

March 26, 2007

Michael A. Williams, MD

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

Johns Hopkins University School of Medicine

January 1, 2005 to present Associate Professor, Departments of Neurology and Neurosurgery

Johns Hopkins University School of Nursing

July 1, 2006 to present Associate Professor (Joint Appointment)

Johns Hopkins University

December 1, 1996 to present Core Faculty Member, Phoebe R. Berman Bioethics Institute

Johns Hopkins Medical Institutions

March 2001 to present Medical Director, Johns Hopkins Adult Hydrocephalus Program

Personal Data

Office Address: Johns Hopkins Hospital
Adult Hydrocephalus Program
600 North Wolfe Street, Phipps 102
Baltimore, MD 21287
Tel: (410) 955-7482
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Education and Training

Undergraduate

1981 Bachelor of Arts, Valparaiso University; Chemistry

Doctoral/Graduate

1985 Doctor of Medicine, Indiana University School of Medicine

Postdoctoral

1985-86 Methodist Hospital of Indiana, Indianapolis, Indiana; Transitional Residency

1986-89 Indiana University Medical Center, Indianapolis, Indiana; Neurology Residency

1989-91 Johns Hopkins Hospital, Baltimore, MD; Neurosciences Critical Care Fellowship

Professional Experience

- 1991-1993 Instructor of Neurology and Neurosurgery; Johns Hopkins University School of Medicine
- 1991-2002 Attending Physician, Neurosciences Critical Care Unit; Johns Hopkins Hospital
- 1993-2004 Assistant Professor, Departments of Neurology and Neurosurgery; Johns Hopkins University School of Medicine
- 1993-1999 Medical Director, Transcranial Doppler Sonography Laboratory; Johns Hopkins Hospital
- 1996-1997 Acting Co-Director, Neurosciences Critical Care Unit; Johns Hopkins Hospital
- 1996-present Core Faculty Member, Phoebe R. Berman Bioethics Institute; Johns Hopkins University
- 2000-2004 Faculty Associate, Johns Hopkins University School of Nursing
- 2001-2002 Attending Physician, Neurosciences Critical Care Unit; Johns Hopkins Bayview Medical Center
- 2001-Present Neurology Program Director, Adult Hydrocephalus Program; Johns Hopkins Hospital
- 2004-2006 Assistant Professor, Johns Hopkins University School of Nursing
- 2005-present Associate Professor, Departments of Neurology and Neurosurgery; Johns Hopkins University School of Medicine
- 2006-present Associate Professor, Johns Hopkins University School of Nursing

RESEARCH ACTIVITIES

Publications, Peer-Reviewed

1. Hendrie HC, Farlow MR, Austrom MG, Edwards MK, **Williams MA**. Foci of increased T2 signal intensity on brain MR scans of healthy elderly subjects. *AJNR*. 1989; 10:703-707.
2. Mirski MA, **Williams MA**, Hanley DF. Prolonged pentobarbital and phenobarbital coma for refractory generalized status epilepticus. *Critical Care Medicine*. 1995; 23:400-404.
3. Ferrari M, **Williams MA**, Wilson DA, Thakor NV, Traystman RJ, Hanley DF. Cat brain cytochrome-c-oxidase redox changes induced by hypoxia after blood-fluorocarbon exchange transfusion. *American Journal of Physiology*. 1995; 269 (Heart and Circ. Physiol. 38):H417-H424.

4. Stingele R, Wagner B, Kameneva MV, **Williams MA**, Wilson DA, Thakor NV, Traystman RJ, Hanley DF. Reduction of cytochrome-c-oxidase copper precedes failing cerebral oxygen utilization in fluorocarbon perfused cats. *Am. J. Physiol.* 1996; 271 (Heart Circ. Physiol. 40): H579-H587.
5. Ulatowski JA, Bucci E, Nishikawa T, Razynska A, **Williams MA**, Takeshima R, Traystman RJ, Koehler RC. Cerebral O₂ transport with hematocrit reduced by cross-linked hemoglobin transfusion. *Am J Physiol* 1996; 270 (Heart Circ. Physiol. 39): H466-H475.
6. Health care needs of gay men and lesbians in the United States. Council on Scientific Affairs, American Medical Association. *JAMA* 1996; 275:1354-1359.
7. Becker KA, Monsein LH, Ulatowski J, Mirski M, **Williams M**, Hanley DF. Intraarterial thrombolysis in vertebrobasilar occlusion. *AJNR Am J Neuroradiol* 1996; 17:255-262.
8. Wagner BP, Stingele R, **Williams MA**, Wilson DA, Traystman RJ, Hanley DF. NO contributes to neurohypophysial but not other regional cerebral fluorocarbon induced hyperemia in cats. *Am J Physiol* 1997; 273(4 Pt 2):H1994-2000.
9. Suarez JJ, Qureshi AI, Bhardwaj A, **Williams MA**, Schnitzer MS, Mirski M, Hanley DF, Ulatowski JA. Treatment of refractory intracranial hypertension with 23.4% saline. *Critical Care Medicine* 1998; 26:1118-1122.
10. Kalousdian S, Karlan MS, **Williams MA**. Silicone elastomer cerebrospinal fluid shunt systems. Council on Scientific Affairs, American Medical Association. *Neurosurgery* 1998; 42:887-892.
11. Meyer M, Genel M, Altman RD, **Williams MA**, Allen JR. Clinical research: assessing the future in a changing environment. Council on Scientific Affairs, American Medical Association. *Am J Med* 1998; 104:264-271.
12. Blum LN, Bresolin LB, **Williams MA**. Heat related illness during extreme weather emergencies. Council on Scientific Affairs, American Medical Association. *JAMA* 1998; 279:1514.
13. Lyznicki JM, Doege TC, Davis RM, **Williams MA**. Sleepiness, driving and motor vehicle crashes. Council on Scientific Affairs, American Medical Association. *JAMA* 1998; 279:1908-1913.
14. Cranston J, **Williams MA**, Nielsen N, Bezman R. Unlabeled indications of FDA-approved drugs. Council on Scientific Affairs, American Medical Association. *Drug Information Journal* 1998; 32:1049-1061.
15. Naff NJ, Carhuapoma JR, **Williams MA**, Bhardwaj A, Ulatowski JA, Bederson J, Bullock R, Schmutzhard E, Fausler B, Keyl PM, Tuhim S, Hanley DF. Treatment of

- intraventricular hemorrhage with urokinase: effects on 30-day survival. *Stroke* 2000; 31:841-847.
16. Tan L, **Williams MA**, Khan MK, Champion HC, Nielsen NH. Risk of transmission of bovine spongiform encephalopathy to humans in the United States. Council on Scientific Affairs, American Medical Association. *JAMA* 1999; 281:2330-2339.
 17. Dickinson BD, Altman RD, Nielsen NH, **Williams MA**. Use of opioids in chronic noncancer pain. Council on Scientific Affairs, American Medical Association. *Western Journal of Medicine* 2000; 172:107-115.
 18. Lyznicki JM, **Williams MA**, Deitchman SD, Howe JP. Medical oxygen and air travel. Council on Scientific Affairs, American Medical Association. *Aviation, Space and Environmental Medicine* 2000; 71:827-831.
 19. Lyznicki JM, **Williams MA**, Deitchman SD, Howe JP. Inflight medical emergencies. Council on Scientific Affairs, American Medical Association. *Aviation, Space and Environmental Medicine* 2000; 71:832-838.
 20. Pronovost PJ, **Williams MA**. Telemedicine and end-of-life care: What's wrong with this picture? *Journal of Clinical Ethics* 2001; 12:64-68.
 21. Wijman CAC, McBee NA, Keyl PM, Varelas PN, **Williams MA**, Ulatowski JA, Hanley DF, Wityk RJ, Razumovsky AY. Diagnostic impact of early transcranial Doppler ultrasonography on TOAST classification subtype in acute cerebral ischemia. *Cerebrovascular Diseases* 2001; 11:317-323.
 22. Yoast RA, **Williams MA**, Deitchman SD, Champion HC. Methadone maintenance and needle-exchange programs to reduce the medical and public health consequences of drug abuse. Council on Scientific Affairs, American Medical Association. *Journal of Addictive Diseases* 2001; 20:11-36.
 23. Lyznicki JM, Altman RD, **Williams MA**. Report of the American Medical Association (AMA) Council on Scientific Affairs and AMA recommendations to medical professional staff on the use of wireless radio frequency equipment in hospitals. *Biomed Instrum Technol* 2001; 35:189-195.
 24. Chiang VL, Torbey M, Rigamonti R, **Williams MA**. Ventriculopleural shunt obstruction caused by positive pressure ventilation. *Journal of Neurosurgery* 2001; 95:116-118.
 25. Torbey MT, Hauser T-K, Bhardwaj A, **Williams MA**, Ulatowski JA, Mirski MA, Razumovsky AY. The effect of age on cerebral blood flow velocity and incidence of vasospasm following aneurysmal subarachnoid hemorrhage. *Stroke* 2001; 32:2005-2011.
 26. Naff NJ, **Williams MA**, Rigamonti DR, Keyl P, Hanley DF. Blood clot resolution in human CSF: evidence of first order kinetics. *Neurosurgery* 2001; 49:614-621.

