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Tuberculosis Control in the Era of Managed Care

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Tuberculosis Control in the Era of Managed Care

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Although federal legislation has not emerged, the movement toward managed care by the nations health care system is well underway. The major issues being grappled with are eligibility, coverage, benefits, financing, and cost containment. Both market forces and state governments are dictating changes in the way health care is structured and paid for locally. Although specific funding for many areas of health care is on the negotiating table, it is important to remember that categorical funding for public health tuberculosis programs was eliminated in the early 1970s. It is likely that the consequent reduction in tuberculosis control funding was at least partially responsible for the resurgence of tuberculosis in the 1980s (1,2).

There is the potential for public health programs to be mishandled or overlooked in health care restructuring at the state and federal levels. The contemporary concept of public health is being directed away from the provision of services by public health agencies and toward prevention and surveillance activities. However, as described by Frieden and associates (3) the direct provision of treatment for patients with tuberculosis is an integral part of tuberculosis control programs. Moreover, an important means of preventing tuberculosis is administration of isoniazid preventive therapy. Although not without their problems, categorical tuberculosis care clinics are the best means of assuring that these treatment and prevention services are provided most efficiently and effectively in areas having a sufficient number of cases. In such clinics standard regimens can be prescribed, supervised, monitored, and evaluated as part of an integrated tuberculosis control program.

Successful completion of therapy often requires a more elaborate and dedicated system of supervision than is generally available in a practitioner's office or multispecialty clinic. Moreover, tuberculosis control also involves epidemiologic investigations that usually are centered around the new case and administration of isoniazid preventive therapy to persons who are often related to and/or living or working with the new case. This whole package of tuberculosis control services is best coordinated and most efficiently conducted by personnel dedicated to these tasks. The problems of categorical clinics are not trivial but have been surmounted in many areas, thus demonstrating that this means of providing tuberculosis control services is feasible under current circumstances. For example, tuberculosis control programs in New York City, Newark, Baltimore, Denver, Seattle and San Francisco, to name a few, have developed close relationships with academic institutions through which more comprehensive services are provided and physicians-in-training gain experience in tuberculosis control.

How can categorical services for tuberculosis be justified? To casual examination, treatment of tuberculosis would seem to entail the same concerns as treatment of any other chronic disorder: appropriate treatment must be prescribed and the patient must be monitored at regular intervals. In most instances therapy can be stopped after approximately six months, making the supervision of tuberculosis treatment less complicated than diabetes mellitus or hypertension. There is, however, an important consideration that sets tuberculosis for example apart from hypertension or diabetes — a philosophy of therapy that should be paramount in the minds of health care personnel who treat patients with tuberculosis. *The responsibility for successful completion of therapy for tuberculosis rests with the provider.* Although patients cannot be absolved of responsibility, ultimately, therapeutic failure is a provider failure. The reason for this shift in the locus of responsibility relates to the beneficiaries of treatment for tuberculosis; whereas with hypertension or diabetes the benefits of treatment accrue to the patient, in tuberculosis the benefits of treatment accrue to society as well as to the patient. The most important and effective way of interrupting transmission of Mycobacterium tuberculosis in a population is prompt and effective chemotherapy; thus, successful treatment of tuberculosis is a societal imperative.

In view of current concerns with tuberculosis, any legislation aimed at broad modification of the health care system at the federal or state government level should not lose sight of this disease as a unique entity, a disease for which effective treatment is the major preventive technique. Tuberculosis control programing should be considered as an exception to the move away from provision of direct patient services by public health programs. Effective tuberculosis control requires more than just access to health care by persons with tuberculosis. Health care reform legislation should look toward strengthening tuberculosis control services rather than removing them from the public sector.

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Managed Care and Farmworkers: *Oil and Water?*

by David Cavenaugh, Migrant Health Program Consultant

This is the first of several Streamline articles that will review managed care as it applies to the operations of migrant health clinics. This installment will review the basic concepts of managed care, with special emphasis on data needs. Subsequent articles will discuss in more detail the impact of managed care on patients, on internal center operations, and on a clinic's planning and marketing strategies in light of the external environment expected for the foreseeable future.

