

# XVII Jornadas SOLACI

6º Región Cono Sur



# Que Tanto Nos Adherimos a las "Guidelines"?

## Darío Echeverri. M.D., F.A.C.C.

Jefe Servicio Hemodinamia e Intervencionismo Cardiovascular Fundación CardioInfantil – Instituto de Cardiología Bogotá – Colombia





XVII Jornadas SOLACI 2012, 6ª Región Cono Sur Montevideo, Uruguay. Junio de 2012

## Medicina Basada en Evidencia: Inicios

"Si un hombre te dice que él ha encontrado hechos que ha observado y ha confirmado con su propia experiencia..., debes tener precaución en aceptar lo que te dice.

Por el contrario, investiga y sopesa esta opinión o hipótesis de acuerdo a los requerimientos de la lógica pura, sin prestar atención al contenido de lo que él afirma empíricamente."

# **Utilidad de MBE y Guidelines**

# Lograr balance:

"objetivismo" vs. "empirismo"

## Herramienta:

Integrar la experiencia clínica individual, con la mejor evidencia clínica externa disponible a partir de una investigación sistemática

## Guías de Práctica Clínica

## ¿Qué es una Guía de Práctica Clínica?

Las Guías de Práctica Clínica (GPC) son un conjunto de "recomendaciones desarrolladas de forma sistemática para ayudar a profesionales y pacientes a tomar decisiones sobre la atención sanitaria más apropiada, y a seleccionar las opciones diagnósticas o terapéuticas más adecuadas a la hora de abordar un problema de salud o una condición clínica específica".



# De ≈5.000 hospitales en U.S. evaluados Solo 268 hospitales (5%) tuvieron un riesgo ajustado de mortalidad y de complicaciones lo suficientemente bajo como para ser designados como Health Grades Hospital Distinguido por Excelencia Clínica

Desde 2007 hasta 2009, si todos los hospitales hubiesen realizado nivelación Health Grades Hospital Distinguido por Excelencia Clínica: Podrían haberse evitado:

- 158,684 muertes Medicare
- 3,511 complicaciones hospitalarias Medicare



## Appendix B: Inhospital Mortality Performance: Distinguished Hospitals for Clinical Excellence (DH-CE) Compared to All Other U.S. Hospitals

(3-Year Aggregate Relative Risk-Adjusted Inhospital Mortality Performance: 2007-2009)

|                          | Procedure or Diagnosis                | Total Number o<br>U.S. Medicare<br>Hospitalization | Inhospital | All Other U.S. Hospitals Average Observed-to- Expected Inhospital Mortality Ratio | Relative Risk Reduction Associated with DHCE Hospitals Compared to All Other U.S. Hospitals <sup>1</sup> | Number of Lives<br>That Could Have<br>Been Saved If All<br>Patients were<br>Treated at DH-CE<br>Hospitals<br>(2007-2009)2 | P-Value (DH-CE Hospital Mortality Compared to National Mortality Average) |      |
|--------------------------|---------------------------------------|----------------------------------------------------|------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------|
|                          | l Obstruction                         | 489,05                                             | 3 .68      | 1.07                                                                              | 36.24%                                                                                                   | 4,628                                                                                                                     | <.001                                                                     |      |
| Cilior                   | nic Obstructive Pulmonary             |                                                    |            |                                                                                   |                                                                                                          |                                                                                                                           | - 7                                                                       |      |
| Coronary Bypass Surgery  |                                       | 254,744                                            | .79        | 1                                                                                 | .07                                                                                                      | 2627%                                                                                                                     | 1,317                                                                     | <.00 |
| Coronary Interventional  |                                       |                                                    |            |                                                                                   |                                                                                                          |                                                                                                                           |                                                                           |      |
| Procedures (Angioplasty/ | Stent)                                | 853,195                                            | .83        | - 1                                                                               | 06                                                                                                       | 2202%                                                                                                                     | 2,544                                                                     | <,00 |
| Infarc                   | tion)                                 | 751,36                                             | 5 .84      | 1.04                                                                              | 18.95%                                                                                                   | 10,875                                                                                                                    | <.001                                                                     |      |
|                          | : Failure                             | 1,756,64                                           |            | 1.07                                                                              | 35.54%                                                                                                   | 19,547                                                                                                                    | <.001                                                                     |      |
| Pano                     | eatitis                               | 151,88                                             | 7 .72      | 1.07                                                                              | 32.41%                                                                                                   | 1,073                                                                                                                     | <.001                                                                     |      |
| Prieur                   | monia                                 | 1,432,43                                           | 6 .64      | 1.07                                                                              | 40.17%                                                                                                   | 24,897                                                                                                                    | <.001                                                                     |      |
|                          | nary Embolism                         | 166,48                                             | 5 .71      | 1.08                                                                              | 34.54%                                                                                                   | 2,123                                                                                                                     | <.001                                                                     |      |
|                          | ction/Rep ta cement of<br>minal Aorta | 70,29                                              | 8 .84      | 1.04                                                                              | 18.94%                                                                                                   | 459                                                                                                                       | <.001                                                                     |      |
| Respi                    | irato ry Failure                      | 449,59                                             | 5 .78      | 1.05                                                                              | 25.55%                                                                                                   | 19,057                                                                                                                    | <.001                                                                     |      |
| Sepsi                    | s                                     | 958,12                                             | 4 .79      | 1.05                                                                              | 24.66%                                                                                                   | 40,747                                                                                                                    | <.001                                                                     |      |
| Strok                    | e                                     | 673,52                                             | 7 .78      | 1.06                                                                              | 31.20%                                                                                                   | 12,121                                                                                                                    | <.001                                                                     |      |
| Value                    | Replacement Surgery                   | 128,24                                             | 3 .83      | 1.06                                                                              | 21.33%                                                                                                   | 1,317                                                                                                                     | <.001                                                                     |      |
| 3-Yes                    | ar Performance Average                |                                                    | 0.74       | 1.06                                                                              | 29.82%                                                                                                   |                                                                                                                           |                                                                           |      |
| Total                    | s                                     | 10,491,30                                          | e          |                                                                                   |                                                                                                          | 158,684                                                                                                                   |                                                                           |      |

<sup>1</sup> Relative Risk Reduction determines the difference in performance between DH-CE and All Other hospitals. Calculated as follows (Non-DH-CE O/E – DH-CE O/E) / Non-DH-CE O/E.

