

SSI prevention strategies in Latin America

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Ministry of Health

Chile

- No conflicts of interest
- This presentation is not an official MoH presentation

What is Latin America

- Latin America = 20 countries (spanish speaking population in the USA or Canada is not included)
- Common languages: spanish & portuguese
- 626 million population
- How many hospitals?
 - Some countries have 2
 - Some have >6000



method

- Review of the web pages of the MoHs
- Literature searches for published strategies
- Interviews with colleagues from the MoHs

consideration

- It is not common that countries publish strategies as such in journals or other type of publication
 - So, if I didn't find it, it doesn't necessarily mean it doesn't exist

“prevention strategies”

- **National** initiative
 - Include coordinated permanent activities to prevent infections
 - Surveillance
 - Guidelines
 - Training
 - Structural aspects
 - Monitoring
- Active
 - Stratification by risk
- Sterilization of surgical materials
 - Antibiotic prophylaxis
 - Skin prep. → hair removal
 - Checklists
 - OR air quality, control of T^o

The checklist - Safe Surgery Saves Lives

WHO 2008



Antes de la Inducción anestésica → Antes de la incisión → Antes de la salida del quirófano

INGRESO	PAUSA	SALIDA
<input type="checkbox"/> EL PACIENTE HA CONFIRMADO •IDENTIDAD •SITIO •PROCEDIMIENTO •CONSENTIMIENTO	<input type="checkbox"/> CONFIRMAR LA IDENTIFICACION Y FUNCION DE CADA PERSONA EN EL QUIROFANO <input type="checkbox"/> EL CIRUJANO, ANESTESIOLOGO Y ENFERMERA CONFIRMAN VERBALMENTE •PACIENTE •SITIO •PROCEDIMIENTO	<input type="checkbox"/> ENFERMERIA CONFIRMA CON EL EQUIPO <input type="checkbox"/> LA CIRUGIA REALIZADA <input type="checkbox"/> CONTEOS COMPLETOS DE CORTANTES, GASAS COMPRESAS (O NO SE APLICA) <input type="checkbox"/> COMO SE MARCARON LAS MUESTRAS (INCLUYENDO EL NOMBRE DEL PACIENTE) <input type="checkbox"/> EXISTIERON PROBLEMAS DE EQUIPOS QUE DEBAN SER DISCUTIDOS
<input type="checkbox"/> SITIO MARCADO / NO APLICA	EVENTOS CRITICOS PROBABLES	<input type="checkbox"/> EL CIRUJANO, ANESTESIOLOGO, Y ENFERMERIA HACEN LAS CONSIDERACIONES PARTICULARES PARA LA RECUPERACION Y MANEJO POP DEL PACIENTE
<input type="checkbox"/> LISTA DE CHEQUEO ANESTESICO COMPLETA: MAQUINA, MEDICACIONES ELEMENTOS <input type="checkbox"/> PULSOXIMETRIA FUNCIONANDO EN PACIENTE	<input type="checkbox"/> EL CIRUJANO HACE UN ANALISIS: CUALES SON LOS PASOS CRITICOS, O INESPERADOS, LA DURACION DE LA CIRUGIA, Y LA PERDIDA ESTIMADA DE SANGRE? <input type="checkbox"/> EL ANESTESIOLOGO HACE UN ANALISIS: EXISTEN DIFICULTADES ESPECIFICAS DEL PACIENTE? <input type="checkbox"/> INSTRUMENTACION HACE UN ANALISIS: SE HA VERIFICADO LA ESTERILIDA(INCLUYENDO INDICADORES)? HAY PREOCUPACIONES O PROBLEMAS CON EL EQUIPO?	<input type="checkbox"/> CONSIDERACIONES PARTICULARES: <input type="checkbox"/> PROFILAXIS TROMBOSIS VENOSA <input type="checkbox"/> CUIDADOS INTERMEDIOS / INTENSIVOS <input type="checkbox"/> ANALGESIA POSTOPERATORIA OTRAS
<input type="checkbox"/> TIENE EL PACIENTE? ALERGIA CONOCIDA? <input type="checkbox"/> NO <input type="checkbox"/> SI	<input type="checkbox"/> SE HA ADMINISTRADO PROFILAXIS ANTIBIOTICA EN LOS ULTIMOS 60 MINUTOS? <input type="checkbox"/> SI <input type="checkbox"/> NO SE APLICA	<input type="checkbox"/>
<input type="checkbox"/> RIESGO DE VIA AEREA DIFICIL / BRONCOASPIRACION? <input type="checkbox"/> NO <input type="checkbox"/> SI, Y HAY EQUIPO Y AYUDA DISPONIBLE	<input type="checkbox"/> ESTA DISPONIBLE LA IMAGENOLOGIA NECESARIA? <input type="checkbox"/> SI <input type="checkbox"/> NO SE APLICA	<input type="checkbox"/>
<input type="checkbox"/> RIESGO DE HEMORRAGIA >500ML (7ML/KG EN NIÑOS)? <input type="checkbox"/> NO <input type="checkbox"/> SI Y SE HAN PLANEADO ACCESO IV Y FLUIDOS ADECUADOS	<input type="checkbox"/>	<input type="checkbox"/>
NOMBRE / SELLO	NOMBRE / SELLO	

Sterility indicators

Antibiotic prophylaxis

INSTRUMENTACION HACE UN ANALISIS: SE HA VERIFICADO LA ESTERILIDA(INCLUYENDO INDICADORES)? HAY PREOCUPACIONES O PROBLEMAS CON EL EQUIPO?