27. Lyke KE, Obasanjo OO, **Williams MA**, O'Brien M, Chotani R, Perl TM. Ventriculitis complicating use of intraventricular catheters in adult neurosurgical patients. *Clinical Infectious Diseases* 2001; 33:2028-2033.
28. Rushton CH, **Williams MA**, Sabatier KH. The integration of palliative care and critical care: one vision, one voice. *Critical Care Nursing Clinics of North America* 2002; 14:133-140.
29. **Williams MA**. Spinal catheter insertion via seated lumbar puncture using a massage chair. *Neurology* 2002; 58:1859.
30. Suarez JI, Qureshi AI, Yahia AB, Parekh PD, Tamargo RJ, **Williams MA**, Ulatowski JA, Hanley DF, Razumovsky AY. Symptomatic vasospasm diagnosis after subarachnoid hemorrhage: evaluation of transcranial Doppler ultrasound and cerebral angiography as related to compromised vascular distribution. *Critical Care Medicine* 2002; 30:1348-1355.
31. Carhuapoma JR, Qureshi AI, Bhardwaj A, **Williams MA**. Interhemispheric intracranial pressure gradients in massive cerebral infarction. *Journal of Neurosurgical Anesthesia* 2002; 14:299-303.
32. Varelas PN, Chua HC, Natterman J, Barmadia L, Zimmerman P, Yahia A, Ulatowski J, Bhardwaj A, **Williams MA**, Hanley DF. Ventilatory care in myasthenia gravis crisis: assessing the baseline adverse event rate. *Critical Care Medicine* 2002; 30:2663-2668.
33. Lesniak M, Clatterbuck R, Rigamonti D, **Williams MA**. Low pressure hydrocephalus and ventriculomegaly: hysteresis, non-linear dynamics and the benefits of CSF diversion. *British Journal of Neurosurgery* 2002; 16:555-561.
34. **Williams MA**, Lipsett P, Rushton CH, Grochowski E, Berkowitz I, Mann SL, Shatzer J. The physician's role in discussing organ donation with families. Council on Scientific Affairs, American Medical Association. *Critical Care Medicine* 2003; 31:1568–1573.
35. Torbey MT, Geocadin RG, Razumovsky AY, Rigamonti D, **Williams MA**. Utility of CSF pressure monitoring to identify idiopathic intracranial hypertension without papilledema in patients with chronic daily headache. *Cephalalgia* 2004; 24:495–502.
36. Duinkerke A, **Williams MA**, Rigamonti D, Hillis AE. Cognitive recovery in idiopathic normal pressure hydrocephalus. *Cognitive and Behavioral Neurology* 2004; 17:179-184.
37. McGirt MJ, Woodworth G, Thomas G, Miller N, **Williams M**, Rigamonti D. Cerebrospinal fluid shunting for pseudotumor cerebri-associated intractable headache: predictors of treatment response and an analysis of long-term outcomes. *Journal of Neurosurgery* 2004; 101:627–632.

38. Woodworth GF, McGirt MJ, **Williams MA**, Rigamonti D. The use of ventriculoperitoneal shunts for uncontrollable intracranial hypertension without ventriculomegaly secondary to HIV-associated cryptococcal meningitis. *Surg Neurol* 2005; 63:529-31.
39. Cowan JA, McGirt MJ, Woodworth G, Rigamonti D, **Williams MA**. The syndrome of hydrocephalus in young and middle-aged adults (SHYMA). *Neurological Research* 2005; 27:540-547.
40. Thomas G, McGirt MJ, Woodworth G, Heidler J, Rigamonti D, Hillis AE, **Williams MA**. Baseline neuropsychological profile and cognitive response to CSF shunting for idiopathic normal pressure hydrocephalus. *Dement Geriatr Cogn Disord* 2005;20:163–168.
41. McGirt MJ, Coon AL, Thomas G, Woodworth G, **Williams MA**, Rigamonti D. Diagnosis, treatment and analysis of long-term outcomes in idiopathic normal pressure hydrocephalus. *Neurosurgery* 2005; 57:699-705.
42. Bergsneider M, Egnor MR, Johnston M, Kranz D, Madsen JR, McAllister JP, Stewart C, Walker ML, **Williams MA**. What we don't (but should) know about hydrocephalus. *J Neurosurg (3 Suppl Pediatrics)* 2006; 104:157-159.
43. Chang S, Agarwal S, **Williams MA**, Rigamonti D, Hillis AE. Demographic factors influence cognitive recovery after shunt for normal pressure hydrocephalus. *The Neurologist* 2006; 12:39-42.
44. Geocadin RG, Buitrago MM, Torbey MT, Chandra-Strobos N, **Williams MA**, Kaplan PW. Neurologic prognosis and withdrawal of life support after resuscitation from cardiac arrest. *Neurology* 2006; 67:105-108.
45. Woodworth G, McGirt MJ, Thomas G, **Williams MA**, Rigamonti D. Prior CSF shunting increases the risk of endoscopic third ventriculostomy failure in the treatment of obstructive hydrocephalus in adults. *Neurol Res* 2007; 29:27–31. Published online June 14, 2006. <http://www.ingentaconnect.com/content/maney/nres/pre-prints/05306new>
46. Zhang J, **Williams MA**, Rigamonti D. Genetics of human hydrocephalus. *J Neurol* 2006; 253:1255–1266. Published online June 13, 2006.
47. Gallia GL, Rigamonti D, **Williams MA**. The diagnosis and treatment of normal pressure hydrocephalus. (Invited Review). *Nature Clinical Practice Neurology* 2006; 2:375-381.
48. **Williams MA**. Unbefriended. *Neurology* 2006; 67:2088.

49. Wilson RK, **Williams MA**. Evidence that congenital hydrocephalus is a precursor to idiopathic normal pressure hydrocephalus (INPH) in only a subset of patients. *J Neurol Neurosurg Psychiatry*. Published online January 3, 2007. <http://jnnp.bmj.com/cgi/rapidpdf/jnnp.2006.108761v1>
50. Goodwin CR, Kharkar S, Wang P, Pujari S, Rigamonti D, **Williams MA**. Evaluation and treatment of patients with suspected normal pressure hydrocephalus on long term warfarin anticoagulation therapy. *Neurosurgery*. 2007; 60:497-501.
51. **Williams MA**, Sharkey P, Van Doren D, Thomas G, Rigamonti D. Influence of shunt surgery on health care expenditures of elderly fee-for-service Medicare beneficiaries with hydrocephalus. *Journal of Neurosurgery*. Expected publication July 2007.
52. Chaudhry P, Kharkar S, Heidler-Gary J, Hillis AE, Newhart M, Kleinman JT, Davis C, Rigamonti D, Wang P, Irani D, **Williams MA**. Characteristics and reversibility of dementia in normal pressure hydrocephalus. *Behavioral Neurology*. Accepted for publication March 19, 2007.
53. Geocadin RG, Varelas PN, Rigamonti D, **Williams MA**. Continuous intracranial pressure monitoring via shunt reservoir to assess suspected shunt malfunction in adult hydrocephalus. *Neurosurgical Focus*. Accepted for publication March 6, 2007.

