



Set Guidelines for the Elimination of TB

A comprehensive guideline for the control of tuberculosis in Manitoba has been drawn up by the Tuberculosis and Respiratory Disease Service of the Sanatorium Board of Manitoba.

The recommendations, designed for the attention of every physician in the province and for all other people involved in anti-tuberculosis work, particularly concern groups of people who are infected with the tuberculosis germ, the use of a single drug to inhibit the development of active disease, and case-finding surveys.

Tuberculin Reactors

"Every positive reactor (to the tuberculin skin test) is at some risk of developing active tuberculosis," the brief states. "Thus, in order to eliminate tuberculosis, it is recommended that individuals with a Mantoux tuberculin test of 10 millimeters or more induration (using five international tuberculin units of PPD) should receive prophylactic anti-tuberculosis chemotherapy."

The ideal program would incorporate prophylactic drug treatment of all people who are infected with the tubercle bacillus. But since at this time it is neither possible nor practical to administer the tuberculin test to the entire population and treat all positive reactors, certain priorities have been set, taking into consideration the relative risk of developing active disease, the opportunity of infecting others (particularly children), and available resources.

According to the statement, *drug prophylaxis* — consisting of a daily dose of INH for one year* — is mandatory for the following groups of positive tuberculin reactors:

1. Individuals with a positive tuberculin skin test and a negative chest x-ray IF:

- (a) They are known converters, of any age.
- (b) They are under the age of 20.
- (c) They are placed on steroid therapy.
- (d) They undergo a gastrectomy, or they have undergone a gastrectomy in the past.
- (e) They have reticuloendothelial disease, such as leukemia or Hodgkin's disease.
- (f) They have a period of unstable severe diabetes mellitus.
- (g) They have a pneumoconiosis.
- (h) They are children who have developed measles or whooping cough. (They should receive eight weeks of chemoprophylaxis if they have been treated before. Or, if they have not been treated before, the course of chemoprophylaxis should be extended to 12 months.)
- (i) They have received a measles vaccine. (The treatment recommended is the same as that outlined in h.)
- (j) They are pregnant women,

who have inactive tuberculosis previously untreated with chemotherapy — or have radiological shadows consistent with inactive tuberculosis. (Chemoprophylaxis should be started in the last trimester and continued for one year.)



The aim is to create a new generation that is free of tuberculosis. A primary method is INH prophylaxis for special segments of the population who are now infected with the tubercle bacillus. The first target — the six-year-old positive reactor.

—Portugal Photography

2. Ex-patients with inactive tuberculosis who have had active tuberculosis but have had no drug therapy or inadequate drug therapy (i.e. less than one year).

3. Patients who have not previously had a diagnosis of tuberculosis, but who have radiological findings consistent with healed adult pulmonary tuberculosis and a positive tuberculin test.

4. All household contacts of a reported case of active tuberculosis.

(Contacts should receive chemoprophylaxis for one year, if the reaction to the Mantoux test with 5TU is five millimeters or more induration. Household contacts, who show a negative reaction to the tuberculin test, should be retested every three months until at least three months have elapsed since they were last exposed to infection.)

Surveys

In recent years it has been the policy of the Sanatorium Board to restrict mass surveys to those areas where the incidence of tuberculosis is highest, and to high risk groups or special groups, such as teachers, barbers and foodhandlers.

The new TB Control Guideline spells out the Board's policy in detail:

Tuberculin skin testing surveys (and follow-up of positive reactors) are recommended for school enterers, for school leavers and university students, for health sciences students,

Manitoba Embarks On Child-Centred Control Program

Tuberculin testing of children entering school — coupled with the investigation of contacts and drug treatment for all positive reactors — offers a practical and effective means of controlling tuberculosis on a wide scale and preventing the spread of infection and disease to our youngest generation.

This is the thinking of leading experts in the field of communicable diseases, and the joint objective of the Sanatorium Board of Manitoba and the provincial Department of Health, who hope to establish a child-centred tuberculosis control program throughout the province.