<sup>2</sup> Lives saved were calculated: All Other hospitals's-year actual number of mortalities — (All Other hospitals's-year expected number of mortalities x DH-CE O/E ratio).

# ACCF/SCAI/STS/AATS/AHA/ASNC 2009 Appropriateness Criteria for Coronary Revascularization

Multicenter, prospective study of patients
National Cardiovascular Data Registry undergoing PCI
Between July 2009- September 30, 2010
1.091 U.S. hospitals

n= 500.154 PCIs 355 417 (71.1%) for SCA 98.6% appropriate, 0.3% uncertain, 1.1% inappropriate.

144.737 (28.9%) for nonacute indications
50.4% appropriate, 38.0% uncertain, 11.6% inappropriate.

# **Appropriateness of Coronary Revascularization for Patients Without Acute Coronary Syndromes**

Edward L. Hannan, PhD,\* Kimberly Cozzens, MA,\* Zaza Samadashvili, MD,\* Gary Walford, MD,† Alice K. Jacobs, MD,‡ David R. Holmes, JR, MD,§ Nicholas J. Stamato, MD, Samin Sharma, MD, Ferdinand J. Venditti, MD,# Icilma Fergus, MD,\*\* Spencer B. King III, MD††

Albany, Binghamton, and New York, New York; Baltimore, Maryland; Boston, Massachusetts; Rochester, Minnesota; Toledo, Ohio; and Atlanta, Georgia

# Datos de pacientes sometidos a CABG y PCI

NO SCA o CABG previa

En New York: 2009 y 2010

Criterios para considerar:

Apropiados – Inciertos o Inapropiados los criterios de RVC

### Table 1

### Rating Cases as Appropriate for Revascularization According to ACC/AHA Appropriate Use Criteria Patients\*

|                                                                                    | Procedure | Performed      |
|------------------------------------------------------------------------------------|-----------|----------------|
| Case Description                                                                   | CABG      | PCI            |
| Total cases reported                                                               | 14,519    | 81,407         |
| Eligible cases—no ACS, no previous CABG (% of all cases reported that are eligible |           | 33,970 (41.73) |
| Eligible cases where rating cannot be determined                                   | 2,292     | 9,425          |
| Cases rated for appropriateness of<br>revascularization                            | 8,168     | 24,545         |
| Revascularization (CABG or PCI) is                                                 |           |                |
| Appropriate                                                                        | 7,372     | 8,856          |
|                                                                                    | 90.25%    | 36.08%         |
| Inappropriate                                                                      | 91        | 3,508          |
|                                                                                    | 1.11%     | 14.29%         |
| Uncertain                                                                          | 705       | 12,181         |
|                                                                                    | 8.63%     | 49.63%         |

Hannan EL, et al. J Am Coll Cardiol. 2012;59:1870-6

### SCAI/AATS/ACCF/STS Multisociety Expert Consensus Statement: Operator & Institutional Requirements for Transcatheter Valve Repair and Replacement; Part 1 TAVR

Carl L. Tommaso, R. Morton Bolman, III, Ted Feldman, Joseph Bavaria, Michael A. Acker, Gabriel Aldea, Duke E. Cameron, Larry S. Dean, David Fullerton, Ziyad M. Hijazi, Eric Horlick, D. Craig Miller, Marc R. Moon, Richard Ringel, Carlos E. Ruiz, Alfredo Trento, Bonnie H. Weiner, and Evan M. Zahn

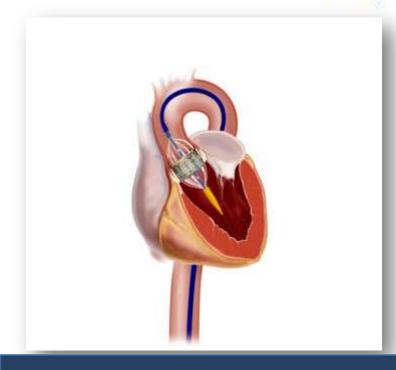
J. Am. Coll. Cardiol. published online Mar 1, 2012;

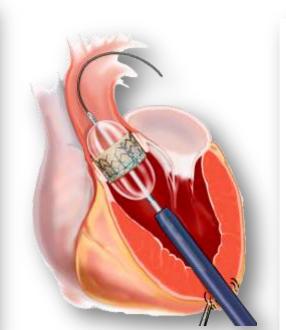
This information is current as of March 4, 2012

doi:10.1016/j.jacc.2012.02.016

The online version of this article, along with updated information and services, is located on the World Wide Web at:

http://content.onlinejacc.org







# Esfuerzo conjunto: Heart Tream

# **Aptitudes y Destrezas:**

- Dispositivos de asistencia ventricular
- Reparación endovascular de aneurismas

## **Facilidades Institucionales:**

- Salas Híbridas
- Laboratorio de Eco (TT-TE-3D)