Publications, Other

1. **Williams MA**. Neurologic examination of critically ill patients. *Critical Care Report* 1989; 1:52-60.
2. **Williams MA**, Razumovsky AYe. Cerebrospinal fluid circulation, cerebral edema, and intracranial pressure. *Current Opinion in Neurology* 1993; 6:847-853.
3. **Williams MA**. Dynamics of intracranial pressure (ICP). In: *NeuroRounds*, Ulatowski JA (moderator), Science Forum Inc., Symposia, Irvington-on-Hudson, N.Y. 1993; 1(1):6-8
4. **Williams MA**. Discussing DNR decisions with patients and family. In: *The Johns Hopkins Hospital Medical Ethics Newsletter* 1994; 4(1).
5. **Williams M**. Discharge criteria. *Technology News* 1996; 9(9): 1-2,8.
6. Minahan RE, Bhardwaj A, **Williams MA**. Critical care monitoring for cerebrovascular disease. *New Horizons* 1997; 5:406-421.
7. **Williams MA**, Lipsett P. Death, autonomy, and organ donation: a rebuttal. *Hopkins Medical News* 1999; 22:62.
8. Geocadin RG, **Williams MA**. Intracranial pressure monitoring: physiology, devices and application. *Brunei International Medical Journal* 2000; 2:93-102.

9. **Williams M.** Are genetically engineered foods safe? Yes. *Physician's Weekly* 2001; 18(7).
10. Haywood C, **Williams MA.** Challenges in implementing advance directives. *NAELA Quarterly. The Journal of the National Academy of Elder Law Attorneys* 2001; 14:31-34.
11. **Williams MA.** End of life care and organ donation in the ICU: must best laid plans go awry? *Probate and Property.* (A publication of the American Bar Association) September/October 2001. Pp 58-62.
12. **Williams MA.** Questions of Ethics: Opinions on actual cases from the core faculty of the Johns Hopkins Bioethics Institute. *Hopkins Medical News* 2001; 24:62.
13. **Williams MA, Haywood C.** Critical care research on patients with advance directives or DNR status: Ethical challenges for clinician investigators. *Critical Care Medicine* 2003; 31[Suppl.]:S167-S171.
14. **Williams MA, Mackin GA, Beresford HR, Gordon J, Jacobson PL, McQuillen MP, Reimschisel TE, Taylor RM, Bernat JL, Rizzo M, Snyder RD, Sagsveen MG, Amery M, Brannon, Jr. WL.** American Academy of Neurology qualifications and guidelines for the physician expert witness. *Neurology* 2006; 66:1-2.
15. Sagsveen M, **Williams MA.** Who will make medical decisions for you if you can't make them yourself? (Patient Page) *Neurology* 2006; 66:E9
16. **Williams MA, Gordon J.** Ethical issues in infectious diseases of the nervous system. *Continuum: Lifelong Learning Neurol* 2006; 12:159-162.
17. Venkatesan A, **Williams MA.** A man with progressive headache and confusion. *Clinical Cases in Neurology from Johns Hopkins. Medscape General Medicine.* Published online July 27, 2006: <http://www.medscape.com/viewarticle/537504>
18. Donatelli LA, Geocadin RG, **Williams MA.** Ethical issues in critical care and cardiac arrest: clinical research, brain death, and organ donation. *Seminars in Neurology* 2006; 26:452-460.
19. Wilson RK, **Williams MA.** Normal pressure hydrocephalus. *Clin Geriatr Med.* 2006 22:935-51.
20. McGirt MJ, **Williams MA, Rigamonti D.** Diagnosis, treatment, and analysis of long-term outcomes in idiopathic normal-pressure hydrocephalus (Correspondence). *Neurosurgery* 2007; 60:E208
21. **Williams MA.** Ethical perspectives in movement disorders. *Continuum: Lifelong Learning Neurol* 2007; 13:154-157.

22. Bacon D, **Williams MA**, Gordon J. American Academy of Neurology position statement on laws and regulations concerning life-sustaining treatment, including artificial nutrition and hydration, for patients lacking decision-making capacity. *Neurology* 68:1097.

Editorials

1. **Williams MA**, Suarez JJ. Brain death determination in adults: More than meets the eye. *Critical Care Medicine* 1997; 25:1787-1788.
2. Hanley DF, **Williams MA**, Naff N. Intracranial hemorrhage: Time for an intervention. *Critical Care Medicine* 1999; 27:477-478.
3. Carhuapoma JC, **Williams MA**. Endotracheal suction and cerebral ischemia in traumatic brain injury: The phantom menace? *Critical Care Medicine* 1999; 27:2843-2844.

Letters, Correspondence

1. **Williams MA**. Book Review: Brain Death, Wijdicks EFM (ed). *Annals of Neurology* 2002; 52:259.
2. **Williams MA**. Book Review: Ethical Issues in Neurology, Second Edition, Bernat JL. *Annals of Neurology* 2004; 56:457
3. **Williams M**, Lipsett P. Ethics Forum. *American Medical News*, Feb. 7, 2005. Available at: <http://www.ama-assn.org/amednews/2005/02/07/prca0207.htm>
4. Shore WS, **Williams MA**, Kuhlemeier KV, Imtey H, Rose G, deLateur BJ. A comparison of gait assessment methods: Tinetti and GAITRite electronic walkway. *Journal of the American Geriatric Association* 2005; 53:2044-2045.
5. Beresford HR, **Williams MA**, Sagsveen MG. The neurologist as expert witness. *Neurology* 2006;66:1.

Book Chapters, Monographs

1. **Williams MA**, Razumovsky AY, Diringner MN, Hanley DF. Transcranial Doppler ultrasonography in the intensive care unit. In: *Transcranial Doppler Ultrasonography*. Babikian VL and Wechsler LR (eds). Mosby Year Book, Inc. Pp. 175-189, 1993.
2. **Williams MA**, Hanley DF. Intracranial pressure monitoring and cerebral resuscitation. In: *Management of the Acutely Ill Neurological Patient*. Grotta J (ed). Churchill Livingstone, New York. Pp. 49-74, 1993.
3. **Williams MA**, Hanley DF. Intracranial pressure monitoring. In: *Critical Care Medicine: Principles of Diagnosis and Management*. Parrillo JE and Bone RC (eds). Mosby Year Book, Philadelphia. Pp. 213-222, 1995.

4. **Williams MA.** Normal pressure hydrocephalus. In: *Current Therapy in Neurologic Disease* (5th ed). Johnson RT and Griffin JW (eds). Mosby-Year Book, Inc., Philadelphia. Pp. 315-319, 1996.
5. **Williams MA, Hanley DF.** Intracranial pressure monitoring. In: *Current Therapy in Critical Care Medicine*. Parrillo J (ed). Mosby-Year Book, Inc., Philadelphia. Pp 60-66, 1996.
6. **Williams MA, Hanley DF.** Monitoring and interpreting intracranial pressure. In: *Principles and Practice of Intensive Care Monitoring*. Tobin MJ (ed). McGraw Hill, New York. Pp 995-1009, 1998.
7. Razumovsky AY, Czosnyka M, **Williams MA, Hanley DF.** Intensive care unit monitoring. In: *Transcranial Doppler Ultrasonography* (2nd ed). Babikian VL and Wechsler LR (eds). Butterworth Heinemann, Woburn, MA. Pp 181-201, 1999.
8. Geocadin RG, **Williams MA, Hanley DF.** Intracranial hypertension. In: *Surgical Intensive Care Medicine Handbook*. Nacul F, O'Donnell J (eds). Kluwer Academic Publishers, Norwell, MA. 2001.
9. **Williams MA, Geocadin RG.** Intracranial pressure monitoring. In: *Critical Care Medicine: Principles of Diagnosis and Management* (2nd ed). Parrillo JE, Dellinger RP (eds). Mosby Year Book, Philadelphia. Pp 249-259, 2001.
10. **Williams MA.** The role of neurologists in end-of-life decision making and care. In: *Current Therapy in Neurologic Disease* (6th ed). Johnson RT, Griffin JW, McArthur JC (eds). Mosby Year Book, Philadelphia. Pp 9-12, 2001.
11. **Williams MA, Geocadin RG.** Disorders of intracranial pressure. In: *Diseases of the Nervous System: Clinical Neuroscience and Therapeutic Principles* (3rd ed). Asbury AK, McKhann GM, McDonald WI, Goadsby PJ and McArthur JC (eds). Cambridge University Press, Cambridge, UK. Pp 2016-2032, 2002
12. Chase CM, **Williams MA.** Brain death and organ donation. In: *Handbook of Neurocritical Care*. Bhardwaj A, Ulatowski JA, Mirski MA (eds). Humana Press, Totowa, NJ. Pp 301-310, 2004
13. Chase CM, **Williams MA:** Ethical issues and withdrawal of life sustaining therapies. In: *Handbook of Neurocritical Care*. Bhardwaj A, Ulatowski JA, Mirski MA (eds). Humana Press, Totowa, NJ. Pp 311-324, 2004
14. **Williams MA, Rushton CH:** Integrating palliative and curative care strategies in the practice of otolaryngology. In: *Otolaryngology—Head & Neck Surgery* (4th ed). Cummings CW, Flint PW, Harker LA, Haughey BH, Richardson MA, Robbins KT, Schuller DE, Thomas JR (eds). Elsevier Mosby, Philadelphia, PA. Pp 470-477, 2005.