"'The statistics are in for your first quarter," Kelly said in a somber tone. 'And they are not good."

David looked back and forth between the two men, feeling increasingly anxious.

"Your productivity is not satisfactory," Kelly continued. "You are in the lowest percentile in the whole CMV organization according to the number of patient visits per hour. Obviously you are spending entirely too much time with each patient. To make matters worse, you are in the highest percentile in ordering lab test per patient from the CMV lab. As far as ordering consults from outside the CMV community, you're entirely off the graph."

"And that's not all" Kelly said. "Too many of your patients have been seen in the emergency room rather than in your office."

"That's understandable," David said. "I'm fully booked out for two weeks plus. When someone calls with an obviously acute problem needing immediate attention, I send them to the ER."

"Wrong!" Kelly snapped. "You don't send patients to the ER. You see them in your office provided they're not about to croak."

"But such disruptions throw my schedule into a turmoil," David said. "If I take time out to deal with emergencies, I can't see my scheduled patients."

"Then so be it," Kelly said. "Or make the so-called emergency patients wait until you've seen the people with appointments. It's your call, but whatever you decide, don't use the ER."

"Then what's the ER for?" David asked.

"Don't try to be a wiseass with me, Dr. Wilson," Kelly said.

Robin Cook, Fatal Cure
Berkley Books, New York. 1993

The above fictional account paints an ominous picture of managed care, as agents of parent corporations come to control internal operations in a health care setting.

The Revolution in Health Care

In a model of care that has gone from 25% to 80% of all care in the US in nine short years, outside organizations now monitor all aspects of the delivery of medical and health care and are quick to intervene. The traditional fee-for-service method is no longer permitted. The historical autonomy of the provider has been compromised in the name of cost efficiency. Access is limited to a network of contracted providers, over which the "Managed Care Organization" (MCO) has contractual controls. Rates are set on the average costs of care to large populations, and profit is assured when costs can be held below rates.

In the Medicaid world, the same thing is happening, although for a different reason: the rise in costs of Medicaid care are crippling state budgets, which unlike the federal budget are not allowed to run a deficit. Thus, states are eager for the promised relief that contracting Medicaid out to managed care companies is expected to bring.

Terminology

It is not our desire to underestimate anyone's knowledge of this phenomenon, but to acquaint *Streamline* readers with the implications of managed care for their centers from the ground up. Many clinicians have not been able to attend conference sessions on managed care. Those who do often find the content to be at an advanced level, so a primer/refresher seems in order. We begin with the terminology of managed care.

Capitation

Perhaps more reminiscent of a term describing guillotine use, this term expresses the unit-cost nature of managed care contracts. The term refers to the fact that aggregate costs of care are expressed as a rate per individual — or per head. Actually, the size of the populations covered by managed care contracts is expressed in terms of 5,000 "lives" or 200,000 "bodies" — hardly implying a sensitive provider/patient interface.

Member vs. User

Health centers presently report costs per user and encounter. In these reports, *user* refers to a patient of the center coming for care at least once during the program year, and an *encounter* is roughly equivalent to a medical visit. *Member*, on the other hand, refers to an enrollee of a given health plan, assigned to the center but who may never appear for care.

Target rates under managed care are calculated only in the aggregate for an entire contract population — usually expressed in "rate per thousand" terms, for particular health variables like diabetes, low birth weight, prenatal care — not in relation to health status of actual patients seen in a given year. However, *costs* are kept down by ***minimizing services per member, including reduced use of the clinic.***

Thus, patients who don't use services (presumably because they're being kept healthy) increase clinic revenues. This is very different from the operation of fee-for-service health care, under which revenues are tied directly to services rendered — the greater the use — which is almost to say the sicker the patient — the greater the billable revenues.

