

**GUIAS DE PRACTICA CLINICA.
SON ESENCIALES EN LOS PROA?**

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Porque PROA?

“Por décadas se ha reconocido que el 30 a 50% de uso de antibióticos en los hospitales es inapropiado”

- Se dan cuando no hacen falta
- Se continúan aunque ya no son necesarios
- Se dan en la dosis inadecuada
- Se usan antibióticos de amplio espectro cuando pueden usarse unos más específicos
- La selección es inadecuada

Prevalence of Antimicrobial Use in U.S. Acute Care Hospital May – September 2011

- Point prevalence study of 183 U.S. Hospitals
- 50% Received at least 1 antibiotic
- Top 3 indications:
 - Pneumonia 34%
 - UTI 17%
 - SSTI 15%

JAMA 2014; 312:1438

AGENDA

- Que dicen los expertos sobre necesidad de Guías?
- Si es bueno usar Guías, cuáles usar?
- Guías como educación o como forma de restricción?
- Cual es la situación en nuestros países? Por donde empezar?



“ GUÍA PARA LA IMPLEMENTACIÓN
DE UN PROGRAMA DE OPTIMIZACIÓN
DE ANTIMICROBIANOS (PROA)
A NIVEL HOSPITALARIO ”

COMITÉ DE ANTIMICROBIANOS PROA Y RESISTENCIA

ASOCIACIÓN PANAMERICANA DE INFECTOLOGÍA (API)

Editores

María Virginia Villegas

Germán Esparza

Jeannete Zurita

API | 2016

Pregunta N° 1

- ✦ Qué ventajas consideran Ustedes tienen las guías?
- ✦ Qué desventajas?

Manual PROA, API 2016

<p>Guías y recomendaciones terapéuticas</p>	<p>Existe una multitud de guías, frecuentemente desactualizadas e/o inapropiadas.</p> <p>Falta de recursos, tanto humanos como materiales, en los laboratorios de microbiología.</p> <p>Falta de reconocimiento, por parte de las autoridades de salud, de la importancia de los laboratorios de microbiología.</p>	<p>Seleccionar las guías más adecuadas y adaptables a cada institución. No "importar" recomendaciones que no se ajusten a la realidad epidemiológica y presupuestaria de cada institución.</p> <p>Revisar y consensuar las guías que se utilizarán junto con los efectores de las mismas.</p> <p>Evitar solamente distribuir las guías sin procurar una discusión y acuerdo previo.</p> <p>Dotar de insumos necesarios para el desenvolvimiento normal del laboratorio.</p> <p>Contratar personal competente en los laboratorios.</p> <p>Optimizar el funcionamiento del laboratorio: calidad del trabajo, comunicación con los médicos, celeridad para el procesamiento de resultados, entre otros.</p> <p>Participar en programas de control de calidad.</p> <p>Introducir pruebas rápidas que resulten relevantes.</p>
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Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America

Tamar F. Barlam,^{1,a} Sara E. Cosgrove,^{2,a} Lilian M. Abbo,³ Conan MacDougall,⁴ Audrey N. Schuetz,⁵ Edward J. Septimus,⁶ Arjun Srinivasan,⁷ Timothy H. Dellit,⁸ Yngve T. Falck-Ytter,⁹ Neil O. Fishman,¹⁰ Cindy W. Hamilton,¹¹ Timothy C. Jenkins,¹² Pamela A. Lipsett,¹³ Preeti N. Malani,¹⁴ Larissa S. May,¹⁵ Gregory J. Moran,¹⁶ Melinda M. Neuhauser,¹⁷ Jason G. Newland,¹⁸ Christopher A. Ohl,¹⁹ Matthew H. Samore,²⁰ Susan K. Seo,²¹ and Kavita K. Trivedi²²

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III. Should ASPs Develop and Implement Facility-Specific Clinical Practice Guidelines for Common Infectious Diseases Syndromes to Improve Antibiotic Utilization and Patient Outcomes?

Recommendation

3. We suggest ASPs develop facility-specific clinical practice guidelines coupled with a dissemination and implementation strategy (*weak recommendation, low-quality evidence*).

