III Reunión Nacional de Actualización en Enfermedades Autoinmunes Sistémicas para Residentes

Profilaxis de la tuberculosis en el paciente inmunodeprimido: ¿cuándo?

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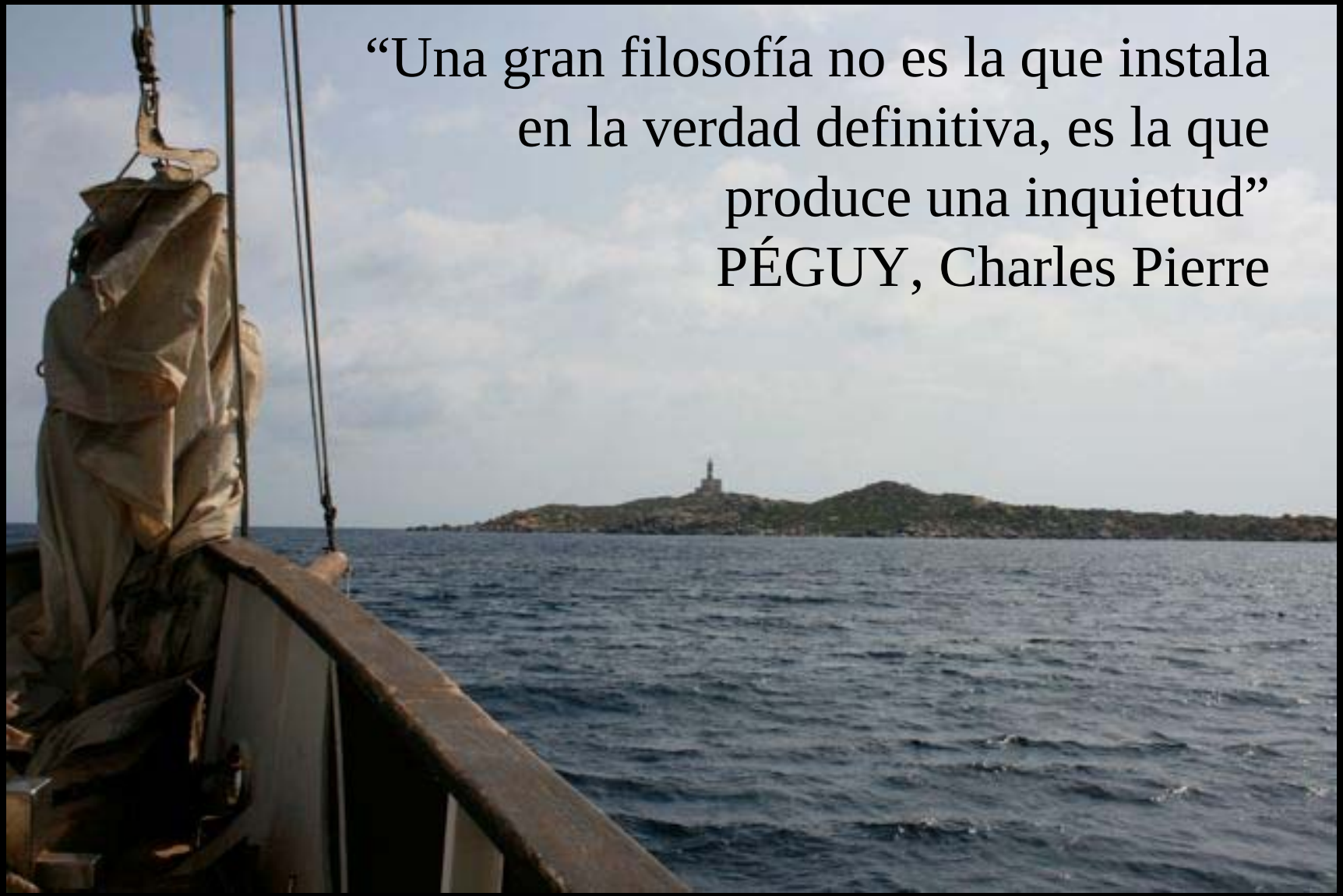

“Una gran filosofía no es la que instala
en la verdad definitiva, es la que
produce una inquietud”
PÉGUY, Charles Pierre

Clinical Practice Guidelines

American Thoracic Society

Targeted Tuberculin Testing and Treatment of Latent Tuberculosis Infection

This Official Statement of the American Thoracic Society was adopted by the ATS Board of Directors, July 1999. This is a Joint Statement of the American Thoracic Society (ATS) and the Centers for Disease Control and Prevention (CDC). This Statement was endorsed by the Council of the Infectious Diseases Society of America (IDSA), September 1999, and the sections of this Statement as it relates to infants and children were endorsed by the American Academy of Pediatrics (AAP), August 1999.

Although the terms "preventive therapy" and "chemoprophylaxis" have been used for decades, they have also been confusing. "Preventive therapy" has referred to the use of a simple regimen (usually isoniazid) to prevent the development of active TB disease in persons known or likely to be infected with *M. tuberculosis*, but it rarely results in true primary prevention (i.e., prevention of infection in persons exposed to persons with infectious TB). To describe the intended intervention more accurately, this report uses the terminology "treatment of LTBI" rather than "preventive therapy" or "chemoprophylaxis." This change in nomenclature will hopefully promote greater understanding of the concept for both patients and providers, resulting in more widespread implementation of this essential TB control strategy.

TABLE 7

CRITERIA FOR TUBERCULIN POSITIVITY, BY RISK GROUP

Reaction ≥ 5 mm of Induration	Reaction ≥ 10 mm of Induration
Human immunodeficiency virus (HIV)-positive persons	Recent immigrants (i.e., within the last 5 yr) from high-prevalence countries
Recent contacts of tuberculosis (TB) case patients	Injection drug users
Fibrotic changes on chest radiograph consistent with prior TB	Residents and employees[†] of the following high-risk congregate settings: prisons and jails, nursing homes and other long-term facilities for the elderly, hospitals and other health care facilities, residential facilities for patients with acquired immunodeficiency syndrome (AIDS), and homeless shelters
Patients with organ transplants and other immunosuppressed patients (receiving the equivalent of ≥ 15 mg/d of prednisone for 1 mo or more)*	Mycobacteriology laboratory personnel
	Persons with the following clinical conditions that place them at high risk: silicosis, diabetes mellitus, chronic renal failure, some hematologic disorders (e.g., leukemias and lymphomas), other specific malignancies (e.g., carcinoma of the head or neck and lung), weight loss of ≥ 10% of ideal body weight, gastrectomy, and jejunoileal bypass
	Children younger than 4 yr of age or infants, children, and adolescents exposed to adults at high-risk

* Risk of TB in patients treated with corticosteroids increases with higher dose and longer duration.

† For persons who have other risk at low risk and are tested at the start of employment, a reaction of ≥ 15 mm induration is considered positive.

Source: Adapted from Centers for Disease Control and Prevention. Screening for tuberculosis and tuberculosis infection in high-risk populations. Council for the Elimination of Tuberculosis. M.M.W.R. 1995;44(No. RR-11):19–34.

RECOMMENDED DRUG REGIMENS FOR TREATMENT OF LATENT TUBERCULOSIS [illegible] IN [illegible]ULTS

Drug	Interval and Duration	Comments	Rating* (Evidence)† HIV⁻	HIV⁺
Isoniazid	Daily for 9 mo‡,§	In human immunodeficiency viru[illegible]ifecte[illegible]tients, [illegible]azid may be administered concurrently with nucleoside [illegible]verse transcripta[illegible]ors (NRTIs), protease inhibitors, or non-nucleoside reverse transc[illegible]s (N[illegible]RTIs)	A (II)	A (II)
	Twice weekly for 9 mo‡,§	Directly observed therapy (DOT) must be use[illegible]with twice-weekly dosing	B (II)	B (II)
Isoniazid	Daily for 6 mo§	Not indicated fo[illegible]HIV-infected p[illegible]rso[illegible]with fibrotic lesions on chest radiographs, or children	B (I)	C (I)
	Twice weekly for 6 mo§	DOT must [illegible]used[illegible]wice-weekly dosing	B (II)	C (I)
Rifampin plus pyrazinamide	Daily for 2 mo	May also be [illegible]ered to p[illegible]ons who are contacts of patients with isoniazid-resistant, rifampin-[illegible]ceptible TB [illegible]fected [illegible], protease inhibitors or NNRTIs should generally not be administered [illegible]onc[illegible]y with rifampin; rifabutin can be used as an alternative for patients treated with [illegible]avir, [illegible]inavir, amprenivir, ritonavir, or efavirenz, and possibly with nevirapine or soft-[illegible] saquinavir‖	B (II)	A (I)
	Twice wee[illegible]for[illegible]mo	D[illegible]must be used with twice-weekly dosing	C (II)	C (I)
Rifampin	[illegible]r 4 m[illegible]	For persons who cannot tolerate pyrazinamide For persons who are contacts of patients with isoniazid-resistant, rifampin-susceptible TB who cannot tolerate pyrazinamide	B (II)	B (III)

