed tomography assessment of severe cardiac contusion in a pediatric patient: correlation with echocardiography. J Comput Assist Tomogr. 2005 Nov-Dec;29(6):739-41.
- 15. Kishnani PS, Corzo D, Nicolino M, Byrne B, Mandel H, Hwu WL, Leslie N, Levine J, Spencer C, McDonald M, Li J, Dumontier J, **Halberthal M**, Chien YH, Hopkin R, Vijayaraghavan S, Gruskin D,

- Bartholomew D, van der Ploeg A, Clancy JP, Parini R, Morin G, Beck M, De la Gastine GS, Jokic M, Thurberg B, Richards S, Bali D, Davison M, Worden MA, Chen YT, Wraith JE. Recombinant human acid [alpha]-glucosidase: major clinical benefits in infantile-onset Pompe disease. Neurology. 2007 Jan 9;68(2):99-109. Epub 2006 Dec 6.
- 16. Bar-Joseph G, Tarabia M, **Halberthal M**, Khatib I, Eisenstein I, Zelikovic I. Clinical quiz: Mysterious hyperkalemia and cardiac arrest in a newborn infant undergoing continuous veno-venous hemofiltration dialysis: acute hyperkalemia. Pediatr Nephrol. 2008 Jul;23(7):1053-7. Epub 2008 Apr 23. 17. Hershman E, **Halberthal M**, Goldsher D, Golz A, Bar-Joseph G. Life threatening medullary injury following adenoidectomy and local anesthetic infiltration of the operative bed. Paediatr Anaesth. 2009 Feb;19(2):164-7. Epub 2008 Dec 24.
- 18. Bar-El Y, Tzafrir S, Tzipori I, Utitz L, **Halberthal M**, Beyar R, Reisner S. Decision-support information system to manage mass casualty incidents at a level 1 trauma center. Disaster Med Public Health Prep. 2013 Ded;7(6):549–554.
- 19. Weiner Z, Buda Y, **Halberthal M**. The development of screening tests for Down Syndrome and the application of these tests in the Israeli health system. Harefuah, 2013 September, 154(9):543-546 20. Haverkort JJ, de Jong MB, Foco M, Gui D, Barhoum M, Hyams G, Bahouth H, **Halberthal M**, Leenen LP. Dedicated mass-casualty incident hospitals: An overview. Injury. 2017;48(2):322-326. 21. Zalts R, Buchrits S, Khateeb J, **Halberthal M**, Berger G. Diagnostic process-how to do it right? The SMART medicine initiative. Eur J Intern Med. 2017 Dec;46:e11-e12. Epub 2017 Sep 12.
- 22. Berger G, Epstein D, Rozen M, Miskin A, **Halberthal M**, Mekel M. Delayed discharges from a tertiary teaching hospital in Israel- incidence, implications, and solutions. Isr J Health Policy Res. 2020;9(1):66. IF=2.465, PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH Q3 23. Goshen-Lago T, Szwarcwort-Cohen M, Benguigui M, Almog R, Ilit Turgeman, Zaltzman N,
- Halberthal M, Shaked Y, Ben-Aharon I. The Potential Role of Immune Alteration in the Cancer-COVID19 Equation-A Prospective Longitudinal Study. Cancers (Basel). 2020;12(9):2421. IF=6.575, ONCOLOGY Q1
- 24. **Halberthal M**, Berger G, Hussein K, Reisner S, Mekel M, Horowitz NA, Shachor-Meyouhas Y, Geffen Y, Hyams G, Gepstein V, Weissman A, Beyar R. Israeli underground hospital conversion for treating COVID-19 patients. Am J Disaster Med. 2020;15:159-167. N/A
- 25. **Halberthal M**, Nachman D, Eisenkraft A, Jaffe E. Hospital and home remote patient monitoring during the COVID-19 outbreak: A novel concept implemented. Am J Disaster Med. 2020;15(2):149-151. N/A
- 26. Karp E, Furer A, Banov A, Twig G, Segal D, Burlak K, **Halberthal M**, Fink N, Glassberg E. Operation 'Tribe of Brothers'- Establishment and operation of a military hospitalization ward for COVID-19 patients at Rambam Medical Campus. Journal of Israeli Military Medicine 2020;18(4):24-25. [Hebrew] N/A
- 27. Yelin I, Aharony N, Shaer Tamar E, Argoetti A, Messer E, Berenbaum D, Shafran E, Kuzli A, Gandali N, Shkedi O, Hashimshony T, Mandel-Gutfreund Y, **Halberthal M**, Geffen Y, Szwarcwort-Cohen M, Kishony R. Evaluation of COVID-19 RT-qPCR test in multi-sample pools. Clin Infect Dis. 2020;71(16):2071-2078. IF=20.999, INFECTIOUS DISEASES Q1

