

# Adrián V. Hernández, M.D., M.Sc., Ph.D.

## Curriculum Vitae

### **I. Personal data**

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Profession: Physician, Clinical Epidemiologist

Current Affiliation: Department of Quantitative Health Sciences/Wb4, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, Ohio 44195, USA

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### **II. Studies:**

High School: Salesiano School, Lima (1984-1989)

Higher Education:

- a. **San Fernando Medical School**, Universidad Nacional Mayor de San Marcos, Lima, Peru (1990-1998)
- b. **Internal Medicine Residency Training**, San Fernando Medical School, Universidad Nacional Mayor de San Marcos, and HIV/AIDS Unit, First Service of Internal Medicine, Hospital General Universitario Guillermo Almenara Irigoyen, both in Lima, Peru (1999-2001)
- c. **Specialization in Statistics in Research**, Faculty of Science and Philosophy, Universidad Peruana Cayetano Heredia, Lima, Peru (2000-2001)

- d. **Master of Sciences in Clinical Epidemiology**, Netherlands Institute for Health Sciences (NIHES), Erasmus Medical Centre, Rotterdam, The Netherlands (2001-2002)
- e. **Doctorate of Philosophy in Clinical Epidemiology**, Departments of Public Health and Cardiology, Erasmus Medical Centre, Rotterdam, The Netherlands (2002-2005). Topic: Heterogeneity of patients in randomized clinical trials.
- f. **Master of Sciences in Clinical Research (Cardiovascular Diseases)**, Department of Cardiology, Thoraxcentre, Erasmus Medical Centre, Rotterdam, The Netherlands (2003-2005)
- g. **Pneumology Residency Training**, Pneumology Service, Department of Medicine, Hospital General Universitario 12 de Octubre, Madrid, Spain (2005- )

Degrees:

- a. **Medical Doctor (M.D.)**, Lima, Universidad Nacional Mayor de San Marcos, Lima, April 8, 1998.
- b. **Master of Sciences (M.Sc.) in Clinical Epidemiology**, Erasmus MC, Rotterdam, June 25, 2002.
- c. **Doctor of Philosophy (Ph.D.) in Clinical Epidemiology**, Erasmus MC, Rotterdam, February 22, 2006.  
PhD thesis available at:  
[https://ep.eur.nl/bitstream/1765/7456/1/060222\\_Hernandez-AV.pdf](https://ep.eur.nl/bitstream/1765/7456/1/060222_Hernandez-AV.pdf)
- d. **Master of Sciences (M.Sc.) in Clinical Research (Cardiovascular Diseases)**, COEUR, Erasmus MC, Rotterdam, August 25, 2006.

Languages:

- a. English: TOEFL Test score: 244 (January 28, 2000)  
IELTS Test score: 7 (March 29, 2001)  
Cambridge Language Test: Highly Proficient (June 15, 2004)
- b. Portuguese: Advanced Level, Portuguese Language Course, Centro de Estudios Brasileiros, Lima, Peru (February to July 2001)

- c. Dutch: Intermediate Level, Dutch Language Course, Albeda College, Rotterdam, The Netherlands (July 2002 to October 2003)

Computer Programs:

Office 2000, SPSS, S-Plus, SAS, STATA, Adobe InDesign

**III. Working Experience:**

- a. **Intern**, Hospital General Universitario Guillermo Almenara Irigoyen, and San Fernando Medical School, Universidad Nacional Mayor de San Marcos, Lima, Peru (1997-1998).
- b. **Assistant Physician**, Rural Medical Service, Health Department, Peruvian Army, Sullana, Piura, Peru (1998-1999)
- c. **Resident of Internal Medicine**, San Fernando Medical School, Universidad Nacional Mayor de San Marcos, and HIV/AIDS Unit, First Service of Internal Medicine, Hospital General Universitario Guillermo Almenara Irigoyen, both in Lima, Peru (1999-2001).
- d. **Researcher in Clinical Epidemiology**, Center for Medical Decision Making (formerly Center for Clinical Decision Sciences), Department of Public Health, Erasmus Medical Centre, Rotterdam, The Netherlands (2002-2005).
- e. **Resident of Pneumology**, Pneumology Service, Department of Medicine, Hospital General Universitario 12 de Octubre, Madrid, Spain (2005-2006).