Sociedad Española de Neumología y Cirugía Torácica

SEPAR

Tabla 1. *Indicaciones de la prueba de la tuberculina*

Convivientes y contactos íntimos de pacientes tuberculosos
Personas cuya radiografía de tórax presente imágenes indicativas de tuberculosis inactiva
Personas con sospecha clínica y/o radiológica de presentar enfermedad tuberculosa
Personas que si están infectadas tienen un especial riesgo para desarrollar enfermedad tuberculosa
Infección por el virus de la inmunodeficiencia humana
Adicción a drogas por vía parenteral
Marginación social
Enfermedades inmunodeprimentes, silicosis, linfoma y otras neoplasias
Tratamiento inmunodepresor prolongado, tratamiento contra el factor de necrosis tumoral alfa y corticoides a dosis equivalente
Personas que si están infectadas constituyen un riesgo social y epidemiológico en caso de desarrollar tuberculosis activa
Cuidadores de guarderías infantiles
Personal docente
Personal sanitario
Personal de prisiones
Estudios epidemiológicos y control de programas antituberculosos

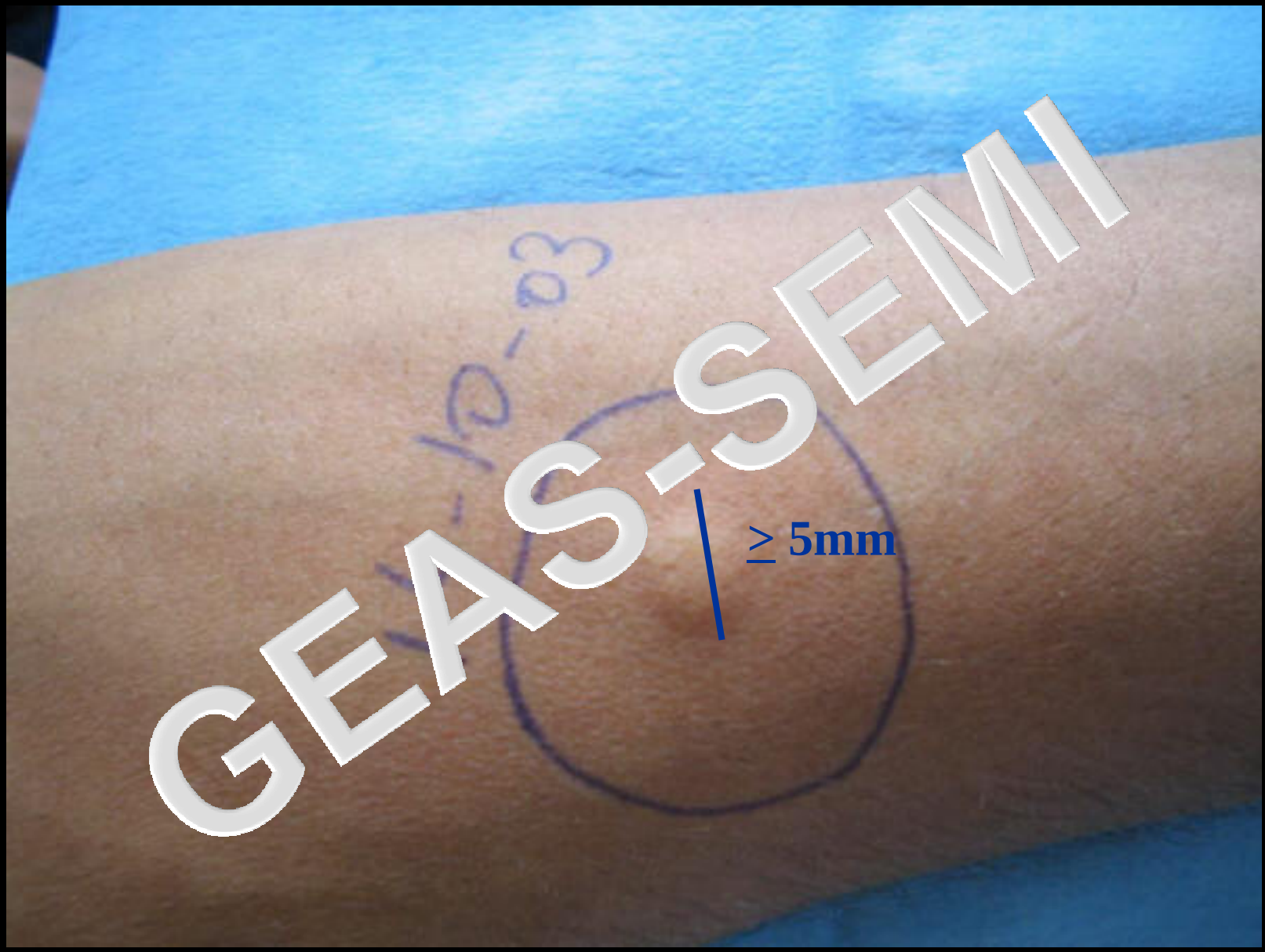

GEAS-SEMI
≥ 5mm

Tabla 9. *Tratamiento de la infección tuberculosa*

Indicaciones (A)

- Infección reciente (contactos, conversión tuberculínica)
- Coinfectados por el VIH
- Lesiones radiológicas de tuberculosis inactiva no tratada

Quimioprofilaxis primaria (tratamiento de expuestos sin infección)

- Niños menores de 5 años (D)
- Infección por el VIH (D)
- Niños y adolescentes (valoración individual) (D)
- Inmunodeprimidos

Tipo de tratamiento

1. Hidracidas durante 6 meses (pauta estándar (A)
2. Hidracidas durante meses
   - Infección por el VIH (B)
   - [illegible] (B)
   - [illegible] residuales en la radiografía de tórax (B)
   - Rifampicina e hidracidas durante 3 meses (A)
   - Pauta alternativa a hidracidas durante 6 meses
4. Rifampicina durante 4 meses, en pacientes sin infección por el VIH (B), en pacientes con infección por el VIH (D)
   - En resistencia a hidracidas

VIH: virus de la inmunodeficiencia humana

Indicaciones de quimioprofilaxis (tratamiento de la infección tuberculosa)

QPP (negativos para la tuberculina)

Jóvenes contactos íntimos de bacilíferos
Inmunodeprimidos contactos de bacilíferos
Personas de cualquier edad, contactos íntimos de bacilíferos en las microepidemias

QPS o TIT (positivos para la tuberculina)

