

Item ID Number 01796

Author

Corporate Author

Report/Article Title Typescript: Proposal - Protocol II, June 17, 1983

Journal/Book Title

Year 0000

Month/Day

Color

Number of Images 7

Description Notes Alvin L. Young filed this item under "Vietnam Veterans Twin Study." Provides proposed screening tests of hepatic function and references.

PROPOSAL - PROTOCOL II

PROPOSED SCREENING TESTS OF HEPATIC FUNCTION (modified from 3)

<u>TEST</u>	<u>DETECTS HEPATIC ABNORMALITY</u>	<u>SENSITIVITY</u>	<u>SPECIFICITY</u>	<u>RATIONALE FOR UTILIZATION</u>
Bilirubin	Biliary obstruction	No	No	Standard test for biliary obstruction, specificity increased through use of other tests
Alkaline Phosphatase	Biliary obstruction Infiltrative disease	Yes	No	Very sensitive test, specificity increased through use of other tests
SGOT	Hepatocellular necrosis	Yes	No	Sensitive test, specificity increased through use of other tests
SGPT	Hepatocellular necrosis	Yes	Yes	Test is both sensitive and specific
GTTP	Biliary obstruction Hepatocellular necrosis Ethanol ingestion	Yes	No	Helps distinguish hepatic from non-hepatic origin of alkaline phosphatase; one of the most sensitive indicators of chronic alcohol ingestion
Serum Albumin & Globulin	Cirrhosis Hepatocellular necrosis	No	No	Helpful in detecting more severe degrees of hepatic damage
Hepatitis Associated Antigen & Antibodies	Viral hepatitis	Yes	Yes	Excellent tests for understanding hepatitis infection history
Aminopyrine Breath Test	Microsome induction	No	No	Quantitates microsomal function
Serum Bile Acids	Biliary obstruction Hepatocellular necrosis	Yes	Yes	Sensitive and specific test
Porphyrins	Porphyria	Yes	Yes	Sensitive and specific test

PROPOSAL - PROTOCOL II

VIII. REFERENCES

(Mary Anne)

Alm, R., Carlson, J., Eriksson, S. Fasting serum bile acids in liver disease. Scandinavian Journal of Gastroenterology. 1982; 17; 213-218.

Anonymous. Serum bile acids in hepatobiliary disease. The Lancet. 1982; II: 1136-1138.

Arito, H., Sudo, A., Hara, N. Nakagaki, K., Torii, S. Changes in circadian sleep-waking rhythms of rats following administration of methylmercury chloride. Ind Health; 1982; 20: 55-65.

Barnett, A.H., Leslie R.D.G., Pyke, D.A. Twin studies in non-insulin dependent diabetes. In: The Genetic of Diabetes Mellitus, Kobberling, K., Tattersall, R. eds., p. 225; Academic Press, New York, 1981.

Bennett, P. H. The epidemiology of diabetes mellitus. In: Diabetes Mellitus, Volume V, Rifkin, H., Raskin, P. eds. p. 87, Prentice-Hall, Bowie, Maryland, 1981.

Berger, R., Bernheim, A., Mitelman, F., Rydholm, A. C-band pattern in lymphocytes of patients with soft tissue sarcomas. Cancer Genetics and Cytogenetics; 1983; 9; 145-150.

Blackburn, A.B. Review of the effects of Agent Orange: A psychiatric perspective on the controversy. Military Medicine; 1983; 148: 333-340.

Bogen, G. Symptoms in Vietnam veterans exposed to Agent Orange. JAMA; 1979; 242: 2391.

Buckingham, Jr. W.A.; Operation Ranch Hand. The Air Force and Herbicides in Southeast Asia, 1961-1971. Office of Air Force History, United States Air Force, Washington, D. C., 1982.

Buffler, P.A., Aase, J.M. Genetic risks and environmental surveillance: Epidemiological aspects of monitoring industrial populations for environmental mutagens. J Occupa Med; 1982; 24; 305-314.

Burgdorf, W., Kurvink, K., Cervenka, J. Elevated sister chromatid exchange rate in lymphocytes of subjects treated with arsenic. Human Genetics; 1977; 36; 69-72.

Burnstein, A.V., Galambos, J.T. (¹⁴C) Aminopyrine breath test in chronic liver disease. Preliminary diagnostic implications. Digestive Diseases and Sciences. 1981; 26; 1078-1083.

Clombi, A., Maroni, M., Ferioli, A., Valla, C., Colleti, G., Foa, V. Liquid chromatography of urinary porphyrins for the biological monitoring of occupational exposure to porphyrinogenic substances. American Journal of Industrial Medicine. 1983; 4; 551-564.

Courtney, K.D., Gaylor, D.W., Hogan, M.D., Falk, H.L., Bates R.R., Mitchell, I. Teratogenic evaluation of 2,4,5-T. Science 1970; 168: 864-866.