- 28. Berger G, Epstein D, Kobi G, Braun E, Azzam ZS, **Halberthal M**. Career Trajectory of Physicians Following a Fellowship Program: A Descriptive Study. Rambam Maimonides Med J 2021;12(2):e0011. IF=N/A, MEDICINE, GENERAL & INTERNAL, Q2
- 29. Berger G, Horowitz NA, Shachor-Meyouhas Y, Gepstein V, Hussain K, Weismann A, Hyams G, Geffen Y, Mekel M, **Halberthal M**. Hospital solution for COVID-19 isolation facility. Am J Disaster Med. 2021;16(1):35-41. N/A
- 30. Eisenkraft A, Maor Y, Constantini K, Goldstein N, Nachman D, Levy R, **Halberthal M**, Horowitz NA, Golan R, Rosenberg E, Lavon E, Cohen O, Shapira G, Shomron N, Ben Ishay A, Sand E, Merin R, Fons M, Littman R, Gepner Y. Continuous remote patient monitoring shows early cardiovascular changes in COVID-19 patients. J Clin Med. 2021;10(18):4218. IF=4.964, MEDICINE, GENERAL & INTERNAL Q2
- 31. Goshen-Lago T, Waldhorn I, Holland R, Goshen-Lago T, Szwarcwort-Cohen M, Reiner-Benaim A, Shachor-Meyouhas Y, Hussein K, Fahoum L, Baruch M, Peer A, Reiter Y, Almog R, **Halberthal M**, Ben-Aharon I. Serologic status and toxic effects of the SARS-CoV-2 BNT162b2 vaccine in patients undergoing treatment for cancer. JAMA Oncol. 2021;7(10):1507-1513. IF=33.012, ONCOLOGY Q1 32. Shachor-Meyouhas Y, Hussein K, Szwarcwort-Cohen M, Weissman A, Mekel M, Dabaja-Younis H, Hyams G, Horowitz NA, Kaplan M, **Halberthal M**. Single BNT162b2 vaccine dose produces seroconversion in under 60 s cohort. Vaccine. 2021;39(47):6902-6906. IF=4.169, MEDICINE, RESEARCH & EXPERIMENTAL Q3
- 33. Turgeman I, Goshen-Lago T, Waldhorn I, Karov K, Groisman L, Reiner Benaim A, Almog R, **Halberthal M**, Ben-Aharon I. Psychosocial perspectives among cancer patients during the coronavirus disease 2019 (COVID-19) crisis: an observational longitudinal study. Cancer Rep (Hobokin). 2021; August 18:e1506. IF=NA, ONCOLOGY Q4
- 34. Waldhorn I, Holland R, Goshen-Lago T, Shirman Y, Szwarcwort-Cohen M, Reiner-Benaim A, Shachor-Meyouhas Y, Hussein K, Fahoum L, Peer A, Almog R, Shaked Y, **Halberthal M**, Ben-Aharon I. Six-month efficacy and toxicity profile of BNT162b2 vaccine in cancer patients with solid tumors. Cancer Discov. 2021;11(10):2430-2435. IF= 39.397; ONCOLOGY Q1
- 35. Shachor-Meyouhas Y, Hussein K, Dabaja-Younis H, Szwarcwort-Cohen M, Almog R, Weissman A, Mekel M, Hyams G, Horowitz N, Gepstein V, Netzer I, Cohen Saban H, Petersiel N, Tarabeia J, **Halberthal M**. Immunogenicity trends 1 and 3 months after second BNT162B2 vaccination among healthcare workers in Israel. Clinical Microbiology and Infection. 2022; 28(3):450.e1-450.e4. IF=8.067, INFECTIOUS DISEASES Q1
- 36. Shapiro G, Tehori O, Zrhavi G, Golscher N, Twig G, Benov A, Fink N, Glassberg E, Shachor-Meyouhas Y, Hussein K, **Halberthal M**, Karp E, Furer A. Rapid Sequence: Establishing the First Military COVID-19 Ward in a Large Civilian Medical Center. Biomark J 2021;8:002. IF=NA 37. Biswas S, Bahouth H, Solomonov E, Waksman I, **Halberthal M**, Bala M. Preparedness for Mass Casualty Incidents: The Effectiveness of Current Training Model. Disaster Med Public Health Prep. 2022; 16(5):2120-2128. IF=1.385; PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH Q3 38. Borenstein-Levin L, Hochwald O, Ben-Ari J, Dinur G, Littner Y, Eytan D, Kugelman A, **Halberthal M**. Same baby, different care: variations in practice between neonatologists and pediatric

