



Semana de
Congresos y
Jornadas Nacionales

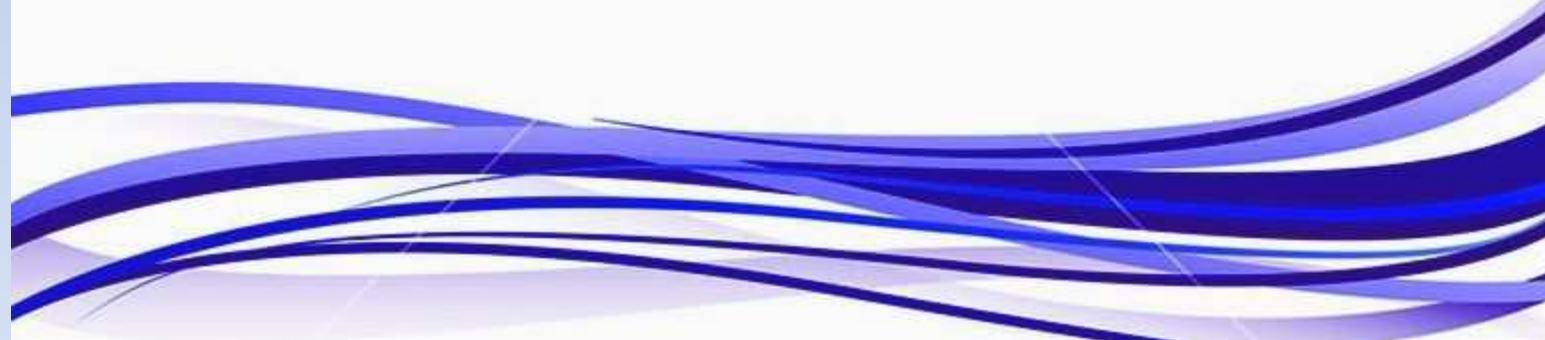
Sociedad Argentina de Pediatría

Dirección de Congresos y Eventos



Por un niño sano
en un mundo mejor

**SEMANA de CONGRESOS
y JORNADAS NACIONALES 2019**



20/05/2019



Tuskegee Study of Untreated Syphilis in the Negro Male

Cura:
30%

Prevalencia
35%



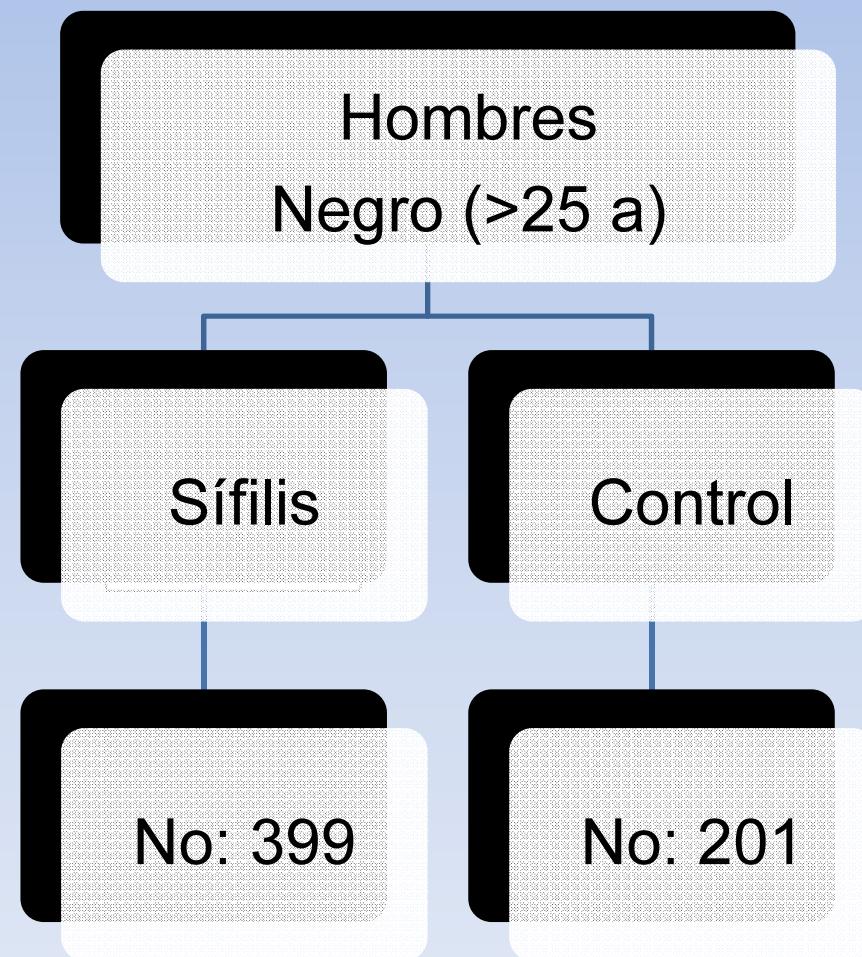
1926

1929

1932

1972

Tuskegee Study of Untreated Syphilis in the Negro Male



Tuskegee Study of Untreated Syphilis in the Negro Male



 *Tuskegee Syphilis Study:
Incentives for Participation*

- ◆ Free physical examination
- ◆ Free rides to and from the clinic
- ◆ Hot meals on examination days
- ◆ Free treatment for minor ailments
- ◆ Payment of burial stipends to survivors



Panorámica Instituto Tuskegee

Tuskegee Study of Untreated Syphilis in the Negro Male



The Tuskegee Study of Untreated Syphilis

The 30th Year of Observation

DONALD H. ROCKWELL, MD; ANNE ROOF YOBS, MD;
AND M. BRITAIN MOORE, JR., MD, ATLANTA

The year 1963 marks the 30th year of the long-term evaluation of the effect of untreated syphilis in the male Negro conducted by the Venereal Disease Branch, Communicable Disease Center, United States Public Health Service. This paper summarizes the information obtained in this study—well known as the “Tuskegee Study”—from earlier publications,¹⁻¹¹ reviews the status of the original study group, and reports the clinical and laboratory findings on those remaining participants who were examined in the 1963 evaluation.

In the late 1920's and early 1930's, surveys^{1,12} in rural areas of the South revealed a high incidence of syphilis among the Negro population, and it was determined that many of those infected remained untreated. Because of the lack of knowledge of the pathogenesis of syphilis, a long-term study of untreated syphilis was desirable in establishing a more knowledgeable syphilis control program.

A prospective study was begun late in 1932 in Macon County, Alabama, a rural area with a static population and a high rate of untreated syphilis. An untreated popula-

Read before the 14th Annual Symposium on Recent Advances in the Study of Venereal Diseases, Houston, Jan 24-25, 1964.

Surgeon, USPHS(R) (Dr. Rockwell), and Chief (Dr. Yobs), Medical Research, Venereal Disease Research Laboratory; Director, Venereal Disease Research Laboratory (Dr. Moore).

From the Venereal Disease Research Laboratory, Communicable Disease Center, Public Health Service, Department of Health, Education and Welfare.

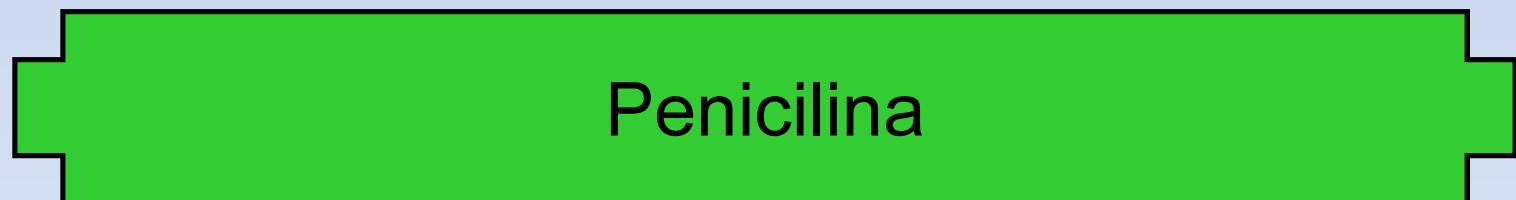
tion such as this offered an unusual opportunity to follow and study the disease over a long period of time. In 1932, a total of 26% of the male population tested, who were 25 years of age or older, were serologically reactive for syphilis by at least two tests, usually on two occasions (Table 1). The original study group was composed of 412 of these men who had received no therapy and who gave historical and laboratory evidence of syphilis which had progressed beyond the infectious stages. A total of 204 men comparable in age and environment and judged by serology, history, and physical examination to be free of syphilis were selected to be the control group.

The first published findings in 1936 by Vonderlehr et al¹ showed that after infection of 15 years' duration only one fourth of the untreated syphilitics were normal and that most of the abnormal findings were in the cardiovascular system. Morbidity was noted to be approximately fourfold greater in the cardiovascular, central nervous and bone and joint systems of untreated syphilitics under age 40 than in the controls of the same age.