15. **Williams MA**, Rigamonti D. Normal pressure hydrocephalus. In: Current Therapy in Neurologic Disease (7th ed). Johnson RT, Griffin JW, McArthur JC (eds). Mosby Elsevier, New York. Pp 335-337, 2006.

Books

1. Practical Ethics in Clinical Neurology. Reismschisel T, **Williams MA** (eds). Expected publication April 2008 by American Academy of Neurology and Lippincott, Williams & Wilkins.

Inventions, Patents, Copyrights

1. July 1, 2003 Shunt: United States Patent 6,585,677. Issued to: Cowan J, Murphy K, **Williams M**, Rigamonti D
2. August 17, 2004 Shunt: Canadian Patent 2,356,032. Issued to: Cowan JA, Murphy K, **Williams M**, Rigamonti D
3. August 23, 2005 Shunt: United States Patent 6,932,787 B2. Continuation of US Patent 6,585,677. Issued to: Cowan J, Murphy K, **Williams M**, Rigamonti D
4. June 8, 2006 Self-sealing catheter for deformable tissue: International Patent WO 2006/060181 A1. Issued to: Murphy K, **Williams M**, Rigamonti D

Extramural Funding

Grants

Previous

1. 10/1/02 to 9/30/05 Dissemination of an Interdisciplinary Experiential Training Program for End of Life Care and Organ Donation. (1H39 OT 0011101) Awarded by the Health Resources and Services Administration (HRSA). Total: \$1,224,000. Current Year: \$344,510. Role: Principal Investigator. (25% effort)
2. 10/1/99 to 9/30/02 Interdisciplinary Experiential Training for End of Life Care and Organ Donation. (1 H39 OT 00004-01) Awarded by the Health Resources and Services Administration (HRSA). Total: \$929,000. Role: Principal Investigator. (20-25% effort)
3. 1/1/01 to 6/30/02 Development and Evaluation of an Assessment Tool for Clinical Ethics Consultation. Awarded by the Niarchos Faculty Innovation Fund for the Johns Hopkins University Phoebe R. Berman Bioethics Institute. Total: \$50,000. Role: Principal Investigator. (4% Effort)
4. 1997-1999 End-of-life decision making and care in the ICU. Sponsored by the Emily Davie and Joseph F. Kornfeld Foundation, New York, NY, with matching funds from the Johns Hopkins Hospital. Total: \$300,000. Role: Principal Investigator.

Contracts

1. 2005-2006 A precision and accuracy study of the Codman valve position verification (VPV) system. Contract awarded by Codman & Shurtleff, Inc. Role: Site primary investigator
2. 1998-2000 Analysis of verbal and non-verbal communication by physicians and nurses discussing brain death and organ donation with families and surrogates. Contract awarded by United Network for Organ Sharing (UNOS). Total: \$50,000. Role: Principal Co-Investigator.
3. 1996-1997 Multi-sensor fused interrogation of brain to determine ICP level. U.S. Department of Defense Small Business Innovation Research (SBIR) Program with Active Signals Technologies. Role: Consultant.
4. 1996-1997 Human implantation of a telemetric ICP sensor. (1R43NS034983-01) National Institutes of Health SBIR with LifeSensors. Total: \$99,998. Principal Investigator: John Chubbuck. Role: Consultant.
5. 1996 A multicenter, double blind, placebo controlled study of the safety and efficacy of SB-238592-DB (Bradykinin antagonist) in patients with severe traumatic brain injury. Contract awarded by SmithKline-Beecham Laboratories. Role: Site Primary Investigator.
6. 1992-1995 Design for telemetric intracranial pressure monitoring system. (2R44NS027795-02) National Institutes of Health SBIR with LifeSensors. Principal Investigator: John Chubbuck. Role: Consultant.

EDUCATIONAL ACTIVITIES

Publications, Editorials

1. **Williams MA, Rushton CH, Shatzer JH.** Irreconcilable Differences? Critical Care Medicine 2003; 31:1289-1290.

Teaching

Classroom Instruction

1. April 2000; April 2001; April 2003; April 2004. Coma and Persistent Vegetative State (Lecture and group discussion); Brain Death and Organ Transplantation (Experiential training using standardized patients). Role: Guest Lecturer. Johns Hopkins University, Course 360.302, Clinical Ethics and End-of-Life Issues. Course Director: Eugene C. Grochowski, Ph.D., MD.
2. Spring, Summer Semesters, 2001. Decision making capacity and authority; Ethical issues at the end of life. Role: Guest Lecturer. Johns Hopkins University School of Nursing Course NR100.533, Ethics of Health Care. Course Director: Cynda H. Rushton, RN, DNSc.

3. Spring 2002. Ethical issues at the end of life. Role: Guest Lecturer. Johns Hopkins University School of Nursing Course NR100.533, Ethics of Health Care. Course Director: Cynda H. Rushton, RN, DNSc.
4. 2002-2003; 2003-2004. Physician and Society. Role: Small group faculty facilitator for 3rd and 4th year students. Johns Hopkins University School of Medicine.
5. July 11, 2003. Introduction to Medical Ethics; When Doctors are Involved in Errors (Large group instruction with small group break-out sessions for pre-college students considering a career in medicine). Role: Guest Lecturer. Brown University, Providence, RI, Course BI903-3A, So, You Think You Want to Be a Doctor: An Introduction to Medicine. Course Director: Stuart Gitlow, MD.
6. Summer 2003; Summer 2004. Privacy and Confidentiality. Role: Guest Lecturer. Johns Hopkins University School of Nursing Course NR100.533, Ethics of Health Care. Course Director: Cynda H. Rushton, RN, DNSc.
7. Fall 2004. The Healer's Art. Role: Small group faculty facilitator for 1st and 2nd year students. Johns Hopkins University School of Medicine.

Clinical Instruction

1. July 1994-July 2001. Examination of the comatose patient (Lecture and bedside demonstration, 12 times/year). Role: Instructor. Johns Hopkins University School of Medicine Neurology Clerkship (3rd, 4th year students).
2. November 1997; November 1998. Technique of the lumbar puncture (Training with simulator); Examination of the comatose patient (Lecture and bedside demonstration); Techniques and interpretation of ICP monitoring (Large group instruction). Role: Guest Instructor. Johns Hopkins School of Nursing Advanced Practice Nursing Program Course NR100.572, Advanced Diagnostics and Therapeutics.
3. March 1998. Bedside practicum in the examination of the comatose or neurologically injured critically ill patient. Role: Guest Instructor. Johns Hopkins School of Nursing Advanced Practice Nursing Program Course NR100.562, Advanced Diagnostics and Therapeutics.
4. February 2000; April 2001; April 2003. End-of-life decision making in the ICU (Experiential training using standardized patients). Role: Guest Instructor, taught with Cynda H. Rushton, RN, DNSc. Johns Hopkins School of Nursing Advanced Practice Nursing Program Course NR100.572, Advanced Diagnostics and Therapeutics.