Tuberculin testing of school enterers has already been instituted (or is about to begin) in several Manitoba municipalities and in the city of Winnipeg, and plans are under way to extend the program to other areas. The Sanatorium Board, through the Christmas Seal Fund, is providing the testing material as well as medical and technical advice. Public health nurses, working out of the various health units, are doing the testing and assisting with the follow-up of positive reactors.

According to Dr. E. S. Hershfield, associate medical director of the SBM Tuberculosis and Respiratory Disease Service, the project is based on several universally accepted principles.

The *first* is the value of the tuberculin skin test as a case-finding tool. A positive tuberculin reaction is evidence of a past or recent infection with the tubercle bacillus. It does not necessarily indicate the presence of active disease.

The *second* point is that most adult disease today arises out of an infection picked up in early life. Just why people break down in later life with active disease is not fully understood, Dr. Hershfield says. But

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faculty members and employees, for people who are known to have been in contact with tuberculosis infection, and for immigrants.

Regular chest x-rays are recommended especially for school teachers and employees (including school bus

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Address all communications to:

THE EDITOR, SBM NEWS BULLETIN
800 Sherbrook Street, Winnipeg 2, Manitoba
Second Class Mail Registration Number 0324.

Year's Biggest Survey Opens in St. Boniface

Around 5,000 free chest x-rays, lung function studies and diabetes tests were provided by the Sanatorium Board's Christmas Seal Unit during the opening week of a 17-day survey of the city of St. Boniface this month.

The survey — conducted by the Preventive Health Services of the Board in cooperation with the University of Manitoba and the St. Boniface Health Unit — winds up this year's community screening program to detect tuberculosis and other chest disease among general adult populations and to learn more about the incidence and nature of chronic bronchial disease. The fingertip blood tests for diabetes are carried by the Sanatorium Board as an extra service, with Dr. Barry Kaufman of the University of Manitoba serving as medical director of the project.

1969 Program

The survey in St. Boniface represents the biggest screening operation of 1969, and it is about the 90th community to be visited by our Christmas Seal unit this year.

Some 75,000 free examinations have been administered by the Preventive Health Services to date. These include 43,475 chest x-rays, 2,627 tuberculin skin tests, 19,251 diabetes tests and 18,740 lung function studies.

From among chest x-ray films taken on general surveys and read



Mayor Edward Turner of St. Boniface (far right) turned up with several aldermen for the opening of a mass screening survey at the J. G. Van Belleghem School on October 6. Pictured with the mayor at the blood testing table are Mrs. Joan Crawford, LPN, who is shown administering a diabetes test to Mrs. J. A. McGurran, chief convener who marshalled hundreds of volunteers to assist the Sanatorium Board's Survey Department; and from left to right, Mrs. Francis McKean, chairman of the follow-up committee; T. A. J. Cummings, executive director of the Sanatorium Board, Mrs. Myron Zuk, chairman of the door-to-door canvass, and Mrs. Allan Salstrom, clinic chairman.

—Portugal Photography

so far at the D. A. Stewart Centre, three new active cases of tuberculosis have been reported, as well as 369 inactive cases, 11 suspect cases and 193 other non-tuberculous chest conditions.

Analysis of the first 10,000 diabetes tests provided this year has turned up 133 cases of previously unknown diabetes and 200 cases of possible diabetes. As in other years, (Continued on Page 3)

Seven Out of 25 Develop Tuberculosis

Seven out of 25 students infected seven years ago with tuberculosis, but unprotected with INH prophylaxis, have since broken down with active disease.

This is the sort of news that should penetrate the minds of everyone dealing with tuberculosis, says L. L. Taylor, executive director of the Stark County (Ohio) TB-RD Association, in a recent article in the Bulletin of the National Tuberculosis and Respiratory Disease Association.

According to his story, an epidemic of tuberculosis infection developed in an Ohio school back in 1962 when a sixth grade teacher entered the school at mid-term without the usual screening of school employees for possible tuberculosis.

The teacher, it turned out, had far advanced, active tuberculosis with cavitation and also tuberculosis of the larynx — and by the time his disease was discovered four months later, he had transmitted the germ to all 44 students in his class.

Most of the children, when examined, had severe reactions to the tuberculin skin test. Three were hospitalized with active tuberculosis, and 16 students — because of x-ray findings — were put on isoniazid (INH) as a preventive measure. Seven years later, not one of these

16 children had developed tuberculosis.