# **Espacio Físico:**

- Área mínima de 74m2
- Ventilación-aire acondicionado-difusores de flujo laminar
- Lámparas cielíticas

# **Programa Institucional:**

Transplante – Dispositivos asistencia ventricular

# Programa de Evaluación Institucional:

- Mínimo de casos por año
- Desenlaces peri procedimiento y a 1 año
- Reporte obligatorio en una base de datos reconocida:
  - Sobrevida
  - Complicaciones
  - Reintervenciones
  - Calidad de vida del paciente

# Programa Institucional Intervención

- 1,000 cateterismos / año
- 400 PCI / año

# Cardiólogo Intervencionista

- Board Certified
- 100 procedimientos estructurales
- 30 procedimientos estructurales izquierdos / año: 60% valvuloplastias aórtica
  - EVAR
  - TEVAR
  - Valvuloplastia Áo con balón
  - Cierre fugas paravalvulares
  - Cierre CIV dispositivo
  - No se incluye CIA-FOP

Tommaso CL, et al. JACC. 2012; March 4,

# Programa Institucional Cirugía

- 50 AVR por año
- (10 AVR de alto riesgo STS≥6)
- Mínimo 2 cirujanos experimentados

# Cirujano Cardiovascular

- Board Certified
- 100 AVR en su carrera
- Al menos 10 de alto riesgo
- 25 AVR / año o 50 / 2 años
- 20 AVR en el último año antes de iniciar programa TAVI
- Experiencia Bypass
- Experiencia en exposición e intervención retroperitoneal de las arterias iliacas

Tommaso CL, et al. JACC. 2012; March 4,

Vol. 59, No. 13, 2012 ISSN 0735-1097/12/\$36.00 doi:10.1016/j.jacc.2012.01.001

### **EXPERT CONSENSUS DOCUMENT**

# 2012 ACCF/AATS/SCAI/STS Expert Consensus Document on Transcatheter Aortic Valve Replacement

Developed in collaboration with the American Heart Association, American Society of Echocardiography, European Association for Cardio-Thoracic Surgery, Heart Failure Society of America, Mended Hearts, Society of Cardiovascular Anesthesiologists, Society of Cardiovascular Computed Tomography, and Society for Cardiovascular Magnetic Resonance

### Writing Committee Members

David R. Holmes, Jr., MD, FACC, Chair\* Michael J. Mack, MD, FACC, Vice Chair† Sanjay Kaul, MBBS, FACC, Vice Chair\*

Arvind Agnihotri, MD‡ Karen P. Alexander, MD, FACC\* Steven R. Bailey, MD, FACC, FSCAI§ Debabrata Mukherjee, MD, FACC\*
Catherine M. Otto, MD, FACC\*
Carlos E. Ruiz, MD, PhD, FACC, FSCAI§
Ralph L. Sacco, MD, MS, FAHA‡‡
Donnette Smith§§
James D. Thomas, MD, FACC

Holmes DR. Jr. et al. JACC.2012; 59(13):1200-54

### 7.3. Lower-Risk Populations

Data from the STS Registry indicate that approximately 10% of patients undergoing AVR have an STS score ≥8 and therefore would be potential candidates for TAVR. using current selection criteria. There has been interest in expanding the potential group of candidates for TAVR to include patients with an STS score ≥ 4. This would broaden to 25% the number of patients who might be treated with TAVR rather than AVR. There has been concern about the potential for "selection creep," with more lower-risk patients treated with TAVR. This should be avoided until more evidence-based data become available on the outcome of TAVR versus AVR in these patients. The planned and ongoing trials evaluating both the Sapien and the CoreValve in lower-risk populations will be of central importance in identifying subsequent utilization of this technology expanded patient groups.

### 8. Introduction of TAVR Into Practice: U.S. Versus European Perspective

### 8.1. U.S. Perspective

The U.S. perspective reflects the fact that TAVR approval. required a randomized controlled trial, the full extent which has just now been published (124). This curasts with Europe where a new valves or iterations of current valves are already in relatively widespread clinical use. Accordingly, from the U.S. perspective, the rollout of this technology is a key issue. This rollout is influenced by the societal beliefs in a free market; convenient and timely access to medical care; patient and physician expectations; as well as return on investment by companies and institutions alike. These latter issues have led to the proliferation of advanced cardiovascular facilities, which could complicate the rollout of new-device strategies such as TAVR. For example, the state of California alone has 125 facilities that perform percutaneous coronary intervention, the county/city of Los Angeles has 33 cardiovascular surgical and primary ST-elevation myocardial infarction centers. The Dallas-Fort Worth Metropolitan region also has 33 full-service cardiovascular surgical centers. To plan for each of these centers in either Los Angeles or the Dallas-Fort Worth region to offer TAVR would result in the dilution of concentrated experience. Thus, for a complicated procedure such as TAVR, which is applied in some of the highest-risk patients treated for cardiovascular disease, such as those enrolled in the PARTNER and CoreValve trials, setting up specialized centers of excellence should be a top consideration for optimizing patient care and outcomes.

The concept of development of these specialized heart centers is likely to be somewhat controversial, given the expectation in the United States that each hospital with experienced personnel should be able to perform any and all indicated procedures. However, results of TAVR are likely to be optimal when performed by a heart team of experienced surgeons, structural interventional cardiologists, and CV imaging specialists working together in high-volume tertiary care centers with ancillary support services capable of dealing with very complex patients with advanced comorbid conditions. For detailed recommendations, please refer to the Multisocietal Position Statement on Operator and Institutional Requirements for TVRR (218). The specific details of the U.S. rollout and reimbursement for this procedure are as yet to be fully determined. The criteria for regulatory approval and reimbursement by appropriate federal agencies should be based upon expertise; high, adjudicated procedure volumes; and documentation of a healthcare team approach. In addition, mandatory enrollment in structural heart discovery in the LU becaused so that shorted songer-term outcomes can be assessed and updated with new evolving data.