CME Instruction

Role: Lecturer

1. April 25, 1993. Monitoring and interpreting intracranial pressure. After Dinner Seminar, American Academy of Neurology Annual Meeting, New York City, NY.

2. December 11, 1993. Normal pressure hydrocephalus. Johns Hopkins Medical Institutions Fourth Annual Neurology for the Primary Practitioner, Baltimore, MD.
3. May 2, 1994. Intracranial pressure monitoring techniques. Critical Care Skills Workshop, American Academy of Neurology, Washington, DC.
4. May 7, 1994. Intracranial pressure monitoring. Critical Care and Emergency Neurology Course, American Academy of Neurology, Washington, DC.
5. May 8, 1995. Intracranial pressure monitoring and external CSF drainage. Critical Care Skills Workshop, American Academy of Neurology, Seattle, WA.
6. March 25, 1996. Intracranial pressure monitoring and external CSF drainage. Critical Care Skills Workshop American Academy of Neurology, San Francisco, CA.
7. February 10, 1997. Transcranial Doppler sonography and near-infrared spectroscopy. Advances in Noninvasive and Invasive Monitoring of Cerebrovascular Function Course, Society for Critical Care Medicine, San Diego, CA.
8. April 13, 1997. Intracranial pressure management for neurologists. Critical Care and Emergency Neurology Course, American Academy of Neurology, Boston, MA.
9. April 14, 1997. Intracranial pressure monitoring and external CSF drainage. Critical Care Skills Workshop, American Academy of Neurology, Boston, MA.
10. September 10, 1997. Intracranial pressure monitoring and management following skull base surgery. American Academy of Otolaryngology, Head and Neck Surgery, San Francisco, CA.
11. April 27, 1998. Intracranial pressure monitoring and management for neurologists. Critical Care Skills Workshop, American Academy of Neurology, Minneapolis, MN.
12. September 14, 1998. Intracranial pressure monitoring and management following skull base surgery. American Academy of Otolaryngology, Head and Neck Surgery, San Antonio, TX.
13. January 26, 1999. Invasive cerebral monitoring techniques. Society for Critical Care Medicine, San Francisco, CA.
14. June 25-26, 1999. Diagnosis and management of acute hydrocephalus. Johns Hopkins School of Medicine conference on Neurological and Neurosurgical Emergencies, Baltimore, MD.
15. September 3, 1999. End-of-life issues in stroke patients. North American Stroke Meeting, Aspen. CO.

16. February 17, 2000. **Williams MA**, Rushton C: Ethical challenges in end-of-life care. Johns Hopkins Oncology Center Continuing Education Program in Psychosocial Cancer Care, "The Caring Continuum: Modeling in the Palliative Care Approach", Baltimore, MD.
17. April 30, 2000. End-of-life decision making and care: A neurosciences critical care triptych. Critical Care and Emergency Neurology Course, American Academy of Neurology, San Diego, CA.
18. November 15, 2000. End-of-life decision making and care in the ICU: Suffering without a framework. Maryland Academy of Physician Assistants, Hunt Valley, MD.
19. March 15, 2001. **Williams MA**, Rushton CH: Tidbits and pitfalls in end-of-life care in the ICU. Chesapeake Bay Chapter of the American Association of Critical Care Nurses 12th Annual Symposium, Columbia, MD.
20. May 5, 2001. End-of-life care, palliative care, and hospice. Maryland Academy of Physician Assistants, Annapolis, MD.
21. January 26, 2002. Individual and organizational ethical frameworks for disclosing and responding to medical errors. Society for Critical Care Medicine, San Diego, CA.
22. January 26, 2002. Critical care research on patients with "DNR Status"—How is this possible? Society for Critical Care Medicine, San Diego, CA.
23. January 30, 2002. Organ donation by persons in persistent vegetative state: Should we do it just because we can? Society for Critical Care Medicine, San Diego, CA.
24. September 12, 2002. Approaches and barriers to communication about dying and end of life care with families and patients. Geriatrics Symposium and Hospice Board Review Course, sponsored by the Hospice Network of Maryland, Victory Springs Senior Health Associates, and the Baltimore City Medical Society, Ellicott City, MD.
25. October 19, 2002. Integrating critical care and palliative care. Upper Chesapeake Health System Critical Care Conference, White Marsh, MD.
26. November 13, 2002. Approaches and barriers to communication about dying and end of life care with families and patients. Maryland Academy of Physician Assistants, Linthicum Heights, MD.
27. April 4, 2003. Diagnosis and management of adult hydrocephalus syndromes. American Academy of Neurology, Honolulu, HI.
28. May 2, 2003. Ethics of informed consent for aneurysm therapy. American Society for Neuroradiology, Washington, DC.

29. March 10, 2004. **Williams MA**, Rushton CH: The futility of futility. Chesapeake Bay Chapter, American Association of Critical Care Nurses, Towson, MD.
30. March 27, 2004. Diagnosis and management of normal pressure hydrocephalus. 10th Anniversary Alzheimer's Disease and Other Dementias, Johns Hopkins School of Medicine, Baltimore, MD.
31. April 29, 2004. Diagnosis and management of adult hydrocephalus syndromes. American Academy of Neurology, San Francisco, CA.
32. September 30, 2004. **Williams MA**, Rushton CH: End-of-life care in the ICU. Hot Topics in Advanced Practice Nursing. The Johns Hopkins University School of Nursing and University of Maryland School of Nursing, Baltimore, MD.
33. October 28, 2004. **Williams MA**, Rigamonti D: A reversible dementia: diagnosis and management of normal pressure hydrocephalus. Live webcast by Medscape (www.medscape.com/cmeline/hydroceph).
34. March 4, 2005. The role of the neurologist in the diagnosis and treatment of normal pressure hydrocephalus: A neurology and neurosurgery team approach. 31st Annual Barrow Symposium, Barrow Neurological Institute, Phoenix, AZ.
35. April 16, 2005. Rethinking and reframing normal pressure hydrocephalus. American Academy of Neurology, Miami, FL.
36. March 9, 2006. **Williams MA**, Rushton CH: Goals of care. Chesapeake Bay Chapter, American Association of Critical Care Nurses Annual Symposium, Towson, MD.
37. April 2, 2006. Diagnosis and management of normal pressure hydrocephalus. American Academy of Neurology, San Diego, CA.
38. To be presented April 29, 2007. Ethical framework for patient safety. Patient Safety Colloquium at the American Academy of Neurology, Boston, MA.
39. To be presented April 30, 2007. Diagnosis and management of normal pressure hydrocephalus. American Academy of Neurology, Boston, MA.
40. To be presented May 3, 2007. The process and benefits of ethics consultation. American Academy of Neurology, Boston, MA.

CME Instruction

Role: Course Director

1. October 24-25, 2003. Foundations and Frontiers in Adult Hydrocephalus. Johns Hopkins Medical Institutions, Baltimore, MD.

2. April 14, 2005. Identification and Management of Ethical Issues in Neurologic Practice. Course 6PC.003 (Half-day course), American Academy of Neurology, Miami, FL.
3. April 4, 2006. Identification and Management of Ethical Issues in Neurologic Practice. Course 4PC.003 (Half-day course), American Academy of Neurology, San Diego, CA.
4. April 2, 2006. Evaluation and Management of Normal Pressure Hydrocephalus. Course 2DS.005 (Dinner seminar), American Academy of Neurology, San Diego, CA.
5. To be presented April 30, 2007. Evaluation and Management of Normal Pressure Hydrocephalus. Dinner seminar at the American Academy of Neurology, Boston, MA.
6. To be presented May 3, 2007. Basic Bioethics and Law for Neurologists. Half-day course at the American Academy of Neurology, Boston, MA.