- intensivists. Eur J Pediatr 2022;181(4):1669-1677. IF=3.183, PEDIATRICS, Q1
- 39. Hussein K, Shachor-Meyouhas Y, Dabaja-Younis H, Szwarcwort-Cohen M, Tarabeia J, Weissman A, Mekel M, Hyams G, **Halberthal M**. COVID-19: Healthcare workers may be at greater risk outside their work environment-a retrospective observational study. Rambam Maimonides Med J 2022;13(2):e0011. IF=N/A; MEDICINE, GENERAL & INTERNAL Q2
- 40. Waldhorn I, Holland R, Goshen-Lago T, Benguigui M, **Halberthal M**, Shaked Y, Ben-Aharon I. Long-term immunogenicity of BNT162b2 vaccine in patients with solid tumors. JAMA Oncol 2022; 8(6):1-2. IF=33.012, ONCOLOGY Q1
- 41. Shahrabani S, Bord S, Admi H, **Halberthal M**. Physicians' compliance with COVID-19 regulations: The role of emotions and trust. Healthcare (Basel) 2022;10(3):582. IF=3.160, HEALTH POLICY & SERVICES Q2
- 42. Eisenstein I, Pollack S, Hadash A, Eytan D, Attias O, **Halberthal M**, Ben-Ari J, Bar-Joseph G, Zelokovic I, Mandel H, Tal G, Mange D. Acute hemodialysis therapy in neonates with inborn errors of metabolism. Pediatr Nephrol 2022; 37(11):2725-2732. IF=3.652, PEDIATRICS Q2
- 43. Bahouth H, Abramov R, Bodas M, **Halberthal M**, Lin S. The feedback form and its role in improving the quality of trauma care. Int J Environ Res Public Health 2022; 19(3):1866. IF=4.614, PUBLIC, ENVIRONMENTAL & OCCUPATIONAL HEALTH Q1
- 44. Lederman Z, **Halberthal M**. A close shave: Balancing Religious Tolerance and Patient Care Public in the Age of Covid-19. J Bioeth Inq. 2022. doi: 10.1007/s11673-022-10201-y. Online ahead of print. IF=2.216, ETHICS Q2
- 45. Braun E, Horowitz N, Leiba R, Weissman A, Mekel M, Shachor-Meyouhas Y, Hussein K, **Halberthal M**, Azzam Z, Berger G. Association between IgG antibody levels and adverse events after first and second BNT162b2 mRNA vaccine doses. Clin Microbiol Infect 2022; 28(12):1644-1648. IF=13.310, INFECTIOUS DISEASES Q1
- 46. Hussein K, Dabaja-Younis H, Szwarcwort-Cohen M, Almog R, Leiba R, Weissman A, Mekel M, Hyams G, Horowitz NA, Gepstein V, Cohen Saban H, Tarbeia J, **Halberthal M,** Shachor-Meyouhas Y. Third BNT162b2 vaccine booster dose against SARS-CoV-2-induced antibody response among healthcare workers. Vaccines 2022; 10(10):1741. IF=4.961, IMMUNOLOGY Q2

Case reports

1. Sweed Y, Engel A, **Halberthal M**. Effectiveness of selective hepatic artery embolization in a child after blunt hepatic trauma. Harefuah 1997 Feb 16;132(4):252-254.