### 8.2. European Perspective

Adoption of TAVR has been rapid, and the changing trads in a see have escalated; in selected center in sermany, TAVR accounts for over 30% of all AVRs. For example, 1 single center has an experience of more than 1,300 TAVRs and has trained more than 360 doctors in over 32 centers from more than 30 countries. Germany itself has approxi-

mately 87 centers performing of the applicator device, the from different manufacturers intraoperative imaging are high costs involved with the varies in different countries insurance providers in European in these operative jutioned in the future, unless of survival are available. The U development of active TA

described and can serve as a model for other countries. This rollout included 2 specific technologies (i.e., Medtronic CoreValve and Edwards Sapien). The development of this program consisted of didactic session, simulator training, observation of cases at experienced centers, and proctoring at new centers. Core essentials of the program included a multidisciplinary team process for patient selection and for procedural performance. All patients undergoing TAVR were entered into a Central Cardiac Audit Database, which included clinical as well as administrative data using standardized data elements and definitions. This approach has the advantage of including all patients with either of the 2 devices, monitoring the potential of changing patient selection criteria, the ability to document learning curve and the opportunity to evaluate the outcome of patients treated with each of the devices. Particularly relevant findings include the observation that: 1) 30-day and mid-term mortality was equivalent in proctored and nonproctored cases, and 2) the fact that outcomes in the first 20 cases were similar to subsequent cases in each of the 25 centers involved.

### **Latinoamerican Perspective?**

Holmes DR. Jr. et al. JACC.2012; 59(13):1200-54

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### 4.3.2.5. MEDTRONIC COREVALVE U.S. PIVOTAL TRIAL

The U.S. pivotal trial with the Medtronic CoreValve self-expanding valve is currently enrolling patients at 40 sites (NCT # 01240902). Patients are allocated into either an Extreme Risk cohort, similar to Cohort B inoperable patients in the PARTNER trial or a High Risk cohort analogous to PARTNER Cohort A. There will be 487 patients enrolled in the extreme-risk group with an additional 100 patients with inadequate iliofemoral access placed in a nested registry of alternative access with either subclavian or direct aortic approaches. The High Risk cohort will enroll 790 patients in a 1:1 randomization between TAVR and surgical AVR.

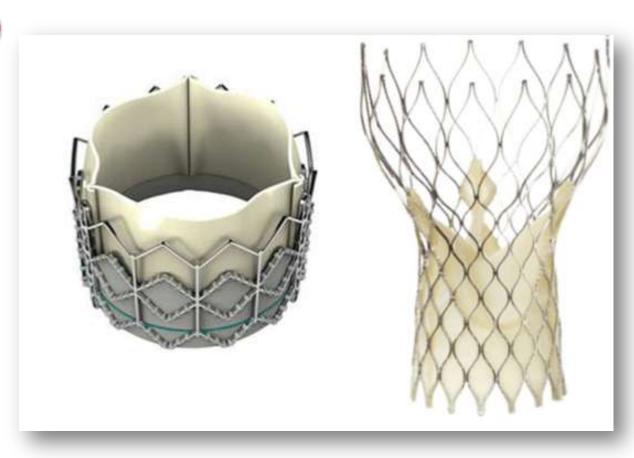
Holmes DR. Jr. et al. JACC.2012; 59(13):1200-54

# CoreValve™ en Latinoamérica

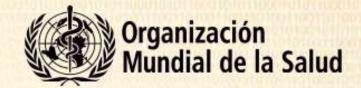
Global: Edwards<sup>TM</sup>: > 30.000 - CoreValve<sup>TM</sup>: > 25.000

**LA -Total > 1.000** 

México
Panamá
Colombia (131)
Venezuela
Perú
Brasil
Uruguay
Chile
Argentina







Ingresos bajos: Afganistán, Bangladesh, Benin, Burkina Faso, Burundi, Camboya, Chad, Comoras, Eritrea, Etiopía, Gambia, Guinea, Guinea-Bissau, Haití, Kenya, Kirguistán, Liberia, Madagascar, Malawi, Malí, Mozambique, Myanmar, Nepal, Níger, República Centroafricana, República Democrática del Congo, República Popular Democrática de Corea, República Unida de Tanzanía, Rwanda, Sierra Leona, Somalia, Tayikistán, Togo, Uganda, Zimbabwe.

Ingresos medianos bajos: Angola, Armenia, Belice, Bhután, Bolivia (Estado Plurinacional de), Cabo Verde, Camerún, Congo, Côte d'Ivoire, Djibouti, Egipto, El Salvador, Fiji, Filipinas, Georgia, Ghana, Guatemala, Guyana, Honduras, India, Indonesia, Iraq, Islas Marshall, Islas Salomón, Kiribati, Lesotho, Marruecos, Mauritania, Micronesia (Estados Federados de), Mongolia, Nicaragua, Nigeria, Pakistán, Papua Nueva Guinea, Paraguay, República Árabe Siria, República de Moldova, República Democrática Popular Lao, Samoa, Santo Tomé y Príncipe, Senegal, Sri Lanka, Sudán, Swazilandia, Timor-Leste, Tonga, Turkmenistán, Tuvalu, Ucrania, Uzbekistán, Vanuatu, Viet Nam, Yemen, Zambia.