SE HA ADMINISTRADO PROFILAXIS ANTIBIOTICA EN LOS ULTIMOS 60 MINUTOS?

SI

NO SE APLICA

ESTA LISTA DE CHEQUEO NO PRETENDE SER EXHAUSTIVA. SE RECOMIENDA QUE SE HAGAN ADICIONES, MODIFICACIONES PA...
 TRADUCIDO Y ADAPTADO DE LA LISTA DE CHEQUEO DE LA OMS 2008- COMITÉ DE SEGURIDAD SCARE

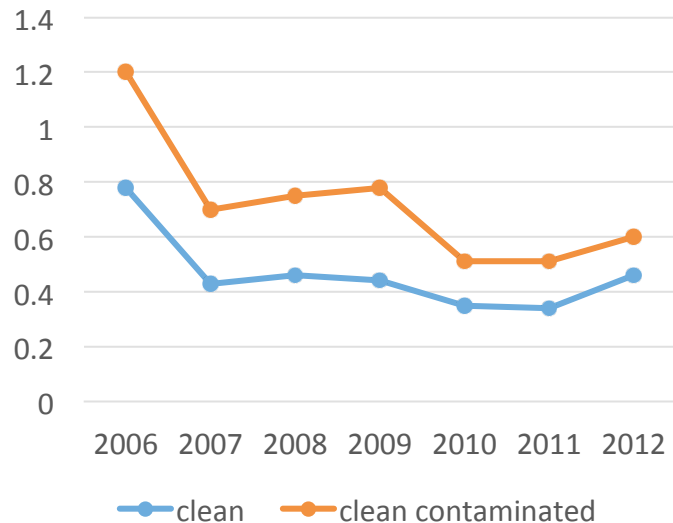
Results

- Very diverse
- Can't be organized and generate statistical analyses
- I will present some examples as cases

Colombia

- Surveillance of SSI
- 3255 SSI in 311824 surgeries

SSI / 100 surgeries



**Boletín epidemiológico de infecciones
Asociadas a la atención en salud**

Boletín No 1, de 2014

Good practice guidelines 2010

- 4.2.1. HAls (detect, prevent, reduce)
- "involve all HCWs in the implementation of pre-intra-post surgery surgical site infection prevention" such as:
 - Antibiotic prophylaxis
 - Skin antiseptis
 - Behaviour in the OR
 - Wound management

Versión : 001

SOGC
Sistema Obligatorio de
Garantía de Calidad
en Salud

DIRECCIÓN GENERAL DE CALIDAD DE SERVICIOS
UNIDAD SECTORIAL DE NORMALIZACIÓN

El Salvador

2010 – 2012, rate per 100 surgeries

Use as benchmark

There are rates of each of the hospitals for the period

C section	apendectomy	hernias	osteosynthesis	colecistectomy
3.4	10.7	7.0	8.0	7.8



Ministerio de Salud
Viceministerio de políticas de salud
Dirección Vigilancia Sanitaria

Boletín Epidemiológico
Semana 13 (del 29 de marzo al 4 de abril 2015)

El Salvador



MINISTERIO DE SALUD PÚBLICA Y ASISTENCIA SOCIAL
DIRECCIÓN DE REGULACIÓN
UNIDAD DE ENFERMERÍA



Regulation for IPC programs - 2006

- Sterilization
- Skin preparation
- Hair removal

- OR environment conditions

- Indicates to comply with the medical prescription of antibioprophylaxis

MANUAL PARA ENFERMERÍA

Lineamientos Técnicos en la Prevención y Control de las Infecciones Nosocomiales

Mexico

13/9/2017

NOM-026-SSA2-1998, Para la vigilancia epidemiológica, prevención y control de las infecciones nosocomiales

NORMA Oficial Mexicana NOM-026-SSA2-1998, Para la vigilancia epidemiológica, prevención y control de las infecciones nosocomiales.

- National regulation
- Detailed surveillance concepts
- Organization of IPC programs at all levels of health care institutions and systems
- Oversight and monitoring of IPC aspects

Brazil

- Recommendations
 - Criteria for defining HAIs including SSIs for surveillance

Some recommendations:

- Built and environmental aspects of the ORs
- Oversight of surgeons that are being trained
- Hair removal of the surgical site and skin preparation
- Antibioprophylaxis + monitoring compliance
- Standard precautions to be used in OR
- Normothermia
- Control of glicemia
- Use of checklist
- Sterilization of surgical materials
- Local surveillance

Série
Segurança do Paciente e Qualidade em Serviços de Saúde

Critérios Diagnósticos de Infecção Relacionada à Assistência à Saúde

Série
Segurança do Paciente e Qualidade em Serviços de Saúde

Medidas de Prevenção de Infecção Relacionada à Assistência à Saúde



Brazil

- Surveillance
 - There isn't a national system of surveillance for SSI
 - No systematic data collection of SSIs
 - No information on how many hospitals have SSI surveillance
 - Many local studies of single or groups of hospitals
 - Trend to use CDCs methods
- Compliance with the recommendations = no information found