Rate setting

Under managed care, rates are determined by calculating expected costs for health care of a large population, reduced through incorporation of assumptions about ability to improve overall health status through adequate access and appropriate utilization, and then divided by the size of the population. This rate is usually expressed in terms of payment "Per Member Per Month." Contracts are negotiated around these rates, and around the services to be provided for a given payment. The rate is inclusive of all components of the category of care (for example, primary care) to be provided — providers, lab, x-ray and pharmacy, and administration costs.

A vitally important corollary to accepting a contract at a given rate is being able to determine if the clinic's costs *are* in fact above or below that rate. Given that Medicaid is now the source of about 40% of Migrant and Community Health Center revenues, a lot is on the line if the clinic ***does not*** meet its target rates. Failure to do so can come from three sources: data that show costs are actually higher, data that show costs are in line ***but the data are wrong because the information system is flawed***, and data that are incomplete and incapable of showing whether the targets are being met or not. Centers just getting into managed care are far more at risk for losing money on managed care due to the second and third reasons.

Gatekeeping

This central concept of managing care refers to the limitation of the patient's

access to certain sources of care, selected by the insurer under arrangements that reduce and monitor costs. This requirement of managed care is why state Medicaid programs must seek a "waiver" from the federal government to convert their programs to managed care: Medicaid protections otherwise include the right of the patient to go anywhere of her choosing for medical treatment.

Gatekeeping also permits control of utilization. Restricting the patient's entry point into the health care system permits replacing higher-cost patient or provider preferences (for specialty referrals or tests) with cost-controlled alternatives — the MCO's own subcontractors.

"Managing care" has as its overall goal the maintenance of health by theoretically providing early intervention via primary care to avoid high-cost inappropriate utilization of secondary or tertiary facilities, and to keep conditions from developing unnecessarily. In practice, this logic is not evident to many of the providers affected, and certainly not to the patients who experience confusion about suddenly restricted access, new and less preferable sources of care, and denials of requested services (sometimes including emergency care).

Adverse Selection

This refers to the likelihood that high-cost, poor health status patients will gravitate toward a clinic that reaches out to them, as health centers always have. Therefore, a center's average costs per member per month (PMPM) are almost guaranteed to be higher than the average cost for the larger population on which the rates are set. Adverse selection **must** be factored into the rates a migrant and/or community health clinic negotiates, or substantial losses can be expected.

Risk

When a clinic contracts for a menu of services, it agrees to provide all members with that care regardless of the cost. A migrant/community health clinic may cover primary care only; or primary and emergency care; or primary, specialty care and emergency.

The broader the scope of services, the more an organization can increase revenues by keeping costs down. However, a given organization may not have the ability to control the costs of another organization, so agreeing to a rate that makes assumptions about economies elsewhere may tie the clinic to a money-losing proposition. Successfully managing risk means that the center must accurately determine the needs, the costs, and be able to negotiate an adequate contract.

CENTERS ARE SWEPT UP IN THE CHANGES

Community and migrant health centers have traditionally operated independently of private medical care facilities for the most part because the client populations did not overlap. Now, however, for the vendors who win the state Medicaid managed care contracts, client populations will overlap. Centers must rapidly expand efforts both INTERNALLY and EXTERNALLY to provide this contracted care.

Internally, a clinic must produce data that demonstrate to vendors the efficiency of its operations in new, more quantitative terms. Externally, to ensure its own survival, a clinic must link into the new managed care networks.

How Will this Affect Farmworkers?

Managed care has the potential to create enormous new gaps in health care through which the majority of farmworkers, including women and children, will fall. Migrating workers are not often covered by Medicaid. Many are adult males, not usually covered in states that tie Medicaid to Aid to Families with Dependent Children (AFDC); few carry documentation complete enough to assure prompt eligibility determination; and — upstream at least — migrants are in-state too briefly to apply for and obtain eligibility.

