



REFERENCES

1. Bloch AB, Rieder H, Kelly G, Cauthen G, Hayden C, Snider D: " The Epidemiology of Tuberculosis in the United States." Clin-Chest-Med : 1989 September; 10 (3) 297-312
2. National Tuberculosis Control Program : Review Manual. Manila, Philippines, 1988 April
3. Daniel TM: Tuberculosis. Harrison's Principles of Internal Medicine. Mc Graw Hill Book Company, Volume I, 12th edition, 1991.
4. Fraser A, Pare, Pare, Fraser, Genereux (eds). Diagnosis of the Diseases of the Chest. Saunders Book Company 3rd edition
5. Souhami RL, Moxham J: Tuberculosis. Textbook of Medicine. DLBS with Churchill Livingstone, Longman Group UK, 1st edition, 1991
6. The BACTEC TB Manual (accompanying brochure). USA, 1989
7. Stead WW; "Special Problems in Tuberculosis." Clin-ChestMed; 1989 September; 10 (3) : 397-405
8. American Thoracic Society: " Treatment of Tuberculosis and Tuberculosis Infection in Adults and Children." Am Rev Resp Dis ; 1986; 134 : 355-330

9. The First National Concensus in Tuberculosis, Part II:
"Committee Report." 1st edition, Manila, Philippines. 1992 May
10. Mandell GL, Sande MA : Antimicrobial Agents : Drugs Used in the Chemotherapy of Tuberculosis and Leprosy. Goodman and Gillman's Pharmacologic Basis of Therapeutics. Pergamon Press, 8th ed., 1991
11. Department of Health : National Drug Formulary of the Philippines. Manila, Philippines, 2nd edition, 1991
12. Sto. Tomas University Hospital Drug Formulary. UST Press, Manila, Philippines, 7th edition, 1992
13. Perez-Stable EJ, Hopewell PC : "Current Tuberculosis Treatment Regimens." Clin-Chest-Med; 1989 September 10(3): 323-339
14. Jawetz E : "Antimycobacterial Drugs. Katzung's Basic and Clinical Pharmacology "Lange Medical Book, 5th edition, 1992
15. Aitken ML, Sparks R, Anderson K, Albert RK : "Predictors of Drug Resistant Mycobacterium Tuberculosis". Am Rev Resp Dis; 1984 November; 130(5) : 813-833
16. Iseman MD, Madsen LA: "Drug-Resistant Tuberculosis"
Clin-Chest-Med; 1989 September; 10(3) : 341-353

17. Department of Health : "Morbidity and Mortality Rate of Tuberculosis in the Philippines, 1906-1989.
(personal communication)
18. Shennan DH: Resistance of Tubercle Bacilli to Isoniazid, PAS and Streptomycin, Related to History of Previous Treatment. Tubercle; 1964; 45:1-6
19. Toman K : Tuberculosis Case Finding and Treatment. WHO. Geneva, 1979
20. Manalo F, Tan F, Sbarbaro JA, Iseman MD; "Community-based Short Course Treatment of Pulmonary Tuberculosis in a Developing Nation." Am Rev Resp Dis; 1990 December; 142 : 1301-1305
21. Velez-Go ET, Ong-Mateo, M: Resistance Pattern of M. tuberculosis at the Sto. Tomas University Hospital. Presented at 38th annual Postgraduate Course in Internal Medicine, Department of Medicine, UST Faculty of Medicine and Surgery, Manila 1992 October
22. Costello HD, Caras GJ, Snider DE : "Drug Resistance among Previously Treated Tuberculosis Patients, a Brief Report. " Am Rev Resp Dis; 1980; 121 " 313-316

23. Cheung OT: "Drug Resistance in Patients with Pulmonary Tuberculosis." Can Med Ass G; 1975 November; 113: 848-849
24. Suwanogool S, Smith SM, Smith LG, Eng R: "Drug Resistance Encountered in the Retreatment of M. tuberculosis Infections." J Chronic Dis; 1984; 37: 925-931
25. Sifford M, Bates JH: "Host Determinants of Susceptibility to Mycobacterium Tuberculosis." Semin-Respir-Infect; 1991 March; 6(1) : 44-50
26. Barnes PF: " The Influence of Epidemiologic Factors on Drug Resistance Rates in Tuberculosis." Am Rev Resp Dis ; 1989 ; 136 : 325-330
27. Wosornu D, Macintyre D, Watt B: "An Outbreak of Isoniazid Resistant Tuberculosis in Glasgow 1981-1988." J Resp Med; 1990; 84 : 361-364
28. Howell F, Kelly P, Clancy L : "Pulmonary Tuberculosis in the Republic of Ireland : an Epidemiological Profile From a Single Unit. "Respir-Med; 1990 March ; 84(2): 111-117
29. Bass JB: " Tuberculin Test, Preventive Therapy, Elimination of TB." Am Rev Resp Dis ; 1990 ; 141: 812-813