But what happened to the remaining 25 children, who were unprotected with chemoprophylaxis, is a tragic story, Mr. Stark says. Each year, one of them has developed active disease — and so far, that's seven, or 28 percent of the group.

The author points out that back in 1962 the theory was that recent converters should be given drug treatment. The physician in charge of the skin testing program said there was no way to determine how many of the 25 were recent converters, and since they showed no evidence of tuberculosis on x-ray, drug prophylaxis was not recommended for them.

Now, with the Thoracic Society's strong statement in 1967 on chemo-

prophylaxis, we know that every one of the students could have benefited from a one-year course of INH, he says. And steps are now being taken belatedly to place the remaining 18 on drug treatment.

The story emphasizes several things:

— The importance of careful follow-up.

— The great value of chemoprophylaxis.

— The fact that TB epidemics flare up even where there are well-run TB control programs.

It also offers more proof that every tuberculin reactor could benefit from one year of INH.

HARRY V. RAWLINSON

With regret, the Sanatorium Board reports the death of Harry Victor Rawlinson, handicraft instructor at the Manitoba Sanatorium, Ninette.

Mr. Rawlinson, who was 67 years old, died September 19 after a brief illness. Born in the United Kingdom, Mr. Rawlinson came to Canada in 1930 and lived in Winnipeg for a number of years. He became ill with tuberculosis in March, 1962, and following his recovery, joined the sanatorium occupational therapy department as a part-time instructor in 1963. He became a full-time staff member three years ago.

Mr. Rawlinson will be greatly missed by many patients and staff members. He was a valued employee.

Board Donates Over \$42,000 For Research

Every once in a while, the News Bulletin publishes a list of individuals and organizations who send gifts of money to further the work of the Sanatorium Board of Manitoba. And every year we also take a little space to thank the thousands of people throughout the province who support the Christmas Seal Campaign to combat tuberculosis and other respiratory diseases.

Where do all the contributions go? In the first place, of course, a large proportion of the money (primarily Christmas Seal donations) is used to help the Sanatorium Board carry on a province-wide program to prevent ill health. But a substantial amount is also used to finance research into the means of preventing and treating seriously disabling illness and injury.

Altogether, in the past three years the Sanatorium Board, through special funds, has contributed over \$42,000 to research.

Of this amount, \$16,714 has been forwarded to the Canadian Tuberculosis and Respiratory Disease Association in Ottawa, to help finance a nation-wide research program into the unsolved problems of tuberculosis, the fields of acute and chronic respiratory disease, and disorders of pulmonary function. Three of the current CTRDA-sponsored projects are being carried out at the University of Manitoba under Dr. Bryan W. Kirk, Dr. E. E. Faridy and Dr. N. L. Stephens.

In the field of physical medicine and rehabilitation, over \$25,000 has been set aside for several important investigations, primarily in the fields of neuromuscular disease, arthritis, hemiplegia and prosthetics and orthotics research.

A current project, for example, concerns the estimation of conduction velocities in sensory pathways. Financed by the Manitoba Rehabilitation Hospital Research Fund, this study involves the use of highly sensitive equipment and computer, with which it will be possible to calculate the length of time it takes for an impulse to travel from skin to the brain and possibly, to pinpoint the origin of responses in the brain. Dr. M. G. Saunders is in charge of the project.

Other investigations have been concerned with body image and postural sense in the rehabilitation of patients with hemiplegia, measurement of spasticity in patients with such conditions as multiple sclerosis and paraplegia, and the factors involved in reducing this spasticity by cooling methods.

The Sanatorium Board has also set aside \$10,000 for our Prosthetics and Orthotics Research and Development Unit to provide special electrical equipment for research in the bio-engineering field. With this equipment it has been possible to develop electronic controls for a small car for a thalidomide child, and to design a device that aligns parts of artificial limbs quickly and

tely.

The Volunteer Services of the Manitoba Rehabilitation Hospital

cordially invites everyone to

THE CHRISTMAS CANDLE FAIR

Manitoba Rehabilitation Hospital Auditorium

Friday, October 31, 1969

09:00 - 15:30 HOURS

Featuring a variety of holiday candles . . . Rocking horses and doll cradles . . . Basketry, pottery and small gift items . . . Christmas cards and giftwrap.

