N E B R A S K A

JAIL BULLETIN

NUMBER 112 **SEPTEMBER 1994**

The Jail Bulletin is a monthly feature of the Crime Commission Update. The Bulletin may be used as a supplement to your jail in-service training program if officers study the material and complete the attached "open book" quiz. The Bulletin and quiz may be reproduced for use by your staff. We welcome any jail training material you would like to contribute to the Bulletin.

TUBERCULOSIS IN CORRECTIONAL FACILITIES
PART IV

CONTAINMENT

Containment activities prevent the transmission of TB infection. These activities include isolating suspects and infectious cases, treating all suspects and diagnosed cases, and providing preventive therapy to those with TB infection but no disease. Education of both inmates and staff that openly addresses questions and concerns is vital to containment efforts. Some facilities have successfully used highly motivated inmates as peer educators.

ISOLATION

To prevent the spread of TB infection to staff and inmates, it is important to recognize and isolate anyone who has symptoms suggestive of TB disease. Officers and health staff should suspect TB in anyone with a cough lasting longer than two weeks, especially if other signs of TB are present. This is true even if the inmate or employee is a smoker.

Whenever possible, persons suspected of having TB should be placed in AFB (Acid Fast Bacilli) isolation until they are no longer infectious. AFB isolation rooms should be under negative pressure so that all air currents come into the room; air should be vented to the outside of the building, not recirculated. If necessary, the infectious case should be transferred to a facility in which AFB isolation is available. TB patients and suspects should be released from isolation *only* after infectiousness has been ruled out. Three negative sputum smears collected on consecutive days must be obtained before a patient who has had a positive smear can be considered non-infectious.

Cough-inducing procedures can place health staff and nearby inmates at special risk of acquiring TB infection. These procedures include sputum collection, bronchoscopy, and the administration of aerosolized pentamidine. It is very important to carry out such procedures in an individual room or booth with negative pressure relative to adjacent rooms and hallways, ideally with room or booth air exhausted directly to the outside and away from all windows and air intake ducts. Patients should remain in the booth or treatment room and not return to common areas until coughing has subsided.

Some hospitals and shelters for the homeless use ultraviolet (UV) lights to kill tubercle bacilli in the air. The installation of UV lights may be considered in some facilities, especially in high volume, high turnover holding facilities. However, UV lights should be used *only* to supplement other control measures (such as good ventilation). Proper precautions and maintenance of the lights is essential.

PREVENTION OF TB DISEASE

Preventive therapy substantially reduces the risk of developing active TB in infected persons. All persons who have a positive skin test should be considered for preventive therapy when active disease has been ruled out. Highest priority for preventive treatment should go to skin-test positive persons in the following high-risk groups, *regardless of age*:

- persons with HIV infection
- close contacts of infectious TB cases
- tuberculin convertors: persons who have had a $ 10 mm increase (or $ 15 mm if 35 year of age or older) in skin test reaction within a 2-year period
- previously untreated or inadequately treated persons with abnormal chest radiographs consistent with old, healed TB
- injecting drug users
- persons with medical conditions that increase the risk of TB if infected, including:
    - silicosis
    - diabetes mellitus
    - prolonged corticosteroid therapy

- immunosuppressive therapy
- hematologic and reticuloendothelial diseases
- end-stage renal disease
- intestinal bypass
- post-gastrectomy
- chronic malabsorption syndrome
- carcinomas of the oropharnynx and upper gastrointestinal tract
- being 10% or more below ideal body weight

In addition, skin-test positive persons who are less than 35 years of age should be considered for preventive therapy regardless of the above risk factors.

For HIV-positive individuals who do not have positive skin test results, preventive therapy may be considered when there is clinical or laboratory evidence of severe immunosuppression and the individual:

- is from an area where tuberculosis is endemic;
- is an injecting drug user;
- is a close contact of an infectious TB case;
- has a history of a positive skin test reaction; or
- has a radiographic abnormality consistent with past TB.