Ingresos medianos altos: Albania, Argelia, Antigua y Barbuda, Argentina, Azerbaiyán, Belarús, Bosnia y Herzegovina, Botswana, Brasil, Bulgaria, Chile, China, Colombia, Costa Rica, Cuba, Dominica, Ecuador, Ex República Yugoslava de Macedonia, Federación de Rusia, Gabón, Granada, Irán (República Islámica del), Islas Cook,\*\* Jamaica, Jordania, Kazajstán, Letonia, Líbano, Libia, Lituania, Malasia, Maldivas, Mauricio, México, Montenegro, Namibia, Nauru\*\*, Niue,\*\* Palau, Panamá, Perú, República Dominicana, Rumania, Saint Kitts y Nevis, San Vicente y las Granadinas, Santa Lucía, Serbia, Seychelles, Sudáfrica, Suriname, Tailandia, Túnez, Turquía, Uruguay, Venezuela (República Bolivariana de).

Ingresos altos: Alemania, Andorra, Arabia Saudita, Australia, Austria, Bahamas, Bahrein, Barbados, Bélgica, Brunei Darussalam, Canadá, Chipre, Croacia, Dinamarca, Emiratos Árabes Unidos, Eslovaquia, Eslovenia, España, Estados Unidos de América, Estonia, Finlandia, Francia, Grecia, Guinea Ecuatorial, Hungría, Irlanda, Islandia, Israel, Italia, Japón, Kuwait, Luxemburgo, Malta, Mónaco, Noruega, Nueva Zelandia, Omán, Países Bajos, Polonia, Portugal, Qatar, Reino Unido de Gran Bretaña e Irlanda del Norte, República Checa, República de Corea, San Marino, Singapur, Suecia, Suiza, Trinidad y Tabago,

# Gastos en salud y cobertura universal

## Gasto Total en Salud per Capita - 2009 (US\$)

| Estados<br>Unidos | 7960 | Argentina | 787 |
|-------------------|------|-----------|-----|
| Canadá            | 4519 | Brasil    | 734 |
| Suiza             | 7185 | Colombia  | 392 |
| Francia           | 4840 | Chile     | 802 |
| Alemania          | 4723 | México    | 525 |
| Italia            | 3323 | Perú      | 236 |
| España            | 3032 | Honduras  | 134 |
|                   |      | Haití     | 40  |
|                   |      | Uruguay   | 787 |
|                   |      | Venezuela | 688 |

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# Gastos en salud y cobertura universal

## Gasto Total en Salud % PIB (US\$)

| Alemania          | 11.7 % | Argentina | 9.5 % |
|-------------------|--------|-----------|-------|
| Australia         | 8.7 %  | Bolivia   | 5.1 % |
| Bélgica           | 10.8 % | Brasil    | 8.8 % |
| Canadá            | 11.4 % | Chile     | 8.4 % |
| China             | 5.1 %  | Colombia  | 7.6 % |
| Dinamarca         | 11.5 % | Ecuador   | 8.8 % |
| España            | 9.6 %  | México    | 6.5   |
| Francia           | 11.9 % | Uruguay   | 8.4 % |
| Estados<br>Unidos | 16.9 % |           |       |
| Italia            | 9.7 %  |           |       |

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# Gastos en salud y cobertura universal

| Та                | sa Bruta Morta | alidad / 1.000 H | bs    |
|-------------------|----------------|------------------|-------|
| Alemania          | 10.1 %         | Argentina        | 7.9 % |
| Australia         | 6.5 %          | Brasil           | 6.3 % |
| Canadá            | 7.1 %          | Colombia         | 4.4 % |
| Dinamarca         | 9.8 %          | Ecuador          | 4.9 % |
| España            | 8.3 %          | Guatemala        | 5.8 % |
| Estados<br>Unidos | 8.1 %          | México           | 5.0 % |
| Francia           | 8.4 %          | Perú             | 4.7 % |
| Italia            | 9.5 %          | Uruguay          | 9.9 % |
| Suiza             | 8.0 %          |                  |       |

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# Ejercicio Profesional en LA

Hay una gran brecha entre:

Lo que sabemos que hay que hacer, y...

Lo que hacemos en la práctica



# Hospitales Acreditación y Certificación En Latinoamérica

| Brasil     | 21 |
|------------|----|
| Chile      | 2  |
| Colombia   | 2  |
| Costa Rica | 3  |
| Ecuador    | 1  |
| México     | 8  |
| Nicaragua  | 1  |

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### *RENASICA II*

### Mexican Registry of Acute Coronary Syndromes

Armando García-Castillo,\* Carlos Jerjes-Sánchez,\* Pedro Martínez Bermúdez,\* José Ramón Azpiri-López,\*\* Alonso Autrey Caballero,\*\*\* Carlos Martínez Sánchez,\*\*\*\* Marco Antonio Ramos Corrales,\*\*\*\*\* Guillermo Llamas,\*\*\*\*\*\* Jesús Martínez Sánchez,\*\*\*\*\*\*\* Alfonso J Treviño\*