30. Hongkong Chest Service/TB Research Center, Madras
British Medical Research Council : "A Controlled
Trial of 2 - month, 3 - month and 12 - month
Regimens of Chemotherapy for Sputum Smear -
Negative PTB : the Results at 30 months." Am Rev
Resp Dis; 1981; 124: 138-142
31. Schlesselman JJ : Case - Control Studies. Oxford
University Press, 1982
32. Cuneo WD, Snider DE : "Enhancing Patient Compliance with
Tuberculosis Therapy." Clin-Chest-Med; 1989
September; 10 (3) " 375-380
33. Fisher J, Ganapathy M, Edward B, Newman C: "Utility of
Gram's and Giemsa Stains in the Diagnosis of
PTB." Am Rev Rep Dis; 1990; 141 : 511-513
34. Glassroth J : " The Physician's Role in Tuberculosis
Prevention." Clin-Chest-Med; 1989 September; 10
(3): 365-374
35. Hongkong Chest Service / British Medical Research
Council: "Controlled Trial of 2,4 and 6 months
of Pyrazinamide in 6- month, three-Times-Weekly
Regimens for Smear-Positive Pulmonary Tubercu-
losis Including an Assessment of a Combined
Preparation of Isoniazid, Rifampin and
Pyrazinamide." Am Rev Resp Dis; 1991 April; 143
: 700-706

36. Hongkong Tuberculosis Treatment Service / British Medical Research Council Investigation : "A Study to Evaluate the Role of Pretreatment Susceptibility Tests in the Selection of Regimens of Chemotherapy for Pulmonary Tuberculosis." Second Report; Tubercle; 1974; 55:169-192
37. Leff DR, Leff AR : ` Tuberculosis Control Policies in Major Metropolitan Health Departments in the United States (N. Standards in 1988)." Am Rev Resp Dis; 1989; 139: 1350-1355
38. Filey LW, Arathoon E, Loverde VD: "The Epidemiologic Patterns of Drug Resistant Mycobacterium Tuberculosis Infections: a Community-based Study." Am Rev Resp Dis; 1989 May; 139(5) : 1282-1285
39. Scalcini M, Carre G, Jean-Baptiste M, Hershfield E, Parker S, Wolfe J, Nelz K, Long R: "Antituberculous Drug Resistance in Central Haiti." Am Rev Resp Dis; 1990 September; 142(3) : 508-511
40. Colton, T : Statistics in Medicine. :Little, Brown and Company , 1st ed. 1974 November.
41. Sherlock S: Diseases of the Liver and Biliary System. Blackwell Scientific Publications, 8th edition, 1989

Appendix A

DATA BASE SHEET

Name _____ Age _____ Sex _____ Status _____

Address _____

Height _____ Weight _____

Educational Attainment _____

Occupation _____ No. of Children _____
or (dependents)

Monthly Income _____

Smoking History : No. of cigarettes/day _____

Duration _____

History of Alcohol Intake: Duration _____

: No. of bottles/glasses
consumed/day _____

: Type of alcohol taken _____

BCG Status: _____

Other illness (es): _____

TB Exposure: _____

1. Previous diagnosis: _____

2. Treatments: _____

Duration of treatment: _____

Family History: PTB (+) _____
 : Relation to patient _____

Anti-TB drugs taken:	DOSE	FREQ	DURATION
Rifampicin (RIF)	_____	_____	_____
Isoniazid (INH)	_____	_____	_____
Ethambutol (EM)	_____	_____	_____
Pyrazinamid (PZA)	_____	_____	_____
Streptomycin (SM)	_____	_____	_____

Others :

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Compliance :

Good _____ Bad:

Other drugs taken/taking:

	DOSE	FREQ	DURATION
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Chest x-ray :

Minimal	Moderate	Far - advanced
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Sputum :

AFB Stain	C + S
_____	_____
_____	_____
_____	_____
_____	_____

Treatment :