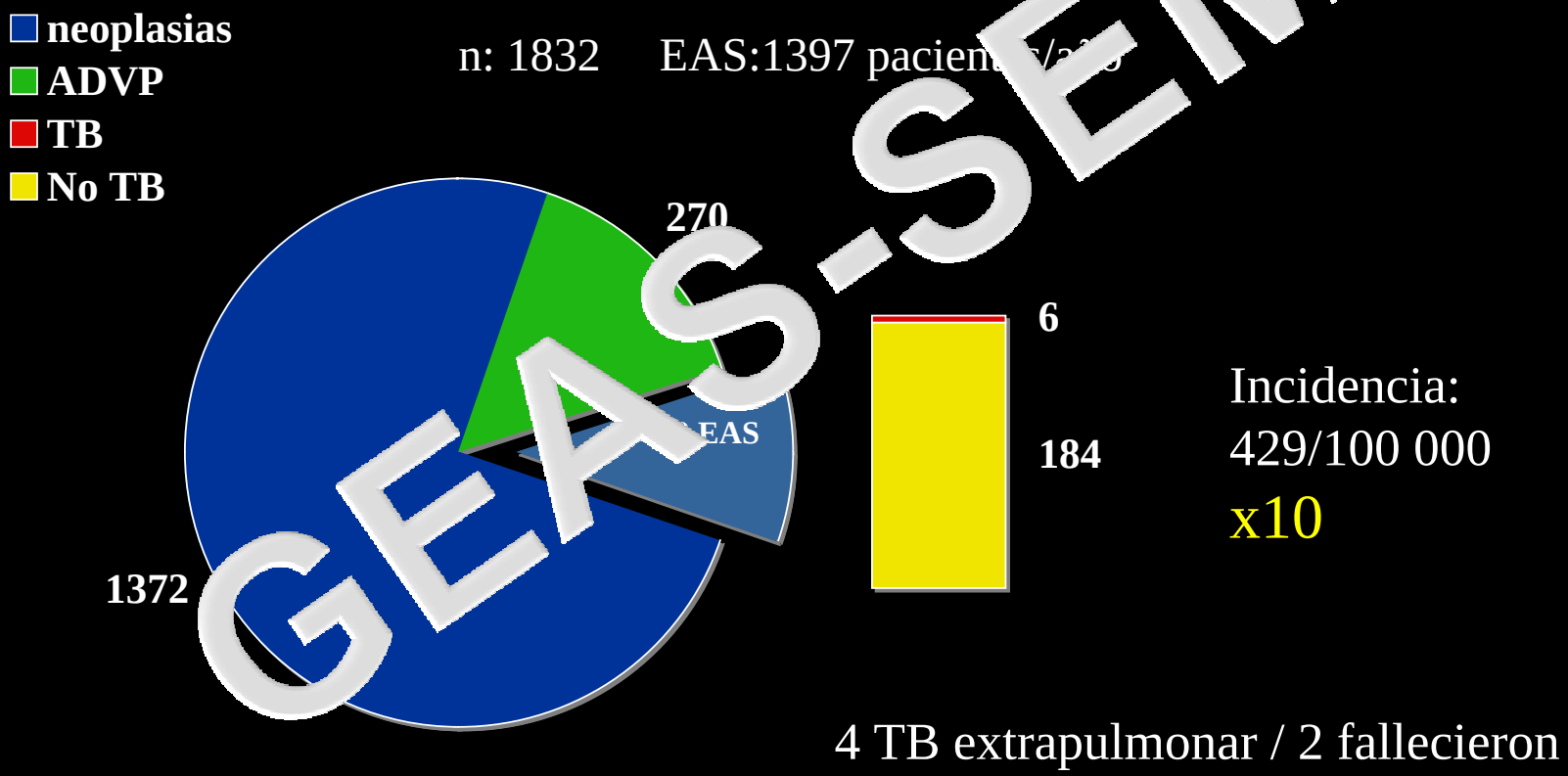
Indicaciones prioritarias
- Infectados por el VIH
- Conversores tuberculínicos*
- Miembros de microepidemias de cualquier edad
- Silicosis
- Imágenes fibróticas residuales no tratadas**
- Menores de 35 años contactos de enfermos bacilíferos
- Cualquier infectado menor de 35 años
- Pacientes en lista de espera de trasplantes
- Utilización de infliximab u otros anticuerpos monoclonales anti-TNF-α

Indicaciones a considerar individualmente
- Mayores de 35 años contactos de enfermos bacilíferos
- Toxicomanías, incluido alcoholismo
- Alcohólicos
- Neoplasias
- Tratamientos prolongados con corticoides u otros inmunodepresores
- Insuficiencia renal crónica. Hemodiálisis
- Desnutrición: gastrectomía, síndromes de malabsorción y derivación intestinal
- Riesgo profesional: docentes y guarderías, sanitarios, trabajadores con grupos de riesgo (prisiones, asilos, centros de toxicómanos, etc.)
- Riesgo social: asilados, reclusos, albergues, psiquiátricos, etc.
- Inmigrantes de bajo nivel económico

Estudio clínico de la tuberculosis en inmunodeprimidos

Valencia ME, Gil A, Díaz A, Torres A, Lavilla P, Pintado V, López D[illegible] JM, Vázquez JJ

Rev Clin Esp 1989; 184: 352-356



Incidencia:
429/100 000
x10

4 TB extrapulmonar / 2 fallecieron

Incidencia y características de la tuberculosis en pacientes con enfermedades reumáticas autoinmunes

C. Vadillo Font, C. Hernández-García, E. Pato, I. C. Morado, M. Salido, E. Júdez, P. Ma[illegible]ón, B. Fernández-Gutiérrez, L. Abásolo y J. A. Jover

Servicio de Reumatología. Hospital Clínico San Carlos. Madrid

Densidad de incidencia de tuberculosis par[illegible]ada diag[illegible]ós[illegible]

Diagnóstico	Pacientes	Casos TB	P[illegible]s-a[illegible]	Densidad de [illegible]idencia*	IC 95%
ACG	88	1	[illegible]72	367	(9-2.031)
PMR	79	1	178	565	(14-3.107)
Otras vasculitis	87	[illegible]	[illegible]	930	(113-3.320)
Artritis reumatoide	1.016	8	3.460	231	(100-455)
Espondiloartropatías	892	[illegible]	2.275	—	(<162)***
Lupus eritematoso sistémico	158	[illegible]	466	645	(133-1.870)
Esclerodermia	42	0	124	—	(<2.931)***
Síndrome de Sjögren	76	[illegible]	157	—	(<2.322)***
Miopatías inflamatorias	15	0	62	—	(<5.776)***
EMTC	21	0	106	—	(<3.420)***
Poliartritis no filiadas	[illegible]29	0	738	—	(<499)***
Uveítis**	[illegible]264	0	738	—	(<499)
Total	3.63[illegible]	15	9.795	153	(86-252)

*Por 100.000 pacient[illegible]ño. **[illegible]ven pacientes con panuveítis, uveítis intermedia y posterior. ***Intervalo de confianza del 95,5%. ACG: arteritis de células gigantes; PMR: poli[illegible]gia reumá[illegible]; EMTC: enfermedad mixta del tejido conectivo.

DI población general: 31/100000 hab-año x5

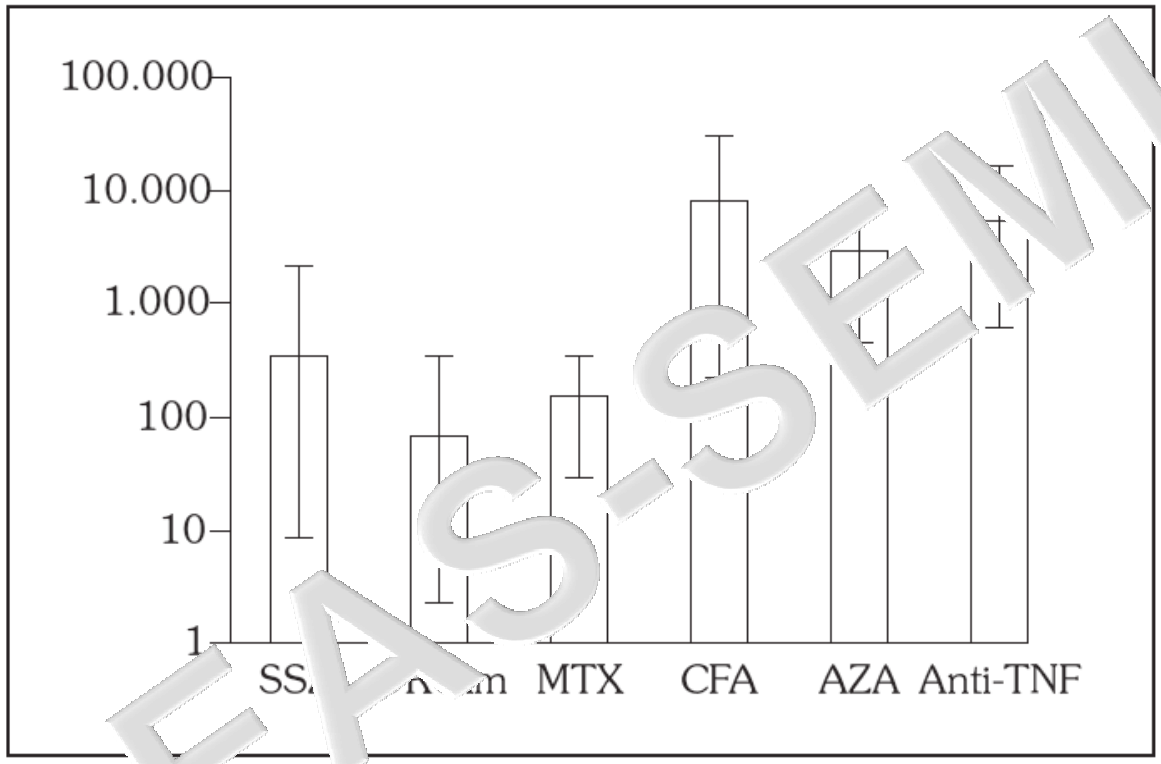


Fig. 1. Densidad de incidencia de tuberculosis (en escala logarítmica) en pacientes con artritis reumatoide tratados con diferentes fármacos modificadores de la enfermedad. SSZ: sulfasalazina; OROim: aurotiomalato sódico; MTX: metotrexato; CFA: ciclofosfamida; AZA: azatioprina.

High risk of tuberculosis in systemic lupus erythematosus?