In the first complete reevaluation of these patients in 1938-1939, it was found that many had received some therapy, usually only several injections of arsenic or mercury; however, a few, especially in the younger age group, had received more. Fourteen young, untreated syphilitics were added to the study to compensate for this. At this time it was also discovered that 12 of the controls either had had syphilis or had acquired it during

Vol 114, Dec, 1964

Tuskegee Study of Untreated Syphilis in the Negro Male



1932

1947

1972

1974

1997

2004

Tuskegee Study of Untreated Syphilis in the Negro Male



Consentimiento
Informado:
NO

U\$ 10 M



Penicilina

1932

1947

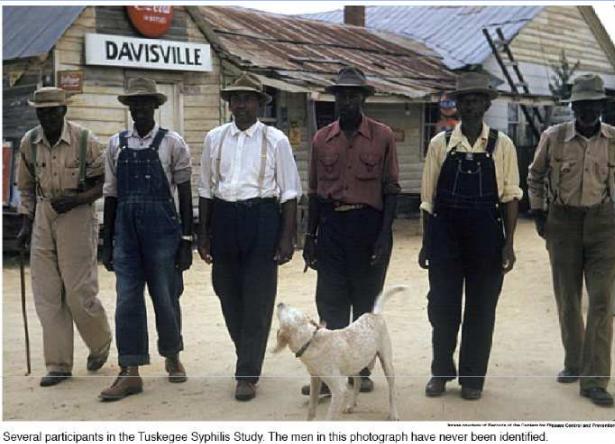


1974

1997

2004

Tuskegee Study of Untreated Syphilis in the Negro Male



**GERM WARFARE
DECLARED
AGAINST BLACKS!**

HUNDREDS OF
BLACK MEN
DISCOVERED
MASSACRED
IN SYPHILIS
"EXPERIMENT".

SEE ARTICLE INSIDE PAGE 2

News of Its About Time BPP

SYPHILIS

The New York Times

Syphilis Victims in U.S. Study Went Untreated for 40 Years

By JEAN HELLER
The Associated Press

WASHINGTON, July 25—For 40 years the United States Public Health Service has conducted a study in which human beings with syphilis, who were induced to serve as guinea pigs, have gone without medical treatment for the disease and a few have died of its late effects, even though an effective therapy was eventually discovered.

The study was conducted to determine from autopsies what the disease does to the human body.

Officials of the health service who initiated the experiment have long since retired. Current officials, who say they

have serious doubts about the morality of the study, also say that it is too late to treat the syphilis in any surviving participants.

Doctors in the service say they are now rendering whatever other medical services they can give to the survivors while the study of the disease's effects continues.

Dr. Merlin K. DuVal, Assistant Secretary of Health, Education and Welfare for Health and Scientific Affairs, expressed shock on learning of the study. He said that he was making an immediate investigation.

The experiment, called the Tuskegee Study, began in 1932 with about 600 black men,

Tuskegee Study of Untreated Syphilis in the Negro Male



Informe Belmont (1979)

- Respeto
- Beneficencia
- Justicia

Tuskegee: La mas infame investigación biomédica de la historia de los EEUU.

U.S.National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research

Tuskegee Study of Untreated Syphilis in the Negro Male



Tuskegee Study of Untreated Syphilis in the Negro Male

2006



Tuskegee Study of Untreated Syphilis in the Negro Male

“The eight men who are survivors of the syphilis study at Tuskegee are a living link to a time not so very long ago that many Americans would prefer not to remember, but we dare not forget.”

“Men who were poor and African American, without resources and with few alternatives, they believed they had found hope when they were offered free medical care by the United States Public Health Service. They were betrayed.”

“Medical people are supposed to help when we need care, but even once a cure was discovered, they were denied help, and they were lied to by their government.”

T pallidum
Escenarios en Pediatría

Ana Arias
Fernando González

Sífilis

- Definición
- Estadios
- Vías de Transmisión
- Clasificación
- Escenarios en Pediatría
- Epidemiología
- Casos clínicos
- Tratamiento



Definicion

- Enfermedad sistémica
- Evolución crónica
- Periodos sintomáticos
- Periodos de latencia
- Distribución universal
- Humano

Estadios

Latente

Secundaria

Primaria

P de Incubación

0 3 d

90 d

120 d

180 d

240 d

Estadios

Terciaria

Latente

Secundaria

Primaria



Sífilis Secundaria

- Mucocutanea
 - Mucosa (oral – genital)
 - Rash maculo-papular (palmas – plantas)
 - Condiloma lata
- Linfadenopatias
- Hepatitis
- GMN
- Esplenomegalia
- SNC (1%)

Vías de Transmisión



Vías de Transmisión





Vías de Transmisión



June 2018

Transmisión



Transmisión



Primaria – Secundaria	Latente Precoz	Latente Tardía
60% - 100%	40%	8%

T pallidum

- Clasificacion



Clasificación

- Adquirida
- Congénita



Clasificación

- Adquirida

Tiempo	ECDC	OMS
Precoz	<1 año	<2 años
Tardía	>1 año	>2 años

Clasificación

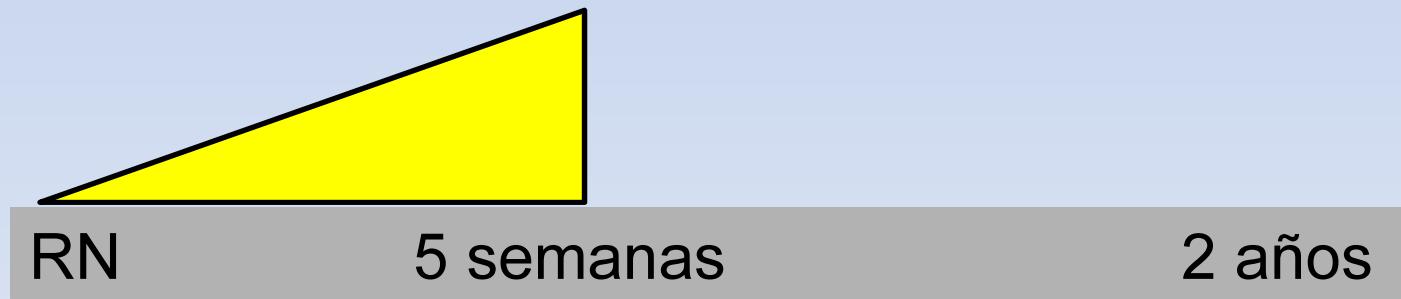
- Adquirida

Tiempo	Estadio
Precoz	Primaria – Secundaria Latente Precoz
Tardía	Latente Tardía Terciaria

Clasificación

- Congénita

	Tiempo
Precoz	<2 años
Tardía	>2 años



Escenarios en Pediatría

- Muerte Fetal – Prematuro – RN Infectado
- Niño Expuesto
- Sífilis Congénita
- Sífilis Adquirida