“Sugerimos que el PROA desarrolle guías de práctica clínica específicas para el hospital, acopladas con una estrategia de diseminación e Implementación”

Clinical Infectious Diseases

INVITED ARTICLE

CLINICAL PRACTICE: Ellie J. C. Goldstein, Section Editor



Eight Habits of Highly Effective Antimicrobial Stewardship Programs to Meet the Joint Commission Standards for Hospitals

Debra A. Goff,¹ Ravina Kullar,² Karri A. Bauer,² and Thomas M. File Jr³

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CID 2017:64: 1134-9

How to Implement a Guideline. ASPs should focus on disease state(s) that are of high priority and consistent with the institution's goals in creating facility-specific guidelines. This can be accomplished via collaborating with the quality department to

obtain the quantity of patients, as well as clinical data that can be targeted, including community-acquired pneumonia (CAP), and *Clostridium difficile* (C. diff). Next, ASPs should work closely with other departments to ensure a comprehensive guideline. For example, if ASPs are working on an institutional guideline for CAP management, input should be obtained from pulmonologists, hospitalists, emergency department physicians, and microbiologists. By practicing broad-spectrum collaboration, ASPs can ensure that the guideline will be utilized throughout the institution. Incorporation of internal data and evidence-based literature into the guidelines is also important. Clinicians should be able to readily access guidelines through the institution's website or pocket cards. To make an impact at the point of prescribing, we recommend a hyperlink in the electronic medical record (EMR) to the institution's guideline related to the appropriate antimicrobial or microbiology result.

EN POCAS PALABRAS

- Es bueno definir patologías claves para iniciar unas guías de uso de antibióticos
- Por ejemplo, profilaxis en cirugía, neumonía e infección de partes blandas
- Invitar a los especialistas involucrados a que sean parte del desarrollo de las guías. Esto hará más fácil la implementación

Pregunta N° 2

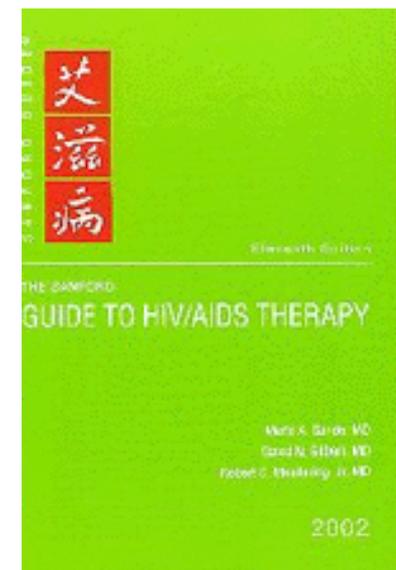
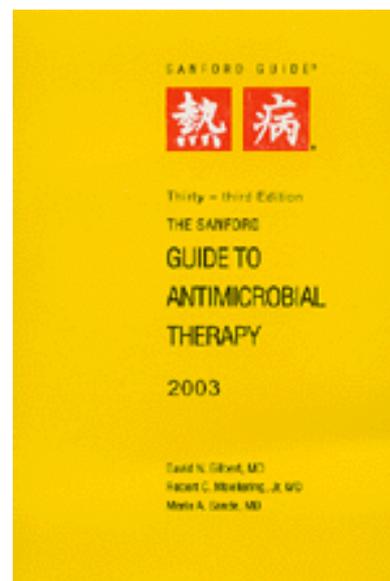
QUE GUIAS USAR?

- Sanford?
- Las de IDSA?
- Unas propias para el hospital o el país?
- Por qué no las de OPS?
- Una combinación de algunas de éstas?

Tratamiento Empírico de las Enfermedades Infecciosas

1. Escogencia perteneciente o relativa a la experiencia
2. Fundado en ella.
3. Que procede empíricamente, dirigido por un médico competente

Las guías, tablas, libros, páginas de la red, y otras ayudas nemotécnicas no tiene valor, sin su uso inteligente por un médico bien preparado



Ultima versión 2007

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Volume 35
Supplement 1
Pages 1-174

Clinical Infectious Diseases

Infectious Diseases Society
of America/American
Thoracic Society
Consensus Guidelines on
the Management of
Community-Acquired
Pneumonia in Adults

IDSA
hivma

SP-092207-0000

A Supplement to Clinical Infectious Diseases

A Guide to Utilization of the Microbiology Laboratory for Diagnosis of Infectious Diseases: 2013 Recommendations by the Infectious Diseases Society of America (IDSA) and the American Society for Microbiology (ASM)^a