J-G Erdozain, G Ruiz-Irastorza*, M-V Egurbide, A Martinez-[illegible] and F Aguirre
Department of Internal Medicine, Hospital de Cruces, University of the Basque Country, Vizkaia, Spain

1994-2003: 1063 pacientes-año (3 casos tuberculosis) x 7

Table 1 Summary of published series of tuberculosis in patients with systemic lupus erythematosus

Series (ref.)	*Study years*	*Cases per 100 000 patient years (95% CI)*	*Extrapulmonary TB %*	*Mortality %*
Philippines (9)	1985–1995	1461 (1102–1897)	56	14
Hong Kong (10)	1984–2001	[illegible] (525–87[illegible])	66	7
Korea (11)	1979–2000	[illegible]	60	13
Korea II (12)	1990–199[illegible]	[illegible]	NR	5
India (13)	1989–[illegible]	[illegible] (173[illegible]–3347)	22	NR
Singapore (14)	19[illegible]–1979	21 (160–492)	50	31
Turkey (15)	197[illegible]	0 (90–232)	45	5
India II (16)	NR	2328 (1370–3694)	47	6
Malaysia (17)	1978–19[illegible]	1067 (354–2304)	0	NR
Madrid (Spain) (18)	[illegible]–200[illegible]	645 (129–1931)	33	0
Cruces (Spain)	199[illegible]–2003	187 (39–547)	0	0

CI: confidence interval; [illegible]culosis; NR: not reported

Tuberculosis in patients with systemic rheumatic or pulmonary diseases treated with glucocorticosteroids and the preventive role of isoniazid: a review of the available evidence

Matthew E. Falagas [a,b,*], Paraskevi T. Voidonikola [a], Anna G. [illegible]si [a]

International Journal of Antimicrobial Agents 30 (2007) [illegible]

20 estudios: 16 retrospectivos, 2 prospectivos, 2 [illegible] controles

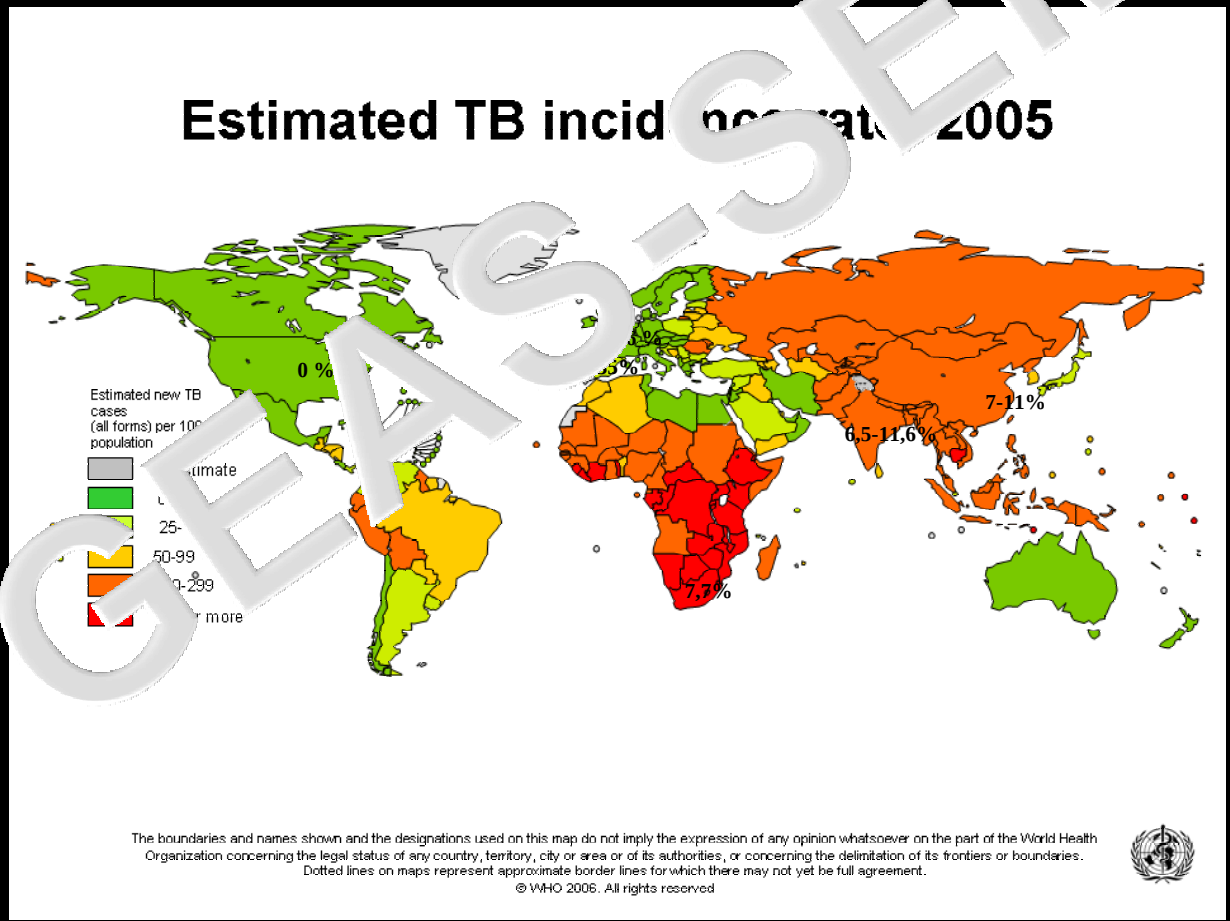


Table 3
Effect of isoniazid prophylaxis (INHP) on the development of tuberculosis (TB) in patients receiving steroids with or without other [illegible] for [illegible]mic rheumatic or chronic pulmonary diseases

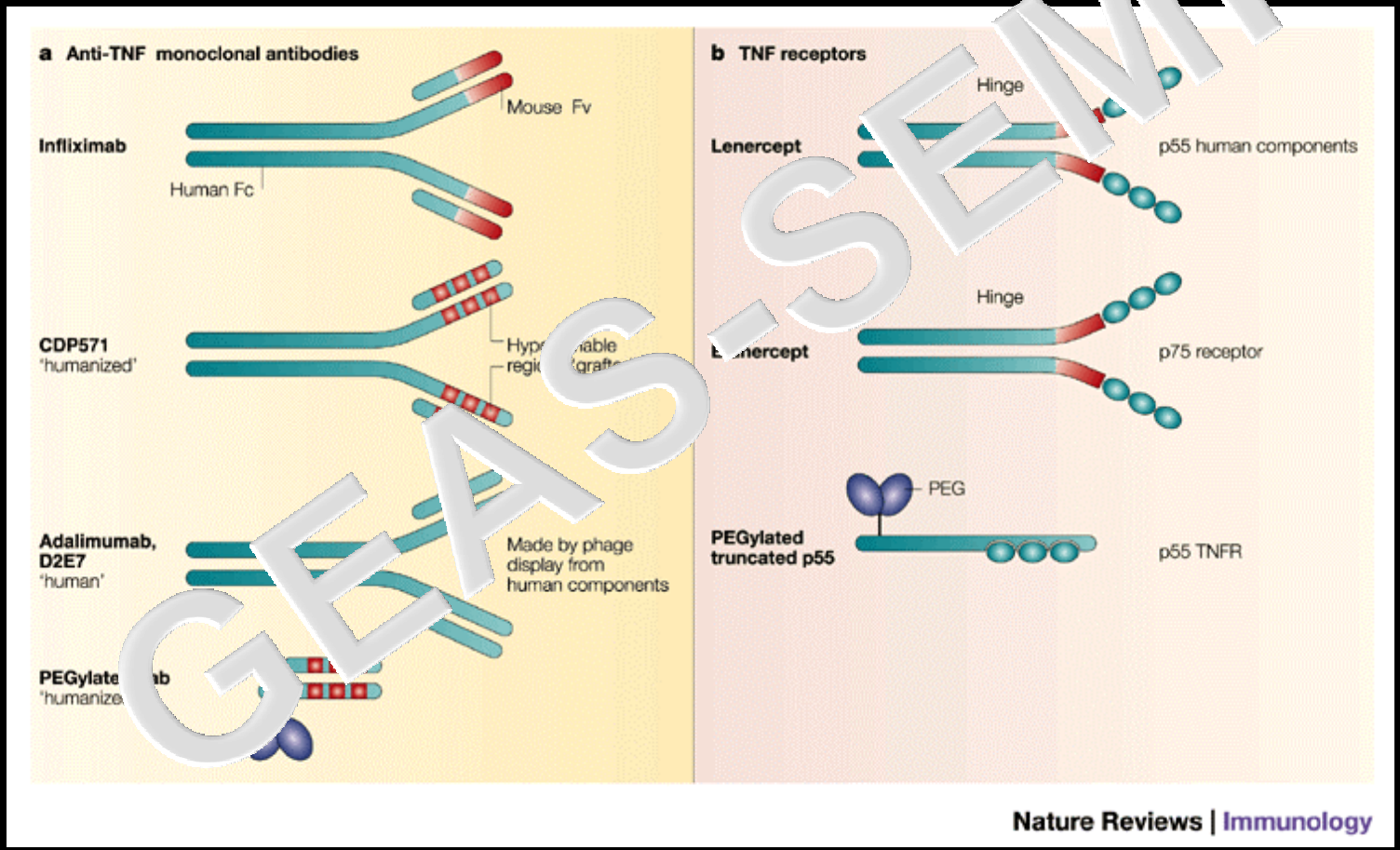
Reference (setting)	INHP	Patients with INHP	Patients without any prophylaxis	Mean ± S.D. follow-up (years)	[illegible] of pat[illegible]with	Frequency of development of TB (with vs. without INHP)	Comments
Mok et al. (Hong Kong) [3]	42 patients with history of TB for which they received complete therapy (nested case–control analysis): INHP in 21 (300 mg/day INH + pyridoxine 10 mg/day for 12.4 months)	21	21 (matched)[a]	18.3 ± 7.[illegible]NHP group), 1[illegible] INHP grou[illegible]	2 in [illegible]IH[illegible]up 4 in[illegible]o INHP [illegible]up	9.5% vs. 19%	No statistically significant difference ($P = 0.66$), but small number of patients. Incidence: 0.55 vs. 1.04 per 100 patient-years (matched)[a]
Gaitonde et al. (India) [5]	INHP in 70 patients (5 mg/kg/day INH (max. 300 mg/day) + pyridoxine 10 mg/day for 1 year)	70	0	[illegible]	1 (in the INHP group); there was not a no INHP group in this study	1.4% vs. 11% (as estimated in a previous study of patients without INHP)[b]	82% reduction in incidence of TB with INHP
Kobashi and Matsushima (Japan) [6]	INHP in 62 patients (0.3 g/day INH for 2–[illegible] months)	62		5	2 in the INHP group vs. 12 in the no INHP group	3.2% vs. 2.2%	No difference (but insufficient duration of INHP)
Hernandez-Cruz et al. (Mexico) [10]	INHP in 41 patients (300 mg/[illegible] for 0.[illegible] year)	41	37	NR	1 in the INHP group vs. 13 in the no INHP group	2.4% vs. 35%	97% reduction of incidence of TB with INHP

