

Stanford



Karen G. Hirsch, MD

Associate Professor of Neurology and, by courtesy, of Neurosurgery at the Stanford University Medical Center

Neurology & Neurological Sciences

CLINICAL OFFICES

- **Stanford Neurocritical Care Program**

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ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

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Bio

CLINICAL FOCUS

- Neurology
- Stroke
- Traumatic Brain Injury
- Concussion
- Cerebrovascular Circulation

ACADEMIC APPOINTMENTS

- Associate Professor - Med Center Line, Neurology & Neurological Sciences
- Associate Professor - Med Center Line (By courtesy), Neurosurgery
- Member, Cardiovascular Institute
- Member, Wu Tsai Neurosciences Institute

PROFESSIONAL EDUCATION

- Fellowship: UCSF Dept of Neurology (2012) CA
- Residency, Johns Hopkins University, Neurology (2010)
- Internship, Stanford University, Internal Medicine (2007)
- MD, Stanford University (2006)
- Board Certification: Neurocritical Care, United Council for Neurologic Subspecialties (2013)
- Board Certification: Neurology, American Board of Psychiatry and Neurology (2010)

LINKS

- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Karen G. Hirsch cares for critically ill patients with neurologic disorders in the intensive care unit and for patients with cerebrovascular disease in the inpatient stroke unit. Dr. Hirsch's research focuses on novel imaging techniques such as functional brain imaging in patients with cardiac arrest and traumatic brain injury. She also studies methods of non-invasive measurement of cerebral blood flow, oxygenation, and cerebrovascular autoregulation and how these parameters might be targeted to improve outcome in patients with neurologic injury. In the outpatient clinic, she sees patients with head injury, stroke and other neurovascular diseases in addition to patients who have been discharged from the neurological intensive care unit.

CLINICAL TRIALS

- Established Status Epilepticus Treatment Trial, Recruiting
- Imaging Collaterals in Acute Stroke (iCAS), Recruiting
- Computed Tomography Perfusion (CTP) to Predict Response to Recanalization in Ischemic Stroke Project (CRISP), Not Recruiting
- Stroke Hyperglycemia Insulin Network Effort (SHINE) Trial, Not Recruiting
- Transient Ischemic Attack (TIA) Triage and Evaluation of Stroke Risk, Not Recruiting

Publications

PUBLICATIONS

- **Correction to: Variability in functional outcome and treatment practices by treatment center after out-of-hospital cardiac arrest: analysis of International Cardiac Arrest Registry.** *Intensive care medicine*
May, T. L., Lary, C. W., Riker, R. R., Friberg, H., Patel, N., Soreide, E., McPherson, J. A., Uden, J., Hand, R., Sunde, K., Stammet, P., Rubertsson, S., Belohlvaek, et al
2019
- **Early withdrawal of life support after resuscitation from cardiac arrest is common and may result in additional deaths** *RESUSCITATION*
Teresa, M. L., Robin, R., Richard, R. R., Hans, F., Nainesh, P., Eldar, S., Robert, H., Pascal, S., Allison, D., Karen, H. G., Sachin, A., Michael, W. J., Josef, et al
2019; 139: 308–13
- **Translating Protective Hypothermia During Cardiac Arrest Into Clinical Practice** *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*
Hirsch, K. G., Callaway, C. W.
2019; 321 (17): 1673–75
- **Variability in functional outcome and treatment practices by treatment center after out-of-hospital cardiac arrest: analysis of International Cardiac Arrest Registry** *INTENSIVE CARE MEDICINE*
May, T. L., Lary, C. W., Riker, R. R., Friberg, H., Patel, N., Soreide, E., McPherson, J. A., Uden, J., Hand, R., Sunde, K., Stammet, P., Rubertsson, S., Belohlvaek, et al
2019; 45 (5): 637–46
- **Variability in functional outcome and treatment practices by treatment center after out-of-hospital cardiac arrest: analysis of International Cardiac Arrest Registry.** *Intensive care medicine*
May, T. L., Lary, C. W., Riker, R. R., Friberg, H., Patel, N., Soreide, E., McPherson, J. A., Uden, J., Hand, R., Sunde, K., Stammet, P., Rubertsson, S., Belohlvaek, et al
2019
- **Early withdrawal of life support after resuscitation from cardiac arrest is common and may result in additional deaths.** *Resuscitation*
May, T. L., Ruthazer, R., Riker, R. R., Friberg, H., Patel, N., Soreide, E., Hand, R., Stammet, P., Dupont, A., Hirsch, K. G., Agarwal, S., Wanscher, M. J., Dankiewicz, et al
2019
- **Translating Protective Hypothermia During Cardiac Arrest Into Clinical Practice.** *JAMA*
Hirsch, K. G., Callaway, C. W.
2019; 321 (17): 1673–75