Review papers

15.3 Books

Monographs and textbooks

Edited Books

15.4 Book chapters

1. Khoury A, **Halberthal M**, Hyems G, Utitz L, Reisner SM, Mosheiff R. Chapter 7: Civilian Hospital Role in Mass Casualsy Event (MCE). In: Liebergal M, Wolfson N, Lerner A, Roshal L (eds) --. Orthopedics in Disasters: Orthopedic Injuries in Natural Disasters and Mass Casualty Events; Springer Verlag Berlin Heidelberg; USA; 2016: 61-82.

15.5 Letters to the Editor

- 15.6 Refereed papers in conference proceedings
- **15.7 Patents (granted)**
- 15.8 Other publications

16. CONFERENCES

16.1 Plenary, keynote or invited talks

International

- 1. , Israel
- 2. **Halberthal M**, Hospitals under fire from theory to practice, Second International Workshop on Anti-Terrorism, Bulgaria, 2015. (Plenary)
- 3. **Halberthal M**, IT in Managing MCS, Second International Workshop on Anti-Terrorism, Bulgaria, 2015. (Plenary)
- 4. **Halberthal M**, Methods of technology in managing MCS, Second International Workshop on Anti-Terrorism, Bulgaria, 2015. (Plenary)
- 5. **Halberthal M**, Quality Safety Risk Management and Between, Rambam Grand Rounds, Israel, 2015. (Plenary)
- 6. **Halberthal M**, Tabletop drills, Second International Workshop on Anti-Terrorism, Bulgaria, 2015. (Plenary)
- 7. **Halberthal M**, Methods of Technology in Managing MCS and Underground Hospital, Third International Workshop on Anti-Terrorism, Bulgaria, 2016. (Plenary)
- 8. **Halberthal M**, Models of Quality Improvement in the Pre-Hospital, Third International Workshop on Anti-Terrorism, Bulgaria, 2016. (Plenary)

- 9. **Halberthal M**, Applying drills hospital level, Consensus Conference TRAUMA OGGI 2017, Italy, 2017. (Plenary)
- 10. **Halberthal M**, Computerized Systems for Managing Mass Casualty Events, 42nd ICMM World Congress. Hospital preparedness to MCS, India, 2017. (Plenary)
- 11. **Halberthal M**, Hospital Preparedness to MCS, Hospital For Sick Children, Ground Rounds, Canada, 2017. (Plenary)
- 12. **Halberthal M**, National preparedness for the Management of Mass Casualty Events, including Mega MCS in Israel, 42nd ICMM World Congress. Hospital preparedness to MCS, India, 2017. (Plenary)
- 13. **Halberthal M**, The Underground Hospital, 42nd ICMM World Congress. Hospital preparedness to MCS, India, 2017. (Plenary)
- 14. **Halberthal M**, Triage in MCS, 42nd ICMM World Congress. Hospital preparedness to MCS, India , 2017. (Plenary)
- 15. Halberthal M, 1. Rambam Health Care Campus; 2. Pre-Hospital MCS Management and Response;
- 3) Underground Hospital: From Vision to Reality, China-Israel Seminar for Emergency Medical Rescue, China, 2019. (Plenary)
- 16. **Halberthal M**, Rambam and Innovations, 2019 Shanghai International Symposium for Medicine in the 21st Century, China, 2019. (Plenary)
- 17. **Halberthal M**, Rambam & COVID-19, (ONLINE Symposium) Disaster Preparedness with focus on COVID-19 Pandemic, Tadreeb Rambam Health Care Campus Collaboration 2021 Symposium, as part of the UAE Israel Medical Forum, Israel, 2021. (Invited Talk)
- 18. **Halberthal M**, Disaster Planning 180 Degree Change to COVID, The 37th Annual Children's National Symposium 1st Virtual Conference: ECMO & the Advanced Therapies for Cardiac & Respiratory Failure, 2021. (Keynote)
- 19. **Halberthal M**, The patient will see you now how healthcare organizations adapt to the shift in patients expectations and attitudes: Experience from Rambam Health Care Campus, Med inIsrael 6th International Conference & Exhibition, Israel, 2021. (Invited Talk)
- 20. **Halberthal M**, TransTech Health Virtual Meeting, Israel France Chamber of Commerce, Israel, 2021. (Invited Talk)