**IV. Teaching experience:**

- a. Assistant teacher of Anatomy and Neuroanatomy, San Fernando Medical School, Universidad Nacional Mayor de San Marcos, Lima, Peru. Academic Year 1992-1993

- b. Assistant teacher in Pharmacology, San Fernando Medical School, Universidad Nacional Mayor de San Marcos, Lima, Peru. Academic Year 1994-1995
- c. Personal coaching of various Third and Fourth Year medical students, Interns and Residents of Internal Medicine at the Hospital General Universitario Guillermo Almenara Irigoyen, San Fernando Medical School, Universidad Nacional Mayor de San Marcos, Lima, 1999-2001; and at the Hospital General Universitario 12 de Octubre, Universidad Complutense, Madrid, 2005-2006.

**V. Students:**

- a. Mentor of the Doctorate Program in Public Health of Jose E. Vidal, MD, Infectologist, Infectology Institute Emilio Ribas, Sao Paulo, Brazil. Thesis: Diagnostic and prognostic studies in HIV/AIDS patients with cerebral toxoplasmosis, defended on January 15, 2006 at the University of Sao Paulo, Sao Paulo, Brazil.
- b. Mentor of Master Program in Neurology of Liliana Rodriguez, MD, Neurologist, Universidad Nacional Mayor de San Marcos, Lima, Peru. Thesis: Effects of smoking on the incidence of Parkinson's disease, which will be defended on November 2006 at the Universidad Nacional Mayor de San Marcos, Lima, Peru.

**VI. Awards and other professional activities:**

- a. The Lancet Travel Grant, 9th Pan American Congress of Infectious Diseases, Ciudad de Guatemala, Guatemala, 1999.
- b. Affiliated member, Peruvian Society of Internal Medicine, Lima, Peru, 1999

- c. Corresponding member, International Society for Infectious Diseases, Boston, USA, 2000.
- d. Scholarship of the International Society for Infectious Diseases, HIV/AIDS Education Program, Memorial Sloan Kettering Cancer Center, New York, USA, 2001. Tutor: Kent Sepkowitz, M.D.
- e. Scholarship of the Dutch Government, Netherlands Institute for Higher Education (NUFFIC) to follow the Master of Sciences in Clinical Epidemiology, NIHES, Rotterdam, The Netherlands, 2001.
- f. Fellowship of the Netherlands Organization for Scientific Research (ZonMw) to follow the Philosophy Doctorate in Clinical Epidemiology, Erasmus Medical Centre, Rotterdam, The Netherlands, 2002.
- g. Young Investigator Award in Population Sciences, European Congress of Cardiology, Munich, Germany, 2004, for the presentation: Subgroup analysis in cardiovascular clinical trials.
- h. Best Oral Presentation in AIDS, 41<sup>st</sup> Brazilian Congress of Tropical Medicine, Florianopolis, Brazil, 2005, for the presentation: Diagnostic value of PCR for detection of *Toxoplasma gondii* DNA in serum samples of Brazilian AIDS patients with cerebral toxoplasmosis.
- i. Affiliated member, Spanish Society of Pneumology and Thoracic Surgery (SEPAR), 2005.
- j. Affiliated member, Madrilean Society of Pneumology and Thoracic Surgery (NEUMOMADRID), 2005.

**VII. Research Interests:**

- a. Design and analysis of randomized clinical trials, with applications in cardiology, neurology and neurosurgery.
- b. Methodological research of subgroup analysis and individual effects in the context of randomized clinical trials.

- c. Development and validation of prognostic models, with applications to cardiovascular diseases, infectious diseases, neurology, neurosurgery, and pneumology.
- d. Evidence-based medicine methods, especially systematic reviews and meta-analysis, and clinical applications.

### **VIII. Publications:**

1. **Hernández AV**, Steyerberg EW. Managing the resource demands of a large sample size in clinical trials: can you succeed with fewer subjects? **Med J Aust** 2003; 178: 356-7.
2. Vidal JE, da Silva PR, Schiavon Nogueira R, Bonasser Filho F, **Hernández AV**. Liver abscess due to Salmonella enteritidis in a returned traveler with HIV infection: case report and review of the literature. **Rev Inst Med Trop Sao Paulo** 2003; 45: 115-7.
3. **Hernández AV**, Vergouwe Y, Steyerberg EW. Reporting of predictive logistic models should be based on evidence-based guidelines. **Chest** 2003; 124: 2034-5.
4. **Hernández AV**, Steyerberg EW, Habbema JD. Covariate adjustment in randomized controlled trials with dichotomous outcomes increases statistical power and reduces sample size requirements. **J Clin Epidemiol** 2004; 57: 454-60.
5. Vidal JE, **Hernández AV**, Oliveira AC, Souza A, Madalosso G, Silva PR, Dauer R. Cerebral tuberculomas in AIDS patients: a forgotten diagnosis? **Arq Neuropsiquiatr** 2004; 62: 793-6.