Mentoring

1. Spring 1998 Karen Yarbrough, Critical Care Nurse Practitioner student from the University of Maryland School of Nursing. Neurosciences Critical Care Clinical Rotation.
2. Spring 1998 Carolyn Dickens, Acute Care Nurse Practitioner student from the Johns Hopkins School of Nursing. Neurosciences Critical Care Clinical Rotation.
3. October 1998 Virginia Pizarra, Acute Care Nurse Practitioner student from the Johns Hopkins School of Nursing. Neurosciences Critical Care Clinical Rotation.
4. July 2000-July 2003 Carlton Haywood, Jr., BA. Johns Hopkins University Bioethics Institute. –Intern and research assistant. Principal responsibilities involved research and training for “Interdisciplinary, experiential training in end-of-life care and organ donation”. Present Position: Doctoral Student, Johns Hopkins University School of Health Policy and Management.
5. July 2001-June 2002 Tyler Reimschisel, MD. American Academy of Neurology Elective in Clinical Ethics. Present Positions: American Academy of Neurology Ethics, Law and Humanities Committee; Director AAN Neurologist-in-Training Clerkship in Ethics.
6. July 2006 to present Robin Wilson, MD, PhD. Clinical Fellow in Adult Hydrocephalus.

CLINICAL ACTIVITIES

Certification

Medical Licensure

Maryland Physician's License Number XXXXX Expiration Date: 9/30/07

Board Certification

July 1, 1986 National Board of Medical Examiners - Certificate #318034

October, 1991 American Board of Psychiatry and Neurology - Certificate #35085

Service Responsibilities

July 1, 1991 to June 30, 2002 Neurosciences Critical Care Unit, Johns Hopkins Hospital. Role: Attending Physician.

July 1, 2001 to June 30, 2002 Neurosciences Critical Care Unit, Johns Hopkins Bayview Medical Center. Role: Attending Physician.

March 2001 to present Johns Hopkins Adult Hydrocephalus Program. Role: Medical Director. 50-60% effort with inpatient and outpatient responsibilities year round.

Clinical Program Building/Leadership

March 2001 to present Johns Hopkins Adult Hydrocephalus Program. Role: Medical Director.

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

The Johns Hopkins Hospital

August 1992 to present Ethics Committee and Consultation Service
Co-Chair, January 1999 to present
January 1996 to present Organ Donor Council.
January 1999 to present Administrative Committee of the Medical Board,
November 2000 to present Performance Improvement Council.
June 2001 to present Patient Safety Committee.

The Johns Hopkins University School of Medicine

2003-2004 Simulation Center Task Force

Editorial Activities

Editorial Board Appointments

2005-present Continuum: Associate Editor for Ethics.

2003-present Organizational Ethics: Healthcare, Business, and Policy. Board of Editors.

Critical Care of Stroke. In: New Horizons, Vol. 5 No. 4. Bhardwaj A, **Williams MA**, Hanley DF (Guest editors). Luce JM (Series editor). Society of Critical Care Medicine. Williams & Wilkins, Baltimore. Pp. 297-435, 1997

Journal Peer Review Activities

JAMA
Journal of Critical Care Medicine
Neurology

Annals of Neurology
British Journal of Neurosurgery
Journal of Neurology, Neurosurgery and Psychiatry
Medical & Biological Engineering & Computing

Advisory Committees, Review Groups

1. October 20-22, 1998 AMA/AAMC National Clinical Research Summit Retreat, Graylyn Conference Center, Wake Forest, NC, which resulted in the creation of a National Clinical Research Roundtable at the Institute of Medicine in November 1999. Conference dates: Role: Participant.
2. 1999 to present Medical Advisory Board for the Hydrocephalus Association.
 - Medical Consultant for patient educational booklet, About Normal Pressure Hydrocephalus—A Book for Adults and Their Families, 2000 edition.
 - Medical Consultant for patient educational booklet, Hydrocephalus Diagnosed in Young to Middle Aged Adults: A Book for Adults and Their Families, 2002.
 - Conference Medical Director and Conference Organizer for Hydrocephalus 2006, the 9th National Hydrocephalus Association Conference, held May 26-29, 2006, Baltimore, MD
3. 1999 Institute of Medicine Committee on Non Heart Beating Organ Transplantation II: The Scientific and Ethical Basis for Practice and Protocol, which resulted in the publication: Non-Heart-Beating Organ Transplantation. Practice and Protocols. National Academy Press. Washington, DC. 2000. Role: Member.
4. June 28-29, 1999 Workshop on "Development of Roles and Training for the Donation Process", sponsored by the Health Resources and Services Administration (HRSA), and the Health Care Financing Administration (HCFA), which resulted in the publication: Roles and training for the donation process: A resource guide. Health Services and Resources Administration, Health Care Financing Administration. August 2000. Role: Workshop panelist.
5. 2000, 2002 Advisory Board and Faculty for the Institute for Johns Hopkins Nursing "National Nursing Leadership Academy in End-of-Life Care", funded by the Project on Death in America (Cynda H. Rushton, RN, DNSc, Principal Investigator). Role: Responsible for the development and implementation of a training simulation to teach Academy participants skills and competencies for presenting palliative care proposal to the Boards of their nursing organizations.
6. 2001-2004 U.S. Department of Health and Human Services, Secretary's Advisory Committee on Organ Transplantation (ACOT). Role: Member
7. 2001 Advisory Council member for United Network for Organ Sharing (UNOS) Project on Organ Donation After Cardiac Death. Role: Member

8. 2001 International Consensus Conference on Normal Pressure Hydrocephalus, with the goal to develop practice guidelines for the diagnosis and treatment of normal pressure hydrocephalus (Anthony Marmarou, PhD, Chair). Role: Member
9. April 7-8, 2005 National Conference on Donation After Cardiac Death, sponsored by the United Network for Organ Sharing (UNOS). Role: Invited participant for Work Group 1: Determination of Death
10. September 19, 2005 Institute of Medicine Exploratory Meeting—Disorders of Consciousness: Vegetative States and the Minimally Conscious State. Role: Member
11. March 24, 2006 ICD-9-CM Coordination and Maintenance Committee Meeting, sponsored by the Centers for Disease Control and Prevention. Invited speaker in support of the creation of a new ICD-9 code for normal pressure hydrocephalus. Baltimore, MD
12. January 2007 to present American Academy of Neurology authorship panel responsible for developing and writing an evidence-based practice guideline addressing issues that arise for patients diagnosed as being in a vegetative or minimally conscious state. Role: Author, reviewer. (Practice guideline in development)
13. January 2007 to present American Academy of Neurology authorship panel responsible for developing and writing an evidenced-based ethical guideline covering issues related to patients diagnosed as being in a vegetative or minimally conscious state. Role: Lead author, reviewer. (Ethical guideline in development)

Professional Societies

American Academy of Neurology

1992 to present Active Member

2004 to present Fellow

2002 to present Ethics, Law and Humanities Committee

April 1, 2003 to present: Chair

Accomplishments:

- Creation of ELHC Vision Statement, with resulting increased visibility and contribution to AAN leadership and policy development
- Establishment of Ethics Section within the AAN, resulting in a new topic for abstracts at the scientific sessions
- Revision of AAN Guidelines for Expert Witness Testimony (Adopted June 2005)
- Development of AAN Position Statement on Laws and Regulations Concerning Life Sustaining Treatment, Including Artificial Nutrition and Hydration, for Patients Lacking Decision-Making Capacity (Adopted June 2006)
- In process revision of AAN Practice Parameter on Assessment and Management of Patients in the Persistent Vegetative State

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| April 1, 2003 to present | Grievance Committee |
| April 2003 to April 2005 | Meeting Management Committee |
| July 2003 to June 2004 | Chair, Pharmaceutical Guideline Task Force |
| August-October 2004 | Stem Cell Policy Task Force |
| October-November 2004 | Nominations Committee, Member |
| July 1, 2006 to present | Residency Examination Subcommittee |
| 1989 to present | AAN Delegation to AMA |
| 1989-1990 | Delegate to AMA Resident Physicians Section |
| 1991-1999 | Delegate to AMA Young Physicians Section |
| 1999 | Alternate Delegate |
| 2000 to present | Delegate |
| 2002 to present | Chair |

American Neurological Association

October 2004 to present Member

American Medical Association

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|-----------------|---|
| 1981 to present | Member |
| 1994-2002 | AMA Council on Scientific Affairs (elected position) |
| | 1994-1997, 1997-2001, 2001-2002 Member |
| | June 2000 to June 2001 Chair |
| 1999 | Alternate Delegate, AMA House of Delegates |
| 2000 to present | Delegate, AMA House of Delegates |
| 2003 | Committee on Organization of Organizations |
| | Roles: AAN Representative, AMA Report Writing Committee |