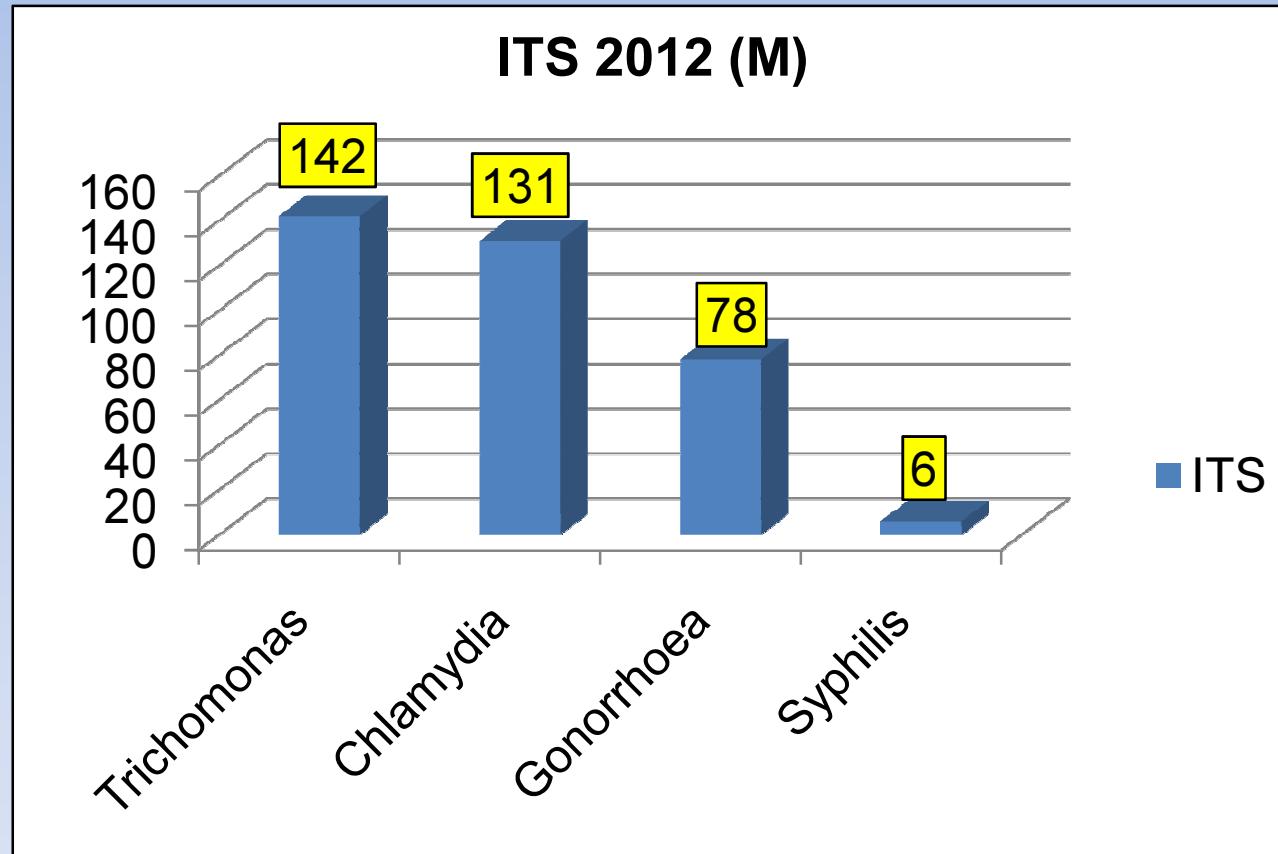
Precoz	Tardío
< 2 años	> 2 años

Abuso Sexual

T pallidum

- Epidemiologia

WHO Guidelines for the Treatment of *T pallidum*



WHO Guidelines for the Treatment of *T pallidum*

2012: ~1 millón embarazadas *T pallidum*

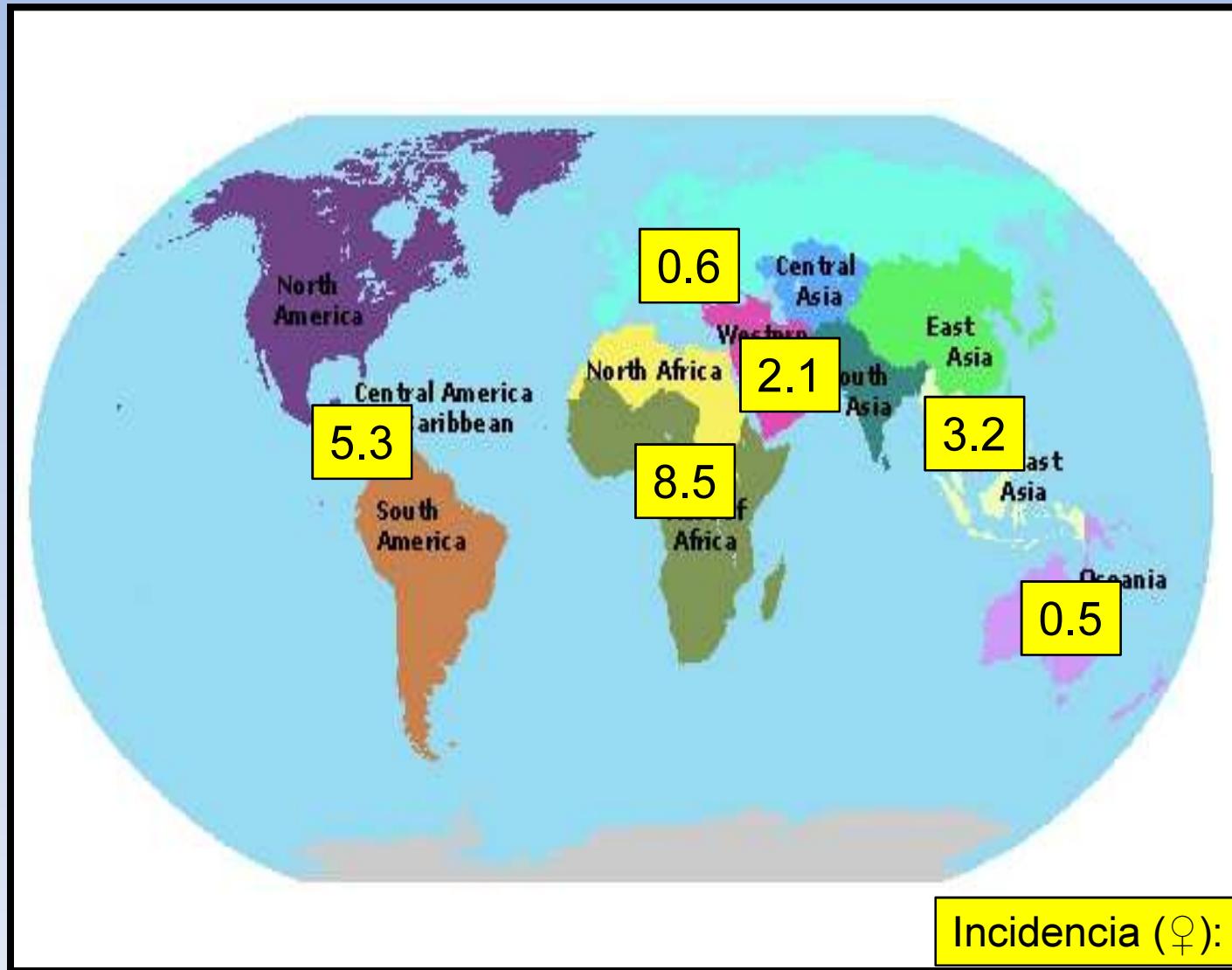
143.000 muertes fetales

62.000 muertes neonatales

44.000 RNPreterminos/Bajo Peso

102.000 Lactantes Infectados

Epidemiología: Sífilis





Global Epidemiology of Sexually Transmitted Diseases

- Sífilis

	1981	1989
Casos/100.000	13.7	184

	1983	1990
Sífilis Congénita	158	7219

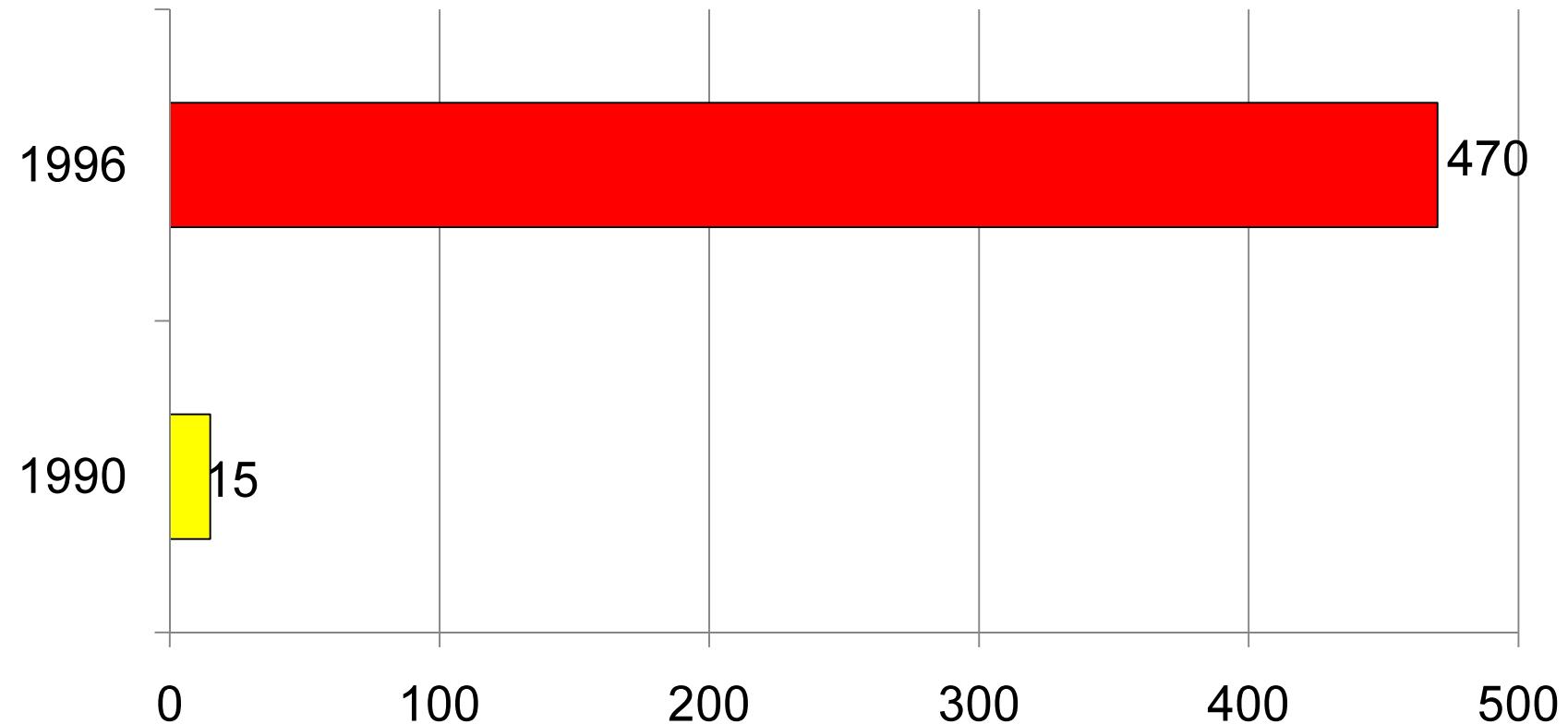


Embarazo

Año	Embarazos (Nro) Moscú	Embarazadas c/Sífilis (Nro)	Sífilis (% Total Embarazos)
1989	238.756	24	0.01
1990	215.108	43	0.02
1991	167.397	33	0.02
1992	148.427	59	0.04
1993	135.053	124	0.10
1994	145.912	300	0.20
1995	137.633	603	0.44
1996	126.039	769	0.60