Proceeds to the MRH Special Equipment Fund

Guidelines

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drivers), for university students, faculty members and university employees, for food handlers, barbers and hairdressers, for residents and staff in nursing homes and senior citizens' homes, for miners, immigrants and people who have been exposed to tuberculosis infection.

In addition, everyone over the age of 40 should have an annual chest x-ray.

BCG Vaccination

The anti-tuberculosis vaccine, BCG, should be administered to people with negative reactions to the tuberculin skin test if they are:

1. Health sciences students, faculty and employees of a university.
2. High school students in an area where tuberculosis is endemic.
3. Newborns in endemic areas and in native populations.

* In a dosage of 300 mgms per day for adults and 10 mgs per kilo body weight for children.

SURVEY

(Continued from Page 2)

about one out of every 100 persons examined is found to have previously unknown diabetes, Dr. Kaufman reports.

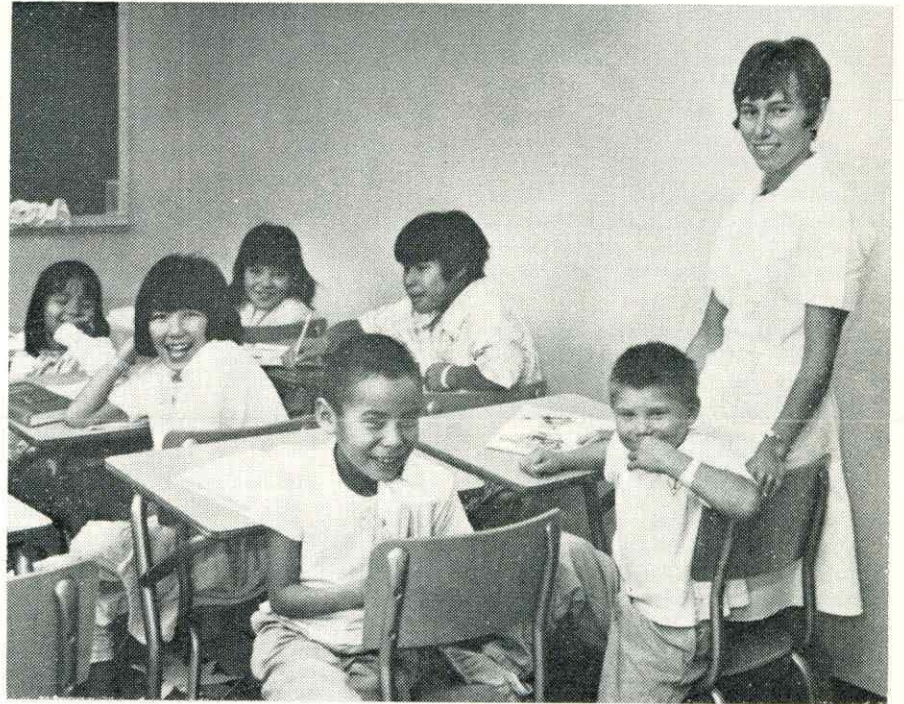
They Come and They Go at Stewart Centre School

There's nothing routine about the children's school at the D. A. Stewart Centre. Faces change so quickly that the teacher is never quite sure how many pupils she will have in her class from day to day, or just what grades she will be required to instruct.

So formality and strict schedules give way to a highly flexible school program — and as far as the teacher, Mrs. Mary Koonz is concerned, the system works well.

American-born Mrs. Koonz recently joined the Sanatorium Board staff because she wanted a teaching job that was out of the ordinary. For two years after graduation from the University of Wisconsin, she taught both elementary and high school English in Milwaukee; then following a move to Winnipeg with her husband last June, she decided to look for something different. A Sanatorium Board ad for a combined teacher and occupational therapy technician offered the opportunity.