6. **Hernández AV**, Steyerberg EW, Habbema JDF. Inappropriate use of empirical evidence of inappropriate use of baseline characteristics in current randomized controlled trials. **Med Decis Making** 2004; 24: 426.
7. Vidal JE, **Hernández AV**, Penalva de Oliveira AC, Dauar RF, Barbosa Jr. SP, Focaccia R. Cerebral toxoplasmosis in HIV+ patients in Brazil: Clinical features and predictors of treatment response in the HAART era. **AIDS Patient Care STDs** 2005; 19: 626-34.
8. Collins JA, **Hernández AV**, Hidalgo JA, Villena J, Sumire J, Delgado V, Salazar R. High proportion of T-cell systemic non-Hodgkin lymphoma in HIV-infected patients in Lima, Peru. **JAIDS** 2005; 40: 558-64.
9. **Hernández AV**, Steyerberg EW, Taylor GS, Marmarou A, Habbema JDF, Maas AIR. Subgroup analysis and covariate adjustment in randomized clinical trials of traumatic brain injury: A systematic review. **Neurosurgery** 2005; 57: 1244-53.
10. Colombo FA, Vidal JE, Penalva de Oliveira AC, **Hernández AV**, Bonasser-Filho F, Nogueira RS, Focaccia R, Pereira-Chiocola VL. Diagnosis of cerebral toxoplasmosis in Brazilian AIDS patients: Importance of molecular and immunological methods in peripheral blood samples. **J Clin Microbiol** 2005; 43: 5044-7.
11. **Hernández AV**, Eijkemans MJC, Steyerberg EW. Randomized controlled trials with time-to-event outcomes: how much does pre-specified covariate adjustment increase power? **Ann Epidemiol** 2006; 16: 41-8.
12. **Hernández AV**, Boersma E, Murray GD, Habbema JDF, Steyerberg EW. Subgroup analysis in therapeutic cardiovascular clinical trials: Are most of them misleading? **Am Heart J** 2006, 151: 257-64.

13. **Hernández AV**, Westerhout CM, Steyerberg EW, Ioannidis JPA, Bueno H, White H, Theroux P, Moliterno DJ, Armstrong PW, Califf RM, Wallentin LC, Simoons ML, Boersma E. Effects of platelet glycoprotein IIb/IIIa receptor blockers in non-ST-segment elevation acute coronary syndromes: Benefit and harm in different age subgroups. **Heart (in press)**
  
14. **Hernández AV**, Steyerberg EW, Mushkudiani N, Murray GD, Taylor GS, Butcher I, Marmarou A, Choi SC, Lu J, Habbema JDF, Maas AIR. Adjustment for strong predictors of unfavorable outcome reduces sample size requirements by over 25% in traumatic brain injury trials. **J Neurotrauma (in press)**
  
15. Westerhout CM, **Hernández AV**, Steyerberg EW, Bueno H, White H, Theroux P, Moliterno DJ, Armstrong PW, Califf RM, Wallentin LC, Simoons ML, Boersma E. Predictors of stroke at 30 days in patients with non-ST-segment elevation acute coronary syndromes. **Eur Heart J (in press)**
  
16. **Hernández AV**, Vergouwe Y, Rietveld E, Moll HA, Habbema JDF, Steyerberg EW. The risk of hospitalisation in young children due to respiratory syncytial virus (RSV) infection: Cross-seasonal validation of a predictive model. **J Clin Epidemiol (in press)**
  
17. Lenderink T, **Hernández AV**, Boersma E, Simoons ML, Bueno H. Predictors of 30-day mortality in patients with first acute myocardial infarction and older than 75 years - The PPRIMM75 study. Submitted to **J Am Coll Cardiol**
  
18. **Hernández AV**, Boersma E, Bueno H. Underuse of Cardiovascular Preventive Therapies in Type 2 Diabetes Mellitus Patients in Primary Care in Spain- The Trans-STAR study. In preparation.