On behalf of RENASICA II investigators

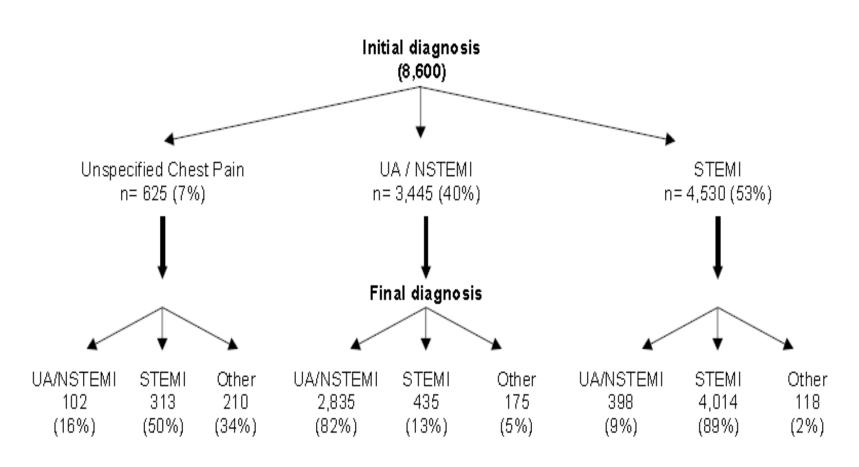
Table I. Demographic characteristics in patients with ACS.

| Characteristic           | All patients<br>No 8,098<br>(%) | UA/NSTEMI<br>No 3,543<br>(%) | STEMI<br>No 4,555<br>(%) |
|--------------------------|---------------------------------|------------------------------|--------------------------|
| Age (yr, ± SD)           | 62 ± 12                         | 64 ± 12                      | 62 ± 12                  |
| Male                     | 72                              | 66                           | 77                       |
| Weight (kg, ± SD)        | 73 ± 13                         | 74 ± 13                      | 73 ± 13                  |
| Medical history          |                                 |                              |                          |
| Smoking                  | 64                              | 61                           | 66                       |
| Diabetes                 | 42                              | 41                           | 43                       |
| Hypertension             | 55                              | 60                           | 50                       |
| Hy percholesterolemia    | 27                              | 28                           | 26                       |
| History                  |                                 |                              |                          |
| Infarction               | 26                              | 32                           | 23                       |
| Angina                   | 38                              | 46                           | 33                       |
| Heart failure            | 5                               | 7                            | 3                        |
| Stroke                   | 2                               | 2                            | 2                        |
| PTCA                     | 9                               | 12                           | 6                        |
| CABG                     | 3                               | 5                            | 2                        |
| Renal failure            | 3                               | 3                            | 2                        |
| PAD                      | 3                               | 4                            | 2                        |
| Clinical characteristics |                                 |                              |                          |
| Chest pain on admissio   | n                               |                              |                          |
| Typical                  | 80                              | 78                           | 85                       |
| Atypical                 | 11                              | 13                           | 9                        |
| SBP (mm Hg, ± SD)        | 128 ± 27                        | 132 ± 26                     | 125 ± 27                 |

| High risk UA/NSTEMI<br>STEMI | _   | 36   | _   |
|------------------------------|-----|------|-----|
| A nterior                    | _   | _    | 56  |
| Inferior/posterior           | _   | _    | 40  |
| Other                        |     |      | 4   |
| In-hospital treatment        |     |      |     |
| A spirin                     | 89  | 90   | 88  |
| Nitrates                     | 62  | 58   | 66  |
| ACE inhibitors               | 59  | 54   | 64  |
| UFH                          | 52  | 50   | 54  |
| Oral beta blockers           | 51  | 50   | 51  |
| LM VVH                       | 45  | 45   | 44  |
| Clopidogrel                  | 44  | 50   | 38  |
| CChB                         | 19  | 25   | 12  |
| Both heparins                | 17  | 16   | 18  |
| IIb/IIIa inhibitors          | 16  | 16   | 16  |
| Statins                      | 13  | 11   | 14  |
| Angiotensin II inhibitors    | 7   | 7    | 7   |
| Ticlopidine                  | 3   | 2    | 3   |
| Oral anticoagulation         | 0.2 | 0.02 | 0.4 |
| Fibrinolytic therapy         | 23  | 4    | 37  |
| PCI                          | 28  | 31   | 25  |
| CABG                         | 6   | 8    | 4   |

PAD: peripheral artery disease; SBP: systolic blood pressure; DBP: diastolic blood pressure; UHF: unifactionated heparin; LMWH: low molecular weight heparin; CChB: calcium channel blockers; ACE: angiotensin-converting enzyme; PCI: percutaneous coronary intervention.

Arch Mex Cardiol. 2005;75(Supl.1):S20-S32

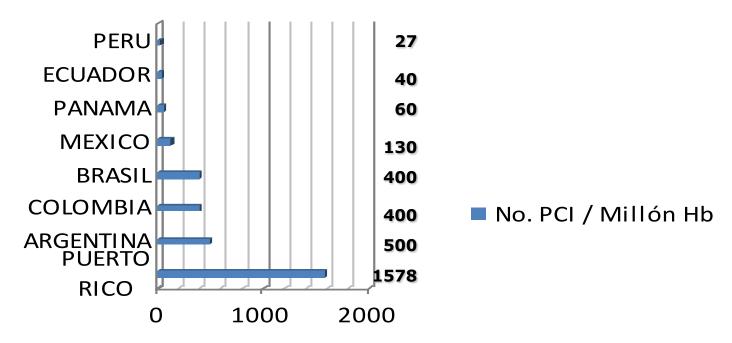


Correlation between initial and final diagnosis of 8,600 patients enrolled in RENASICA II. UA/NSTEMI: unstable angina/non ST elevation myocardial infarction; STEMI: ST elevation myocardial infarction.