PROPOSAL - PROTOCOL II

- Crossen, P.E., Morgan, W.F., Horan, J.J., Stewart, J. Cytogenetic studies of pesticide and herbicide sprayers. New Zealand Medical Journal; 1978; 88; 192-195.
- Culliton, B.J. CDC finds no excess illness at Love Canal. Science; 1983; 220; 1254.
- Dabney, B.J. The role of human genetic monitoring in the workplace. Am J Occupational Medicine; 23; 1981; 625-631.
- Doss, M.O. Hepatic Porphyrias: Pathobiochemical, diagnostic, and therapeutic implications. Progress in Liver Diseases. 1982; 7; 573-?.
- Dossing, M. Changes in hepatic microsomal enzyme function in workers exposed to mixtures of chemicals. Clinical Pharmacology and Therapeutics. 1982; 32; 340-346.
- Douglas, J. G., Beckett, G. J., Nimmo, I. A., Finlayson, N.D.C., Percy-Robb, I.W. Clinical value of bile salt tests in anicteric liver disease. Gut. 1981; 22; 141-148.
- Drill, V.A., Hiratzka, T. Toxicity of 2,4-dichlorophenoxyacetic acid. Arch Industrial Hygiene and Occupational Medicine; 1953; 7; 61-67.
- Evans, H. J., O'Reordan, M. L. Human peripheral blood lymphocytes for the analysis of chromosomal aberrations in mutagen tests. Mutat Res, 1975; 31:135-148.
- Fabricant, J.D., Legator, M.S. Etiology, role and detection of chromosomal aberrations in man. J Occupational Medicine; 1981; 23;617-625.
- Feinberg, M. Gillin, J.C., Carroll, B.J., Greden, J.F., Zis, A.P. EEG studies of sleep in the diagnosis of depression. Biological Psychiatry;1982; 17: 305-315.
- Frye, J.S., Stockton, R.A. Discriminant analysis of posttraumatic stress disorder among group of Viet Nam veterans. Am J Psychiatry; 1982; 139: 52-56.
- Galizzi, J., Morgan, M.Y., Chitranukroh, A., Sherlock, S. The detection of minimal alcoholic liver disease by three methods. Scandinavian Journal of Gastroenterology. 1978; 13; 827-831.
- Gillin, J.C. Sleep studies in affective illness: diagnostic, therapeutic, and pathophysiological implications. Psychiatric Annals; 1983; 13: 367-384.
- Guilleminault, C., Dement, W.C. Sleep apnea syndromes. Liss, New York, 1978.
- Gradwohl's Clinical Laboratory Methods and Diagnosis. Sonnenwirth, A.C., Jarett, L, ed. St. Louis, C.V. Mosby Company, 1980.
- Guilleminault, C. (ed) Sleeping and waking disorders: indications and technique. Addison-Wesley, Menlo Park, CA, 1982.

PROPOSAL - PROTOCOL II

Guzelian, P.S. Research needs for hepatic injury due to environmental agents. Environmental Health Perspectives. 1983; 48: 65-71.

Hammond, R. 1979 National survey of veterans. Summary report. Reports and Statistics Service, Office of the Controller, Veterans Administration, Washington, D.C. 1977.

Helzer, J.E., Robins, L.N., Wish, E., Hesselbrock, M. Am J Psychiatry; 1979; 136: 526-529.

Clinical Diagnosis and Management by Laboratory Methods. Henry, J.B., ed. Philadelphia, W.W. Saunders Company, 1979.

Hepner, G. W., Vesell, E.S. Quantitative assessment of hepatic function by breath analysis after oral administration of (¹⁴C) aminopyrine. Annals of Internal Medicine. 1975; 83: 632-638.

Hoofnagle, J.H. Serodiagnosis of acute viral hepatitis. Hepatology. 1983; 3: 267-268.

Ibid. Table derived from data in Table 9.12, page 96.

Irving, C. S., Schoeller, D.A., Nakamura, K., Baker, A.L., Klein, P.D. The aminopyrine breath test as a measure of liver function. Journal of Laboratory and Clinical Medicine. 1982; 100: 356-?.

Jarvik, L.F., Yen, F.S., Kato, T., Moralishvili, E. Chromosome measurements in aged monozygotic twins. Human Heredity; 1971; 21: 557-576.

Koella, W.P. Neurotransmitters and sleep. In: Wheatley, D. (ed). Psychopharmacology of sleep, Raven, New York, 1981.

Kader, G.A., Griffin, P.T. Reevaluation of the phenomena of the first night effect. Sleep; 1983; 6: 67-71.

Kupfer, D.J., Targ, E., Stack, J. Electroencephalographic sleep in unipolar depressive subtypes. J Nervous and Mental Disease; 1982; 170: 494-498.

Leslie, R.D.G., Pyke, D.A. Diabetic retinopathy in identical twins. Diabetes; 1982; 31: 19-21.