Ellen Jo Baron,^{1,2} J. Michael Miller,³ Melvin P. Weinstein,⁴ Sandra S. Richter,⁵ Peter H. Gilligan,⁶ Richard B. Thomson Jr.,⁷ Paul Bourbeau,⁸ Karen C. Carroll,⁹ Sue C. Kehl,¹⁰ W. Michael Dunne,^{11,12} Barbara Robinson-Dunn,¹³ Joseph D. Schwartzman,¹⁴ Kimberle C. Chapin,¹⁵ James W. Snyder,¹⁶ Betty A. Forbes,¹⁷ Robin Patel,¹⁸ Jon E. Rosenblatt,¹⁸ and Bobbi S. Pritt¹⁸

Tratamiento de Enfermedades Infecciosas OPS, 2004



5.9.1 Neumonía adquirida en la comunidad de atención ambulatoria (cont.)

<i>Primera opción</i>	<i>Otras opciones</i>
Edad < 65 años, sin enfermedad concomitante ni riesgo de flora resistente¹	
Amoxicilina 1 g/vo c/8 h por 7 d.	Doxiciclina 100 mg/vo c/12 h o claritromicina 500 mg/vo c/12 h o eritromicina 500 mg/vo c/6 h, todos por 7 d.
La resistencia de los agentes patógenos respiratorios a los macrólidos es alta en la Región.	
Edad > 65 años, enfermedad concomitante o riesgo de flora resistente²	
Amoxicilina/clavulanato 875/125 mg/vo c/12 h o ceftriaxona 1 g/vía parenteral c/24 h por 7 d.	Otras opciones y en casos de alergia a betalactámicos, levofloxacina 750 mg/vo por 5 d o moxifloxacina 400 mg/vo 1 dosis c/24 h por 7 d.

¹ Resistencia a macrólidos.

² La resistencia de los agentes patógenos respiratorios es alta en la Región. Riesgo de resistencia: uso previo de antimicrobianos, alcoholismo, hospitalización en los últimos 3 meses, inmunosupresión, contacto con niños en guarderías infantiles, residencia en zonas con alto grado de resistencia, bronquiectasia, exposición a los servicios de salud o diálisis.

5.9.2 Neumonía adquirida en la comunidad que requiera hospitalización
(cont.)

Primera opción	Otras opciones o alergia a betalactámicos
Ceftriaxona 1 g/iv c/24 h por 7 a 10 d o ampicilina/sulbactam 1,5 g/iv c/6 h o amoxicilina/clavulanato 1000/200 mg/iv c/8 h por 7 a 10 d + azitromicina 500 mg/vo c/24 h por 3 d. En caso de internación domiciliaria, ceftriaxona 2 g/iv c/24 h por 7 a 10 d.	Levofloxacina 750 mg/iv o vo c/24 h o moxifloxacina 400 mg/iv o vo ³ c/24 h por 7 a 10 d.

Sospecha de neumonía por *Staphylococcus aureus*: paciente con antecedentes recientes de influenza, varicela o sarampión, lesiones cutáneas, usuarios de drogas intravenosas o presencia de neumatoceles. Buscar otro foco primario o secundario.

Primera opción	Otras opciones
Cefazolina 2 g/iv c/6 u 8 h u oxacilina o cloxacilina o dicloxacilina 2 g/iv c/4 h por 14 d.	En zonas con elevada incidencia de SAMR comunitario, vancomicina 15-20 mg/kg/iv c/8 h o linezolid 600 mg/vo o iv c/12 h o trimetoprima/sulfametoxazol 10 mg/kg/d (de trimetoprima) en tres dosis diarias por 14 d.

AGENDA

- Que dicen los expertos sobre necesidad de Guías?
- Si es bueno usar Guías, cuáles usar?
- ***Guías como educación o como forma de restricción? Funcionan?***
- Cual es la situación en nuestros países? Por donde empezar?

Pregunta Nº 3

- Según ustedes, estimados participantes, las guías funcionan más como:
 - a) Educación
 - b) Restricción
 - c) Racionalización
 - d) Un poco de todo...