# PCI / millón Hb - Latinoamèrica

**PAIS** 

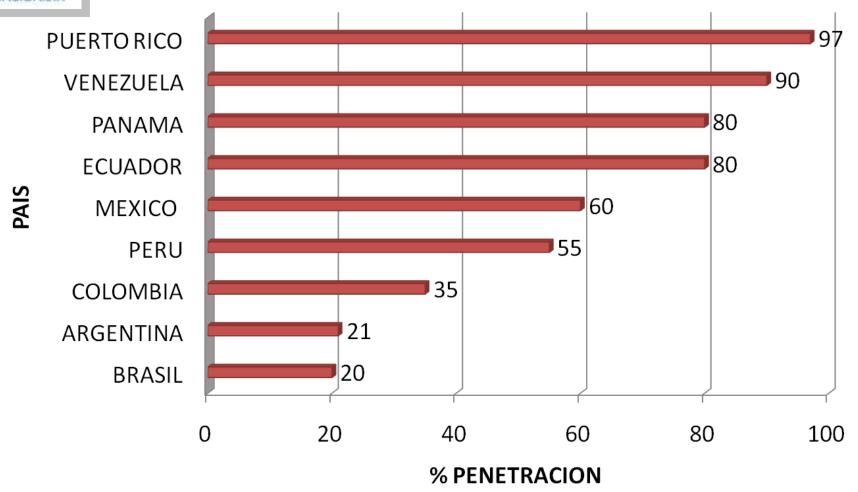


**NUMERO** 

Fuente: Reunión Presidentes Sociedades de Intervencionismo Cardiovascular de LA Miami. Abril 2011



## Penetración DES - Latinoamèrica



Fuente: Reunión Presidentes Sociedades de Intervencionismo Cardiovascular de LA Miami. Abril 2011

Arch Cardiol Mex 2011;81(4):343-350



### Archivos de Cardiología de México



www.elsevier.com.mx

SPECIAL ARTICLE

### The production of articles on cardiology from Latin America in Medline indexed journals

Raúl A. Borracci, María M. Di Stéfano, Marcel G. Voos Budal Arins, José G.E. Calderón, Diego Manente, Mariano A. Giorgi, Daniel J. Piñeiro, Wistremundo Dones.

'Área de Investigación de la Sociedad Argentina de Cardiología.

**Objetivo:** Analizar la producción de artículos de investigación cardiológica publicados por los países latinoamericanos en revistas internacionales.

Métodos: Búsqueda bibliográfica en PubMed de artículos biomédicos y cardiológicos.

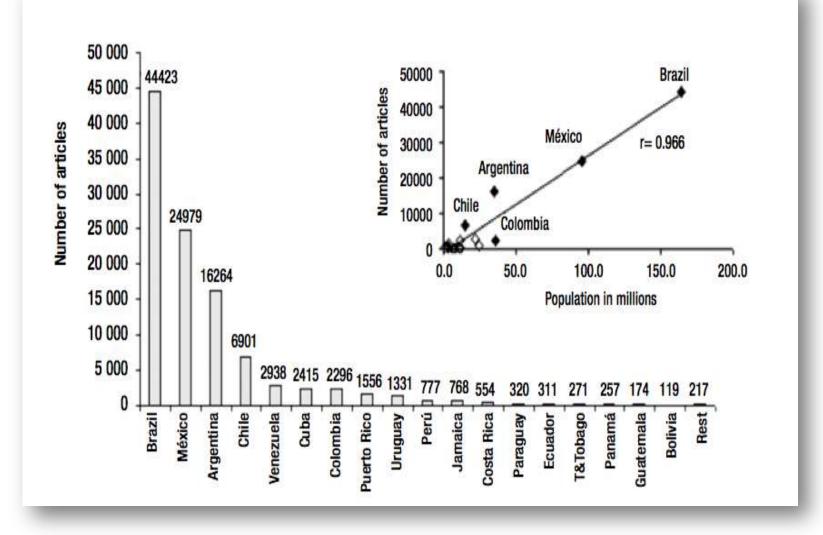
Correspondientes al periodo de 1987 a 2006.

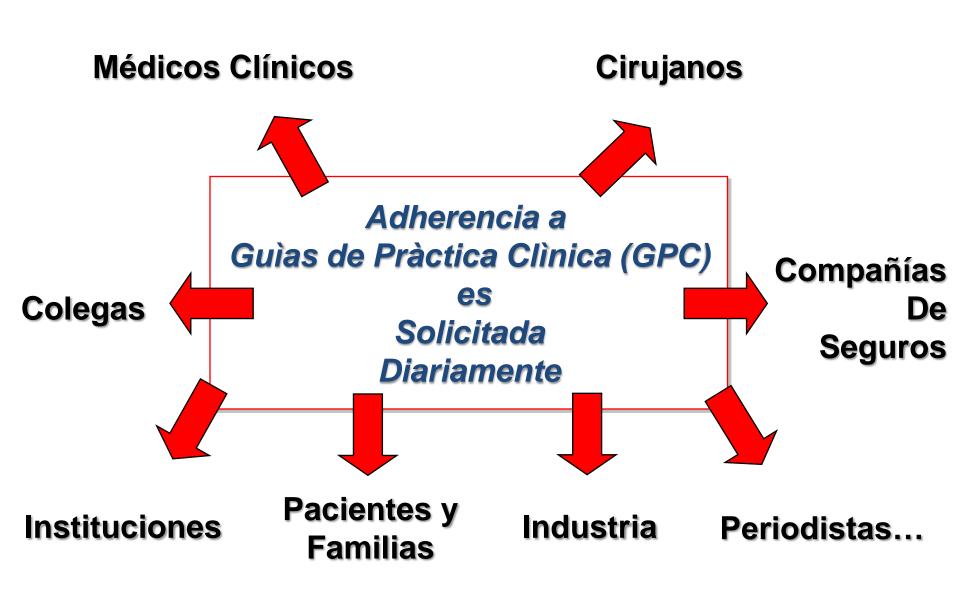
Resultados: 106 871 artículos biomédicos y 11 416 cardiológicos (10.6%)

Brasil, México y Argentina contribuyeron con 80% de las publicaciones.