Guatemala

44

Infectious Disorders – Drug Targets, 2014, 14, 44-48

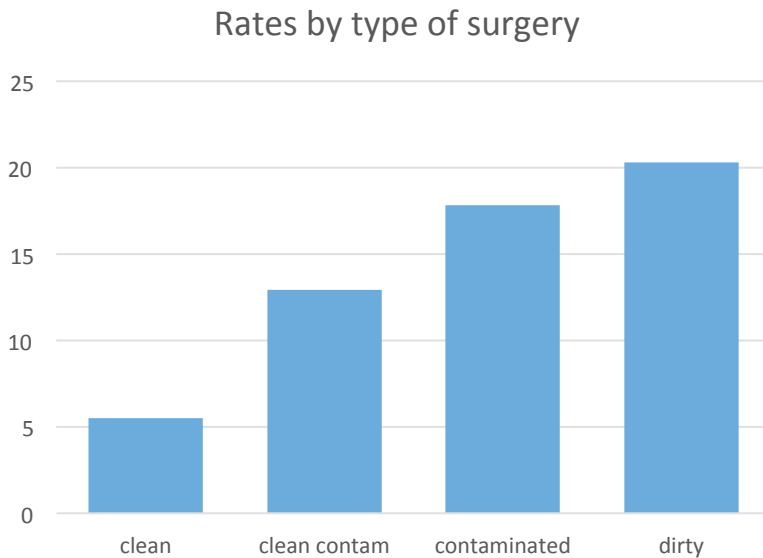
Case Series Describing an Outbreak of Highly Resistant Vancomycin *Staphylococcus aureus* (Possible VISA/VRSA) Infections in Orthopedic Related Procedures in Guatemala

Suresh J. Antony*

No document with guidelines for preventing infections was found

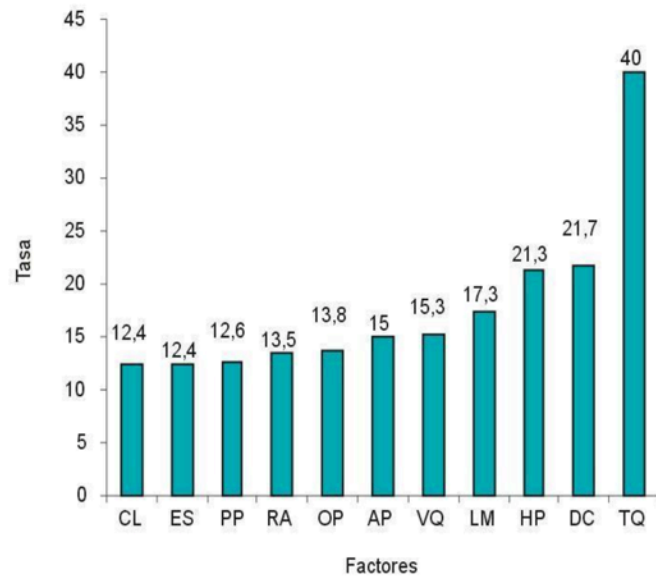
Cuba

One hospital
654 patients
2004



- The author mentions
 - Rates higher than past surveys
 - Compares hospital with other hospitals in La Habana

Cuba



Leyenda

CL: Climatización inadecuada
ES: Esterilización inadecuada
PP: Preoperatorio prolongado
RA: Rasurado inadecuado
OP: Operaciones anteriores

AP: Antibiótico profiláctico inadecuado
VQ: Vestuario quirúrgico inadecuado
LM: Lavado de manos inadecuado
HP: Hospitalización prolongada
DC: Duración de la cirugía prolongada
TQ: Técnica quirúrgica inadecuada

- Analysis of risk. Authors attribute certain factors as the risk factors involved:
 - Environment / OpRoom air
 - Poor procedure for shaving of the surgical site
 - Inadequate atb prophylaxis

Cuba

- Has a document with the HAIs program - 1999
 - Organization of the program at every level
 - Active surveillance of infections
 - Establishes the requirement of the prevention of several infections including SSI
 - Occupational health issues
 - Others
- No national data of SSI was found

Bolivia

Incidence of Surgical-Site Infections and the Validity of the National Nosocomial Infections Surveillance System Risk Index in a General Surgical Ward in Santa Cruz, Bolivia

LORENA SOLETO, BS; MARIANNE PIRARD, MD, MPH; MARLEEN BOELAERT, MD, PhD; REMBERTO PEREDO, MD; REINERIO VARGAS, MD; ALBERTO GIANELLA, MD; PATRICK VAN DER STUYFT, MD, PhD

ICHE Vol 24 N°1, Jan 2003

No document with national strategies were found

Some local research with data of single hospitals or groups of hospitals

Proposed use of the checklist

No national data of SSI was found

TABLE 1
CASE MIX AND PROCEDURE-SPECIFIC SURGICAL-SITE INFECTION RATES IN A GENERAL SURGICAL WARD IN SANTA CRUZ, BOLIVIA, 1999