19. Butcher I, Taylor GS, Lu J, Steyerberg EW, **Hernández AV**, Mushkudiani N, Murray GD, Marmarou A, Maas AIR (the IMPACT study group). The prognostic value of cause of injury in traumatic brain injury. Submitted to **J Neurotrauma**

20. Taylor GS, Engel DC, Butcher I, Steyerberg EW, Lu J, Mushkudiani N, **Hernández AV**, Marmarou A, Maas AIR, Murray GD (the IMPACT study group). The Prognostic Value of Secondary Insults in traumatic brain injury. Submitted to **J Neurotrauma**

21. Mushkudiani N, Maas AIR, **Hernández AV**, Hukkelhoven CWPM, Murray GD, Choi SC, Steyerberg EW. Prognostic models in traumatic brain injury based on admission data: a methodological review. Submitted to **J Neurol Neurosurg Psychiatry**

22. Vidal JE, **Hernández AV**, Colombo F, Penalva de Oliveira AC, Bonasser Filho F, Schiavon Nogueira R, Focaccia R, Pereira-Chiocola VL. Polimerase Chain Reaction (PCR) in blood samples for diagnosis of cerebral toxoplasmosis in AIDS patients. In preparation.

23. Collins JA, Hidalgo JA, **Hernández AV**, Salazar R, for the Almenara Hospital AIDS Working Group. HTLV- I infection is not associated with a higher risk of death in Peruvian HIV-infected patients. Submitted to **Clinical Infectious Diseases**

#### **IX. Congresses and Courses:**

1. **24<sup>th</sup> International Congress of Internal Medicine.** 1998, Lima, Peru. POSTER.
2. **9<sup>th</sup> Panamerican Congress of Infectology, and First Panamerican Congress of HIV/AIDS.** 1999, Ciudad de Guatemala, Guatemala. ORAL (4).

3. **21<sup>st</sup> International Course of Internal Medicine.** 1999, Lima, Peru. POSTER.
4. **3<sup>rd</sup> International Medical Workshop for Amazony.** 1999, Santa Fe de Bogotá, and Leticia, Colombia. POSTER.
5. **9<sup>th</sup> International Congress on Infectious Diseases.** 2000, Buenos Aires, Argentina. POSTERS (2).
6. **15<sup>th</sup> International Congress for Tropical Medicine and Malaria, and 6<sup>th</sup> Latinamerican Congress for Tropical Medicine.** 2000, Cartagena de Indias, Colombia. POSTER.
7. **10<sup>th</sup> Panamerican Congress of Infectology, and 26<sup>th</sup> Congress of the Infectology and Clinical Microbiology Mexican Association.** 2001, Guadalajara, Jalisco, Mexico. POSTERS (2).
8. **HIV/AIDS Education Program,** April-May 2001, Memorial Sloan Kettering Cancer Center and Cornell University, New York, USA.
9. **Erasmus Summer Programme in Epidemiology,** 2001, Rotterdam, The Netherlands.
10. **Erasmus Summer Programme in Epidemiology,** 2002, Rotterdam, The Netherlands.
11. **European Congress on Cardiology,** 2002, Berlin, Germany.
12. **Joint Meeting of the International Society for Clinical Biostatistics and the Society for Clinical Trials,** 2003, London, UK. ORAL.
13. **International AIDS Society Conference,** 2003, Paris, France. POSTER.

14. **European Congress on Cardiology**, 2003, Vienna, Austria. POSTER.
15. **International Society for Infectious Diseases (ISID) Conference**, 2004, Cancun, Mexico. POSTER.
16. **International Society for Clinical Biostatistics Congress**, 2001, Leiden, The Netherlands. ORAL.
17. **European Congress on Cardiology**, 2004, Munich, Germany. ORAL.
18. **European Society of Cardiology Course: Cardiology and Vascular Medicine: Update and perspective**, 2005, Rotterdam, The Netherlands.
19. **Madrilean Congress of Pneumology**, 2006, Madrid, Spain.
20. **Spanish Congress of Pneumology**, 2006, Seville, Spain.
21. **Spanish Congress of Cardiology**, 2006, Malaga, Spain. ORAL (2).
22. **European Congress of Cardiology and World Congress of Cardiology**, 2006, Barcelona, Spain. ORAL (1) and POSTERS (2).