Medical and Chirurgical Faculty of Maryland

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|-----------------|--|
| 1991 to present | Member |
| 1995-1999 | Alternate Delegate, Med-Chi House of Delegates |
| 1997 | Regulatory Reform Task Force, Subcommittee on the Health Resources Planning Commission |
| 2006 to present | Ethics Committee |

Society of Critical Care Medicine

1993-2004 Member

American Society for Bioethics and Humanities

1999-2004 Member

American College of Physician Executives

1997 to present Member

Conference Organizer, Session Chair

1. July 2000 International Board of Reviewers for the XIth International Symposium on Intracranial Pressure (ICP 2000), July 2000

2. September 29-October 1, 2005 Co-Chair, National Institute of Neurological Disorders and Stroke Workshop, "Hydrocephalus: Myths, New Facts, Clear Directions," Bethesda, MD.
3. June 20, 2006 Organizing Committee for "Should Conscience Be Your Guide? Exploring Conscience-based Refusals in Health Care", sponsored by the Maryland Health Care Ethics Committee Network, Baltimore, MD.
4. May 26-29, 2006 Conference Medical Director and Conference Organizer for Hydrocephalus 2006, the 9th National Hydrocephalus Association Conference, Baltimore, MD.
5. September 6-9, 2006 International Advisory Board, Hydrocephalus 2006, Göteborg, Sweden.

RECOGNITION

Awards, Honors

1. July 1, 1989 Eleanor Naylor Dana Fellowship in Neurosciences Critical Care. Johns Hopkins Hospital.
2. July 1, 1990 Charles A. Dana Fellowship in Neurosciences Critical Care. Johns Hopkins Hospital.
3. October 1998 AMA/Glaxo Wellcome New Leadership Development Program: Creating Visionary Leadership Strategies.
4. December 2000 Award for "Commitment to Collaboration: Outstanding Contribution to the Field of Organ and Tissue Transplantation". Transplant Resource Center of Maryland.

Invited Talks, Panels

1. August 20, 1992. ICP monitoring and normal pressure hydrocephalus. Physical Medicine and Rehabilitation Grand Rounds, Sinai Hospital, Baltimore, MD.
2. November 4, 1992. Understanding the pathophysiology of normal pressure hydrocephalus and intracranial pressure monitoring predicts the response to shunting. National Naval Medical Center, Neurology/Neurosurgery Combined Conference Critical Care Grand Rounds, Bethesda, MD.
3. December 17, 1992. ICP monitoring and normal pressure hydrocephalus. Johns Hopkins Hospital Neurology Grand Rounds, Baltimore, MD.
4. April 12, 1995. Development of a telemetered intracranial pressure sensor. Neurosurgery Grand Rounds, Johns Hopkins Hospital, Baltimore, MD.

5. June 8, 1995. How Gay and Lesbian physicians can influence public policy. First Annual Meeting of the Gertrude Stein Society of Gay and Lesbian Medical Students, Johns Hopkins School of Medicine, Baltimore, MD.
6. March 9-13, 1996. Second Annual Aspen Neurobehavioral Conference. Developed a clinical practice guideline and algorithm for discussing end-of-life issues with families of severely brain-injured patients. Sponsored by the Brain Injury Association, the Rehabilitation Institute of Chicago and the University of Colorado School of Medicine; Aspen, CO.
7. June 14, 1996. A history of critical care neurology. Fifth Annual Kenneth H. Kappahn Lecture Series "Neurologic Intensive Care", Department of Neurology, Henry Ford Health System, Detroit, MI.
8. August 24, 1996. Physician leadership in image building and fighting homophobia in medicine: Organized medicine. Plenary session at the 14th Annual Meeting of the Gay and Lesbian Medical Association, Montreal, PQ, Canada.
9. February 27, 1997. Cranial vault physiology and intracranial pressure management; and Monitoring applications of transcranial Doppler sonography for cerebrovascular disease. Neurology Grand Rounds, Washington Hospital Center, Washington, DC.
10. March 5, 1997. Normal pressure hydrocephalus. Psychiatry Grand Rounds at Copper Ridge Education and Research Institute and the Johns Hopkins Neuropsychiatry and Memory Group, Sykesville, MD.
11. April 2-6, 1997. Third Annual Aspen Neurobehavioral Conference. Co-leader of group to develop position paper on Critical Choices and Decision Making with Families of Patients with Acute Brain Injury. Sponsored by the Brain Injury Association, the Rehabilitation Institute of Chicago and the University of Colorado School of Medicine; Aspen, CO.
12. May 25-29, 1997. Normal pressure hydrocephalus: What are we looking for? Workshop on Normal Pressure Hydrocephalus at the Tenth International Symposium on Intracranial Pressure and Neuromonitoring in Brain Injury (ICP-10), Williamsburg, VA.
13. September 13, 1997. Intracranial pressure management for neurologists. Neurocritical Care: Update on Basic Principles. XVIth World Congress of Neurology, Buenos Aires, Argentina.
14. September 20, 1997. Intracranial pressure management for neurologists. Argentine Critical Care Society, Buenos Aires, Argentina.
15. April 5-9, 1998. Fourth Annual Aspen Neurobehavioral Conference. Sponsored by the Brain Injury Association, the Rehabilitation Institute of Chicago and the University of Colorado School of Medicine; Aspen, CO.

16. January 8, 1999. In vivo assessment of shunt function and failure. FDA Conference on Neurological CSF Shunts, Bethesda, MD.
17. April 26, 1999. End-of-life decision making in the ICU: Suffering without a framework. Johns Hopkins Hospital Institute on Spirituality and Medicine: Spirituality and Care at the End of Life, Baltimore, MD.
18. April 29, 1999. Collaborating in crisis: Maximizing team efforts. Johns Hopkins University School of Nursing conference on End of Life Decision Making in the ICU: Ethical Controversies and Clinical Realities, Baltimore, MD.
19. March 30, 2000. End-of-life decision making and care: A neurosciences critical care triptych. Neurology Grand Rounds, Johns Hopkins University School of Medicine, Baltimore, MD.
20. April 14, 2000. End-of-life decision making and care in the ICU: Suffering without a framework. Midwest Transplant Symposium, St. Louis, MO.
21. May 26, 2000. Normal pressure hydrocephalus--What are we looking for? Hydrocephalus Association Meeting, Phoenix, AZ.
22. May 26, 2000. Working with neurologists when you have hydrocephalus. Hydrocephalus Association Meeting, Phoenix, AZ.
23. May 27, 2000. Hydrocephalus from 20 to 60. Hydrocephalus Association Meeting, Phoenix, AZ.
24. July 9, 2000. End-of-life care and organ donation in the ICU--Must best laid plans go awry? Presidential Showcase Forum of the American Bar Association Annual Meeting, New York, NY.
25. October 6, 2000. End-of-life care and organ donation in the ICU--Must best laid plans go awry? First Annual National Aging and Law Conference, Arlington, VA.
26. October 7, 2000. Requesting organ donation from families: It's not about the organs. Conjoint Clinic, Department of Internal Medicine, Johns Hopkins Medical Institutions, Baltimore, MD.
27. November 13, 2000. End-of-life care and organ donation. Association of Organ Procurement Organizations Hospital Development-Procurement Workshop, St. Louis, MO.
28. January 12, 2001. AMA perspectives on physician involvement in organ donation. Association of Organ Procurement Organizations Workshop, San Diego, CA.