Intervention Type	Frequency		SSI Rate (%)
	No.	(%)	
Cholecystectomy	193	(51.3)	15.0
Hernia	69	(18.4)	5.8
Appendectomy	59	(15.7)	8.5
Thyroidectomy	14	(3.7)	7.1
Minor surgery	11	(2.9)	18.2
Small bowel surgery	8	(2.1)	12.5
Colon surgery	4	(1.1)	50.0
Other abdominal surgery	9	(2.4)	11.1
Gynecology-obstetrics	5	(1.3)	0
Orthopedic surgery	4	(1.1)	0
All	376	(100)	12.0

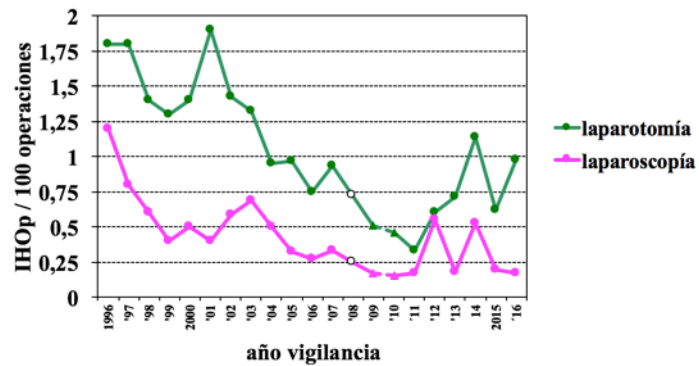
SSI = surgical-site infection.

Chile

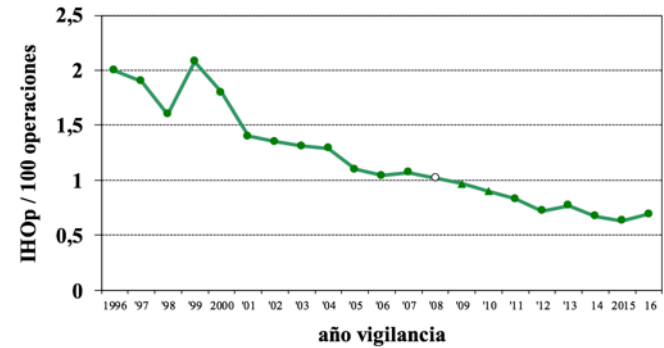
- National IPC program
- Surveillance of SSI
 - Only some surgical procedures
- Limited to the public sector
 - Around 80% of hospital beds and 50% of healthcare facilities
- Prevention is regulated
- Partial data on compliance is available