Decrease antibiotic utilization after implementation of a guideline for inpatient cellulitis and cutaneous abscess-

JenkinsTC et al. Arch Intern Med. 2011.171:1072-9

- Este estudio realizado en Denver analizó 165 pacientes antes de aplicar la guía y 175 posterior a su aplicación
- La implementación de la guía resultó en duración más corta y más dirigida de antibióticos y a uso menor de recursos diagnósticos, sin afectar el resultado final (fallas, 7.7% “pre” y 7.4% “post”)

Impact of a guideline on management of children hospitalized with CAP. Newman R et al. Pediatrics. 2012.129:e597-604

- Se analizaron 1033 pacientes. En la época preGuía, 72.1% recibieron ceftriaxone.
- Después de la aplicación de la guía, 63% recibieron ampicilina
- La falla al tratamiento fue 1,5% en el primer período y 1 % en el segundo
- Ampicilina se pudo introducir, sin resultados desfavorables

Impact of an Antimicrobial Stewardship
Intervention on Shortening the Duration
of
Therapy for Community-Acquired
Pneumonia

Edina Avdic,¹ Lisa A. Cushinotto,⁴ Andrew
H. Hughes,² Amanda R. Hansen,⁵ Leigh E.
Efird,¹ John G. Bartlett,^{2,3} and
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Medicine and ³Division of Infectious
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Impact of an Antimicrobial Stewardship Intervention on Shortening the Duration of Therapy for Community Acquired Pneumonia

● Results

	Baseline	Intervention	P-Value
Median duration of therapy	10 days	7 days	<0.001
Narrowing Therapy	19%	67%	<0.001
30 day readmission	14.5%	7.7%	0.22
Clostridium Difficile Infection	4.5%	1.5%	0.28

Clinical Infectious Disease 2012; 54: 1581

5.9.1 Neumonía adquirida en la comunidad de atención ambulatoria (cont.)

<i>Primera opción</i>	<i>Otras opciones</i>
Edad < 65 años, sin enfermedad concomitante ni riesgo de flora resistente¹	
Amoxicilina 1 g/vo c/8 h por 7 d.	Doxiciclina 100 mg/vo c/12 h o claritromicina 500 mg/vo c/12 h o eritromicina 500 mg/vo c/6 h, todos por 7 d.
La resistencia de los agentes patógenos respiratorios a los macrólidos es alta en la Región.	
Edad > 65 años, enfermedad concomitante o riesgo de flora resistente²	
Amoxicilina/clavulanato 875/125 mg/vo c/12 h o ceftriaxona 1 g/vía parenteral c/24 h por 7 d.	Otras opciones y en casos de alergia a betalactámicos, levofloxacina 750 mg/vo por 5 d o moxifloxacina 400 mg/vo 1 dosis c/24 h por 7 d.

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Current evidence on hospital antimicrobial stewardship objectives: a systematic review and meta-analysis.

Schute E et al. Lancet Infectious Diseases. 2016. 16:847

- La adherencia a terapia empírica basada en guías se asoció con una disminución del riesgo de mortalidad de 35% (relative risk 0.65, 95% CI 0.54–0.80, $p < 0.0001$) y se logró de-escalación en el 56% de los casos (0.44, 0.30–0.66, $p < 0.0001$).
- En este estudio revisaron 145 trabajos que analizaban resultados de aplicación de programas PROA

AGENDA

- Que dicen los expertos sobre necesidad de Guías?
- Si es bueno usar Guías, cuáles usar?
- Guías como educación o como forma de restricción?
- ***Cual es la situación en nuestros países? Por donde empezar?***

Pregunta N° 4

- *Que criterios utilizaría Ud. para elaborar las guías de su hospital?*
- *Que sabemos de la región?*
- *Que les puede contar de mi Hospital?*

Current Antimicrobial Stewardship Practices in Latin America: where are we?

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¹ Bacterial Resistance and Hospital Epidemiology Unit, International Center for Medical Research and Training (CIDEIM), Cali, Colombia; ² Centro Médico Clínica Reñaca, Viña del Mar, Chile; ³ Hospital Universitario Austral, Buenos Aires, Argentina

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ABSTRACT

Background: Antibiotic resistance is recognized as a major threat to public health worldwide. Antimicrobial stewardship (AMS) has shown to optimize antimicrobial use, curb antimicrobial resistance, improve clinical patient outcomes, and decrease healthcare costs. There is limited data about AMS practices in hospitals in Latin America. The purpose of this cross-sectional study was to describe the current AMS practices in Latin American hospitals.