Migrant Health Needs Community Health Centers

The fiscal fate of the whole clinic organization, which determines the stability of the farmworker program, will now depend to a substantial extent on its ability to enter into managed care contracts which are fair and adequately cover costs: Centers being pushed to "sign here or you are out of Medicaid" may find in as little as a year that they have accepted payment rates far too low to cover costs.

The clinic director's ability to know what the rate would have to be to cover true costs depends on a partnership of the clinical and administrative staffs to identify what is needed to derive and present those facts. Farmworkers are traditionally more costly to serve due to their isolation and greater health risk. Even if the migrant program generally is still grant-supported, many centers receiving both community health and migrant health funds in effect subsidize their migrant program from other funds.

At present, little data are collected on farmworkers *per se* at Migrant Health centers. According to the author of a recent report on migrant health center data collection, health centers collect very little specific data, e.g. related to diagnoses, outcomes, or utilization patterns, on farmworker users. The only way to assure that the migrant program is appropriately supported is to assist in internal efforts to *identify and track the true costs of services* for all programs.

EXTERNAL AND INTERNAL IMPLICATIONS

Compared to the past, state Medicaid managed care programs may actually offer farmworkers more access to care, as more providers take Medicaid. In communities with migrant centers, clients may be drawn away from the clinic, either by the perception of higher quality care or by assignment. This may not last, as patients see the relatively weaker cultural and ancillary support commitments in other facilities, but it does require clinics to compete for their patients, as a business, rather than continuing to operate as a last-resort resource for a segment of the population ignored by the market.

While administrators are at work on these external negotiations, including marketing and advocacy, providers may be able to focus on developing some of the internal planning that will become necessary all too rapidly .

The Engine that Drives Managed Care: Data

For a community clinic, managed care requires **much** more DATA than the organization may be accustomed to routinely collecting. While desirable before, internal operations now *must* be fine-tuned for maximum efficiency. Current and desired performance in a host of measures will be assessed quantitatively. At present, providers may periodically review information such as total encounters per month by service and total lab tests per month. They may wish they could monitor indices such as lab costs per month per provider and annual visits/capacity per specialty. Under managed care, not only will these and other data be needed, but *another organization* will review the clinic's data outputs on utilization management, quality assurance, and management information.

Health center grantees have always had to monitor and report on revenues, staffing, and costs. These reports — even the new Uniform Data System — are basically accountability reports on the use of federal grant funds, and are not designed to provide the kind of data useful in corporate planning. As businesses, clinics should know the cost of their products if they are to set prices appropriately. They need information analysis tools that calculate **performance indices**, as well as analytic time and effort to review and interpret the results regularly.

In addition, data are needed on enrollments, provider assignments, utilization, quality, referrals, outcomes, training, and staffing, as well as on reimbursements and coordination of benefits. To even begin col-

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lecting data on many of these indicators, clinics must improve information system(s) in use at the center — both hardware/software, and data collection tracking procedures in use.

To assist in developing managed care systems, a template has been developed for employers to use in selecting managed care plans. State Medicaid offices are going to use this template to select plans with which to contract. The template is called HEDIS: The Health Plan Employer Data and Information Set. The HEDIS is now taken as the standard tool for assessing managed care plans, and centers are advised to become acquainted with the final release of the Medicaid HEDIS, just out this year.

Keep Us Informed

Implementation of managed care varies greatly from one state to the next. This variability presents mobile farmworkers with a whole new series of barricades to eligibility as they move north each year. As this series continues, please assist us in drawing from your experiences to share with others. Call, write or e-mail MCN (mcn@onr.com) with your observations on service reductions, internal data needs and efforts to meet them, patient education, network development — any aspect of the managed care revolution that you find salient as you work in this time of upheaval in health care.

For questions about the article, or your training needs, contact the author at (202) 363-0814 or by e-mail at dave.cavenaugh@access.gov on the HHS Access bulletin board.