Sifilis Congenita





Sífilis: Abuso Sexual

Nro ♀	1983	1993	1994	1995
3890	0,7%	6,0%	8,0%	7,0%

T pallidum

- Casos clinicos

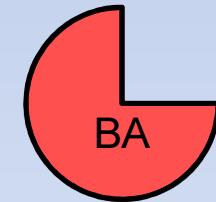


Exposición perinatal

Madre (20 años)

VDRL
8 dils

VDRL
8 dils



FUM

Feb/17

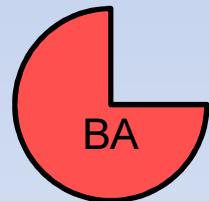
Jun/17

30/Ago

● Penicilina Benzatinica 2.400.000 UI/IM

♀, 2 m

Células	Pr	Glucosa	VDRL
8	44 mg	45 mg	No Reactiva



30/08/17

30/09

24/10

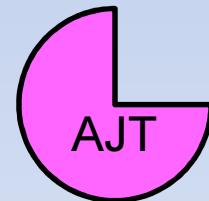
03/11

Ex Físico: OK
Huesos largos: OK
Ojos: OK

Penicilina G Sódica

Madre (23 años)

VDRL
32 dils



18/01

18/05

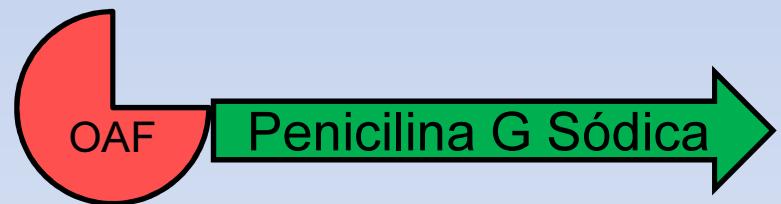
18/07

18/10/17

01/03/18

● Penicilina Benzatinica 2.400.000 UI/IM

♀, 3 m



25/06/16

05/07

30/09

02/12

29/05/17





Sífilis congénita: Definición

432

International Journal of STD & AIDS 27(6)

Table 3. Criteria to be applied (in Table 4) for diagnosing congenital syphilis.

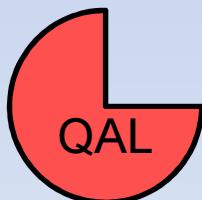
Absolute	Major	Minor	Serology
<i>T. pallidum</i> identified on dark field PCR or histology	Condylomata lata	Fissures of lips	A. Positive RPR/VDRL or TPPA/TPHA
	Osteochondritis	Skin rash	B. Positive IgM
	periostitis	Mucous patches	C. Negative RPR/VDRL or TPPA/TPHA
	Bloody snuffles (haemorrhagic rhinitis)	Hepatomegaly	D. Positive RPR/VDRL not becoming negative within four months
		Splenomegaly	E. Rising RPR/VDRL over three months
		Generalised lymphadenopathy	
		Neurological signs	
		Haemolytic anaemia	
		CSF pleocytosis or raised protein	

RPR: rapid plasma reagent; VDRL: Venereal Diseases Research Laboratory; CSF: cerebrospinal fluid; TPHA: *Treponema pallidum* haemagglutination assay; TPPA: *Treponema pallidum* particle agglutination assay; PCR: polymerase chain reaction.

♀, RN

LCR	
Células	8
Proteínas	122 mg%
VDRL	Reactiva

Periostitis



Penicilina EV

06/04/2007

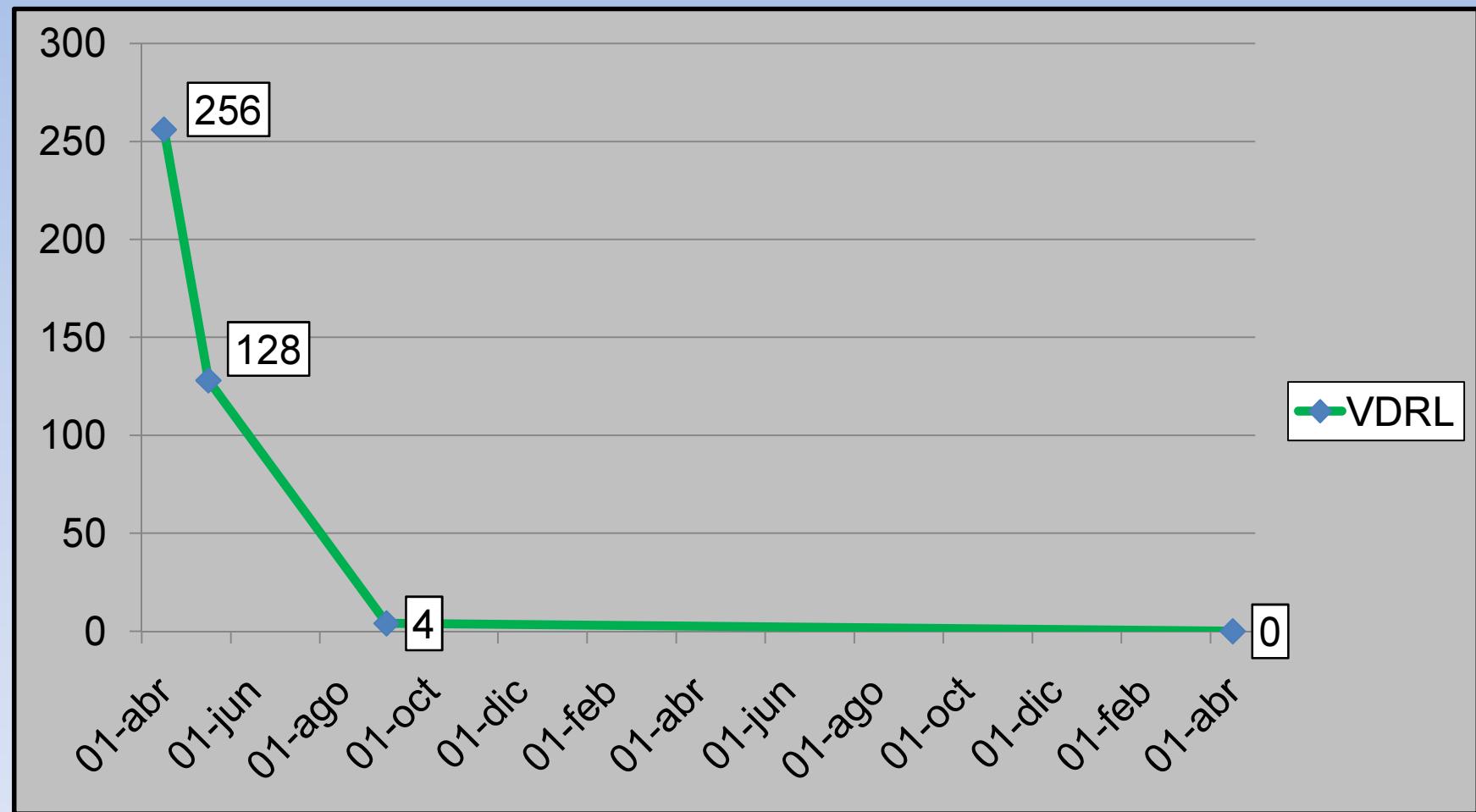
12/04

20/04

26/04

06/04/07

♀, RN



29/12/2017





♂ 15 años

VDRL
32 dils

Local



02/07/2002

10/06/2017

14/07/2017



Penicilina G Benzatinica

♂, 15 años

10/07/2017	03/01/2018	18/05/2018									
32 dils	4 dils	1 dils									
01	02	03	04	05	06	07	08	09	10	11	12

♂ 17 años

VDRL
32 dils

VDRL
64 dils



14/07/2017

18/05/18

20/12/18

10/05/19



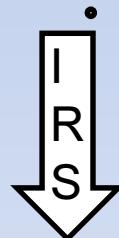
Penicilina G Benzatinica

♀, 15 años

¿Evolución?