[illegible] deviation; INH[illegible] NR[illegible]

Tratamiento esteroideo y tuberculosis

- ¿Papel otros inmunosupresores?
- Fiabilidad Mantoux.
- Distintas enfermedades, ¿distinto riesgo?
- Reactivación versus reinfección.
- Isoniacida: coste / eficacia, ¿toxicidad?

Agentes anti TNF y tuberulosis



ARTHRITIS & RHEUMATISM
Vol. 48, No. [illegible], pp 2122–2127

- 17/1578 infliximab (0 etanercep).

Año	Incidencia 100000 hab-año	RR población general	RR población AR pre anti-TNF (EMECAR)
2000	18[illegible]	90,1 %	19,9 %
2001	1113	53 %	11,7 %

65 % extrapulmonares

Table 2. Recommendations of the Spanish Health Authorities and the Spanish Society of Rheumatology regarding the management of TB risk in RA patients who are to undergo treatment with tumor necrosis factor inhibitors*

Patients in any of the following categories should be treated for 9 months with 5 mg/kg body weight (up to a maximum of 300 mg) of isoniazid daily:
History of untreated or poorly treated TB, or exposure to an active case of TB
Chest radiograph showing residual changes indicative of prior TB infection
Reaction ≥5 mm in diameter on PPD skin testing or on 2-step testing procedure (when initial PPD result is <5 mm in individuals), with an interval of 7–10 days between steps

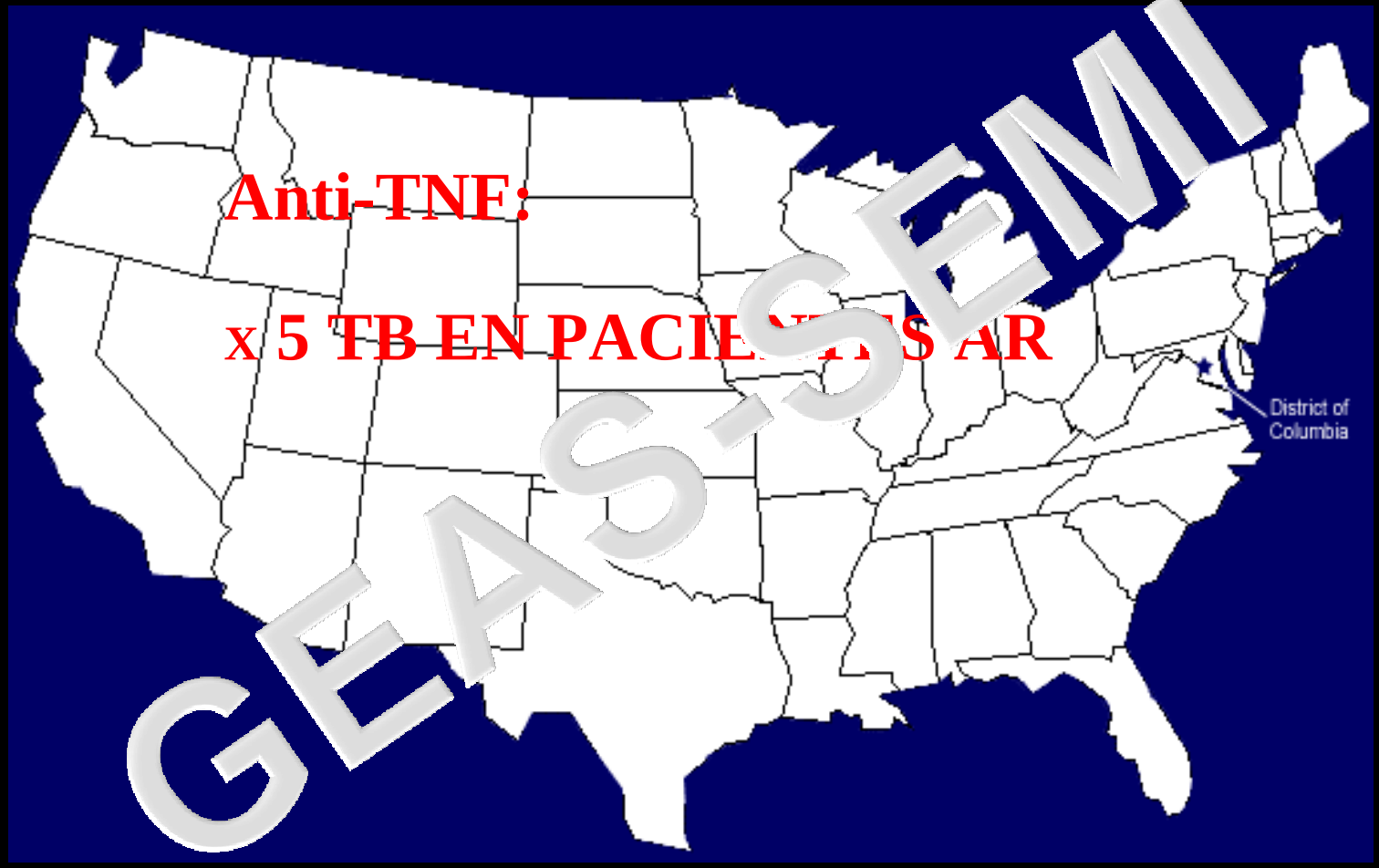
ARTHRITIS & RHEUMATISM
Vol. 52, No. 6, 20.. pp 1766–1772

Isoniacida: 324/385 (84 %)

Table 2. Rate of active TB in the BIOBADASER cohort before and after the ... recommendations, and risk ratio for the incidence of active TB compared with the risk in the background Spanish population and in the EMECAR patients

	Patient-years of exposure to TNF antagonists	No. of active TB cases	Active TB rate per 10... (95% CI)	IRR versus background (95% CI)	IRR versus EMECAR (95% CI)†
All TB cases					
Pre-OR	6,126	32	522 (369–738)	20.9 (12.0–36.8)	–
Post-OR	1,699	2	117 (29–470)	4.7 (0.5–18.9)	–
$IRR_{recommendations}$‡	–		0.22 (0.03–0.88)	–	–
TB cases with RA only					
Pre-OR	60	27	564 (387–823)	22.6 (12.6–40.6)	6.2 (2.6–16.9)
Post-OR	1,...	1	95 (13–676)	3.8 (0.1–23.3)	1.0 (0.02–8.2)
$IRR_{recommendations}$‡			0.17 (0.004–1.02)	–	–

* TB = tuberculosis; IR... = incidence ratio; 95% CI = 95% confidence interval (see Table 1 for other definitions).
† EMECAR patients were patients with rheumatoid arthritis (RA) who were not treated with TNF antagonists and were followed up for 5 years in the Morbidity and Clinical Expression of Rheumatoid Arthritis study.
‡ $IRR_{recommendations}$ = incidence risk ratio comparing the rates of active TB before (pre-OR) and following (post-OR) the official recommendations implemented on March 1, 2002 for the management of latent TB infection.