David Cavenaugh is a Washington-based consultant to migrant and community health centers on the transition to managed care, especially for rural and migrant centers. On the staff of the National Association of Community Health Centers for over ten years, primarily as its Migrant Program Specialist, he is now working directly with centers and through Bureau training and monitoring activities to aid them in the networking, data system and internal analysis changes which managed care requires.

Calendar

Latino Culture and Its Impact on the Provision of Health Care
Reading, Pennsylvania
April 17, 1996
Information: MCN
(512) 327-2017

National Primary Care Conference
Orlando, Florida
April 17-20, 1996
Information: Nurse Practitioner Associates for Continuing Education
(617) 861-0270

Annual Healthier Communities Summit
San Francisco, California
April 20-23, 1996
Information: Healthcare Forum
(415) 356-4300

Closing the Gap: Progressive Strategies for Improving Health in Communities of Color
Chicago, Illinois
April 24-26, 1996
Information: U.S. Dept. of Health and Human Services, Office of Minority Health
(312) 419-7084

14th Annual National Conference on Health Education and Health Promotion
Washington, D.C.
April 25-28, 1996
Information: New York State Health Dept.
(518) 474-5370

Clinical Care Option for HIV
Scottsdale, Arizona
May 2-5, 1996
Information: Clinicale Care Options for HIV
(818) 752-9396

AFOP Spring Conference
Washington, D.C.
May 2 & 3, 1996
Information: Association of Farmworkers Opportunity Programs
(703) 528-4141

Annual Migrant Health and Clinical Issues Conference
Stouffer Hotel, Nashville, TN
May 4-6, 1996
Information: MCN and NACHC
(512) 327-2017; (202) 659-8008

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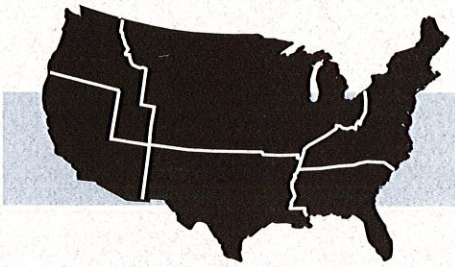


STREAM communiqué

Caring for TB Patients

Developed from the CDC's guidelines for the prevention and diagnosis of tuberculosis.

Diagnosis

Think TB in patients with general symptoms of TB (symptoms include cough, night sweats, fever, weight loss) especially in HIV-infected patients. HIV testing and counseling are strongly advised for patients with risk factors for HIV infection.

Get a complete medical history for any patient suspected of having TB. Include symptoms, prior treatment, risk factors for TB, and history of exposure (especially exposure to drug-resistant diseases.)

Isolation

Isolate persons with symptoms of pulmonary or laryngeal TB until infectiousness has been ruled out. Discontinue isolation (risk factors include migration from an area of high incidence and HIV infection) only after sputum smears convert to negative (three consecutive negative smears from specimens collected on different days).

Reporting

Report all suspected or confirmed cases of TB to your local health department within 24 hours. Do not wait for culture results; report any case with a positive sputum smear or clinical findings suggestive of TB.

Forward all drug susceptibility results to the health department.

Evaluation

Request a complete bacteriologic workup (including drug susceptibility tests of initial solates) for all persons suspected of having TB. Perform baseline tests as needed to monitor reactions to TB drugs.

Treatment

Start therapy with four TB drugs (NH, RIF, PZA and EMB or SM) as soon as possible. Include EMB or SM until drug susceptibility results are available, unless there is little possibility of drug resistance.

Monitor patients monthly for drug reactions, infectiousness, and clinical and bacteriologic response to therapy.

Consult a TB expert if susceptibility results show resistance to any of the first-line drugs or if the patient remains symptomatic or smear or culture positive after 3 months.