- **The Prognostic Value of Quantitative Diffusion-Weighted MRI after Pediatric Cardiopulmonary Arrest.** *Resuscitation*
Yacoub, M., Birchansky, B., Mlynash, M., Berg, M., Knight, L., Hirsch, K. G., Su, F., Revive Initiative at Stanford Childrens Health
2018
- **2018 American Heart Association Focused Update on Advanced Cardiovascular Life Support Use of Antiarrhythmic Drugs During and Immediately After Cardiac Arrest: An Update to the American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care** *CIRCULATION*
Panchal, A. R., Berg, K. M., Kudenchuk, P. J., Del Rios, M., Hirsch, K. G., Link, M. S., Kurz, M. C., Chan, P. S., Cabanas, J. G., Morley, P. T., Hazinski, M., Donnino, M. W.
2018; 138 (23): E740–E749
- **The neuron specific enolase (NSE) ratio offers benefits over absolute value thresholds in post-cardiac arrest coma prognosis** *JOURNAL OF CLINICAL NEUROSCIENCE*
Chung-Esaki, H. M., Mui, G., Mlynash, M., Eyngorn, I., Catabay, K., Hirsch, K. G.
2018; 57: 99–104
- **Variation in Sedation and Neuromuscular Blockade Regimens on Outcome After Cardiac Arrest** *CRITICAL CARE MEDICINE*
May, T. L., Riker, R. R., Fraser, G. L., Hirsch, K. G., Agarwal, S., Duarte, C., Friberg, H., Soreide, E., McPherson, J., Hand, R., Kent, D., Nielsen, N., Seder, et al
2018; 46 (10): E975–E980
- **Quantitative EEG Metrics Differ Between Outcome Groups and Change Over the First 72 h in Comatose Cardiac Arrest Patients** *NEUROCRITICAL CARE*
Wiley, S., Razavi, B., Krishnamohan, P., Mlynash, M., Eyngorn, I., Meador, K. J., Hirsch, K. G.
2018; 28 (1): 51–59
- **Practical Pearl: Use of MRI to Differentiate Pseudo-subarachnoid Hemorrhage from True Subarachnoid Hemorrhage.** *Neurocritical care*
Ho, A. L., Sussman, E. S., Pendharkar, A. V., Iv, M., Hirsch, K. G., Fischbein, N. J., Dodd, R. L.
2018
- **QUANTITATIVE DIFFUSION-WEIGHTED MRI PREDICTS OUTCOMES IN SURVIVORS OF PEDIATRIC CARDIAC ARREST**
Yacoub, M., Birchansky, B., Mlynash, M., Berg, M., Knight, L., Hirsch, K., Su, F.
LIPPINCOTT WILLIAMS & WILKINS.2018: 149
- **The author replies.** *Critical care medicine*
Hirsch, K. G.
2017; 45 (3): e339-e340
- **Functional Neurologic Outcomes Change Over the First 6 Months After Cardiac Arrest.** *Critical care medicine*
Tong, J. T., Eyngorn, I., Mlynash, M., Albers, G. W., Hirsch, K. G.
2016; 44 (12): e1202-e1207
- **Development of a Mobile Tool That Semiautomatically Screens Patients for Stroke Clinical Trials.** *Stroke; a journal of cerebral circulation*
Spokoyny, I., Lansberg, M., Thiessen, R., Kemp, S. M., Aksoy, D., Lee, Y., Mlynash, M., Hirsch, K. G.
2016; 47 (10): 2652-2655
- **Multi-Center Study of Diffusion-Weighted Imaging in Coma After Cardiac Arrest.** *Neurocritical care*
Hirsch, K. G., Mlynash, M., Eyngorn, I., Pirsaheli, R., Okada, A., Komshian, S., Chen, C., Mayer, S. A., Meschia, J. F., Bernstein, R. A., Wu, O., Greer, D. M., Wijman, et al
2016; 24 (1): 82-89
- **Prognostic Value of Quantitative Diffusion-Weighted MRI in Patients with Traumatic Brain Injury.** *Journal of neuroimaging*
Shakir, A., Aksoy, D., Mlynash, M., Harris, O. A., Albers, G. W., Hirsch, K. G.
2016; 26 (1): 103-108
- **Prognostic Value of A Qualitative Brain MRI Scoring System After Cardiac Arrest** *JOURNAL OF NEUROIMAGING*
Hirsch, K. G., Mlynash, M., Jansen, S., Persoon, S., Eyngorn, I., Krasnokutsky, M. V., Wijman, C. A., Fischbein, N. J.
2015; 25 (3): 430-437
- **Very Early Administration of Progesterone for Acute Traumatic Brain Injury** *NEW ENGLAND JOURNAL OF MEDICINE*
Wright, D. W., Yeatts, S. D., Silbergleit, R., Palesch, Y. Y., Hertzberg, V. S., Frankel, M., Goldstein, F. C., Caveney, A. F., Howlett-Smith, H., Bengelink, E. M., Manley, G. T., Merck, L. H., Janis, et al