29. March 8, 2001. Rigamonti D, **Williams MA**: Adult Hydrocephalus. Neurosurgery Grand Rounds, the Johns Hopkins University School of Medicine, Baltimore, MD.
30. March 29, 2001. **Williams MA**, Rigamonti D: Neurological and neurosurgical challenges in adult hydrocephalus. Neurology Grand Rounds, the Johns Hopkins University School of Medicine, Baltimore, MD.
31. April 21, 2001. **Williams MA**, Bateman A: Ethical aspects of compulsory anthrax vaccination for U.S. Armed Forces service members. Vaccine Health Center Orientation Course, Walter Reed Army Medical Center Forest Glenn Annex, Silver Spring, MD.
32. October 4, 2001. Rushton CH, **Williams MA**: Maintaining professional integrity in the midst of moral distress. Visiting Professors with 4 lectures and seminars for the 12th Annual Bioethics Day, Children's Hospital of the King's Daughters, Norfolk VA.
33. October 13, 2001. Health care decision making in the new millennium: Legal and medical perspectives. National Aging and Law Conference, Arlington, VA.
34. November 3, 2001. Ethical issues in organ donation and transplantation. North American Transplant Coordinators Organization (NATCO) Introductory Education Course, Phoenix, AZ.
35. November 14, 2001. The ethical principles and framework for the Johns Hopkins policy on medical errors and safety. Johns Hopkins Hospital Risk Management Seminar, Baltimore, MD.
36. April 28-30, 2002. Ethical issues in organ donation and transplantation. "Trends, New Technologies and Cost Management in the Field of Transplantation", sponsored by Special Risk International, New Orleans, LA.
37. May 25, 2002. Clinical evaluation of the patient with NPH. Hydrocephalus Association Meeting, Chicago, IL.
38. May 26, 2002. **Williams MA**, Rekate H: Adult diagnosed hydrocephalus (in young and middle-aged adults). Hydrocephalus Association Meeting, Chicago, IL.
39. May 26, 2002. The role of the neurologist in the diagnosis and treatment of hydrocephalus. Hydrocephalus Association Meeting, Chicago, IL.
40. May 27, 2002. **Williams MA**, Rekate H: Coping with adult hydrocephalus. Hydrocephalus Association Meeting, Chicago, IL.
41. May 31, 2002. Ethical issues in organ donation and transplantation. U.S. Department of Health and Human Services Advisory Committee on Organ Transplantation, Washington, DC.

42. October 7, 2002. Palliative care in neurology and neurosurgery. Johns Hopkins Hospital “Promoting Quality of Life in Chronic and Terminal Illness: A Lecture Series in Palliative Care”, Baltimore, MD.
43. October 25, 2002. Bring out your dead! Musings of a neurointensivist/ethicist on pronouncing death. American Society for Bioethics and Humanities, Baltimore, MD.
44. November 16, 2002. Ethical issues in organ donation and transplantation. North American Transplant Coordinators Organization (NATCO) Introductory Education Course, Tempe, AZ.
45. April 8, 2003. Dealing with death. PennState Conference “Improving our Health News Coverage”, State College, PA.
46. April 22, 2003. Clinical and ethical management of brain death. INOVA Health System Current Issues in Neurological Care Symposium, Tyson’s Corner, VA.
47. April 28-30, 2003. Interdisciplinary, experiential training for end-of-life care and organ donation. United Network for Organ Donation Consensus Conference: From Research to Practice. Orlando, FL.
48. May 14, 2003. **Williams MA**, Rushton CH: Sudden loss—Family and medical team interactions in end-of-life care. An experiential learning approach. (3-hour training session with a complex simulation). Johns Hopkins Institute for Spirituality and Medicine, Towson, MD.
49. June 5, 2003. Effects of withdrawal of life-sustaining interventions on organ donation. Association of Organ Procurement Organizations Annual Meeting, Philadelphia, PA.
50. January 20, 2004. Diagnosis and management of normal pressure hydrocephalus: A neurology and neurosurgery team approach. Medical Grand Rounds, Cedars-Sinai Medical Center, Los Angeles, CA.
51. April 6, 2004. **Williams MA**, Rushton CH: “Why are we doing this!” Moral Distress: How it affects health care professionals, patients and families. Annual Shallenberger Lecture in Medical Ethics, Johns Hopkins Hospital, Baltimore, MD.
52. May 11, 2004. Avoiding conflict at the end of life. Annual Rosemarie E. Liberatore Ethics in Health Care Symposium, St. Joseph Medical Center, Towson, MD.
53. May 21, 2004. The role of the neurologist in long-term management of hydrocephalus. Intracranial Pressure Control and Treatment in Hydrocephalus, First STARS Symposium, Dearborn, MI.
54. May 29, 2004. Syndrome of hydrocephalus in young and middle-aged adults (SHYMA). Hydrocephalus Association Meeting, San Francisco, CA.

55. May 29, 2004. Second opinions. Hydrocephalus Association Meeting, San Francisco, CA.
56. May 30, 2004. Diagnosis and management of late shunt malfunction. Hydrocephalus Association Meeting, San Francisco, CA.
57. May 31, 2004. Research and hydrocephalus. Hydrocephalus Association Meeting, San Francisco, CA.
58. August 3, 2004. Interdisciplinary experiential training for end-of-life care and organ donation. Demonstration of the use of a simulated family to teach communication skills. North American Transplant Coordinators Organization Annual Meeting, San Francisco, CA.
59. October 8, 2004. The integration of palliative care and critical care. 8th Annual Premedical Arts Lecture, Valparaiso University, Valparaiso, IN.
60. November 24, 2004. Rethinking and reframing normal pressure hydrocephalus. Neurology Grand Rounds, George Washington University Medical Center, Washington, DC.
61. February 28, 2005. **Williams MA**, Rushton CH: The ethical framework for patient safety. Patient Safety Academy, The Institute for Johns Hopkins Nursing, Baltimore, MD.
62. March 30, 2005. Palliative care in neurology and neurosurgery. Neurology Grand Rounds, University of Maryland Medical Center, Baltimore, MD.
63. November 1, 2005. Forum on End of Life Care. MedChi (Medical & Chirurgical Society of Maryland) Professional Ethics Committee, Baltimore, MD.
64. February 16, 2006. What have we learned from Terri Schiavo? Shallenberger Lecture Series in Medical Ethics, Johns Hopkins Hospital, Baltimore, MD.
65. March 2, 2006. Complex family simulation for interdisciplinary training for end-of-life care and organ donation. Graduate Medical Education Retreat, Johns Hopkins School of Medicine, Baltimore, MD
66. May 27, 2006. Syndrome of hydrocephalus in young and middle-aged adults (SHYMA). Hydrocephalus Association Meeting, Baltimore, MD.
67. May 27, 2006. **Williams MA**, Buffa D, Walker M. Unwanted medical outcomes. Hydrocephalus Association Meeting, Baltimore, MD.

68. May 28, 2006. Clinical trials from the patient's perspective. Hydrocephalus Association Meeting, Baltimore, MD.
69. May 28, 2006. How and when to seek second opinions. Hydrocephalus Association Meeting, Baltimore, MD.
70. May 29, 2006. Rushton CH, **Williams MA**. Talking about and dealing with death. Hydrocephalus Association Meeting, Baltimore, MD.
71. June 20, 2006. Conscience and professional duty - considerations for health care professionals: Physician perspective. Presented at "Should Conscience Be Your Guide? Exploring Conscience-based Refusals in Health Care", sponsored by the Maryland Health Care Ethics Committee Network, Baltimore, MD.
72. September 7, 2006. What's in a name? Rationales and uses of taxonomy in hydrocephalus research and clinical care. International Congress on Hydrocephalus, Göteborg, Sweden.
73. November 10, 2006 Rigamonti DR, **Williams MA**. You can observe a lot just by watching. Lessons from a combined Neurosurgery/Neurology clinical care and research program for adult hydrocephalus. Visiting Professors. University of Michigan Department of Neurosurgery Grand Rounds, Ann Arbor, MI.
74. January 15, 2007. Pushing the boundaries with standardized patients. 7th Annual International Meeting on Medical Simulation, Orlando, FL.
75. April 17, 2007. Conscience clauses. To be presented at the Med Chi Ethics Forum, Baltimore, MD.
76. May 18-20, 2007. Priorities for hydrocephalus research: Report from an NIH-sponsored workshop. To be presented at the 4th International Hydrocephalus Workshop, Rhodes, Greece.

OTHER PROFESSIONAL ACCOMPLISHMENTS

With Daniele Rigamonti, MD, created the Johns Hopkins Adult Hydrocephalus Program, as a Center of Excellence supported by the Johns Hopkins Hospital. In only three years this program demonstrated not only increasing outpatient and inpatient volumes, but also generated substantial profits due to auditing and enhancement of hospital coding, and has initiated clinical research with industry support.