Methods: We conducted a 52-item survey adapted and modified from the 2014 CDC Checklist for Core Elements of Hospital AMS Programs. The survey was answered by one responsible clinician of the AMS activities in targeted hospitals via email or Google Forms between October 2014 and April 2015. Questions addressed leadership support, accountability and drug expertise, actions performed, tracking, reporting, and education on AMS. Data were summarized using descriptive statistics.

Results: Twenty-seven respondents from 10 Latin American countries completed the survey. Teaching hospitals were 18 (66.7%). Several hospitals (11/27, 40.7%) did not have a formal written statement supporting AMS. Fourteen (51.9%) hospitals reported no information technology tools or training support for their AMS activities. In the cases in which AMS was not led by an infectious disease physician (14/26), microbiologists or epidemiologists were in charge. Pharmacists were the least frequent (37%) professionals in the AMS teams. Nine (33.3%) hospitals failed to have recommendations based on national guidelines and local susceptibility for treatment of common clinical conditions. Also, antibiotic time-outs after 48 hours were not performed in 17 (63%) hospitals and pre-authorization of specific antimicrobials was not required in 7 (25.9%). Automatic alerts for duplicate therapy and automatic stop orders for specified antibiotic prescriptions were not performed in 26 (97%) and 17 (63%) hospitals, respectively. Only four (14.8%) laboratories do not perform any confirmatory tests for multidrug-resistant organisms. Twelve (44.4%) hospitals monitor antibiotic consumption by defined daily dose. Education on AMS was performed in 11 (40.7%) hospitals.

Conclusions: Our findings evidence that AMS activities are partially performed in Latin America, especially because of the variable implementation of interventions to support optimal antibiotic use. Institutional support is required for further development and improvement of AMS programs.

BACKGROUND

Antibiotic resistance is recognized as a major threat to public health worldwide. Antimicrobial stewardship (AMS) has shown to optimize antimicrobial use contributing to curb the emergence of multi-drug resistant organisms, improve clinical patient outcomes, avoid unnecessary adverse drug reactions, and decrease costs of healthcare [1, 2].

There is limited data about AMS practices in hospitals in Latin America, therefore, the purpose of this cross-sectional study was to describe the current AMS practices in Latin American hospitals.

METHODS

Between October 2014 and April 2015, we conducted a survey adapted and modified from the Checklist for Core Elements of Hospital Antibiotic Stewardship Programs [3] published in 2014 by the U.S. Centers for Disease Control and Prevention. The survey had 52 questions distributed in 7 core sections: a) general data, b) leadership support, c) accountability and drug expertise, d) actions to support optimal antibiotic use, e) tracking of antibiotic prescribing, use and resistance, f) reporting of information to staff on improving antibiotic use and resistance, and g) education on AMS.

The survey was sent by email or provided online as a Google Forms questionnaire, to clinicians responsible for the AMS activities in the targeted hospitals in Latin American countries.

Reminders emails were sent to non-respondents.

Only one responsible clinician of the AMS activities per hospital was included in the analysis.

The targeted hospitals were chosen based on a contact list of infectious disease practitioners in Latin America, provided by the Pan American Association of Infectious Diseases (PAID).

Questions were validated before data collection.

Data analysis was performed using descriptive statistics.

RESULTS

- The survey was completed by 27 respondents from different hospitals in 10 Latin American countries (Figure 1).
- Teaching hospitals were 18 (66.7%). Sixteen (59.3%) hospitals had more than 200 beds.
- Eleven (40.7%) hospitals did not have a formal written statement supporting AMS.
- Fourteen (51.9%) hospitals reported no financial support for providing information technology tools or training of staff.
- In the cases in which AMS activities were not led by an infectious disease physician (14/26), clinical microbiologists or epidemiologists were in charge.
- Pharmacists were the least frequent (37%) professionals in the AMS teams (Figure 2). Microbiology staff were the most frequently involved in AMS activities.
- Nine (33.3%) hospitals failed to have recommendations based on national guidelines and local susceptibility for treatment of common clinical conditions.
- Broad interventions to support optimal antibiotic use are shown in Table 1.