Working under the direction of the chief occupational therapist at the Manitoba Rehabilitation Hospital, Mrs. Koonz is responsible for the general activity program in the D. A. Stewart Centre. Her duties involve crafts instruction and some bedside teaching for adult patients, as well as supervision of daily classes



Mrs. Mary Koonz with some of her recent students in the D. A. Stewart Centre classroom. —Portugal Photography

for children.

Although dozens of children are admitted to the Stewart Centre each year, the average daily enrollment in the hospital school is only about seven or nine students. About one half of them have active tuberculosis (in the convalescent stage); the other half are on preventive treatment. The constantly changing make-up of the class is primarily due to this latter group who, as soon as their disease is diagnosed as inactive, are discharged home on drug prophylaxis.

Despite the smallness of the group, the children demand most of the teacher's time. They need intensive

help, so they get a lot of individual attention, Mrs. Koonz relates — both in the schoolroom in the morning and in the craftsroom afternoons where for one hour they joyfully occupy themselves with crayons, scissors and paints.

They're wonderful children, beams Mrs. Koonz. They're so polite, delightful to teach and appreciative of everything you do for them.

"The only frustrating part of this job is the little time you actually have with them. So often, when you feel that you are beginning to make real progress, the children leave — and there you are with more new faces the next day."

Anatomic Anne — A Welcome Gift



Miss Agnes Fleury, (left) director of nursing service at the Manitoba Rehabilitation Hospital and D. A. Stewart Centre, and Mrs. Edith Stevenson, M.R.H. nursing supervisor, demonstrate cardiopulmonary resuscitation for Mrs. Wilf Bardsley, an active member and past president of the Ladies Auxiliary of the Associated Canadian Travellers.

—Photo by Children's Hospital Photography Department

During the coming months both the professional and non-professional staff of the Sanatorium Board of Manitoba will learn the ABC's of cardiopulmonary resuscitation, thanks to the gift of a special training manikin by the Ladies' Auxiliary to the Associated Canadian Travellers, Winnipeg Club.

Anatomic Anne is a 70-pound partial manikin that visually shows the circulation of blood and inflation of the lungs during the performance of external cardiac massage and mouth-to-mouth resuscitation.

The lungs will not inflate, nor will blood flow in sufficient volume unless the correct procedure is followed. The trainee must learn to tilt the head back to the proper position to open the airway, to ventilate the lungs in the recommended ratio, and to exert enough pressure to depress the lower sternum 1½" to 2" (60 times per minute) to force blood out of the heart in sufficient volume.

Anatomic Anne is a valuable supplement to our hospitals' teaching program. It will benefit everyone.

13th Course in Rehabilitation Nursing

The 13th postgraduate course in Rehabilitation Nursing got under way at the Manitoba Rehabilitation Hospital on October 30th.

Twelve graduate nurses — half of whom are from other hospitals in Manitoba and Saskatchewan — are registered in this three-week course, which is held twice yearly. The aim is to teach the special skills and philosophy required for the rehabilitation of the physically disabled, and to explain the role of other professional disciplines in the treatment programs. The day-long sessions include lectures and demonstrations by representatives of the various hospital departments and of the medical and consultant staff, as well as observation in the treatment areas and on the nursing wards.

The course director is Mr. Doris Setter, nursing instructor at the Manitoba Rehabilitation Hospital.

Nurses enrolled in the course are Mrs. Susan Jackson, ward supervisor, Provincial Geriatric Centre, Swift Current; Mrs. Mercedith White, assistant head nurse, Dauphin General Hospital; Mrs. Helen Gibney, director of nursing Services, Provincial Geriatric Centre, Wolseley, Sask.; Mrs. Vivian MacMillan, assistant nursing supervisor, Provincial

Geriatric Centre, Melfort, Sask.; Miss Barbara Bernard, nursing instructor, and Mrs. M. Ogilvie, head nurse, Tache Hospital, Winnipeg; and Mrs. Marjorie Robinson, medical clinical instructor, Union Hospital, Moose Jaw.

Sanatorium Board staff who are also registered are Mrs. Sandra Hill (R-4), Miss Gloria Nebre and Mrs. Jessie Headon (R-5), and Mrs. Gertrude Fender (C-2), Miss Teodora Pontade (R-6).

Don't Miss the Fun at the . . .