VDRL
128 dils



28/02/2002

12/2016

04/2017

05/05/2018



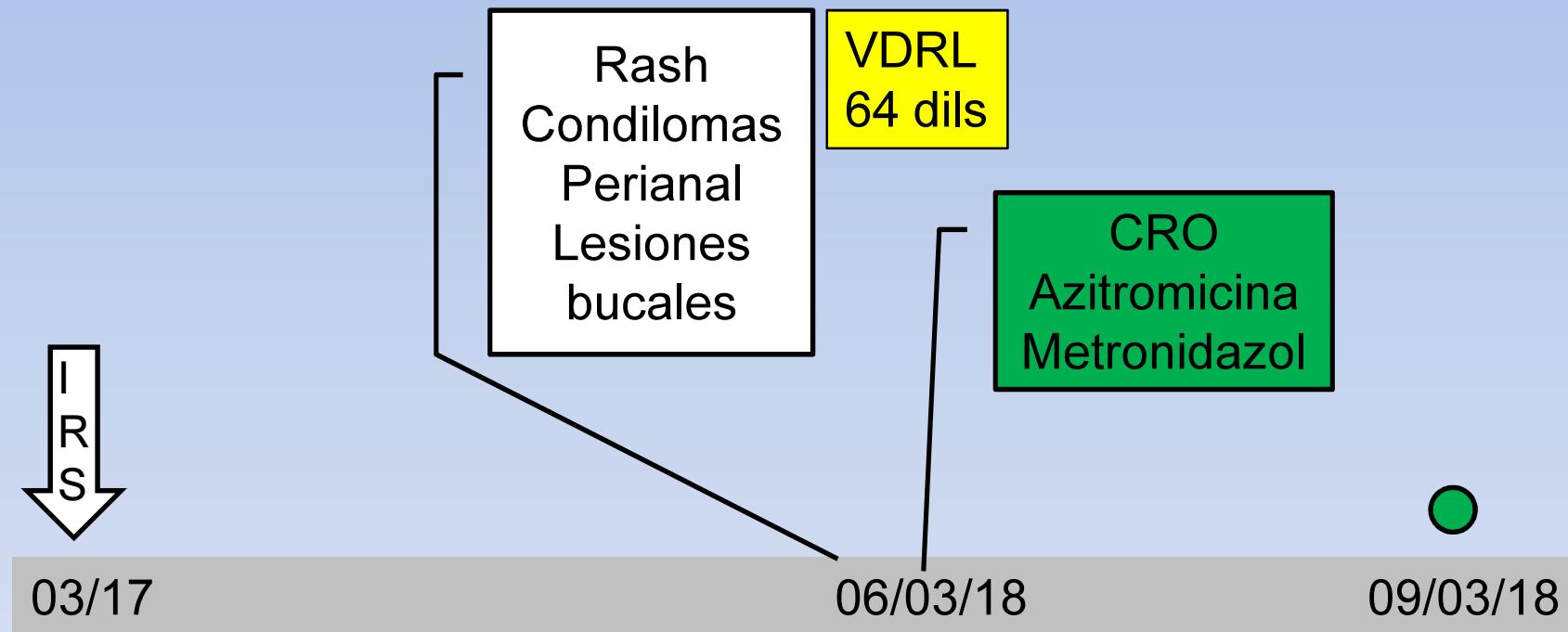
Penicilina G Benzatinica

♀, 15 años

03/05/2017	24/10/2017	05/05/2018
128 dils	4 dils	2 dils

01	02	03	04	05	06	07	08	09	10	11	12
----	----	----	----	----	----	----	----	----	----	----	----

♀, 16 años



● Penicilina G Benzatinica

CABA, 15/05/2018

Lucia,

En nuestros registros del Hospital, encontramos que no concurriste a las citaciones que tenias (TAIS). Intentamos comunicarnos con Vos por teléfono, pero fracasamos. Por tal motivo te estamos enviando esta carta.

La Sífilis es una enfermedad de transmisión sexual, que tiene un tratamiento efectivo (Penicilina), pero requiere un tiempo de seguimiento para comprobar su eficacia. Sin tratamiento puede tener manifestaciones graves que pueden manifestarse entre 5 a 30 años después del cuadro agudo. El tratamiento y seguimiento (aproximadamente 1 año) disminuye significativamente el riesgo de complicaciones.

Lucia, te estamos invitando a comenzar el tratamiento e iniciar el seguimiento. Te pedimos que concurras a PB Verde – Servicio de Control Epidemiológico e Infectología (SCEel) de Lunes a Viernes entre las 10:00 hs a las 14:00 hs. Por favor concurri al hospital con tu carnet de inmunizaciones (vacunas).

Te esperamos





2

Juan
15 años

Madre

Padre

José
11 años

Kelly
7 ½ años

Aylin
2 ½ años

1

2



Penicilina G Benzatinica

VDRL +

VDRL
32 dils

Kelly



Kelly

CRO
Azitromicina
Metronidazol

Clindamicina

VDRL
32 dils

04/07/18

05/07

13/07

20/07

07/08

10/10/18



Penicilina G Benzatinica



● Penicilina G Benzatinica

VDRL +

♂, 18 meses

Queilitis
Alopecia
Condilomas
Perianal
Adenomegalias
inguinales

Penicilina G
Sódica

HPJPG

Htal Clínicas

06/05/2016

06/11/2017

06/11/2017

HOSPITAL DE CLÍNICAS “JOSÉ DE SAN MARTÍN” SERVICIO DE PEDIATRÍA

Ciudad Autónoma de Buenos Aires, 08 de Noviembre de 2017;

Envío informe al Consejo de niños, niñas y adolescentes de la Ciudad Autónoma de Buenos Aires. Paciente: [REDACTED]

Fecha de ingreso:

06/11/2017

Resumen: Paciente ingresó derivado de Htal Garrahan con diagnóstico de sífilis (enfermedad de transmisión sexual), la misma sólo pudo haber sido contraída durante la gestación o en contexto de sospecha de abuso sexual. En ésta institución fue evaluada por las siguientes especialidades: Psicopatología infantil, Infectología, Dermatología, Clínica y Servicio social. De acuerdo a los informes realizados en conjunto [REDACTED] se logra determinar la imposibilidad de contagio

[REDACTED] de la enfermedad durante la gestación del niño. Por tanto se solicita actuación del Consejo de niños, niñas y adolescentes ante el diagnóstico de [REDACTED] sospecha de abuso sexual infantil.



Official journal
of the Spanish Society
of Chemotherapy

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Revisión

Cristina Ros-Vivancos¹
María González-Hernández¹
Juan Francisco Navarro-Gracia¹
José Sánchez-Payá²
Antonio González-Torga²
Joaquín Portilla-Sogorb³

Evolución del tratamiento de la sífilis a lo largo de la historia

¹Servicio de Medicina Preventiva y Unidad Docente de Medicina Preventiva y Salud Pública del Hospital General Universitario de Elche.

²Servicio de Medicina Preventiva y Unidad Docente de Medicina Preventiva y Salud Pública del Hospital General Universitario de Alicante.

³Unidad de Enfermedades Infecciosas, Hospital General Universitario de Alicante.



Tratamiento: Historia

- Regímenes alimenticios
- Agentes minerales
- Sangrías
- Purgantes
- Evacuantes
- Vegetales



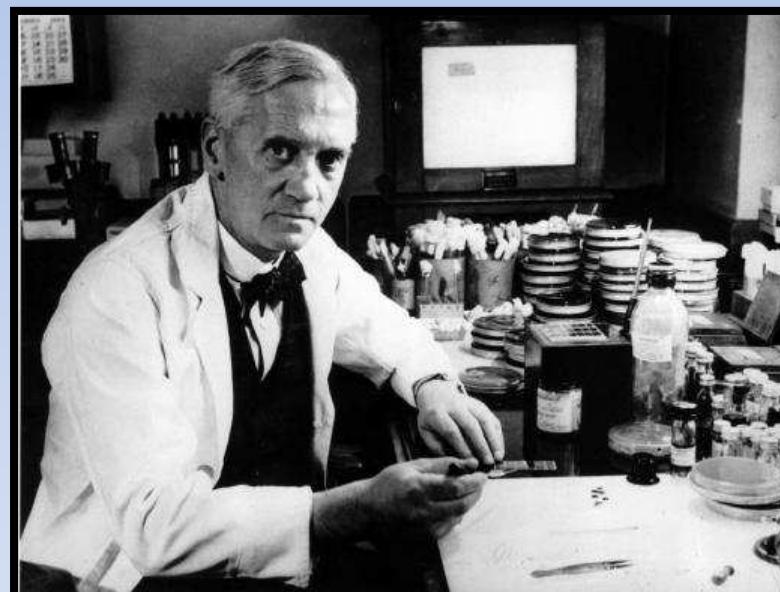
Tratamiento: Historia

- Mercurio (Siglo XIX)
- Guayaco (Siglo XVI)
- Ioduros (Siglo XIX)
- Arsenicales (Siglo XX)
- Bismuto (Siglo XX)

Sífilis: Premio Nobel



Figura 3 | Medalla realizada en 1973 por Abram Beiskie para la Serie "Great Men of Medicine". Anverso: Paul Ehrlich, bacteriólogo alemán, descubridor del Salvarsán y premio Nobel de Medicina en 1908. Reverso: el Dr. Ehrlich con leyenda alusiva a su "bala mágica", "the magic bullet".