Figure 1 Distribution of respondents per country (N = 27)



Figure 2 Staff working for AMS activities in Latin American hospitals

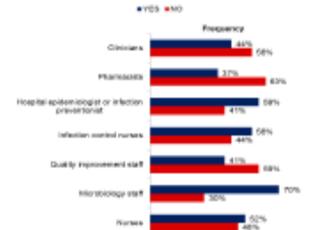
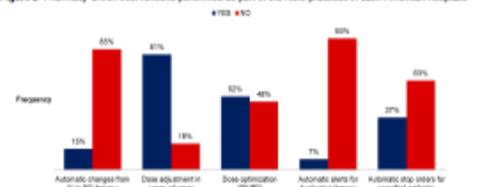


Table 1 Broad interventions performed as part of the AMS practices in Latin American hospitals

Action performed	n	%
Routine review of the appropriateness of antibiotics 48 h after initial orders (e.g., antibiotic time-out)		
Yes	10	37
No	17	63
Pre-authorization of specified antimicrobials by a physician or pharmacist		
Yes	20	74.1
No	7	25.9
Most relevant antibiotics for which pre-authorization is required (n = 25)		
2 nd or 4 th -generation cephalosporins	3	12
Carbapenems	19	76
Colistin	19	76
Tigecycline	15	60
Vancomycin	19	76
Linezolid	17	68
Daptomycin	13	52
Reason for choosing the antibiotics that require pre-authorization (n = 20)		
Antibiotic resistance	8	40
High costs	4	20
Antibiotic resistance and high costs	4	20
Other reasons	4	20
Prospective audit of therapy courses with feedback by a physician or pharmacist		
Yes	13	48.1
No	14	51.9

Figure 2 Pharmacy-driven interventions performed as part of the AMS practices in Latin American hospitals



- Pharmacy-driven interventions to improve antibiotic use are shown in Figure 2.
- WHONET software is used in 15 (55.6%) hospitals, as a tool for surveillance of antimicrobial resistance.
- Twenty-one (77.8%) and 18 (66.7%) of hospital laboratories confirm extended-spectrum β -lactamases and carbapenemases, respectively.
- Only four (14.8%) laboratories do not perform any confirmatory tests for multidrug-resistant organisms.
- Twenty-one (77.8%) institutions generate periodic cumulative antibiogram reports but only 15 (55.6%) distribute them to prescribers at the facility.
- Twelve (44.4%) hospitals monitor antibiotic consumption by defined daily dose.
- The AMS activities include education to clinicians and other staff on improving antibiotic use in 11 (40.7%) hospitals.
- Overall, only 3 (11.1%) hospitals reported compliance with at least 75% of AMS measures assessed in this study.

CONCLUSIONS

- To our knowledge, this is the first attempt to assess the current state of AMS practices in Latin America.
- Twenty-seven respondents from different hospitals in 10 Latin American countries completed the survey. Eighteen (66.7%) were teaching hospitals.
- Around 40% of surveyed hospitals lack a formal written statement supporting AMS practices and about a half do not support AMS in terms of staff training or technology tools.
- Although most hospitals have a multidisciplinary staff, pharmacists remain as the least frequent professionals in the AMS teams.
- Our findings evidence that AMS activities are partially implemented in Latin American hospitals since interventions to support optimal antibiotic use, as well as tracking and reporting of AMS, are variably performed.
- Institutional support is required for further development and improvement of AMS programs.

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- Fridkin S et al. Vital signs: improving antibiotic use among hospitalized patients. *MMWR Morb Mortal Wkly Rep* 2014;63:194-200.
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ACKNOWLEDGMENTS

We thank the clinicians from the participating institutions in Latin America that completed the survey on AMS practices. Research reported in this poster was supported by a research grant from Merck Sharp & Dohme (2014).