Anti-TNE:
x 5 TB EN PACIE
S AR
District of Columbia
GEAS-SEMI

MMWR™

- Realizar Mantoux antes tratamiento anti-TNF.
- Mantoux > 5mm: Infección tuberculosa latente.
- Isoniacida 9 meses.
- Si Mantoux negativo: isoniacida si contexto. epidemiológico o clínico sugestivo.

Arthritis Rheum 2005; 52:2968-2074

BTS GUIDELINES

BTS recommendations for assessing risk and for managing *Mycobacterium tuberculosis* infection and disease in patients due to start anti-TNF-α treatment

British Thoracic Society Standards of Care Committee*

805. doi: 10.1136/thx.2005.046797

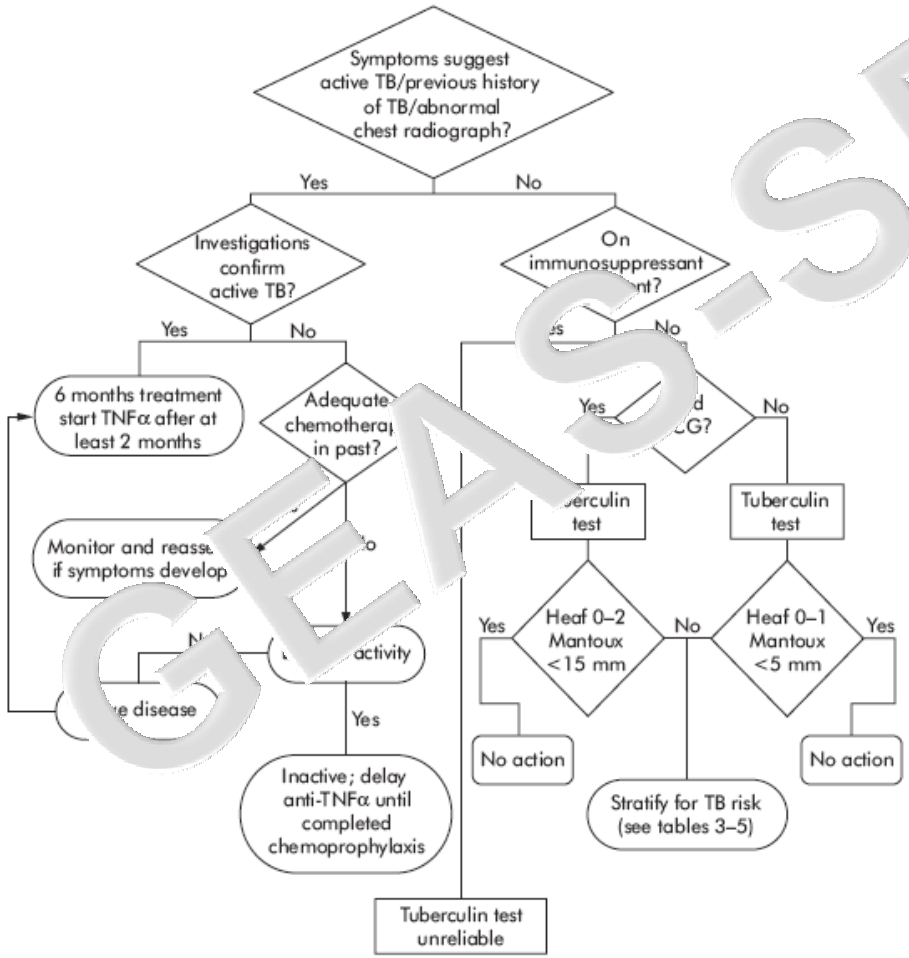


Table 5 Sample calculations based on data in tables 3 and 4

Case type	Annual risk of TB disease/ 100 000	TB risk adjusted ×5 for anti-TNF effect	Risks of prophylaxis /100 000 (table 6)	[illegible]
White Age 55–74 UK born	7	35	278	Obser[illegible]tion
ISC Age >35 In UK 3 years	593	2965	278	Prophylaxis
Black African Age 35–[illegible]4		[illegible]	278	Prophylaxis
O[illegible] ethn[illegible] Age in UK [illegible]		195	278	Observation

Th[illegible]eighted average risk for prophylaxis with isoniazid (6H) is 278/[illegible]0 000 which is used for these calculations. The weighted average risk for rifampicin/isoniazid (3RH is higher at 1766/100 000, but this regimen may need to be considered if a shorter duration of chemoprophylaxis is needed on clinical grounds (see section 4.6).

INT J TUBERC LUNG DIS 10(10):1127–1132

Tuberculosis in patients receiving anti-TNF agents despite chemoprophylaxis

613 pacientes: criterios 45 profilaxis (36) Mantou[illegible] 10 mm

Table Characteristics of patients with active TB

No.	Age, years	Sex	Collagen vascular disease	TST	CXR	Site of active TB	Chemoprophylaxis regimen	Interval to active TB, months*	Medication for collagen vascular disease
1	51	M	Ankylosing spondylitis	+	Apical fibrotic [illegible]	Pulmo[illegible]	INH+RMP†	3	MTX-CS, adalimumab
2	43	M	RA	+	Apical fibrotic [illegible] Pleural calcification	[illegible]onary	INH+RMP†	4	MTX-CS, infliximab
3	50	F	Ankylosing spondylitis	−	N[illegible]	[illegible]ph nodes	None	12	MTX-CS, infliximab
4	62	F	Psoriatic arthritis	+	No[illegible]	Nasopharynx	Inadequate	8	CS, infliximab
5	60	F	RA	+	Non[illegible]	Pleural effusion	INH‡	3	MTX, infliximab
6	52	F	RA	+	Apic[illegible]ibrotic lesions	Pulmonary	INH+RMP†	2	MTX-CS, infliximab
7	59	F	Ankylosing [illegible]tis	+	Norm[illegible]	Oropharynx	Inadequate	4	MTX-CS, adalimumab
8	48	M	[illegible]çet's syn[illegible]rom[illegible]	+	Normal	Pulmonary	INH‡	2	CS, adalimumab
9	54	M	[illegible]kylosi[illegible] [illegible]pondylitis	+	Normal	Pulmonary	INH‡	3	MTX-CS, infliximab
10	63	F	R[illegible]	+	Normal	Spleen	None	18	MTX-CS, infliximab
11	49	F	Pso[illegible]hritis	+	Normal	Pulmonary	INH‡	35	CS, infliximab

* Interval between starting anti-TNF agent and diagnosis of active TB.
† 3-month regimen.
‡ 6-month regimen.
TB = tuberculosis; RA = Rheumatoid arthritis, TST = tuberculin skin test; CXR = chest radiograph; INH = isoniazid; RMP = rifampicin; MTX = methotrexate (up to 15 mg/week), CS = corticosteroids (up to 10 mg/day prednisolone).