National

- 1. **Halberthal M**, Quality Division Combined Model Advantages of Investigation on Hospital Levels, Ministry of Health Conference on Medical Events, Israel, 2016. (Invited Talk)
- 2. **Halberthal M**, COVID-19 and Rambam Healthcare Campus, Virtual Conference: The Seventh Annual Conference on Quality and Safety of Patient Care within the Healthcare System, Israel, 2020. (Invited Talk)

16.2 Contributed Talks and Posters

International Oral

- 1. Makhoul IF, Sujuv P, **Halberthal MS**, Oren R, Bar-Joseph G, Intratracheal Pulmonary Ventilation (ITPV), ameliorates intractable hypercapnea: Two case reports, 7th Pediatric Critical Care Colloquium, USA. 10-1994.
- 2. **Halberthal MS**, Seto W, McCrindle B, Shemie S, The use of Amrinone in children after cardiac surgery. Retrospective study of a 6 month period in the Hospital for Sick Children in Toronto, SCCM, Canada. 02-1999.
- 3. **Halberthal M**, Transport Patients, The second international conference in Air Travel & Health (ATH), Israel. 03-2004.
- 4. **Halberthal M**, Managing Mass Casualty, The 2004 International Conference on Medical Consequences of Terrorism, Israel. 06-2004.
- 5. **Halberthal M**, Practicing medicine in war zone: from blast to trust, International Child Health Forum 2008, USA. 05-2008.
- 6. **Halberthal M**, The Second Lebanon War: The Rambam Trauma Unit in an On-going Emergency Situation, Jackson Memorial, Ryder Trauma Center, USA. 05-2008.
- 7. **Halberthal MS**, Utitz L, Moskovitz K.S., Admi H., Haim N., Golan E., Beyar R., Reisner S., Levi L, Underground Hospital Operational Aspects, The World Congress on Disaster and Emergency Medicine (WCDEM), South Africa. 04-2015.
- 8. **Halberthal M**, Disaster Planning 180 Degree Change to COVID, 37th Annual CNHS ECMO & the Advanced Therapies for Cardiac & Respiratory Failure (Virtual Event Broadcast Online), Canada. 02-2021.
- 9. **Halberthal M**, Shelly E, Sorli J, Greenfield S., Panel Discussion: Healthcare Digitalization in Israel, eHealth Days, organized by the Solvenian Presidency of the Council of the EU 2021, Slovenia. 09-2021

International Poster

1. Lazar I, Knopf C, **Halberthal M**, Bar-Joseph G, Asialotransferrin as a Biochemical Marker for Subarachnoid-Pleural Fistula Diagnosis, 16th Annual Meting of The Eastern Society for Pediatric Research, USA. 03-2004.

National Oral

1. **Halberthal MS**, Tal-Or E, Bar-Joseph G, Compulsory wearing of seat belts in urban areas - influence on pattern of injury in motor vehicle accidents, Israeli Trauma Conference, Israel. 05-1990.

National Poster

- 1. Kranzler M, Avraham R, Shochat T, **Halberthal M**, The Key for Improving Patients preparedness for CT Examination, Quality in Health Care, Israel. 11-2004.
- 2. Kranzler M, Bar Sella G, Mullar E, Smolin B, Shiloach M, Baruch H, **Halberthal M**, Resuscitation of the Dying Patient Act Did we succeed?, Quality in Health Care, Israel. 12-2015.
- 3. **Halberthal M**, Haim N, Kranzler M, Avraham R, Javitt M, Darawsha A, Cohen R, Gur O, Badash L, Shochat T, Optimization of Communication Channels Between Radiology and ER, Transparency in Health Care, Israel. 03-2017.