Manitoba Health Conference

Fun Night

Winnipeg Auditorium

18:30 Hours — Wednesday
November 19, 1969

Smorgasbord . . . Dancing to
the orchestra of Jimmy King
Entertainment . . . Refreshments

Tickets: \$3.50 per person,
available at the SBM
Executive Office

Dress: Optional . . . costumes if
you wish (old-time, contemporary,
futuristic)

Our Thanks to Campaign Helpers

Ninety-seven members of the Professional Engineers' Wives turned up at our hospital on one evening. On another, several score women representing the Ukrainian Catholic Women's League came. The Calvary Temple Mission Circle set aside every other Friday for this special work. So did members of the West Winnipeg Rotary-Anns.

And so it goes during the month of October when preparations get under way for the annual Christmas Seal Campaign against tuberculosis and other respiratory disease.

In early November approximately 210,000 envelopes, containing this year's Christmas Seals and a letter outlining their work in the preventive field, will be delivered to homes throughout the province — and to meet the mailing deadline, the Sanatorium Board is depending heavily on the help of some 400 volunteer "envelope stuffers".

Aside from the groups already mentioned, the Christmas Seals Department receives daytime help from women members of the Granite and Victoria curling clubs, and on various evenings throughout the month, from the Zonta group in Winnipeg, the Ladies' Auxiliary to the Associated Canadian Travellers, the South Winnipeg Kiwanis, the staff of the Great-West Life Assurance Company and the Volunteer Service of the Manitoba Rehabilitation Hospital.

On one special "blitz" night, 100 women from a number of Winnipeg business firms, plus a group of high school students and members of the 65th Venture Boy Scout Troop, stuffed 40,000 envelopes for us. That same day, our mailing room set a record when 33,000 envelopes sailed through the postage machine, then were tied and bagged ready for mailing.

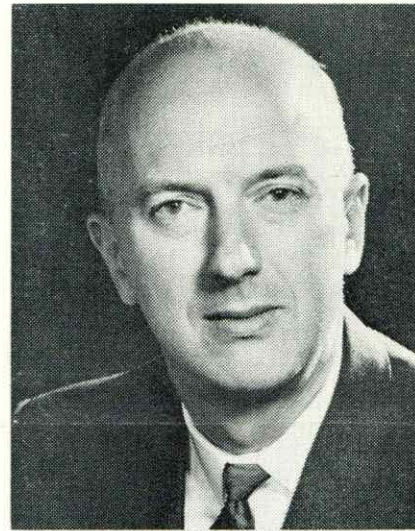
We are proud and appreciative of the wonderful help we receive from our volunteers, and also from members of our own staff who often contribute extra time to this important work.

Board Welcomes New Member

A warm welcome is extended to Stanley M. Davison, senior vice-president of the Manitoba and Saskatchewan division of the Bank of Montreal, who this month accepted membership on the Sanatorium Board of Manitoba.

Mr. Davison, who attends his first meeting of the Board at the end of this month, joins 18 other elected citizen members and four statutory members (appointed by the provincial Department of Health), who together are responsible for the overall direction of our various operations in the hospital and health field.

Born and educated in British Columbia, Mr. Davison joined the Bank of Montreal in 1947. He has served the bank in British Columbia and Alberta and spent several years at the head office in Montreal. He was appointed vice-president of the Manitoba and Saskatchewan division in early 1968, and moved up to the senior vice-presidency in November



S. M. DAVISON

of that year.

Mr. Davison is married, and has one son and two daughters. He is also a member of the Royal Trust Company Advisory Board, and a director of Rainbow Stage.

CHILD-CENTRED CONTROL PROGRAM

(Continued from Page 1)

we do know that most tuberculosis today is secondary TB in the true sense of the word.

The *third factor* in the child-centred program is the effectiveness of the anti-tuberculosis drug INH as a prophylactic measure. The theory is that a six-year-old positive reactor, who is given INH daily for one year, will not break down with active tuberculosis in later life. Extensive clinical trials conducted in various parts of the world over the past 15 years support this thinking.

Compared to mass community surveys, the child-centred program is more efficient and practical. It involves:

1. The yearly testing of all children entering the first grade of school.
2. The examination of teachers and all school employees (including bus drivers).
3. Identifying the positive reactors, investigating the reactors'

families and associates, and pressing on until the source of infection is found.