80 pacientes

BIO GEAS

Uso de las terapias biológicas e[illegible] en[illegible]edades autoinmunes sistémicas

Listado de efectos adversos en los pacientes incl[illegible]s en el Registro (fecha actualización: 31-12-07)

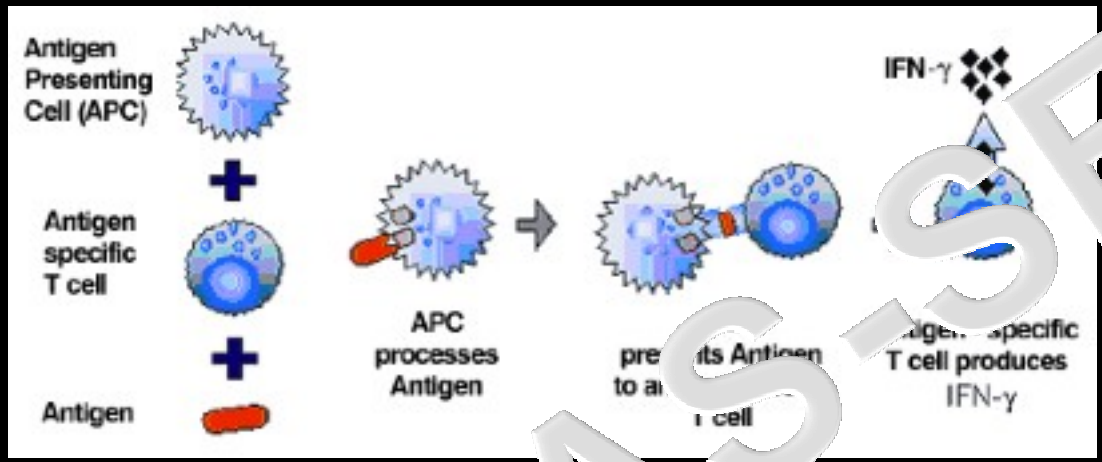
ID	EAS	BIOLOGICO	Sexo	Edad	Efecto[illegible]dv[illegible]os	Relación con agente
3	STILL ADULTO	infliximab	F	45	[illegible]sen[illegible]bilidad	Probable
8	PAN	infliximab	F	43	Reacc hi[illegible]sensibilidad	Probable
9	VOGT-KOYANAGI	infliximab		37	Re[illegible]persensibilidad	Probable
12	SJOGREN	rituximab	F	82	Neoplasia pulmonar	Improbable
14	DERMATOMIOSITIS	infliximab		[illegible]3	Reacc hipersensibilidad	Probable
15	DERMATOMIOSITIS	infli[illegible]b	F	[illegible]9	Infección x herpes	Probable
16	DERMATOMIOSITIS	etar[illegible]ce[illegible]	[illegible]	75	Colecistitis CMV	Probable
19	WEGENER	rituxi[illegible]ab	F	59	Vaginitis x trichomona	Probable
20	LES	[illegible]tuxi[illegible]	F	42	Colitis	Poco probable
33	WEGENER	rituxim[illegible]	M	48	Muerte súbita (sospecha TEP)	Poco probable
35	BE[illegible]	et[illegible]ercept	F	24	Sospecha enf. desmielinizante	Probable
37	L[illegible]	[illegible]uximab	F	24	Neumonía intrahospitalaria	Probable
43	S[illegible]F	rituximab	F	51	ITU repetición	Probable
45	L[illegible]	rituximab	F	52	Neumonía	Probable
50	LES	rituximab	F	31	Reacc hipersensibilidad	Probable
51	LES	rituximab	M	29	Fascitis necrotizante	Improbable
78	VHC	rituximab	F	66	ENdocarditis MRSA	Probable

REGISTRO iBIOGEAS

Registro Internacional de Pacientes con EAS Tratados con Agentes Biológicos

SAD	Biological agent	Infections
Horton	ETANERCEPT	4 infections (mild respir or ITU)
PAN	ETANERCEPT	Meningitis (cryptococo sp)
Polimyositis	ETANERCEPT	recurent esophageal candi
Polymyalgia R	ETANERCEPT	2 cystitis (ns) and 1 flu syndr
Sarcoidosis	ETANERCEPT	cellulitis lower
Sarcoidosis	ETANERCEPT	respirato
Still	ETANERCEPT	Meningi
Wegener	ETANERCEPT	s (4
Sjogren	ETANERCEPT	itis
Behçet	INFLIXIMAB	ke
Behçet	INFLIXIMAB	
Behçet	INFLIXIMAB	C (1)
Behçet	INFLIXIMAB	zoster
Behçet	INFLIXIMAB	fections
Behçet	INFLIXIMAB	BC; erpetic keratitis plus otitis; 1 severe herpes; 1 recurrent ITU
Behçet	INFLIX	onary TBC; pumonary legionella
Behçet	INFLIXI	minor IRVA in 4
DM	NFLIXI	er (MRSA + pseudomona) and pneumonia (MRSA)
DM	LIXIM	iration pneumonia and multi-organism bacteremia (Kb pneumoniae, S epidermidis, E coli, and S aureus)
Systemic sis	MA	peritonitis (candida albicans)
	B	mild infections (17), zoster keratitis (1), bronchitis (1), infected hematoma (SA) and then pleunopneumonia (1)
LE	IXIMAB	ITU (E.coli in one, no specifi in 2)
PA	INFLIXIMAB	Pneumonia x 2 (H influenza) (1), recurr ITU (klebsiella) (1), leg cut abcess (MRSA) (1), endoftalmitis (nocardia) (1), broncopneumonia (ns) (1), skin ulcer (SA) + itu (E coli) (1), diarreic (ns) (1)
Policondritis	INFLIXIMAB	parasternal abcess (MRSA) and then multiple abcess and pneumonia
Polimiositis	INFLIXIMAB	pumonary (mycobacterium pellegrinum)
Sarcoidosis	INFLIXIMAB	TBC
Sarcoidosis	INFLIXIMAB	Oral candida (1)
Sarcoidosis	INFLIXIMAB	respiratory infections (31) (ns), pneumonia (6) (ns), other (17) (ns)

Diagnóstico infección latente



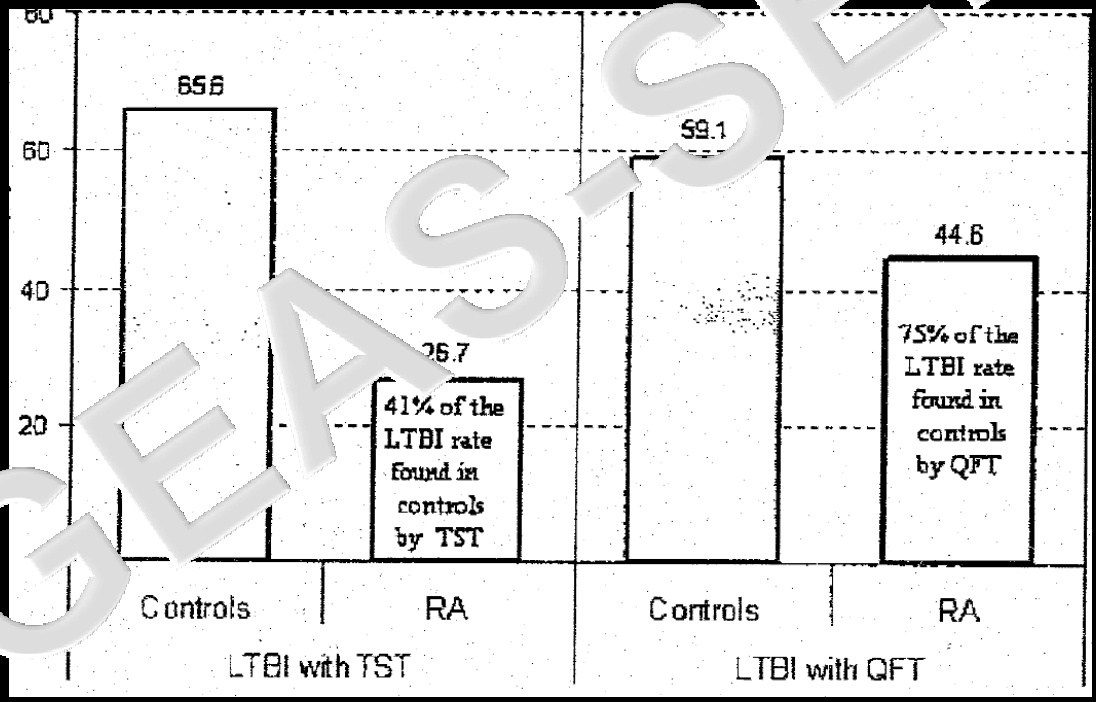
Quantiferon-TBGold In Tube

RD1:

- ESAT1: *early secretory antigen target-6*
- CFP-10: *culture filtrate protein 10*
- Antígeno TB 7.7

Comparasion of an Interferon Gamma Assay with Tuberculin Skin Testing for Detection of Tuberculosis (TB) Infection in Patients wiht Rheumatoid Arthritis in a TB-Endemic Population