surveillance

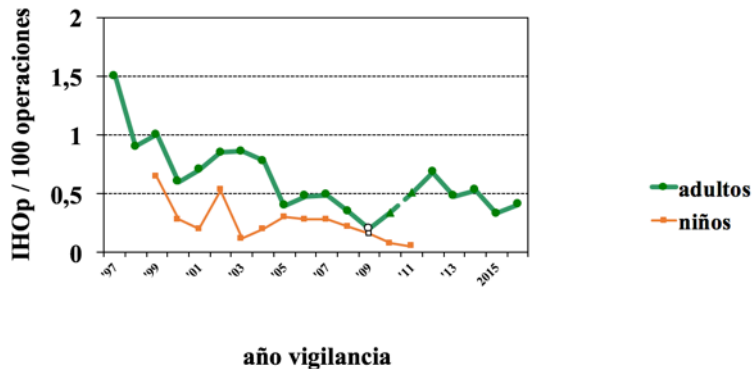
IHO_p de colecistectomía
1996 - 2016



IHO_p de cesárea 1996 - 2016



IHO_p de hernia inguinal
1996 - 2016



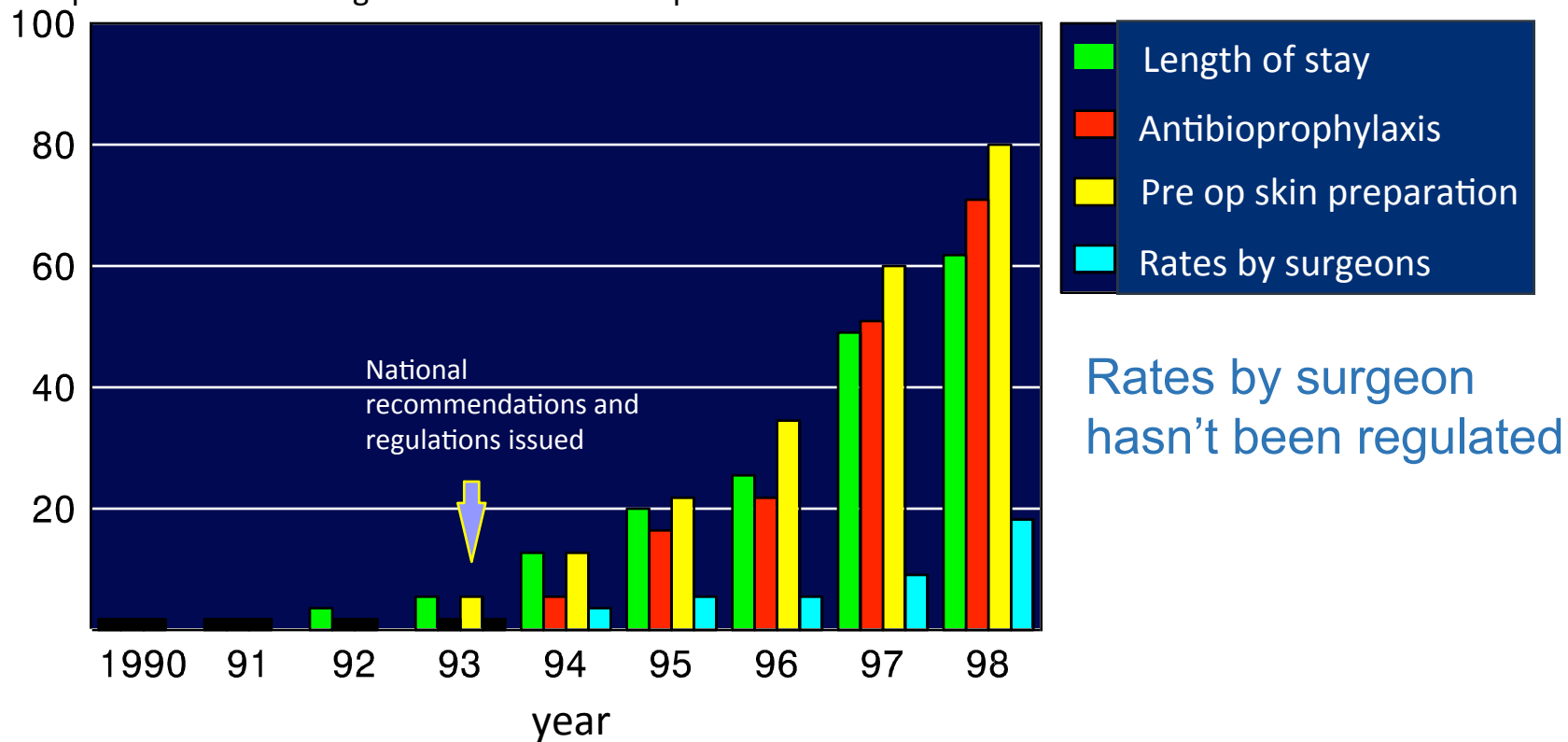
IHO_p de cirugía de prótesis de cadera 1996 - 2016



Implementation of SSI prevention practices in Chile 1990 – 1998 % public hospitals with ≥ 100 beds

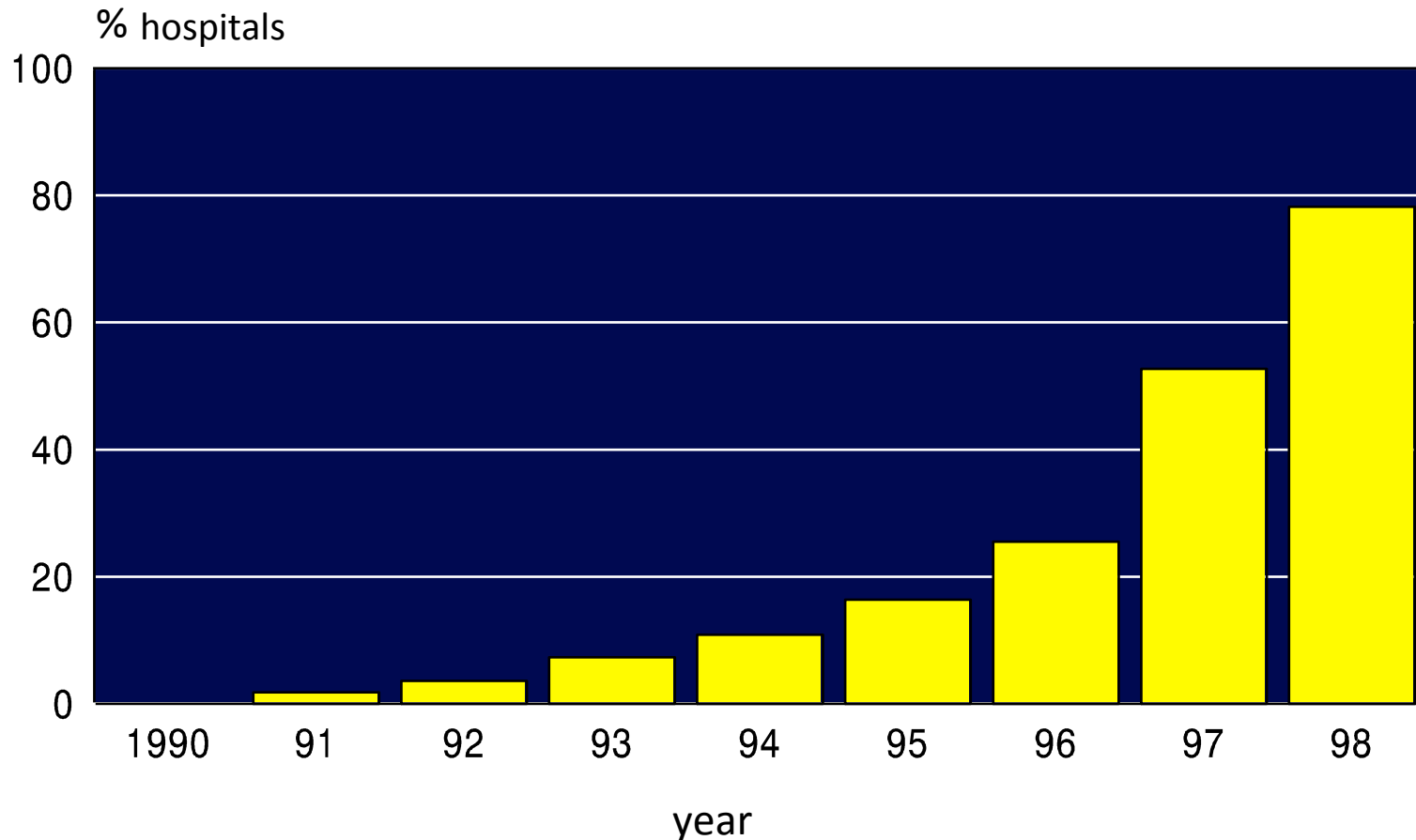
Strategy: guidelines, training, provide access to clippers, teach how to use them, monitor compliance, document progress