McCarley, R.W. REM sleep and depression: common neurobiological control mechanisms. Am J Psychiatry; 1982; 139: 565-570.

Monroe, P.S., Baker, A.L., Schneider, J.F., Krager, P.S., Klein, P.D., Schoeller, D. The aminopyrine breath test and serum bile acids reflect histologic severity in chronic hepatitis. Hepatology; 1982; 2: 317-322.

Monteleone, P. Personal Communication, 1983. One chromosomal aberration per 10 cells is the standard for the cytogenetic laboratory at St. Louis University School of Medicine.

PROPOSAL - PROTOCOL II

Montz, S.W., Card, W.C., Kirkpatrick, R.L. Effects of polychlorinated biphenyls and nutritional restriction on barbiturate-induced sleeping times and selected blood characteristics in raccoons. Bull Environ Contam and Tox; 1982; 28: 578.

National Diabetes Data Group. Classification and diagnosis of diabetes mellitus and other categories of glucose intolerance. Diabetes; 1979; 28: 1039-1057.

Reggiani, G. Medical survey techniques in the Seveso TCDD exposure.

Rickers, H., Christensen, M., Arnfred T., Dige, U., Hess Thaysen. The diagnostic value of fasting serum total bile acid concentration in patients with suspected liver disease. Scandinavian Journal of Gastroenterology. 1982; 17; 565-570.

Rowe, V.K., Hymans, T.A. Summary of toxicological information of 2,4-D and 2,4,5-T type herbicides and an evaluation of the hazards to livestock associated with their use. American J Vet Res; 1954; 15: 622-629.

Sandberg, A.A., ed. Sister Chromatid Exchange. Alan R. Liss, Inc., New York, 1982.

Saunders, J.B., Lewis, K.O., Paton, A. Early diagnosis of alcoholic cirrhosis by the aminopyrine breath test. Gastroenterology. 1980; 79; 112-114.

Schmidt, H.S., Kaelbling, R. The differential laboratory adaptation of sleep parameters. Biol Psychiatry; 1971; 33: 33-45.

Seabury, J.H. Toxicity of 2,4-dichlorophenoxyacetic acid for man and dog. Arch Environmental Health. 1963; 7: 202-209.

Soldatos, C.R., Kales, A. Sleep disorders: research in psychopathology and its practical implications. Acta Psychiat Scand; 1982; 65: 384-387.

Sotaniemi, E.A., Sutinen, S., Arranto, A.J., Olavi Pelkonen, O. Liver injury in subjects occupationally exposed to chemicals in low doses. Acta Medica Scand 1982; 212; 207-215.

Chemical Porphyria in Man. Strik, JTTWA, Koeman, J.H., eds. New York, Elsevier/North Holland Biomedical Press, 1979.

Taylor, C.C. Chemical toxicity and mental disorder. American Journal of Psychiatry; 1974; 131: 609-?.

9.

Uppal, R.P., Garg, B.D., Ahmad, A. Effect of malathion and DDT on response of mice to pentobarbitone. Ind J Exp Biol; 1982; 20: 628-629.

Vainio, H., Sorsa, M. Application of cytogenetic methods for biological monitoring. Annual Reviews of Public Health; 1983; 4; 403-407.

PROPOSAL - PROTOCOL II

Waksvik, H., Magnus, P., Burg, K. Effects of age, sex and genes on sister chromatid exchange. Clinical Genetics; 1981; 20: 449-454.

Walsh ref 5

Walsh ref 6

Walsh ref 7

Walsh ref 8

Walsh ref 9

Walsh ref 24

Walsh ref 25

Walsh ref 26

Walsh ref 22

Walsh ref 1

Walsh ref 2

Walsh ref 10

Walsh ref 11

Walsh ref 12

Walsh ref 13

Walsh ref 15

Walsh ref 14

Walsh ref 18

Walsh ref 19

Webb, W.B., Campbell, S.S. Hereditary aspects of sleep structure and length: twin correlations. Sleep Research; 1982; ? :102-?.

West, K.M. Diabetes; 1975; 24: 461- .

Wilmer, H.A. Post-traumatic stress disorder. Psychiatric Annals; 1982; 12: 995-1003.

PROPOSAL - PROTOCOL II

Wolff, S. Problems and prospects in the utilization of cytogenetics to estimate exposure at toxic chemical waste dumps. Environmental Health perspectives; 1983; 48; 25-27.

Zapato-Gayon, C., Zapato-Gayon, N., Gonzalez-Angulo, A. Clastogenic chromosomal aberrations in 26 individuals accidentally exposed to ortho dichlorobenzene vapors in the National Medical Center in Mexico City. Archives of Environment Health; 1982; 37; 231-235.

Zung, W.W.K., Wilson, W.P. Sleep and dream patterns in twins: Markov analysis of a genetic trait. In: ?