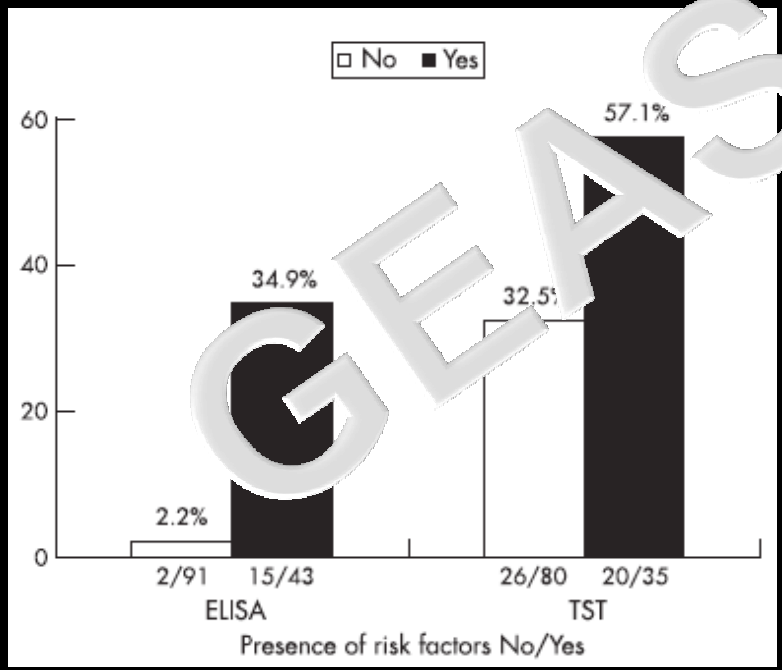
J. Rheumatol 2008; 35:776



Detection of latent tuberculosis in immunosuppressed patients with autoimmune diseases: performance of a *Mycobacterium tuberculosis* antigen-specific interferon assay

Ann Rheum Dis 2008;**67**:84–

142 pa



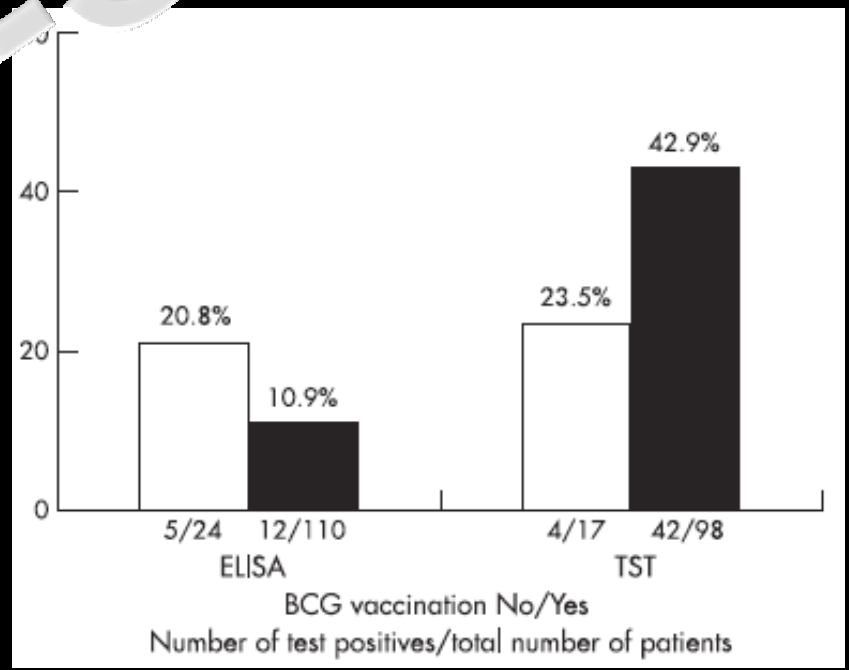


Table 2 Interferon γ assay and the tuberculin skin test according to the presence/absence of risk factors for latent *Mycobacterium tuberculosis* infection and BCG vaccination

Characteristic	Interferon γ assay (IFNγ)		Tuberculin skin test		IFNγ vs TST
	Odds ratio (95% CI)	p Value	Odds ratio (95% CI)	p Value	p Value
Univariable analysis					
Presence of risk factor	23.8 (5.14 to 110)	<0.001	2.77 (1.22 to 6.27)	0.015	0.009
BCG vaccination	0.47 (0.15 to 1.47)	0.20	2.44 (0.74 to 8.01)	0.14	0.025
Multivariable analysis					
Presence of risk factor	29.2 (5.[illegible]44)	0.001	4.81 (1.80 to 12.8)	0.002	0.041
BCG vaccination	[illegible]9 (0.4[illegible]o [illegible]	0.37	5.83 (1.46 to 23.3)	0.013	0.20

Association between the presence of any risk factor for latent tuberculosis or BCG vaccination status and results of IFNγ assay (n = 134) and TST (n = 115) in univariable analysis and multivariable analysis including both the presence of risk factors and BCG vaccination as independent variables. An odds ratio of 23.8 indicates, for example, that patients with a risk factor for latent tuberculosis have an odds of a positive IFNγ assay, which is 23.8 times higher than the odds of patients without a risk factor. The p value for differences in performance between IFNγ assay and TST is from matched-pairs logistic regression analysis. Refer to fig 2 for numbers of patients with positive test results according to risk factor and BCG vaccination status.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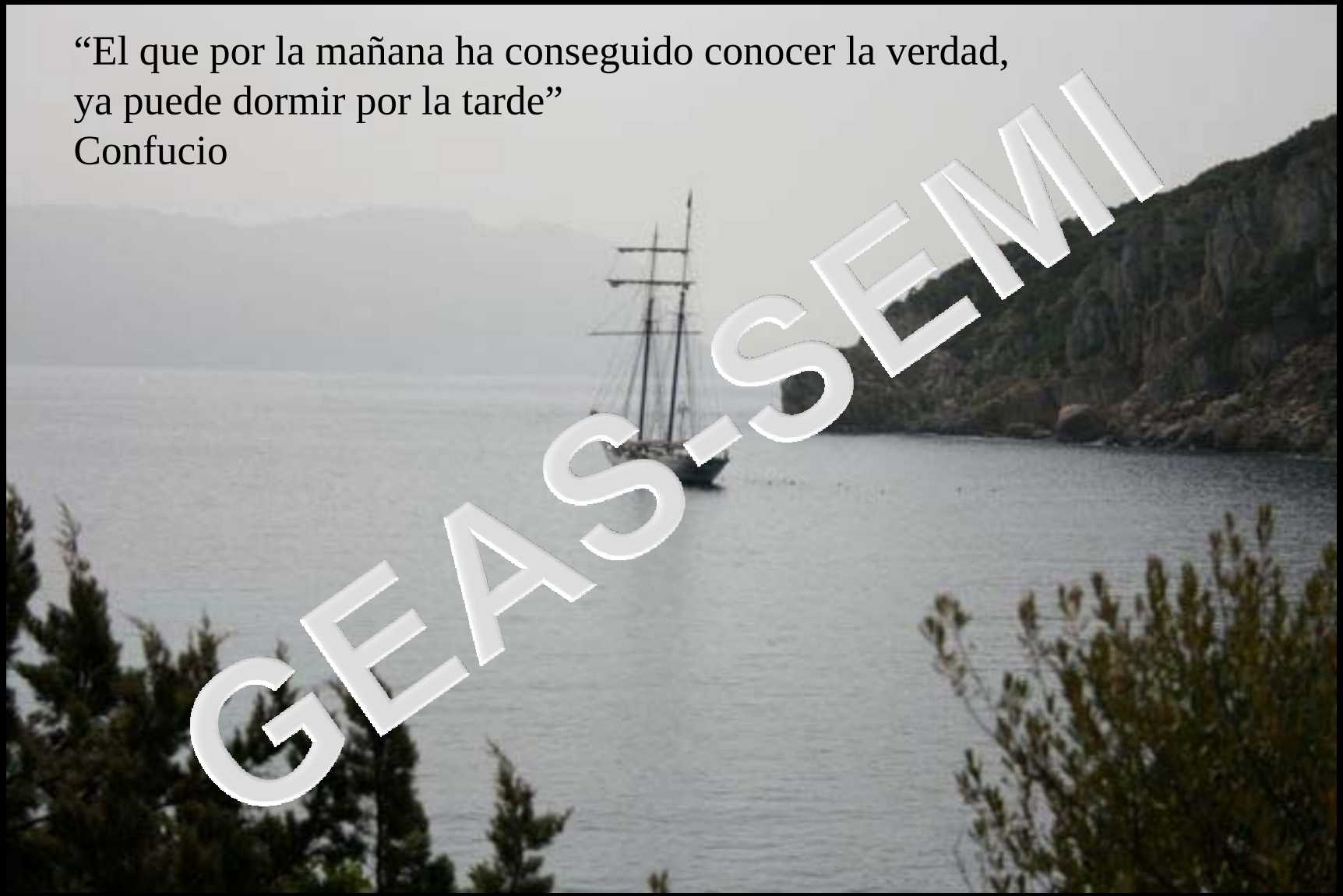
Conclusiones

- Investigación y tratamiento infección tuberculosa latente pacientes anti-TNF.
- ¿Actitud tratamiento esteroideo España?
  - Tipo EAS.
  - Tipo inmunosupresión.
  - Edad.
- Quantiferon prometedor *¿gold estándar?*


“El que por la mañana ha conseguido conocer la verdad,
ya puede dormir por la tarde”
Confucio
GEAS-SEMI