A complete treatment plan should include:

- using Directly Observed Therapy (DOT) whenever possible
- using incentives and enablers to improve adherence
- referring patients for other medical and social services as needed
- educating patients about adverse reactions and the symptoms of relapse, using methods adapted to their cultural and linguistic background
- providing a thorough contact investigation with the local health department

Editor's Note: *The development of MCN's TB Tracking and Referral Project is rooted in clinicians' concerns about the management of mobile patients with tuberculosis. Because tracking and referring patients with tuberculosis cuts across all migrant streams, we have decided to devote this issue of Stream Communique to the management of tuberculosis and the tracking system.*

Nonadherence to treatment regimens leads to treatment failure and drug resistance. DOT is the ONLY proven method of ensuring patient adherence.

FIRST-LINE DRUGS AND NOTES FOR MONITORING

DRUG	ADVERSE REACTIONS	MONITORING	COMMENTS
INH	Hepatic enzyme elevation Hepatitis Peripheral neuropathy Mild effects on central nervous system	Baseline measurements of hepatic enzymes for adults Repeat measurements -if baseline results are abnormal -if patient is at high risk for adverse reactions -if patient has symptoms of adverse reactions	Hepatitis risk increases with age and alcohol consumption Pyridoxine can prevent peripheral neuropathy
RIF	GI upset Drug interactions Hepatitis Bleeding problems Flu-like symptoms Rash	Baseline CBC measurements for adults - CBC and platelets - hepatic enzymes Repeat measurements - if baseline results are abnormal - if patient has symptoms of adverse reactions	Significant interactions with: - methadone - birth control pills - many other drugs Colors budy fluids orange May permanently discolor soft contact lenses
PZA	Hepatitis Rash GI upset Joint aches Hyperuricemia Gout (rare)	Baseline measurements for adults - uric acid - hepatic enzymes Repeat measurements - if baseline results are abnormal - if patient has symptoms of adverse reactions	Treat hyperuricemia only if patient has symptoms
EMB	Optic neuritis	Baseline and monthly tests - visual acuity - color vision	Not recommended for children too young to be monitored for changes in vision unless TB is drug resistant
SM	Ototoxicity (hearing loss or vestibular dysfunction) Renal toxicity	Baseline and repeat as needed - hearing - kidney function	Avoid or reduce dose in adults › 60 years old

Abbreviations: DOT – directly observed therapy; EMB – ethambutol; INH – isoniazid; PZA – pyrazinamide; RIF – rifampin; SM – streptomycin; TB – tuberculosis

TB-Net

Introduction

The Migrant Clinicians Network, in partership with the El Paso City-County Health District, has established the Binational Migrant Tuberculosis Referral and Tracking Network project. The project called ***TB-Net*** is funded by the Texas Department of Health with monies from the Centers for Disease Control and Prevention (CDC).

Goal

To establish an effective binational, migrant tracking and referral network in the United States and Mexico that will facilitate information exchange on tuberculosis (TB) patients in order to prevent treatment interruption.

Objectives

- To facilitate the prompt exchange of clinical and epidemiological information between health care providers in the U.S-Mexico border region and the Midwest migrant stream;
- To provide both patients and providers with written referral information to facilitate continuation of treatment when a patient relocates;
- To provide expert binational / bilingual consultation in the management of TB via a toll free number; and
- To analyze and distribute epidemiologic TB trends to appropriate public health authorities in Mexico and the United States.

Target population and region

The people to be serves by ***TB-Net*** will include the mobile population along the Texas-Mexico Border region and the Midwest migrant stream.

Activities

This project includes five components 1) Portable TB health record; 2) Patient referral and follow-up; 3) Binational / migrant tuberculosis service directory; 4) Provision of expert consultation in English and Spanish; and 5) Data gathering and analysis.

Portable TB Health Record. Mobile patients entering treatment along the Texas/Mexico border and Midwest migrant stream clinics will receive a wallet-size TB health record containing basic up-to-date clinical information in English and Spanish. Providers will get training in the use of the portable record. Patients will get health education from the provider on how to use the portable record.

Referral and Follow-up. Referral may take two primary forms. First, when a provider knows that a patient is moving to a certain area s/he may use ***TB-Net*** to contact the appropriate health facility of that area to ensure that treatment is not interrupted. Second, when a patient travels to / or arrives in an area and wants to know where he or she can receive services, s/he may present the portable record to any health provider. The provider can contact ***TB-Net***. The Network assumes responsibility for follow-up within 7 days to ensure that action was taken.