4. Hospitalization of patients with active disease and protection of the infected individuals through chemoprophylaxis and lifetime surveillance.

"We choose the six-year-old population as the focal point for the program because they are accessible and because they are young enough so that it is not too difficult to trace the source of infection," the doctor explains. "We also feel that this age group needs special protection because as they grow older the incidence of infection rises. At this time the incidence of tuberculosis infection in children entering school for the first time is only about one percent; but as they are exposed to more people, this incidence jumps to seven or eight percent by the age of 13, and to around 20 percent at the age of 20."*

The success of the child-centered program depends largely on the degree of cooperation between government and voluntary agency, and on the maintenance of uniform effort in all areas. This project involves much more than case finding, Dr. Hershfield points out. "It goes far beyond this to lifetime surveillance. Tuberculin testing alone means very little. Follow-up is everything."

The discovery of a positive reaction in a child is a danger signal that calls for immediate action and plugging the source of infection, he says. If the program is carried out uniformly with this thought in mind, we should be able to create a generation that is either free of disease, or positive to the tuberculin test but having had the protection of drug prophylaxis.

And eventually we should end up with a new generation that is entirely free of the tubercle bacillus.

* Because of this rapid rise in infection rates, it is planned to include school leavers in the tuberculin testing-chemoprophylaxis program within the near future.

BULLETIN BOARD

Immediately following the three-day Symposium on Respiratory Disease this month, Dr. R. M. Cherniack and Dr. E. S. Hershfield flew to Ottawa to take part in the Fourth National Tuberculosis Conference sponsored by the Canadian Tuberculosis and Respiratory Disease Association. Dr. Cherniack, medical director of our TB and Respiratory Disease Service, outlined some problems of chronic obstructive lung disease. Associate medical director Dr. E. S. Hershfield talked about the integration of tuberculosis into general medicine.

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On November 15, Dr. R. R. P. Hayter, director of physical medicine at the Manitoba Rehabilitation Hospital, will present a paper on Modular Pylon Protheses for Leg Amputees at a meeting of the Minnesota Physiatric Society at the Mayo Clinic in Rochester.

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Beginning November 1, the Manitoba Rehabilitation Hospital and D. A. Stewart Centre will convert to the metric system of weights and measures — and to the 24-hour clock.

The metric system has the advantages of consistency, accuracy and simplicity (as compared to our old Imperial system), and it is the only internationally accepted system of measurement in medicine. It is hoped that all hospitals in metro Winnipeg will have "gone metric" by January 1, 1970.

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Patients in the D. A. Stewart Centre are happily working their way through a case of apples — a gift from Dr. R. M. Cherniack in appreciation for the assistance they gave in the assembly of respiratory questionnaires for the preventive health survey in St. Boniface this month. About a score of patients spent numerous hours collecting and stapling the six-page questionnaire. They did 10,000 of them.

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Our thanks are also extended to the 48 staff members of the Manitoba Rehabilitation Hospital who donated blood at the Red Cross Clinic on October 9 at the Winnipeg General Hospital School of Nursing.

★ ★ ★

Miss Agnes Fleury, director of nursing service at the Manitoba Rehabilitation Hospital, Mrs. Doris Setter, nursing instructor, and Mrs. P. Torgeron, day supervisor at the D. A. Stewart Centre, attended a two-day Respiratory Nursing Care Conference, sponsored by the Intensive Care Unit at the Winnipeg General Hospital October 14 and 15.



Recent graduates of the Nurses' Assistants and Nursing Orderlies Training Program at the Manitoba Rehabilitation Hospital are pictured with their instructor following the graduation ceremony in the hospital auditorium on October 2. The 13th group to complete the three-month course, they are, left to right — Standing: Miss Lora Loewen, valedictorian; Roland Darel, winner of the Manitoba Association of Certified Orderlies book prize, Ray Insanali and Mrs. Doris Setter, MRH nursing instructor. Seated: Miss Mary Capay, Mrs. Gwendolyn Ochitwa and Mrs. Camal Maharaj.

—Portugal Photography