Figure 1 Distribution of respondents per country ($N = 27$)

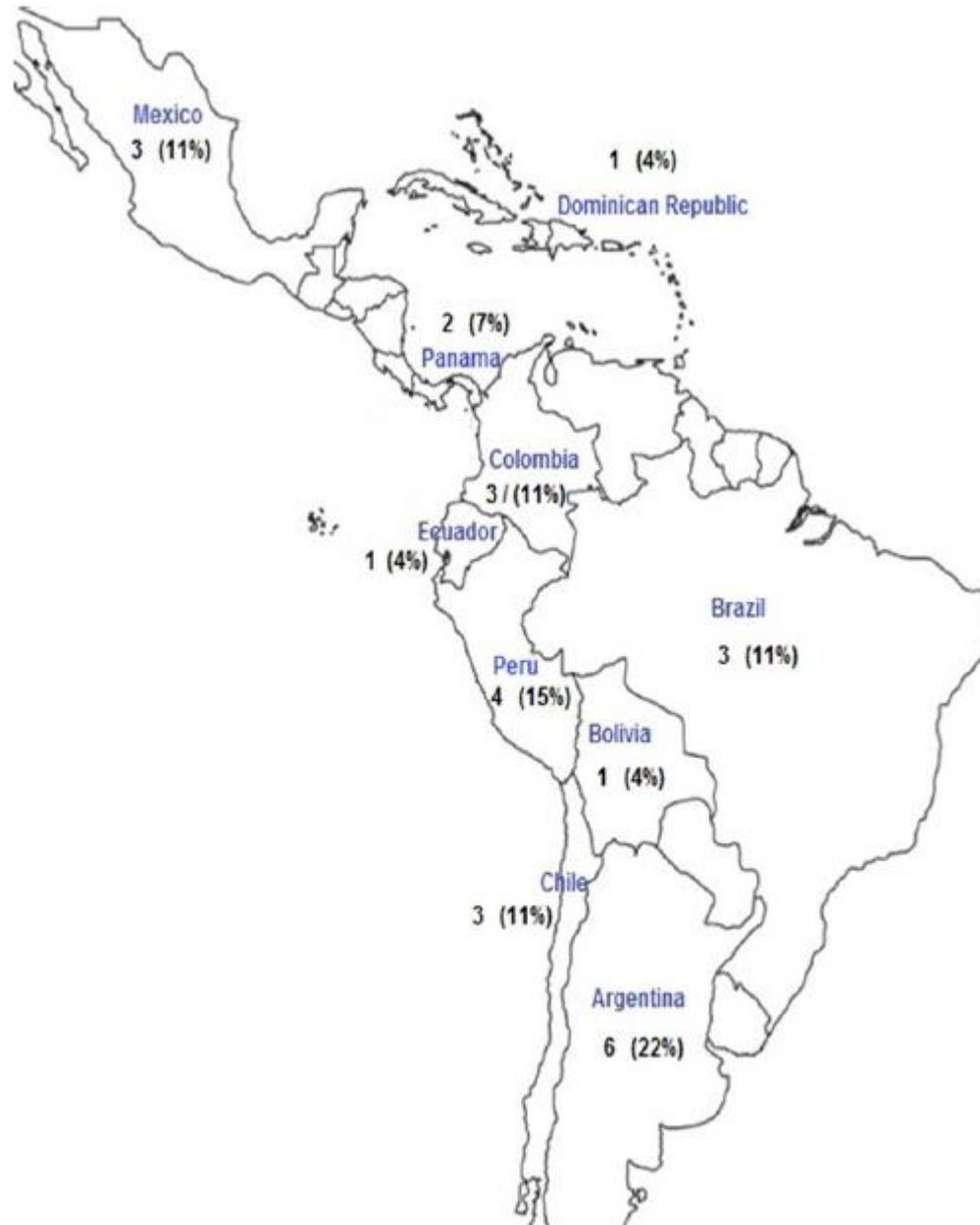


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Pre-authorization of specified antimicrobials by a physician or pharmacist		
Yes	20	74.1
No	7	25.9
Most relevant antibiotics for which pre-authorization is required (<i>n</i> = 20)		
3 rd - or 4 th -generation cephalosporins	3	15
Carbapenems	19	95
Colistin	19	95
Tigecycline	15	75
Vancomycin	19	95
Linezolid	17	85
Daptomycin	13	65
Reason for choosing the antibiotics that require pre-authorization (<i>n</i> = 20)		
Antibiotic resistance	8	40
High costs	4	20
Antibiotic resistance and high costs	4	20
Other reasons	4	20
Prospective audit of therapy courses with feedback by a physician or pharmacist		
Yes	13	48.1
No	14	51.9