Binational / Migrant TB Services Directory. ***TB-Net*** will provide updated services directories upon request to anyone interested and to providers in target areas. The purpose of this directory is to provide a working tool for case referral between the United States and Mexico.

Expert consultation. Differences and similarities in the approaches to TB therapy and patient confidentiality in Mexico and the U.S. often need clarification. Therefore, a group of Mexican and U.S. TB experts working along the border will be available for consultation on case management problems.

Data gathering and analysis. In order to document binational and migrant morbidity and mortality trends, collection of clinical and epidemiological data will be made. This data will be based on the information provided by participating health care providers that issue portable TB records.

To insure success a marketing campaign promoting ***TB-Net*** project activities will take place. Marketing will consist of on-site training and promotion of education and marketing materials. Emphasis will be placed on the importance of using and updating the portable TB record. Training will include the following areas: 1) Education about the Mexican public health system and TB treatment protocols; 2) A thorough overview of the binational / Migrant Tuberculosis Referral and Tracking Network and its usefulness; and 3) An overview of available resources in the U.S. and Mexico including educational materials and other clinical services.

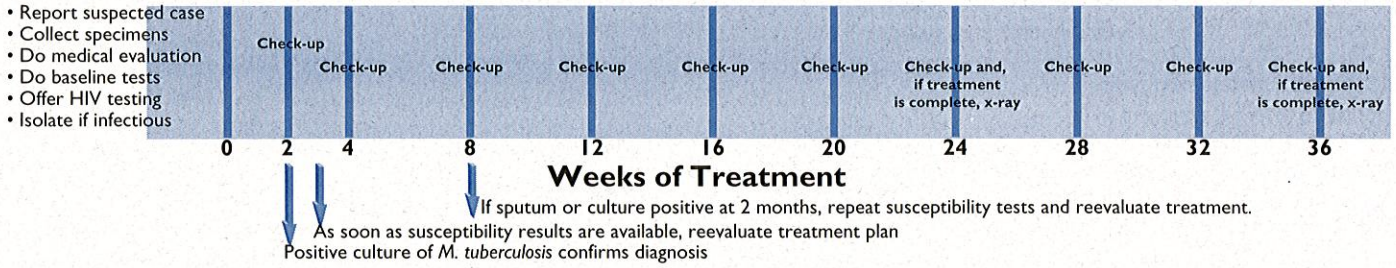
Expected outcomes

Based on the development of the referral and tracking system, ***TB-Net*** will link health providers of the United States and Mexico in order to enhance the tuberculosis control and prevention activities of both countries.

Information

For additional information on the project, contact either Dr. Miguel Escobedo, Dr. Gerardo de Cosio or Ray Stewart at (800)825-8205 or (915) 543-3578 or Deliana Garcia of MCN at (512) 327-2017. Send mail c/o The El Paso City-County Health and Environmental District, 222 S. Campbell, El Paso, Texas 79902.

Monitoring a TB Patient



NOTES ON MONITORING

Baseline tests, including measurements of hepatic enzymes and vision or hearing tests as necessary, should be performed for all adults who receive TB therapy. Only baseline tests of visual acuity are required for children unless a complicating condition is present.

"Check-up" includes close monitoring for clinical and bacteriologic (smear and culture) response to treatment, as well as careful monitoring for adverse reactions to drugs (See First-Line Drugs). The intervals at which chest radiographs should be repeated depend on the clinical circumstances and the differential diagnosis being considered.

Discontinuation of treatment depends on clinical and bacteriologic response to therapy. If a patient is not responding to therapy, seek expert consultation.

Obtain a final chest radiograph at the end of treatment as a baseline for future radiographs.

For more information on TB treatment and/or monitoring please contact MCN at (512) 327-2017.