2014; 371 (26): 2457-2466

- **An Update on Neurocritical Care for the Patient With Kidney Disease** *ADVANCES IN CHRONIC KIDNEY DISEASE*
Hirsch, K. G., Josephson, S. A.
2013; 20 (1): 39-44
- **Treatment of Elevated Intracranial Pressure with Hyperosmolar Therapy in Patients with Renal Failure** *NEUROCRITICAL CARE*
Hirsch, K. G., Spock, T., Koenig, M. A., Geocadin, R. G.
2012; 17 (3): 388-394
- **Boomerang Sign on MRI** *NEUROCRITICAL CARE*
Hirsch, K. G., Hoesch, R. E.
2012; 16 (3): 450-451
- **Cerebral blood flow and cerebrovascular autoregulation in a swine model of pediatric cardiac arrest and hypothermia** *CRITICAL CARE MEDICINE*
Lee, J. K., Brady, K. M., Mytar, J. O., Kibler, K. K., Carter, E. L., Hirsch, K. G., Hogue, C. W., Easley, R. B., Jordan, L. C., Smielewski, P., Czosnyka, M., Shaffner, D. H., Koehler, et al
2011; 39 (10): 2337-2345
- **Clinical and Radiographic Natural History of Cervical Artery Dissections** *JOURNAL OF STROKE & CEREBROVASCULAR DISEASES*
Schwartz, N. E., Vertinsky, A. T., Hirsch, K. G., Albers, G. W.
2009; 18 (6): 416-423
- **Occurrence of Perimesencephalic Subarachnoid Hemorrhage During Pregnancy** *NEUROCRITICAL CARE*
Hirsch, K. G., Froehler, M. T., Huang, J., Ziai, W. C.
2009; 10 (3): 339-343
- **Inhibition of PI-3 kinase sensitizes human leukemic cells to histone deacetylase inhibitor-mediated apoptosis through p44/42 MAP kinase inactivation and abrogation of p21(CIP1/WAF1) induction rather than AKT inhibition** *ONCOGENE*
Rahmani, M., Yu, C. R., Reese, E., Ahmed, W., Hirsch, K., Dent, P., Grant, S.
2003; 22 (40): 6231-6242
- **The cyclin-dependent kinase inhibitor (CDKI) flavopiridol disrupts phorbol 12-myristate 13-acetate-induced differentiation and CDKI expression while enhancing apoptosis in human myeloid leukemia cells** *CANCER RESEARCH*
Cartee, L., Wang, Z. L., Decker, R. H., Chellappan, S. P., Fusaro, G., Hirsch, K. G., Sankala, H. M., Dent, P., Grant, S.
2001; 61 (6): 2583-2591