Single	_____	2 - drug	_____
3- drug	_____	4 - drug	_____

Appendix B
CODING INSTRUCTION

QU #	VARIABLE NAME	COLUMN #	PERMITTED CODES
0	AGE SEX		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 1 = MALE <input type="checkbox"/> 2 = FEMALE
1	BCGSTAT		<input type="checkbox"/> 0 = NO <input type="checkbox"/> 1 = YES <input type="checkbox"/> 9 = MISSING
2	OTHILL DM CA CTD AIDS/HIV BA/COPD STD/VD OTHERS		<input type="checkbox"/> 0 = NO <input type="checkbox"/> 1 = YES <input type="checkbox"/> 9 = MISSING
3	EVERSMO		<input type="checkbox"/> 0 = NO <input type="checkbox"/> 1 = ≤ 5YRS <input type="checkbox"/> 2 = > 5YRS
4	ALCTK		<input type="checkbox"/> 0 = NO <input type="checkbox"/> 1 = YES <input type="checkbox"/> 9 = MISSING <input type="checkbox"/> 8 = NOT APPL.
	KIND		<input type="checkbox"/> 0 = BEER <input type="checkbox"/> 1 = HARD <input type="checkbox"/> 9 = MISSING <input type="checkbox"/> 8 = NOT APPL.
	VOL: 1 BTTLE 1 BTTLE		<input type="checkbox"/> 0 = ≤ 1 BOTTLE <input type="checkbox"/> 1 = > 1 BOTTLE <input type="checkbox"/> 9 = MISSING <input type="checkbox"/> 8 = NOT APPL.
	DURN		<input type="checkbox"/> 0 = < 5YRS <input type="checkbox"/> 1 = > 5YRS <input type="checkbox"/> 9 = MISSING <input type="checkbox"/> 8 = NOT APPL.
5	TBEXPO		<input type="checkbox"/> 0 = NO <input type="checkbox"/> 1 = YES <input type="checkbox"/> 9 = MISSING
6	PREVHX		<input type="checkbox"/> 0 = NO <input type="checkbox"/> 1 = YES <input type="checkbox"/> 9 = MISSING

DRGSTKN

- 1 = NO
- 2 = YES
- 3 = MISSING

OTHDRGS

- 1 = NO
- 2 = YES
- 9 = MISSING

COMPLNC

- 0 = GOOD
- 1 = BAD
- 9 = MISSING
- 8 = NOT APPL.

RIF INH SM PZA OTHR CULTURE

- 1 = NEGATIVE
- 2 = POSITIVE
- 9 = MISSING

X-RAY

- 0 = MINIMAL
- 1 = MODERATE
- 2 = FAR ADVANCED

TX

- 1 = SINGLE
- 2 = DOUBLE
- 3 = TRIPLE
- 4 = QUAD
- 5 = FIVE
- 6 = NOT TREATED

SINGLE 2 - DRUG 3 - DRUG QUAD OTHERS STATUS

- 0 = SENSITIVE
- 1 = RESISTANT
- 9 = MISSING

Appendix C

DATE

Eduardo C. Pascual, MD
The Medical Director
Sto. Tomas university Hospital
Manila

Sir :

I would like to request your good office to grant me the permission to review the charts of our tuberculous patients admitted in our hospital, private and clinical divisions. I am presently conducting a research on pulmonary tuberculosis. The data I shall obtain are vital to this research. Attached herewith are the approvals of the Pharmacy, Therapeutics and Research Committee and the Bioethics Committee of our hospital.

Thank you very much for your kind consideration on this matter.

Sincerely,

MA. GRACIELA M. GARAYBLAS, MD
(PRINCIPAL INVESTIGATOR)

APPENDIX D
(TRANSLATION IN THE NATIONAL LANGUAGE)

PAHINTULOT

PANAHOON

Ako si _____ nasa takdang gulang, ay lubos na pinahihintulutan si Manggagamot/Bb/G. _____ na saliksikin ang mga bagay-bagay na may kinalaman sa aking sarili hinggil sa aking karamdaman. Ayon sa aking pagkakaalam, ako ay napiling kasapi sa pananaliksik na isinasagawa sa kasalukuyan tungkol sa karamdaman na tisis o tuberkulosis.