% hospitals that have the guideline and some implementation



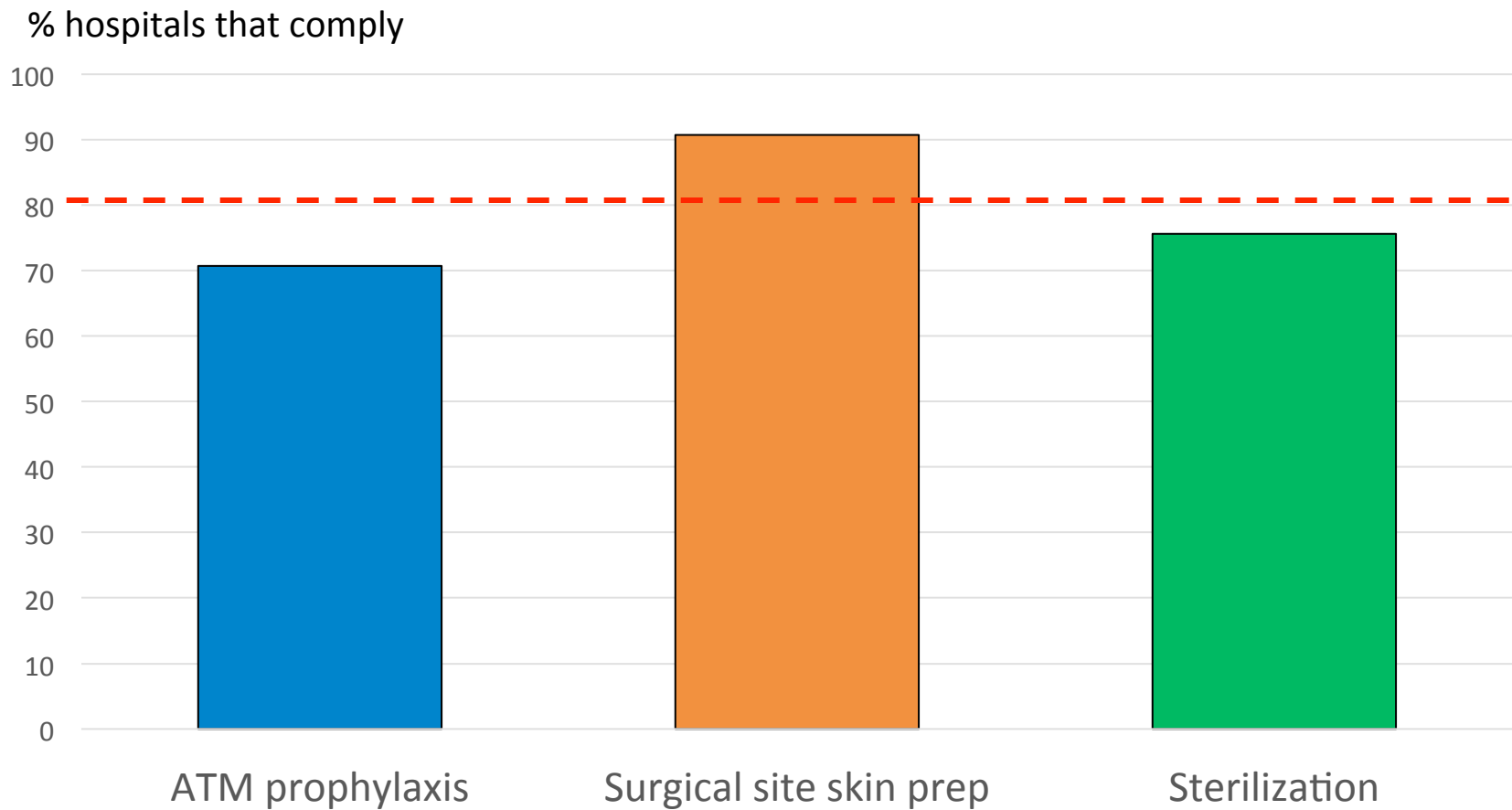
Survey documents existence of written local instructions