Tratamiento: Historia

Penicilina

1943

Doxiciclina

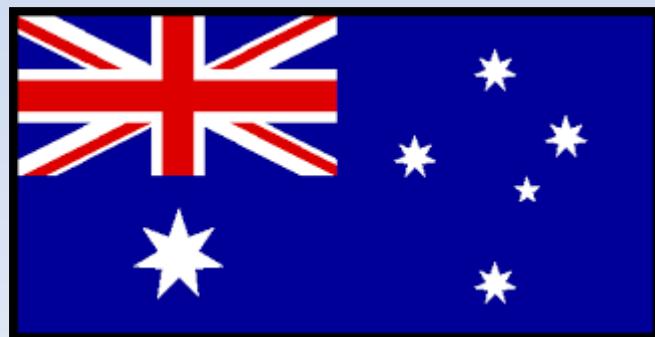
1963

Ceftriaxone

1981

Tratamiento

- Penicilina
- Otros



Tratamiento

- However, well controlled clinical data are lacking on the optimal dose, duration of treatment and long term efficacy of all antimicrobials, even for penicillin.
- Treatment recommendations are based mainly on laboratory considerations, biological plausibility, practical considerations, expert opinions, case studies and past clinical experience.

WHO Guidelines for the Treatment of *T pallidum*

Table 1. Summary of recommendations for treatment of *Treponema pallidum* and congenital syphilis

Recommendations	Strength of recommendation and quality of evidence
Early syphilis (primary, secondary and early latent syphilis of not more than two years' duration)	
Adults and adolescents	
Recommendation 1 Penicilina G Benzatinica 2.4 M/IM (1)	Recomendación: Fuerte Nivel de Evidencia: Bajo
Recommendation 2 In adults and adolescents with early syphilis, the WHO STI guideline suggests using benzathine penicillin G 2.4 million units once intramuscularly over procaine penicillin G 1.2 million units 10–14 days intramuscularly.	Conditional recommendation, very low quality evidence
Doxicicliina 100 mg c/12 hs VO, 14 días Ceftriaxone 1 gr/IM (1) x 10 a 14 días Azitromicina 2 gr/VO (1)	Recomendación: Condicional Nivel de Evidencia: Muy Bajo
oral administration. Doxycycline should not be used in pregnant women (see recommendations 3 and 4 for pregnant women). Azithromycin is an option in special circumstances only when local susceptibility to azithromycin is likely. If the stage of syphilis is unknown, follow recommendations for people with late syphilis.	

WHO Guidelines for the Treatment of *T pallidum*

	<p>Recommendation 3 In women with early syphilis, the WHO STI guideline recommends benzathine penicillin G 2.4 million units once intramuscularly over no treatment.</p>	<p><i>Strong recommendation, very low quality evidence</i></p>
<p>Recommendation 4</p> <p>Penicilina G Benzatinica 2.4 M/IM (1)</p>	<p>When benzathine or procaine penicillin cannot be used (e.g. due to penicillin allergy where penicillin desensitization is not possible) or are not available (e.g. due to stock-outs), the WHO STI guideline suggests using, with caution, erythromycin 500 mg orally four times daily for 14 days or ceftriaxone 1 g intramuscularly once daily for 10–14 days or azithromycin 2 g once orally.</p>	<p>Recomendación: Fuerte Nivel de Evidencia: Muy Bajo</p>
<p>Eritromicina 500 mg c/6 hs VO, 14 días Ceftriaxone 1 gr/IM (1) x 10 a 14 días Azitromicina 2 gr/VO (1)</p> <p>stock-outs of benzathine penicillin for use in antenatal care should be avoided.</p>	<p>When, is not delivery (see alternative option use syphilis newborn,</p>	<p>Macrolidos: No cruzan placenta</p>

WHO Guidelines for the Treatment of *T pallidum*

Late syphilis (infection of more than two years' duration without evidence of treponemal infection)	Intervalo: <14 días
Adults and adolescents	
Recommendation 5	Recomendación: Fuerte Nivel de Evidencia: Bajo
Penicilina G Benzatinica 2.4 M/IM (3) <small>weekly for three consecutive weeks over no treatment.</small>	
Remarks: The interval between consecutive doses of benzathine penicillin should not exceed 14 days.	<i>Conditional recommendation, very low quality evidence</i>
Recommendation 6	
In adults and adolescents with late syphilis or unknown stage of syphilis, the WHO STI guideline suggests benzathine penicillin G 2.4 million units intramuscularly once weekly for three consecutive weeks over procaine penicillin 1.2 million units once daily for 20 days.	
Doxicicliina 100 mg c/12 hs VO, 30 días <small>(stock-outs), the WHO STI guideline suggests using doxycycline 100 mg twice orally for 30 days.</small>	Recomendación: Condicional Nivel de Evidencia: Muy Bajo
Remarks: Doxycycline should not be used in pregnant women (see recommendations 7 and 8 for pregnant women).	

WHO Guidelines for the Treatment of *T pallidum*



7

In pregnant women with late syphilis or unknown stage of syphilis, the WHO STI guideline suggests benzathine penicillin G 2.4 million units intramuscularly once a week for three consecutive weeks over no treatment.

Penicilina G Benzatinica 2.4 M/IM (3)

Recommendation 8

In pregnant women with late syphilis or unknown stage of syphilis, the WHO STI guideline suggests benzathine penicillin G 2.4 million units weekly for three consecutive weeks over no treatment. It is recommended to use benzathine penicillin G intramuscularly once a week for three consecutive weeks over no treatment.

**Macrolidos:
No cruzan placenta**

When benzathine or procaine penicillin cannot be used (e.g. due to penicillin allergy), erythromycin can be used.

Eritromicina 500 mg c/6 hs VO, 30 días

500 mg orally four times daily for 30 days.

Remarks: Although erythromycin treats the pregnant women, it does not cross the placental barrier completely and as a result the fetus is not treated. It is therefore necessary to treat the newborn infant soon after delivery (see recommendations 9 and 10 for congenital syphilis). Doxycycline should not be used in pregnant women. Because syphilis during pregnancy can lead to severe adverse complications to the fetus or newborn, stock-outs of benzathine penicillin for use in antenatal care should be avoided.

**Intervalo:
<14 días**

**Recomendación: Fuerte
Nivel de Evidencia: Muy Bajo**

*Conditional
recommendation, very
low quality evidence*

**Recomendación: Condicional
Nivel de Evidencia: Muy Bajo**

WHO Guidelines for the Treatment of *T pallidum*

Embarazadas (1000)	Sífilis congénita (Riesgo)
No tratadas	160
Tratadas	4.8

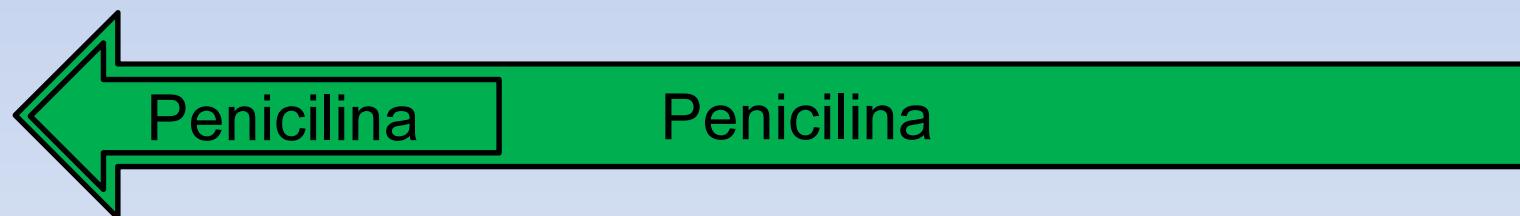
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12 s

24 s

38 s

WHO Guidelines for the Treatment of *T pallidum*



0

12 s

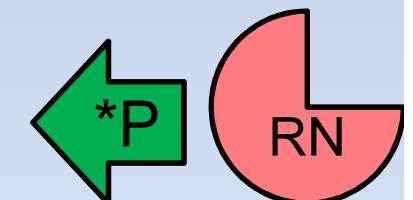
24 s

38 s

WHO Guidelines for the Treatment of *T pallidum*



No Penicilina



0

12 s

24 s

36 s

38 – 42 s

*P: Penicilina

January 2016

WHO Guidelines for the Treatment of *T pallidum*

	<p>med congenital syphilis or infants who are clinically normal and whose mothers had untreated syphilis, inadequately treated syphilis</p>	<p><i>Conditional recommendation, very low quality evidence</i></p>
<p>Penicilina G Sódica 100.000 – 150.000 U/kg/día EV 10 a 15 días</p>	<p>Recomendación: Condicional Nivel de Evidencia: Muy Bajo</p>	
<ul style="list-style-type: none"> • Aqueous benzyl penicillin 100 000–150 000 U/kg/day intravenously for 10–15 days • Procaine penicillin 50 000 U/kg/day single dose intramuscularly for 10–15 days <p><i>Remarks:</i> If an experienced venipuncturist is available, aqueous benzyl penicillin may be preferred instead of intramuscular injections of procaine penicillin.</p> <p>Recommendation 10</p> <p>In infants who are clinically normal and whose mothers had syphilis that was adequately treated with no signs of reinfection, the WHO STI guideline suggests close monitoring of the infants.</p> <p><i>Remarks:</i> The risk of transmission of syphilis to the fetus depends on a number of factors, including maternal titres from non-treponemal tests (e.g. RPR), timing of maternal treatment and stage of maternal infection, and therefore this recommendation is conditional. If treatment is provided, benzathine penicillin G 50 000 U/kg/day single dose intramuscularly is an option.</p>	<p><i>Conditional recommendation, very low quality evidence</i></p>	