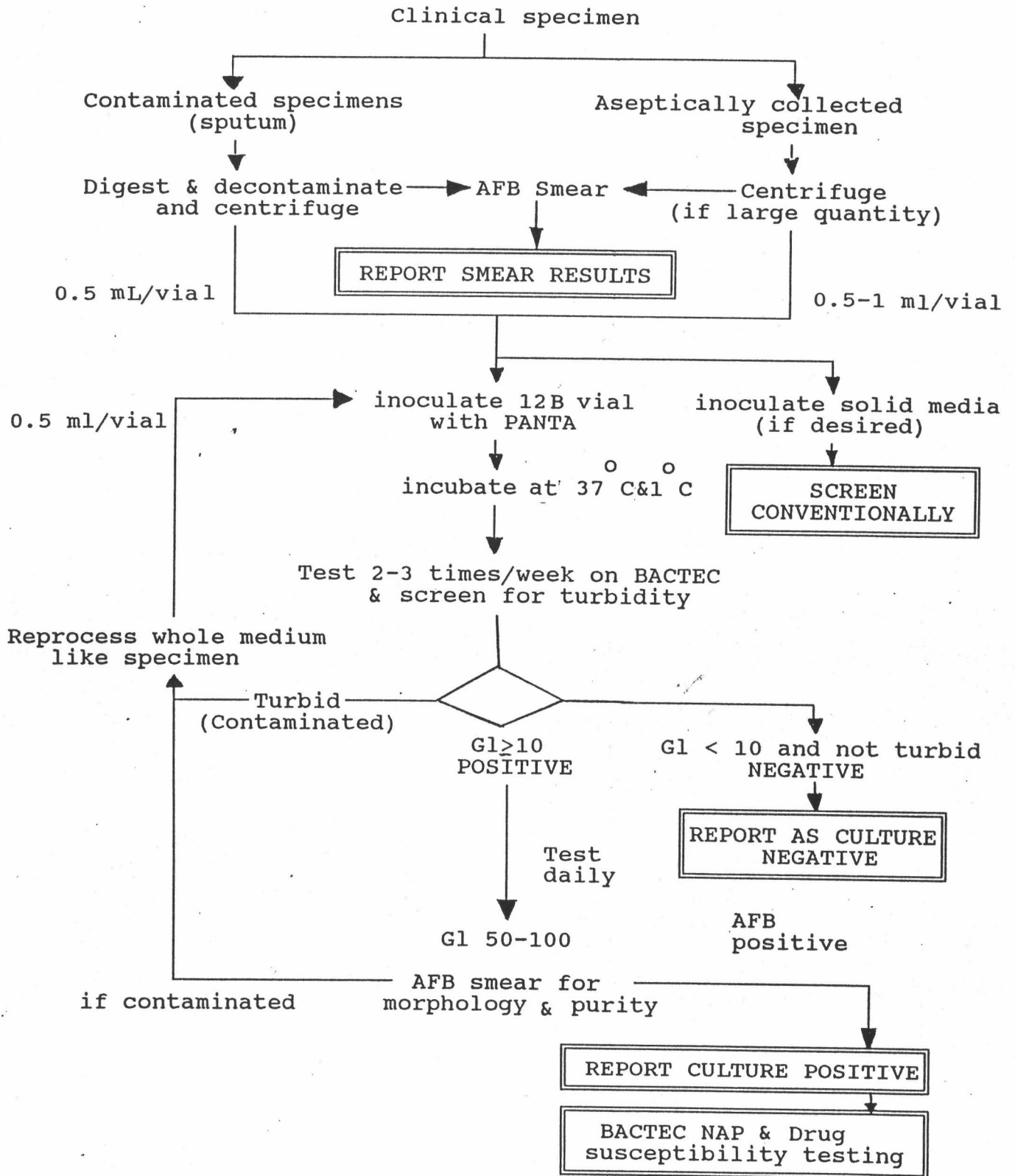
Ang pagsusuring ito ay hindi mangangailangan ng paggamit ng gamot o lunas na eksperimental o ng anumang bagay na makasasama sa aking kalagayan. Batid ko rin na ang impormasyong aking ibibigay ay lubos na kailangan para sa ikatatagumpay ng kalinangan at agham. Ang aking pag-ayon ay mahalaga sa ikasisiya ng pananaliksik na ito. Ngunit alam ko rin na maaari akong maglihim ng bagay na sa aking pananalig ay labag sa aking sariling damdamin at makasasama sa aking katauhan.

Ang lahat ng aking ibabahagi hinggil sa aking sakit ay tanging ang mga kinaukulan lamang ang makaaalam at ililihim nila ang aking katauhan.