Elimination of the practice of shaving (using a razor or blade to eliminate hair from the surgical site) the surgical site previous to surgery Chile % public hospitals with ≥ 100 beds



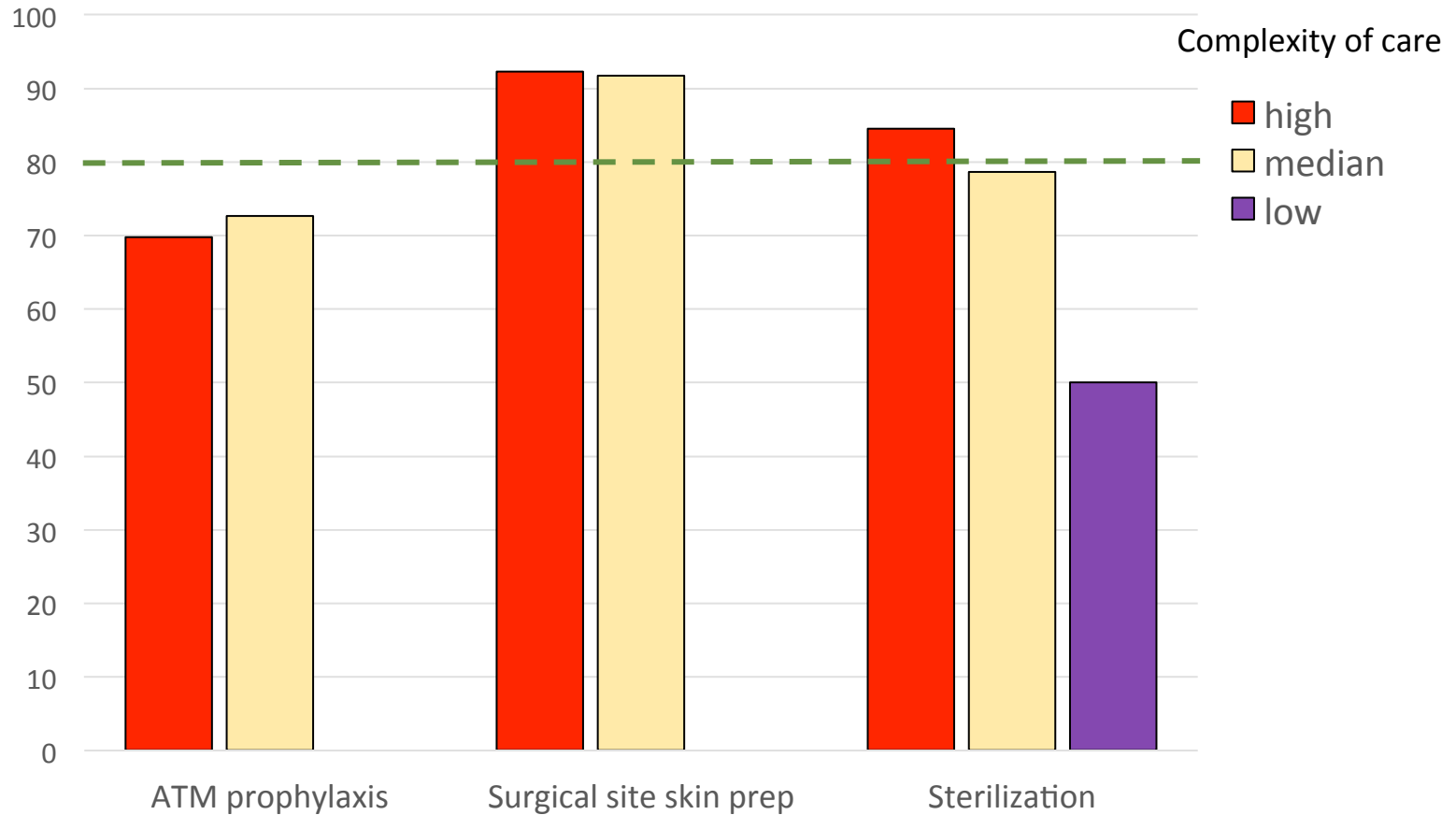
Survey documents existence of written local instructions

Compliance with the SSI prevention practices, 54 medium/high complexity of care hospitals – Chile 2015 to 2017



Compliance with the SSI prevention practices, 89 hospitals – Chile 2015 to 2017

% hospitals that comply



Some causes of noncompliance with the SSI prevention practices, 89 hospitals – Chile 2015 to 2017

practice	Causes of non compliance
ATM prophylaxis	<ul style="list-style-type: none">• No measurement of the timing of the use• Antimicrobials of choice not standardized
Skin preparation	<ul style="list-style-type: none">• Time from using to incision not documented• Antiseptic not stardardized
Sterilization of surgical instruments	<ul style="list-style-type: none">• Maintenance of equipment not documented• sterilization services are not centralized*

*note: the current accreditation system makes it mandatory to have every process under the same facilities and coordinator. This will change with a new norm.