Factor de impacto de las revistas superior en las publicaciones de Chile y Argentina

**Conclusiones**: La producción científica cardiológica de América Latina tiene marcadas diferencias entre los países,....





# Dificultades Para Actuar en MBE y Guias de Pràctica Clinica

- Se requiere gran número de pacientes, dinero y tiempo para lograr "evidencia"
- Tecnología nos llega más rápido que la evidencia
- Disponemos de métodos diagnósticos no invasivos con sensibilidad y especificidad desconocida en nuestro medio
- No hay control de calidad auditoría
- El uso de MBE: "cuando nos conviene"

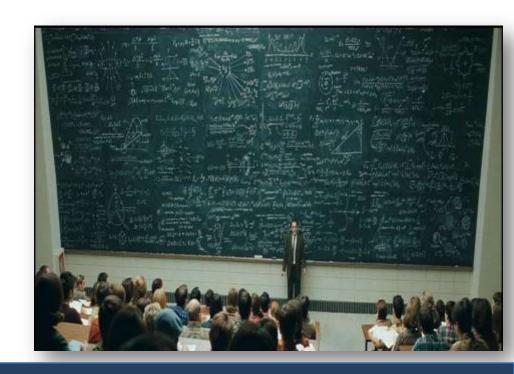
# Dificultades Para Actuar en MBE y Guias de Pràctica Clinica

- Presiones administrativas institucionales
- Influencia de la industria y casas farmacéuticas
- Sistema de Salud: busca màs atención rápida que calidad
- Variabilidad en la idoneidad médica
- Variabilidad en tecnología hospitalaria disponible
- La gran mayoría de las decisiones de RVC, no son tomadas en Consenso
- TMO: Frecuentemente incompleto
- PCI: Frecuentemente es incompleta (ej: DES, DTA)
- CABG: Frecuentemente es incompleta (ej: LIMA-DA)

# Fórmula Para La Mejor Práctica en LA

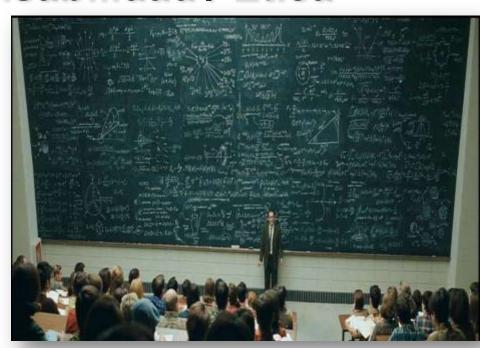
Se hace necesario conocer nuestros resultados:

Bases de datos Registros Estudios clínicos etc



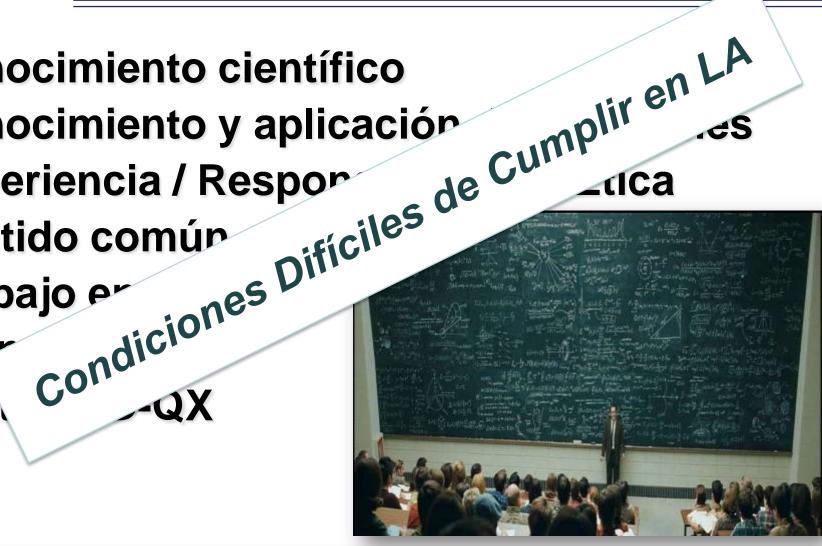
# Fórmula Para La Mejor Práctica en LA

- Conocimiento científico
- Conocimiento y aplicación de Guidelines
- Experiencia / Responsabilidad / Etica
- Sentido común
- Trabajo en equipo
- Tecnología
- Juntas MD-QX



# Fórmula Para La Mejor Práctica en LA

- Conocimiento científico
- Conocimiento y aplicación
- Experiencia / Respor
- Sentido común
- Trabajo er
- Tec
- Jun



REGIONAL CONSULTATION

# Priorities for cardiovascular health in the Americas

KEY MESSAGES FOR POLICYMAKERS



Aplicar **guías de práctica clínica adaptadas** a las necesidades, recursos y cultura local y definir y armonizar las funciones y responsabilidades de todos los niveles de la red de servicio.

Aplicación adecuada y la observancia de las pautas de práctica clínica adecuadamente diseñadas y fuertemente basada en evidencias, es un prerrequisito para ofrecer una atención de calidad, reducir la variabilidad injustificada y finalmente reducir prevenible morbilidad y mortalidad, así como los costos.

# Que Tanto Nos adherimos a las "Guidelines"?

Con Exactitud: No se

Pienso que muy poco e irregular