16.3 Participation in organizing conferences

- 1. The First International Conference on Air Travel & Health (ATH), Israel, 2006, Member of the organizing committee.
- 2. The Second International Conference on Air Travel & Health (ATH), Israel, 11-2008, Member of the organizing committee.
- 3. MEDinIsrael The 1st Medical Devices & HIT International Conference, Israel, 06-2012, Member of Steering Committee.
- 4. MEDinIsrael The 2nd Medical Devices & HIT International Conference, Israel, 06-2013, Member of Steering Committee .
- 5. 11th International Course on Developing and Organizing a Trauma System and MCS Organization, Israel, 11-2014, Member of the organizing committee.
- 6. NATO Advanced Research Workshop- Hospitals under Fire- Planning and Operating a Hospital under Fire and Extreme Circumstances, Israel, 11-2014, Member of the organizing committee.
- 7. 12th International Course on Developing and Organizing a Trauma System and MCS Organization, Israel, 05-2015, Chair of the organizing committee.
- 8. Second International Workshop on Anti-terrorism, Bulgaria, 05-2015, Chair representing Rambam Health Care Campus .
- 9. Emergency Department MCS Training, Malta, 09-2015, Chair of the organizing committee .
- 10. IPRED IV The 4th International Conference for Preparedness and Response to Emergencies and Disaster, Israel, 01-2016, Member of organizing committee.
- 11. 13th International Course on Developing and Organizing a Trauma System and MCS Organization, Israel, 05-2016, Chair of the organizing committee.
- 12. Third International Workshop on Anti-Terrorism, Bulgaria, 06-2016, Chair representing Rambam Health Care Campus.
- 13. Indo Israel Trauma Course & Mass Casualty Situation Workshop-2017, Israel, 04-2017, Chair of the organizing committee .
- 14. IsCREAM 1 Israel Combat Rescue Evacuation and Airborne Medicine, Israel, 05-2017, Member of the organizing committee .

- 15. The 12th Annual Conference on Health Policy by The Israel National Institute for Health Policy Research, Israel, 05-2017, Chair of the Abstract Admissions Committee.
- 16. 14th International Course on Developing and Organizing a Trauma System and MCS Organization, Israel, 10-2017, Chair of the organizing committee .
- 17. Symposium on Mass Casualty Preparedness and Code Orange, Israel, 11-2017, Chair of the RHCC organizing committee .
- 18. IsCREAM 2 Israel Combat Rescue Evacuation and Airborne Medicine, Israel, 05-2018, Member of the organizing committee .
- 19. IsCREAM 3 Israel Combat Rescue Evacuation and Airborne Medicine, Israel, 05-2019, Member of the organizing committee .

17. SIGNIFICANT PROJECTS

03-01-2021 - 05-01-2021	Presenter, Opening Remarks and Interview, New Game-Your Move: Managers Development Week sponsored by Intel, ISrael
03-2020	Organizer and Presenter, COVID-19, the Haifa Angle: You Ask – Rambam Experts. Answer, National Webinar hosted by Rambam Health Care Campus, NA
04-2020	Host and Presenter, Yom Ha'atzmaut 72 Concert with Chaim Topol in Support of Rambam Health Care Campus., International Webinar hosted by Rambam Health Care Campus and Australian Friends of Rambam, NA
04-2020	Panelist, Meet the Experts: Rambam on the Front Lines, Fighting Covid19., International Webinar hosted by Rambam Health Care Campus and American Friends of Rambam (AFORAM), NA
05-2020	Presenter, Rambam Medical Center – Creating High Impact Solutions to Medical and Humanitarian Challenges in a COVID-19 World., International webinar hosted by American Friends of Rambam(AFORAM)., NA
05-2020	Presenter, What Happens when Scientists, Engineers and Physicians Meet?, International webinar jointly sponsored by Rambam Health Care Campus and Technion–Israel Institute of Technology., NA
05-2020	Presenter and Host, Virtual concert in support of Rambam Medical Center, with Frédéric Zeitoun, Bruno Bongarçon, Joana Mendil, Michel Fugain, and The Nacash Brothers., International webinare hosted by the French Friends of Rambam Medical Center and Rambam Health Care Campus, NA