**PORQUE TENEMOS QUE ESCOGER
BIEN LOS ANTIBIOTICOS DESDE EL
PRINCIPIO?**

SI NOS EQUIVOCAMOS, O EL
ANTIBIOTICO NO ESTA DISPONIBLE EN
EL HOSPITAL, EL PACIENTE PUEDE
MORIR



*Programa Venezolano de Vigilancia
de la Resistencia Bacteriana a los Antimicrobianos*

PROGRAMA DE VIGILANCIA DE RESISTENCIA BACTERIANA A LOS ANTIMICROBIANOS

<http://www.provenra.org>

**Información suministrada por el Dr. Manuel Guzmán Blanco
Coordinador Nacional del Programa**

VENEZUELA. DE LA TEORIA A LA PRACTICA. ACCIONES ESPECIFICAS EN CONTROL DE RESISTENCIA A LOS ANTIBIOTICOS

- Resolucion 604 del Ministerio de Salud, del 29.12.05
- “Se regula la dispensación de medicamentos antimicrobianos, en farmacias, servicios farmacéuticos y cualquier otro establecimiento debidamente autorizado, mediante la presentación de la prescripción facultativa”
- Publicado Gaceta Nº 38348, 2.01.2006
- Y SE HA CUMPLIDO!!

HOSPITAL VARGAS DE CARACAS. inaugurado 1891



PROGRAMA CONTROL ANTIBIOTICOS HOSPITAL VARGAS DE CARACAS

- En enero 1979 comienza el Servicio de Infectología, unido al laboratorio de Microbiología (buena idea!!)
- En 1980, ante gasto excesivo en antibióticos, se inicia el programa de control de antibióticos
- Los servicios tratantes, en especial Emergencia, podían indicar hasta por 48 horas
- A partir de ese momento, era necesaria la autorización de infectología para continuar
- Se restringieron lo que para entonces era antibióticos de alto costo, o de indicación restringida: cefalosporinas de 3G, carbapenems, Vancomicina, antifúngicos (solo Anfotericina b en esa época)
- Detención después de 48 horas en profilaxis

QUE HEMOS LOGRADO?

- Servicio de Infectología acreditado y con número importante de interconsultas
- Una excelente oportunidad para educación
- En el Vargas, Infectología NO tiene cuidado primario de pacientes hospitalizados en salas , solo actúa como servicio de apoyo (otra buena idea!)
- El programa fue importante en la época de “ abundancia”. Es imprescindible en estos tiempos más difíciles (aumento de resistencia en el tiempo de la escasez).

ESCASEZ (de antibióticos) EN EPOCA DE CRISIS
(aumento de la resistencia)

LA TORMENTA PERFECTA!!!!

Manuel Guzmán Blanco
Hospital Vargas de Caracas
Centro Médico de Caracas

F E E L I T S F U R Y



GEORGE CLOONEY

WOLFGANG PETERSEN Film

MARK WAHLBERG

THE PERFECT STORM

WARNER BROS. PICTURES Presents

A BALTIMORE SPRING CREEK PICTURES Production In Association with RADIANT PRODUCTIONS WOLFGANG PETERSEN Film GEORGE CLOONEY MARK WAHLBERG "THE PERFECT STORM"

ANE LANE WILLIAM FICHTNER KAREN ALLEN BOB GUNTON with MARY ELIZABETH MASTRANTONIO and JOHN C. REILLY Music By JAMES HORNER Edited By RICHARD FRANCIS-BRUCE, A.C.E. Production Designed By WILLIAM SANDELL

Director of Photography JOHN SEALE, A.C.S., A.S.C. Executive Producers BARRY LEVINSON DUNCAN HENDERSON Based on the Book By SEBASTIAN JUNGER Screenplay By BILL WITTLIFF

www.perfectstorm.com

Produced PAUL A. WEINSTEIN WOLFGANG PETERSEN GAIL KATZ Directed WOLFGANG PETERSEN

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SUGERENCIAS

- Estamos en una época de alta resistencia a los antibióticos y recursos disminuidos
- El uso prudente de antibióticos es una necesidad inaplazable
- Los programas PROA son instrumentos esenciales para lograr ese objetivo
- Que no falte el antibiótico apropiado a ningún paciente, pero que no se utilicen los antibióticos donde no están indicados!