LAGDA

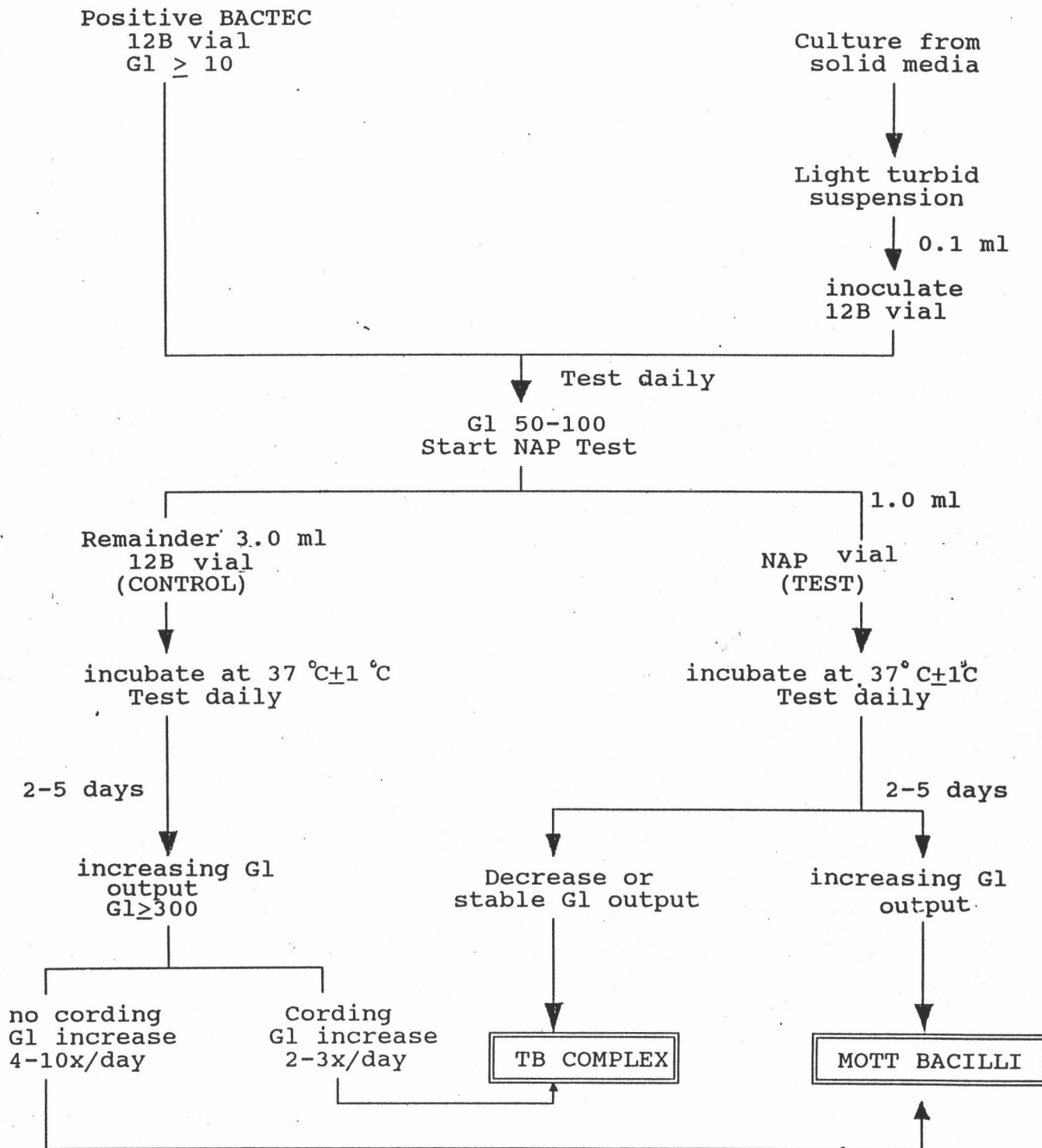
Appendix E2

OUTLINE OF THE PROCEDURE
BACTEC PRIMARY ISOLATION



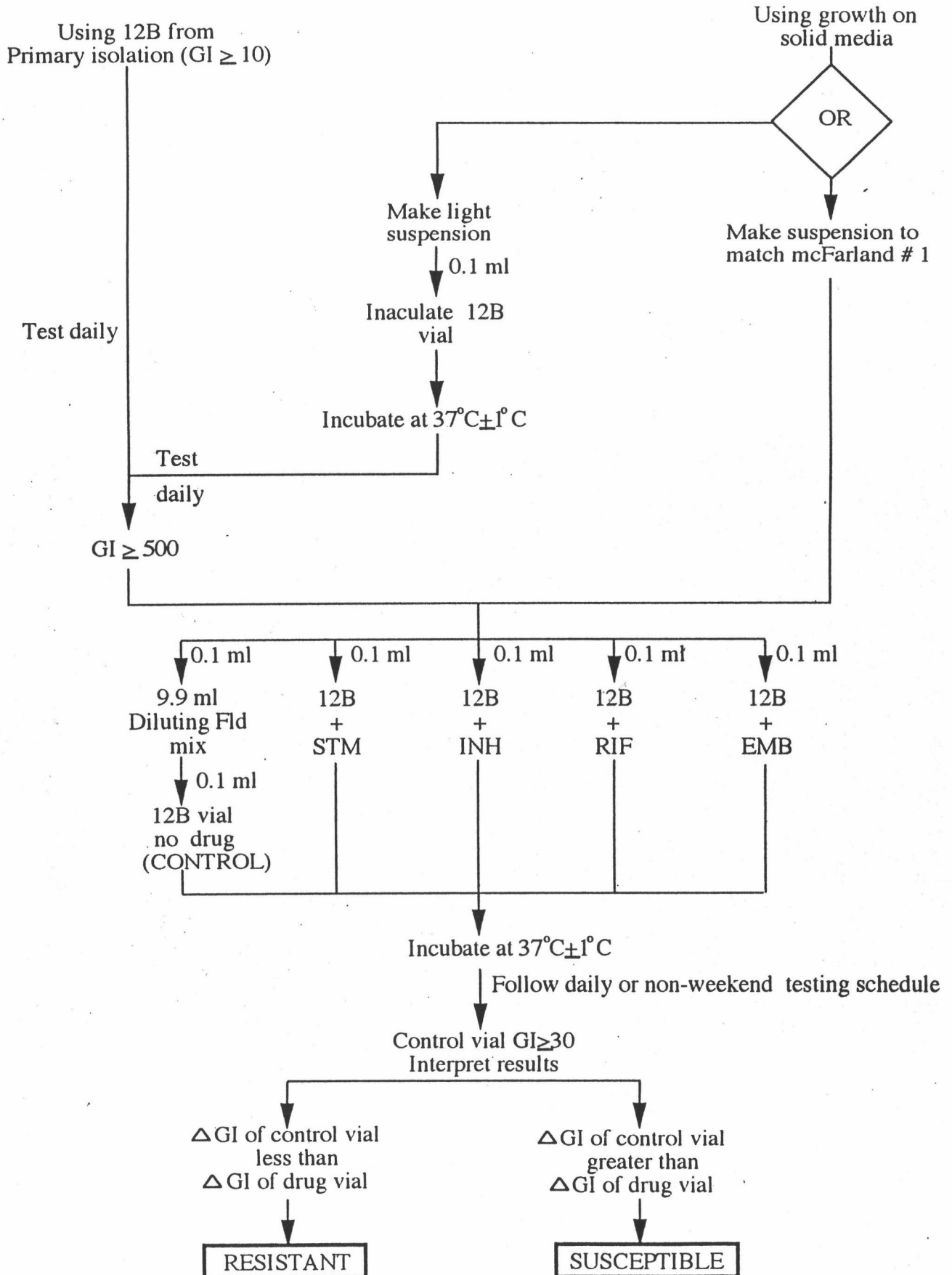
Appendix E3

OUTLINE OF THE PROCEDURE
BACTEC TB DIFFERENTIATION



Appendix E4

**OUTLINE OF THE PROCEDURE
BACTEC INDIRECT SUSCEPTIBILITY TEST**



Appendix E5

**OUTLINE OF THE PROCEDURE
BACTEC DIRECT DRUG SUSCEPTIBILITY TEST**

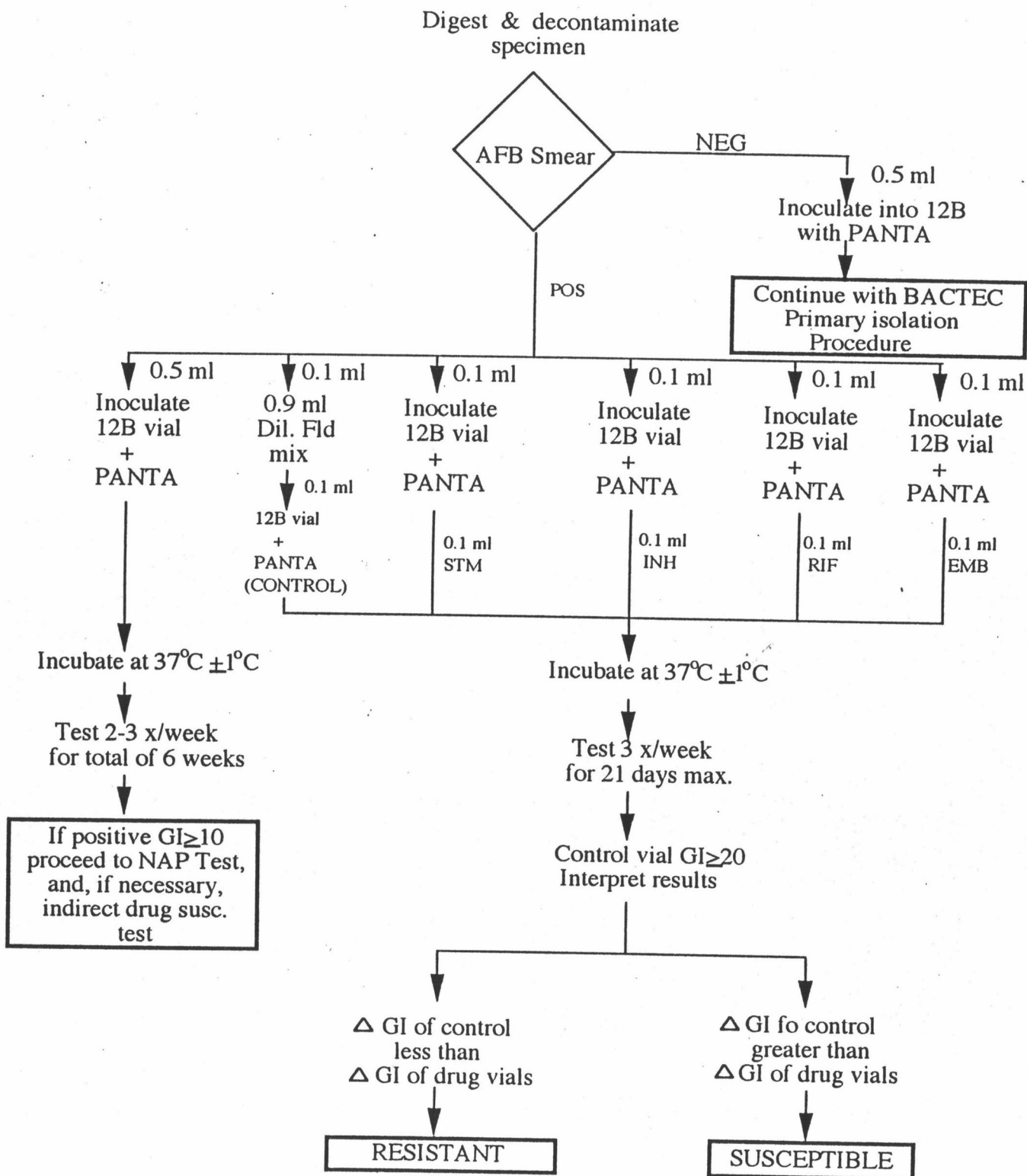