06-2020 Keynote Speaker, Digital Health COVID-19 Response – Keeping Patients away from Hospital with no Compromise on Medical Services and Care., International webinar sponsored by Israel Export., NA 08-12-2020 Presenter, Interview, DHEALTH: Digital Health Conference sponsored by Bio Converges 09-12-2020 Presenter, Interview from the Front Lines, Government Planning Conference on Human Capital Issues, NA 11-2020 Organizer and Presenter, Disaster Preparedness and Lessons Learned from the First Wave of COVID-19., Joint Rambam Health Care Campus and Stanford Medicine Online Symposium., NA Panelist and Presenter, Rambam and COVID-19, Webinar: Behind the 11-2020 Headlines: The Corona Ward at Rambam Hospital, sponsored by Friends of the IDF. 2014 Primary Course presenter on Pre hospital aspects to the injured patient; Air-way shock chest injuries and new imaging techniques; MCI Medical aspects; MCI hospital triage; Emergency services cooperation; and Underground Hospital Operational Aspects, Trauma Center & Mass Casualty Incidents (MCI) Management Course, Bangkok Thailand, April 21-23, Government Invitation from Israeli Ambassador to Thailand and Thai ambassador to Israel 2015 Primary Presenter and panel moderator on the following workshop topics:, Preparedness and Management of MCS - National Approach; Pre-Hospital Management in MCS; ISRAEL 66 years of preparedness to MCS – guidelines, operation and lesson learned; Triage in M.C.S- pre hospital and Hospital approach - operation and lesson learned; Hospitals under fire National Disaster Scenario -local emergency services cooperation - Panel Moderator, Mater-De Hospital, Malta, August 31–September 3, Dr. Mary Rose Cassar, Chairpoerson and Consultant A&E Department, Mater Dei Hospital; Dr. Karen Vincenti, Consultant Public Health Medicine, International Affairs and Policy Development Directorate, Ministry for Energy and Health; Mr. Joseph Rapa,

Permanent Secretary, MInistry for Energy and Health; and Simon

Pullicino, Ambassador, Embassy of the Republic of Malta

2017

Primary presenter for workshop, of following topics: Workshop and RHCC Introduction; Models of quality Improvement in the Pre-Hospital & Hospital; Triage in M.C.S- pre hospital and Hospital approach; Emergency Services cooperation – Panel Moderator; Planning MCS Drill; Drill Debriefing, Indo Israel Trauma Course & Mass Casualty Situation Workshop-2017, Banaras Hindu University, Varanasi, India, April 3–5, Dr. Saurabh Singh, Organizing Secretary, and Dr. Sanjay Yadav, Organizing Co-Secretary, Institute of Medical Sciences, BHU, Varanasi, India

2017

Workshops on the following topics: Main Scenario of Mass Casualty introduction; Computerized Systems for Training and Managing Mass casualty events, Hospital for Sick Children, Toronto Canada, November 8–10, Professor Gail Annich

2018

Gave lectures on the following topics: 1. Rambam Health Care Campus and Emergency Medicine 2. Computerization and registration system in times of emergency 3. Potential opportunities for collaboration 4. Hospital Triage in MCI 5. Second Lebanon War 6. The Fortified Underground Hospital 7. The "War" Drill Participated in a panel discussion on: Challenges of using an EHR during natural disasters and mass causality events. Panel Discussion: EHR Use During Crisis – LKSC 101, Stanford Medicine – Rambam Collaboration, Stanford University School of Medicine, Stanford, CA, USA, Professor Eben Rosenthal

2019

Provided lectures and led training on: 1. Opening Remarks & Introduction of the workshop 2. Rambam Health Care Campus 3. Models of Quality Improvement in Trauma Pre-hospital and hospital 4. Pre Hospital MCS management and response 5. Underground Hospital –from vision to reality 6. Emergency Services cooperation – Panel Joint presentations / training practice – 7. Simulation Drill 8. Tabletop Drill Introduction 9. Tabletop Drill 10. Drill Debriefing 11. Workshop Debriefing & Closing , Trauma and MCS Preparedness Workshop, AIIMS (All India Institute of Medical Sciences) Hospital, Rishikesh, India, Professor Ravi Kant, Director & CEO, AIIMS Rishikesh, India

26-1-2021

Presenter, How Rambam is Managing the COVID-19 Pandemic, Digital Health Webinar sponsored by Digital Health Canada

18. NOTES