Chile regulation



APRUEBA NORMA GENERAL TÉCNICA
N° 190 PARA LA
PREVENCIÓN DE INFECCIÓN DE
HERIDA OPERATORIA.

EXENTA N° 894

SANTIAGO, 05 JUL 2017

- Replaces all existing guidelines on the matter Includes
- Complements the Norm 124 on IPC programs
- Lists some mandatory activities

Subjects regulated:

- Built and environmental aspects of the ORs
- Oversight of surgeons that are being trained
- Hair removal of the surgical site and skin preparation
- Antibioprophylaxis + monitoring compliance
- Standard precautions to be used in OR
- Normothermia
- Surveillance

- Sterilization of surgical materials

Political support – september 2017

📶 🕒 4G 📶 76% 🔋 09:45

← Tweet



Observatorio Calidad
@ObservatorioCal

Muy agradecidos de contar con nuestra Presidenta Michelle Bachelet En este VII Encuentro Nacional de Calidad @mbachelet @SuperDeSalud



Twittea tu respuesta



Gobierno de Chile

PRINCIPALES MOTIVOS DE INCUMPLIMIENTO CARACTERÍSTICA GCL 3.2

Primer elemento medible:

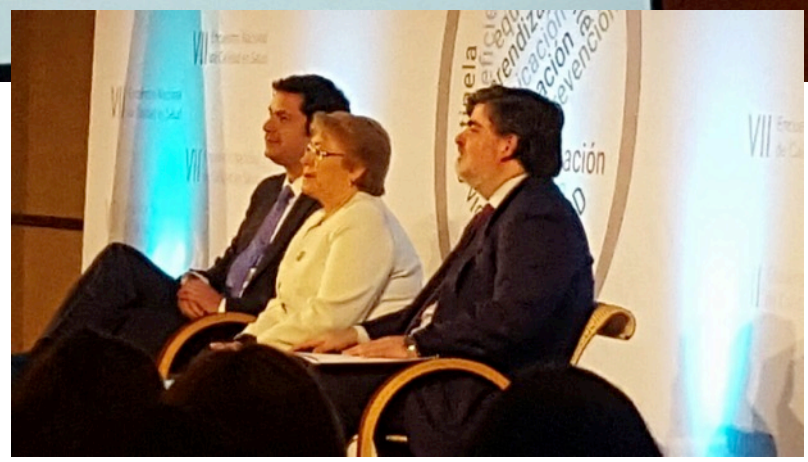
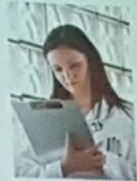
- Prestador no incluye la vigilancia de todas las IAAS obligatorias, de acuerdo a la normativa Minsal.
- Documento no describe el procedimiento de vigilancia activa.

Segundo elemento medible:

- Los umbrales definidos no se encuentran actualizados de acuerdo a los "Indicadores de Referencia Nacional", definidos por el Minsal.
- No se ha definido indicador de todas las IAAS vigiladas por el prestador.

Tercer elemento medible:

- No se cumple la periodicidad de la vigilancia de IAAS en los distintos servicios clínicos, de acuerdo a los definido en el protocolo del prestador.
- Se constata que la vigilancia de IAAS es realizada por las enfermeras de los servicios clínicos, quienes reportan a encargada de IAAS.
- No existen registros de la vigilancia realizada por enfermera de IAAS, de acuerdo a lo definido en el protocolo.
- No existe vigilancia activa del total de los pacientes expuestos en el periodo.
- No se realiza vigilancia en las pacientes no institucionales (pensionado).



Evaluación de la infección hospitalaria en siete países latinoamericanos

Hospital Infection in Seven Countries of Latin America Rev Panam Infectol 2008;10 (4 Supl 1):S112-122

- 67 hospitals
- survey using the Rapid Assessment Tool



OPS/DPC/CD/A/338/05

GUÍA DE EVALUACIÓN RÁPIDA DE PROGRAMAS DE INFECCIONES INTRAHOSPITALARIAS

(Washington, DC, julio de 2005)

practice	%	comments
sterilization	70%	Used only accepted methods
	37%	Standard procedures
Shaving with razors / blades of the surgical site	67%	Routinely removed hair from the surgical site with shaving
Local guidelines por IPC	33%	Have local guidelines
compliance	12%	Evaluated compliance

Conclusions

1. Difficult to identify national strategies
 - No national IPC program, no access to documents in the web
 - Many initiatives are under “patient safety “ policies and actions
 - the surgical check list
2. Surveillance is present in some countries
 - National system, stratified by some risk criteria
 - Rates are high
 - National Surveillance may be under the epidemiology departments, not linked with the intervention program

Conclusions

3. Research from the mid 2000s show

- Major noncompliance of sterilization procedures
- Lack of national guidelines for preventing SSI
 - Skin preparation
 - Antibiotic prophylaxis

overall

- Strategies, when they are present*, are
 - Surveillance
 - With attempts to stratify by risk
 - Often unlinked with the departments in charge of the interventions
 - Prevention
 - Use of the Safe Surgery Checklist
 - Many are recommendations, few are truly regulatory
 - Some local clinical guidelines
 - Assessment of compliance
 - Not too often
 - Not in depth

*few countries have established national strategies and interventions