FIG. 2.1. Case-Control sample size as a function of study power and relative risk ($\alpha = 0.05$, two-sided and $p_0 = 0.2$)

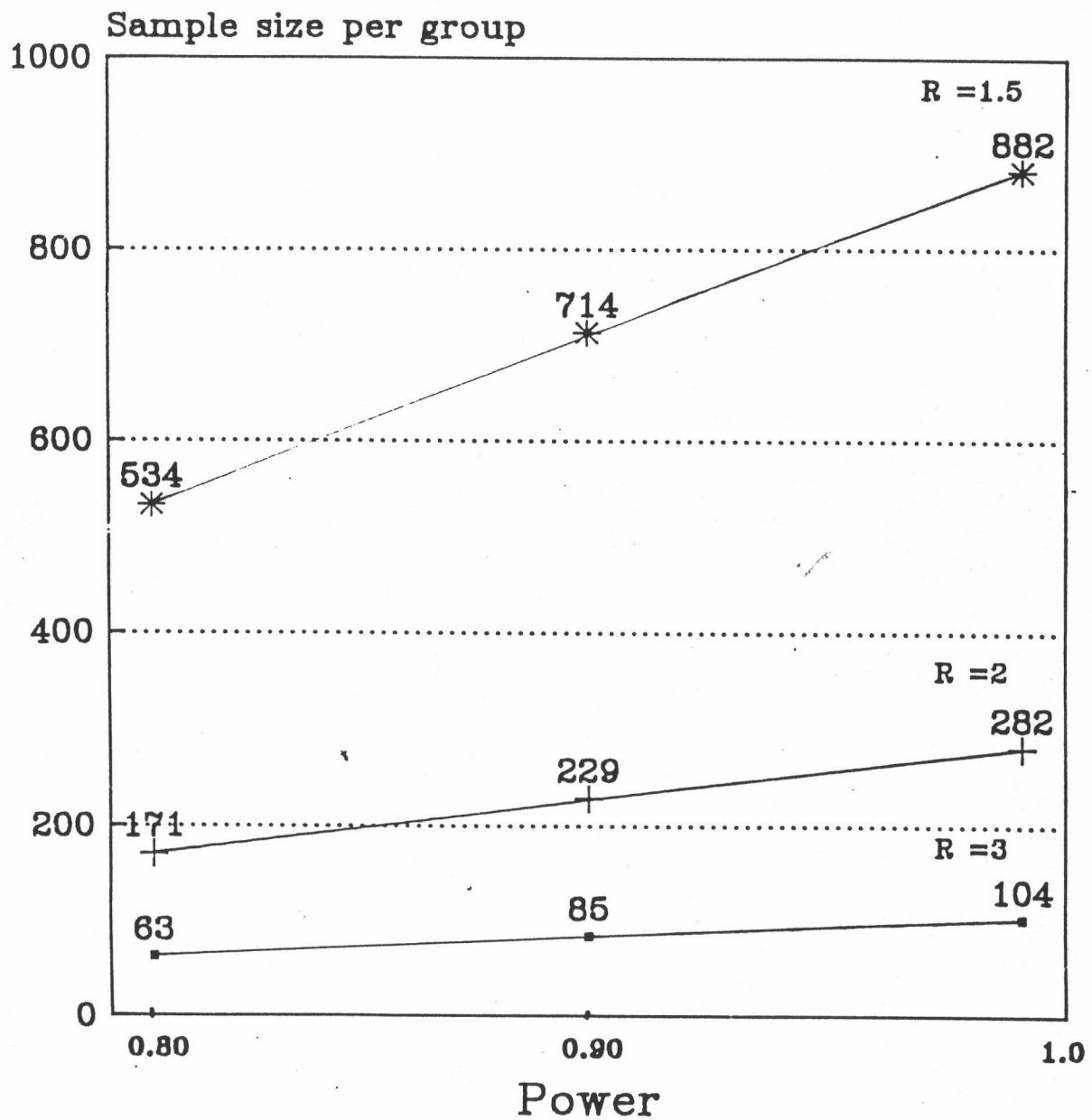
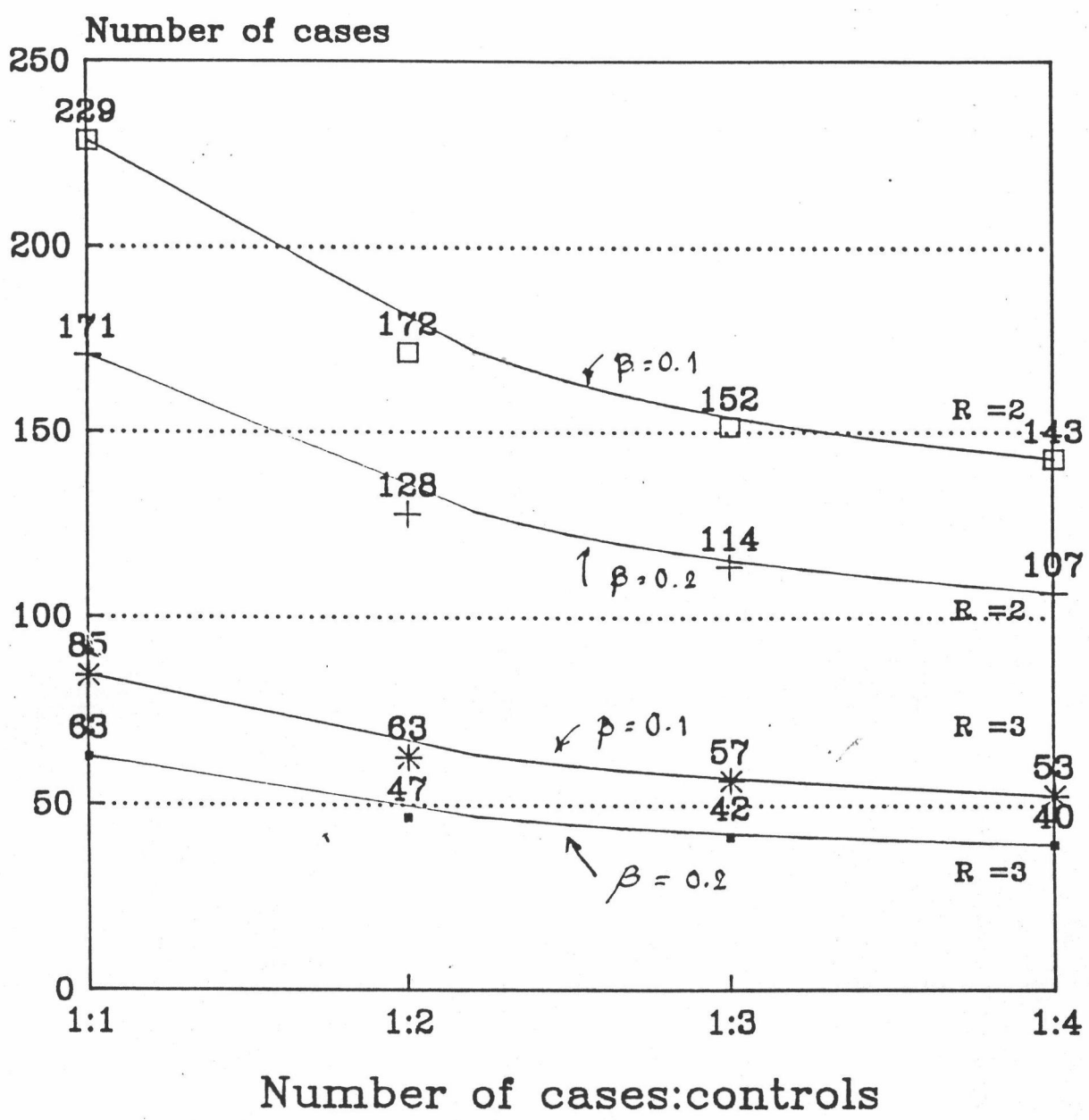


FIG. 2.2 Number of cases:number of controls
($\alpha = 0.05$, two-sided; $p_0 = 0.2$ and $\beta = 0.10$)





VITAE

Ma. Graciela M. Garayblas received her Doctor of Medicine from the Faculty of Medicine and Surgery of the University of Santo Tomas, Manila, Philippines. She specialized in Internal Medicine with preceptorship training in pulmonary medicine, allergology and immunology at the Sto. Tomas University Hospital. After residency, she became a faculty member of the same university where she is an Associate Professor in the Departments of Medicine and Pharmacology, and currently the Faculty Secretary. She was a course director of the 15th postgraduate course in Internal Medicine in 1987. She was supervisor of Medicine II from 1986 to 1992 and assistant supervisor of Pharmacology.

In 1991, she went to Gifu University, Japan to train in Experimental and Clinical Pharmacology as a Takeda Science Foundation scholar. She also had her fellowship in clinical pharmacology at the Katholieke Universiteit Leuven, Belgium as a KUL grantee.

She is a life member and fellow of the Philippine College of Physicians, Philippine Medical Association, the Catholic Physicians Guild of the Philippines, and the Medical Missions, Inc.