Clinical or laboratory evidence of immunosuppression can be derived from antibody testing or CD-4 counts.

TREATMENT OF TB CASES

When symptoms and/or results of skin test, chest x-ray, and sputum smear suggest active TB, the suspected case should be placed on a TB treatment regiment consisting of several drugs until TB has been ruled out.

Compliance is a major issue in the treatment of TB in correctional institutions. When non-compliance occurs in a person with clinically active disease, the TB Control Officer may need to take special measures to ensure the inmate ingests his or her medication, since such a person poses a serious threat to the health of others.

Clinical response to treatment should be monitored, since the development of drug resistance can be a problem. Persons with clinically active disease should be monitored bacteriologically through sputum examination at least monthly until conversion to negative. Persistence or reappearance or organisms in the sputum smear should create a high index of suspicion for drug-resistant disease or noncompliance with therapy. When this occurs, evaluate compliance and perform drug susceptibility tests.

Since tubercle bacilli are very difficult to kill, TB can relapse if a drug

regimen ends too soon or is interrupted. Relapse is frequently accompanied by the emergence of drug-resistant tubercle bacilli, making treatment much more complex and expensive. Unless a preventive or curative regimen is completed without interruption, there is an increased chance that TB disease will develop or recur, and the person may become infectious. *To make sure that inmates take their medication, staff should directly observe the ingestion of each dose.* Direct observation involves both watching the inmate swallow and checking the hands and mouth to ensure compliance; this is often the only way to ensure that medication is actually taken.

Because some people may have side effects from the drugs, staff should monitor at least monthly all those taking anti-TB drugs. This is especially important for those who are taking other medications or who have a history of alcohol abuse. Staff who administer TB drugs should be familiar with common side effects and adverse reactions, and should have specific protocols for management and evaluation as needed.

Staff may need expert advice for the handling of adverse reactions to medication and for the management of complicated cases (i.e., drug resistance, extrapulmonary disease, or disease in a pregnant woman). Local health departments of state ST control programs can serve as a resource for consultation or assistance with difficult cases.

All inmates and employees who have started treatment or preventive therapy and will be leaving the facility before completing their regimen should be referred by correctional facility staff to the health department's TB control program. Inform the health department of the medical status and locating information of all such individuals, and facilitate continuity of care after release by scheduling specific appointments for inmates prior to release.

Information in this Jail Bulletin was taken from "Control of Tuberculosis in Correctional Facilities, A Guide for Health Care Workers", a publication of the U.S. Department of Health and Human Services.

QUIZ

Nebraska Jail Standards require that jail staff receive eighteen (18) hours of inservice training each year. The Jail Bulletin may be used to supplement inservice training if an officer studies the bulletin, completes the quiz, and this process is documented by the jail administrator for review during annual jail inspections.

SEPTEMBER 1994 **NUMBER 112**

SUBJECT: **Tuberculosis in Correctional Facilities - Part IV**

NAME: _____

DATE _____

1. Officers should suspect TB in anyone with a cough lasting longer than ___ _____weeks.

2. Persons suspected of having TB should be placed in _____

3, All persons who have a positive TB skin test should be considered for ___ _____therapy.

4. UV lights are all that is needed to control TB.

_____ True _____ False

5. Education of both inmates and staff is vital to TB containment efforts.

_____ True _____ False

CREDIT: One half hour credit for jail inservice training requirement

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NAME: _____

DATE _____

1. Officers should suspect TB in anyone with a cough lasting longer than TWO _____ weeks.

2. Persons suspected of having TB should be placed in ISOLATION _____

3, All persons who have a positive TB skin test should be considered for __ PREVENTIVE therapy.

4. UV lights are all that is needed to control TB.

_____ True ___X___ False

5. Education of both inmates and staff is vital to TB containment efforts.

___X___ True _____ False

CREDIT: One half hour credit for jail inservice training requirement

ANSWER SHEET SHOULD BE RETAINED BY JAIL ADMINISTRATOR.