Tratamiento

- Penicilina G Benzatinica

Penicilina G Benzatínica

- Farmacocinética

Absorción IM (%) Lenta	Unión Pr 60 %	Vida $\frac{1}{2}$ Prolongada	Excreción Renal
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Penicilina G Benzatinica

- Insuficiencia renal

Clerence creatinina	50 – 80 mL/min	10 – 50 mL/min	<10 mL/min
Ajuste Dosis	100%	75%	20% - 50%
Dosis	2.4 M	1.8 M	1.2 M

Penicilina G Benzatinica

FDA



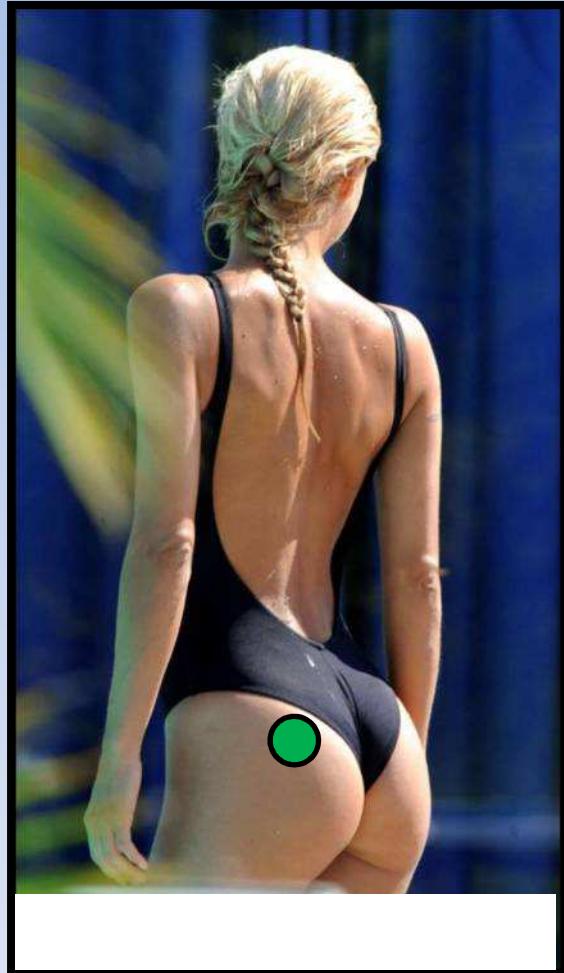
B

Segura

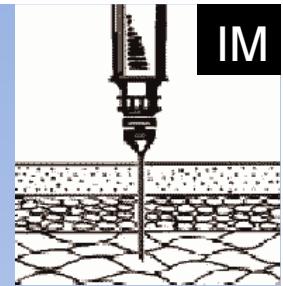
MICROMEDEX

IM

Penicilina G Benzatinica



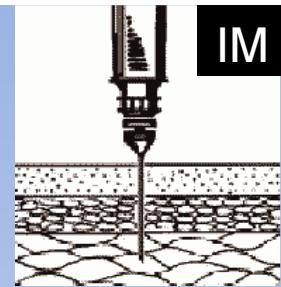
MICROMEDEX



Penicilina G Benzatínica: Efectos Adversos

- Comunes

Piel	Gastro intestinal	Hematológico	Inmunológicos	Otros
Rash Urticaria	Nausea Vómitos	↑Eosinofilos	Jarisch Herxheimer	Fatiga Fiebre



Penicilina G Benzatínica: Efectos Adversos

- Graves

Gastro intestinal	Inmunológicos	Neurológico	Renal	Respiratorio
Colitis <i>C difficile</i>	Anafilaxia	Agitación Alucinaciones Convulsiones	Fallo renal	Edema laringe

Interacciones

16/5/2018

Drug summary - MICROMEDEX



Contraindicado



Importante

La interacción puede causar la muerte y/o requerir intervención médica para minimizar o evitar efectos adversos graves.



Moderada

La interacción puede agravar la condición del paciente y/o requerir una alteración de la terapia.



Secundario

La interacción puede tener efectos clínicos limitados. Los síntomas pueden incluir un aumento de la frecuencia o la gravedad de los efectos adversos pero, en general, no requerirán una alteración importante de la terapia.

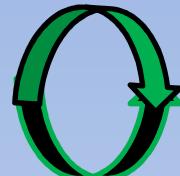


Desconocida

Desconocida.

MICROMEDEX

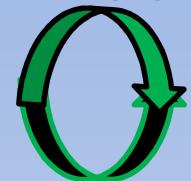
Penicilina G Benzatínica: Interacciones



- Drogas

Droga	Tetraciclinas	Aminoglucósidos	Metotrexate	Warfarina
Efecto	↓Antibacteriano	↓Eficacia (aminoglucosido)	↑ Toxicidad	↑Sangrado

Penicilina G Benzatinica: Interacciones



- Drogas



MICROMEDEX

Penicilina G Sódica

- Sífilis congénita: Recién nacidos

Dosis (UI/kg)	Intervalo (hs)		Duración (días)
	<7 días	>7 días	
50.000	12	8	10

Penicilina G Sódica

- Sífilis congénita: >30 días

Dosis (UI/kg)	Intervalo (hs)	Duración (días)
50.000	4 – 6	10

Penicilina G Sodica

- Insuficiencia renal

Clerence creatinina	<10 mL/min	>10 mL/min
Dosis carga	100%	100%
Dosis subsiguientes	50%	50%
Intervalo (hs)	4 – 5	8 – 10

Penicilina G Sódica: Efectos Adversos

- Graves

Cardiovasculares	Endocrino Metabólico	Inmunológico	Neurológico
Insuficiencia cardiaca congestiva	Disbalance electrolítico	Anafilaxia Reacción hipersensibilidad	Coma convulsiones

Penicilina G Sodica

FDA



B

Segura

MICROMEDEX

Tratamiento

Systematic review

Penicillin is the drug of choice to treat all stages of syphilis despite a paucity of clinical trials data for the treatment of some stages, pregnant women and HIV-infected people

10.1136/ebmed-2014-110151

Susan Tuddenham, Khalil G Ghanem

Johns Hopkins University School of Medicine, Baltimore, Maryland, USA

Correspondence to: Dr Khalil G Ghanem, Johns Hopkins University School of Medicine, JHUBMC, 5200 Eastern Ave, MFL Center Tower Suite 378, Baltimore, MD 21224, USA; kghanem@jhu.edu

Tratamiento

Nro 102

- Estudios Observacionales – ECA
- Medline
- Periodo: 1965 -2014

A	B	C
ECA	ECA Observacionales	Opinión de expertos

Tratamiento

Estadio	Sífilis Temprana	Sífilis Latente Tardía Terciaria	Neurosifilis
Régimen	*PGB 2.4 MU(1)	PGB 2.4 MU(3)	●PGA 18 -24 MU (14 días)
Grado	A	C	C

*PGB : Penicilina G Benzatínica ●PGA: Penicilina G Acuosa

Tratamiento

Estadio	Sífilis Temprana	Sífilis Latente Tardía
Régimen	Doxiciclina Tetraciclina Ceftriaxone	Doxiciclina Tetraciclina -
Grado	B	C

Tratamiento

- CDC – Reino Unido - Europeas

Razonables

Tratamiento: Contactos Sexuales

- Cualquier relación sexual c/infectado



0

años

0

2 años

0

Penicilina G
Benzatinica

90 días

Reacciones al tratamiento

- Patients should be warned of possible reactions to treatment.
- Facilities for resuscitation should be available in the treatment area

Penicilina: Alergia



Clinical Pharmacology Bulletin

Prevalencia esperada	Reacción Alérgica
>1%	Rash maculopapular
0.1 – 1%	Urticaria – Angioedema Eosinofilia – Fiebre
0.01 – 0.1%	Shock Anafiláctico – Broncoespasmo – Disnea Severa Trombocitopenia – Vasculitis – Enfermedad del Suero
<0.01%	Anemia Hemolítica – Nefritis Intersticial Eritema Multiforme – Eritema Nodoso Síndrome Stevens – Johnson – Necrolisis Epidérmica Toxica

Reacción Jarisch - Herxheimer

- Aguda (~24 hs): Fiebre, cefalea, mialgias, escalofríos y rigidez
- Sífilis temprana
- Precaución: SNC – Ocular – Embarazo
- Estrategia:

Admisión

Prednisolona: 20 – 60 mg/día VO, x 3 días

Antipiréticos

Review Article

The Jarisch–Herxheimer Reaction After Antibiotic Treatment of Spirochetal Infections: A Review of Recent Cases and Our Understanding of Pathogenesis

Thomas Butler^{1*}

¹*Department of Microbiology and Immunology, Ross University School of Medicine, Portsmouth, Dominica, West Indies*

- Europa (1895 – 1902): Sífilis (Mercuriales)
- 1940s: Penicilina (1ra – 2ra)
- Espirochetas:
Penicilina ,tetraciclinas ,eritromicina
Ciprofloxacina , levofloxacina, claritromicina ,
azitromicina

Review Article

The Jarisch–Herxheimer Reaction After Antibiotic Treatment of Spirochetal Infections: A Review of Recent Cases and Our Understanding of Pathogenesis

Thomas Butler^{1*}

¹*Department of Microbiology and Immunology, Ross University School of Medicine, Portsmouth, Dominica, West Indies*

- Revisión: 1990 – 2015

Sífilis	Lyme	Leptospirosis
1-100%	7-30%	9%

Review Article

The Jarisch–Herxheimer Reaction After Antibiotic Treatment of Spirochetal Infections: A Review of Recent Cases and Our Understanding of Pathogenesis

Thomas Butler^{1*}

¹*Department of Microbiology and Immunology, Ross University School of Medicine, Portsmouth, Dominica, West Indies*

- **Manifestaciones clínicas**

Fiebre, escalofríos, intensificación rash

Meningitis, distress, disfunción hepática y renal, injuria miocárdica

SNC: convulsiones

Contracciones uterinas prematuras

Penicilina

Shock anafiláctico

- Inmediata (~20 minutos):
- Estrategia:
 1. Adrenalina: 1:1000 – 0.5 ml/IM
 2. Antihistamínico IM/EV
 3. Hidrocortisona IM/EV 100 mg

Tratamiento: Consideraciones Generales

- Eritromicina: [↓] SNC y Placenta
- Doxiciclina: 100 mg q/12 x 14 días
- Azitromicina: 2 gr/dosis unica
- Ceftriaxone



Contents lists available at ScienceDirect

International Journal of Antimicrobial Agents

journal homepage: <http://www.elsevier.com/locate/ijantimicag>



Review

Meta-analysis of ceftriaxone compared with penicillin for the treatment of syphilis



Zhen Liang^{a,1}, Ya-Ping Chen^{b,1}, Chun-Sheng Yang^{c,1}, Wen Guo^d, Xiao-Xiao Jiang^e,
Xi-Feng Xu^f, Shou-Xin Feng^f, Yan-Qun Liu^{g,*}, Guan Jiang^{g,h,*}

^a Department of Obstetrics and Gynecology, Xuzhou Central Hospital, Xuzhou, Jiangsu 221009, China

^b Department of Oncology, Yancheng City No. 1 People's Hospital, Yancheng 224000, China

^c Department of Dermatology, Affiliated Huai'an Hospital of Xuzhou Medical College, Huai'an 223002, China

^d Department of Radiotherapy, Affiliated Hospital of Xuzhou Medical College, Xuzhou, Jiangsu 221002, China

^e Department of Urologic Surgery, Yancheng City No. 1 People's Hospital, Yancheng 224000, China

^f Department of Stereotactic Radiosurgery, Affiliated Hospital of Xuzhou Medical College, Xuzhou 221002, China

^g Department of Dermatology, Affiliated Hospital of Xuzhou Medical College, Xuzhou 221002, China

^h Center for Disease Control and Prevention of Xuzhou City, Xuzhou 221006, Jiangsu Province, China

Meta-analysis of ceftriaxone compared with penicillin for the treatment of syphilis

- Material y métodos

ECA

Enero 1988 – Enero 2014

Cochrane Library, Medline, EBSCO, EMBASE,
Ovid

Meta-analysis of ceftriaxone compared with penicillin for the treatment of syphilis

Table 1

Summary of the characteristics of the seven trials included in the meta-analysis.

Reference	Stage of syphilis	Intervention	Median (IQR) patient age (years)	No. of patients	Dosage and duration
Marra et al. (2000) [14]	Secondary	Ceftriaxone Penicillin	34 (22–59) 16	14	Ceftriaxone 2.0 g i.v. once daily for 10 days Penicillin 4 MU i.v. q4h for 10 days
Schöfer et al. (1989) [19]	Primary and secondary	Ceftriaxone Penicillin	N/R 14	14	Ceftriaxone 4 × 1 g i.m. every 2 days Clemizole penicillin G 1 MIU i.m. daily for 15 days
Moorthy et al. (1987) [15]	Primary	Ceftriaxone Penicillin	28 (18–44) 5	13	Ceftriaxone 3 g i.m., or 2 g i.m. daily for 2 days, or 2 g i.m. daily for 5 days Benzathine penicillin 2.4×10^6 U i.m.
Smith et al. (2004) [17]	Latent	Ceftriaxone Penicillin	34.5 (23–56) 35.4 (25–61)	14 10	Ceftriaxone 1 g i.m. for 15 days Procaine penicillin 2.4 MU i.m. for 15 days
Spornraft-Ragaller et al. (2011) [18]	Primary, secondary or latent	Ceftriaxone	40.5 (29–47)	12	Eight patients received 2 g once daily for 10–14 days; two patients received 2 g for 21 days; and two patients received 1 g for 14 days
		Penicillin	42 (33–57)	12	Eight patients received benzathine penicillin 2.4 MU i.m. in weekly intervals for 3 weeks ($n=7$) or 2 weeks ($n=1$); two patients received clemizole penicillin G 1 MU i.m. daily for 14 days or 21 days; and two patients received penicillin G 3×10 MU i.v. daily for 21 days
Psomas et al. (2012) [16]	Primary, secondary or early latent	Ceftriaxone Penicillin	42 (23–49) 52	49 52	Ceftriaxone 1 g or 2 g daily for 14–21 days Benzathine benzylpenicillin 1, 2 or 3 i.m. injections in a single daily dose of 2.4 MIU at 1-week intervals
		Ceftriaxone Penicillin	34.9 13	43	Ceftriaxone 1 g (or rarely 2 g) i.v. for 10–14 consecutive days or 1 g i.m. on weekdays until 10–14 doses administered Benzathine penicillin three doses of 2.4 MU at weekly intervals
Dowell et al. (1992) [20]	Secondary				

Meta-analysis of ceftriaxone compared with penicillin for the treatment of syphilis

- Resultados:

Respuesta	Ceftriaxona	Penicilina
3 meses	33/38	21/27
6 meses	44/61	14/19
12 meses	73/88	63/89
Recaída	17/91	12/59
Fallo	3/57	2/23

Meta-analysis of ceftriaxone compared with penicillin for the treatment of syphilis

- Conclusión:
Eficacia comparable (ceftriaxona y penicilina)
para el tratamiento de la sífilis



VDRL
No R

11/02

07/05

10/05

VDRL
4 dils

15/05

19/05

VDRL
64 dils



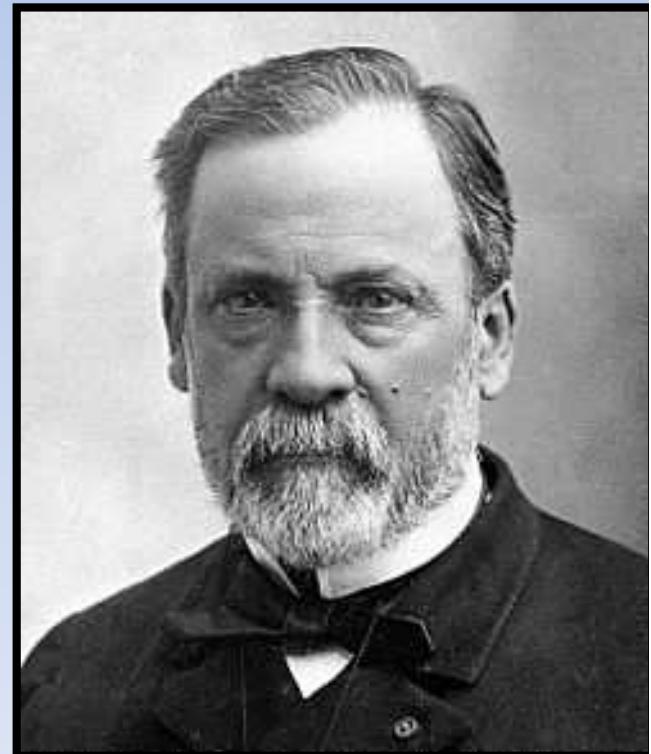
Penicilina G Benzatinica



Conclusiones

- Penicilina droga de elección
- Equipos de trabajo: mandatorio

*“En el campo de la observación,
el cambio solo favorece a una mente
preparada”.*



Louis Pasteur

Muchas Gracias

