

# Directly Observed Therapy (DOT) Manual



State of Alaska  
Department of Health and Social Services  
Division of Public Health

## Table of Contents

Page

Introduction .....	4
Tuberculosis and Latent Tuberculosis Infection .....	5
Role and Responsibilities .....	13
TB Medications .....	14
Managing Directly Observed Therapy (DOT) .....	19
Administrative Issues .....	28
Frequently Asked Questions .....	30
DOT Aide Pre-/Post- Test .....	32
DOT Aide Job Description .....	35

## Appendices

History of Tuberculosis .....	38
TB Medications .....	39
Laboratory Tests .....	42
Collecting Sputum Samples.....	43
TB Glossary.....	44
User Guide for Public Health Nurses .....	46

## Forms

DOT Calendar .....	49
Memorandum of Agreement.....	51
W-9.....	52
DOT Aide Monthly Invoice for Payment .....	53
Direct Deposit Form .....	54
DOT Plan.....	55
DOT Aide Certificate.....	56

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Prepared by Shawna Buchholz, 2009; BCCDC, TB Clinical Nurse Educator

### ***Contribution acknowledgement:***

Mary Berliner  
Zienna Blackwell  
Peggy Cobey  
CJ Kim  
Soohyun Kim  
Katy Krings  
Dennette Marks  
Karen Martinek  
Deanna Mocan  
Lisa Susunaga

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## Introduction

The Alaska *Directly Observed Therapy (DOT) Manual* was developed by Public Health Nurses (PHNs) and the Alaska Tuberculosis (TB) Program, to provide DOT Aides and other partners with standardized information and guidance for the important work they do in treating clients with TB in Alaska. This allows us to provide the best care to clients in our communities as a team.

Directly Observed Therapy (DOT) is the World Health Organization (WHO) standard for TB disease treatment. The Alaska TB Program also uses DOT to give TB medications for all persons with suspected or confirmed active TB disease of lungs and high-risk persons with latent TB infection.

## What is Directly Observed Therapy?

Directly Observed Therapy (DOT) is a program that helps cure TB. A DOT Aide or trained health worker meets with clients to help with their anti-TB medication and give education and support. DOT by definition means watching clients swallow each dose of anti-TB medication. By doing this, DOT has been shown to help clients successfully finish their treatment and prevent TB germs from becoming drug-resistant.

In Alaska, DOT Aides bring anti-TB medication to their clients so that the clients themselves can take and swallow the pills while the DOT Aide watches. When children need medications, DOT Aides bring the medications to the parent who will have the child swallow the pills while the DOT Aide watches.



## What is TB?

Tuberculosis (TB) is a disease caused by germs that are spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine. A person with TB can die if they do not get treatment. Untreated TB of the lungs is contagious and can be spread to others.



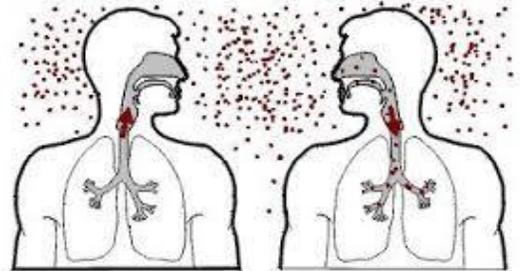
## TB Transmission

### TB is spread or "transmitted" through the air.

When someone with infectious active TB disease in their lungs or throat coughs, laughs, or sings, tiny droplets containing the TB germ may be released into the air. These germs can stay in the air for several hours, depending on the environment. If another person breathes in these droplets, TB germs may be spread.

People who breathe in the droplets may:

- Never become infected with TB
- Become infected but never develop active TB disease
- Become infected and develop active TB disease months, or years after exposure



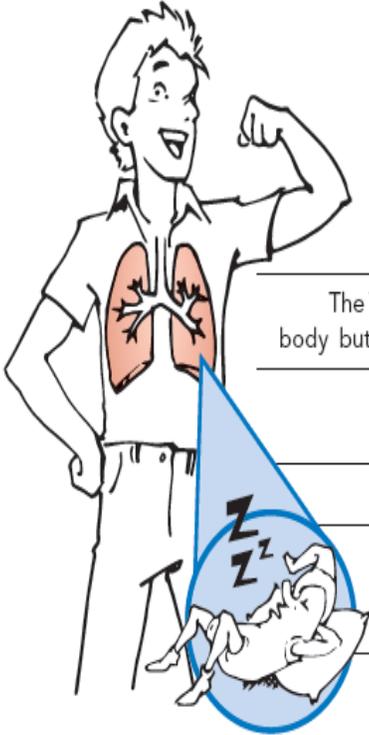
## TB Infection – Latent TB Infection

Most often when we hear the word infection, we think of being sick with something like a throat or chest infection. TB is different. It is a slow-growing germ. Most people who breathe the TB germ into their lungs have immune systems that are strong enough to protect themselves. Their immune system builds a wall around the TB germ, putting the germ to sleep, and stops the TB germ from growing. The germ is in the lung but is not doing any damage. Therefore, TB infection means that there are TB germs asleep in the body. People with TB infection are not sick, do not have symptoms, and cannot spread TB to other people. Another name for “sleeping” TB infection is **latent TB infection**.

## What is the Difference between Latent TB Infection and Active TB Disease?

People with latent TB infection have TB germs in their bodies, but they are not sick because the germs are not awake. These people do not have symptoms of active TB disease, and they cannot spread the germs to others. However, they may develop active TB disease in the future. They are often prescribed treatment to prevent them from developing active TB disease.

People with active TB disease are sick from TB germs that are awake. This means that the TB germs are multiplying and destroying tissue inside their body. They usually have symptoms of active TB disease. People with active TB disease of the lungs or throat are capable of spreading germs to others. They are prescribed drugs that can treat active TB disease.

 <h3>Latent TB Infection</h3> <p>I am healthy.</p>	 <h3>Active TB Disease</h3> <p>I have a serious illness that could kill me if left untreated.</p>
The TB germs are "sleeping" in my body but could "wake up" in the future.	The TB germs have "woken up".
I have no symptoms.	I may have symptoms – cough, fever, weight loss, night sweats.
My chest x-ray is normal.	My chest x-ray may be abnormal.
I am not contagious.	I may be contagious and could infect other people when TB germs are spread through the air when I cough, laugh or speak.
I have a positive result on a TB skin test or blood test.	I may have a positive result on tests of my phlegm.

## Diagnosis of Latent TB Infection

The main tool to diagnose latent TB infection is the tuberculin skin test (TST). This test consists of the intradermal injection of purified protein derived from *Mycobacterium tuberculosis* bacteria. The PHN or Community Health Aide can read the client's TB skin test 48 to 72 hours later. In persons who are exposed and become infected with the TB germ, the reaction will cause localized swelling and induration, or a hard bump, of the skin at the injection site. Clients with newly positive TSTs will need a thorough history and TB risk assessment and chest x-ray to rule out active TB disease.

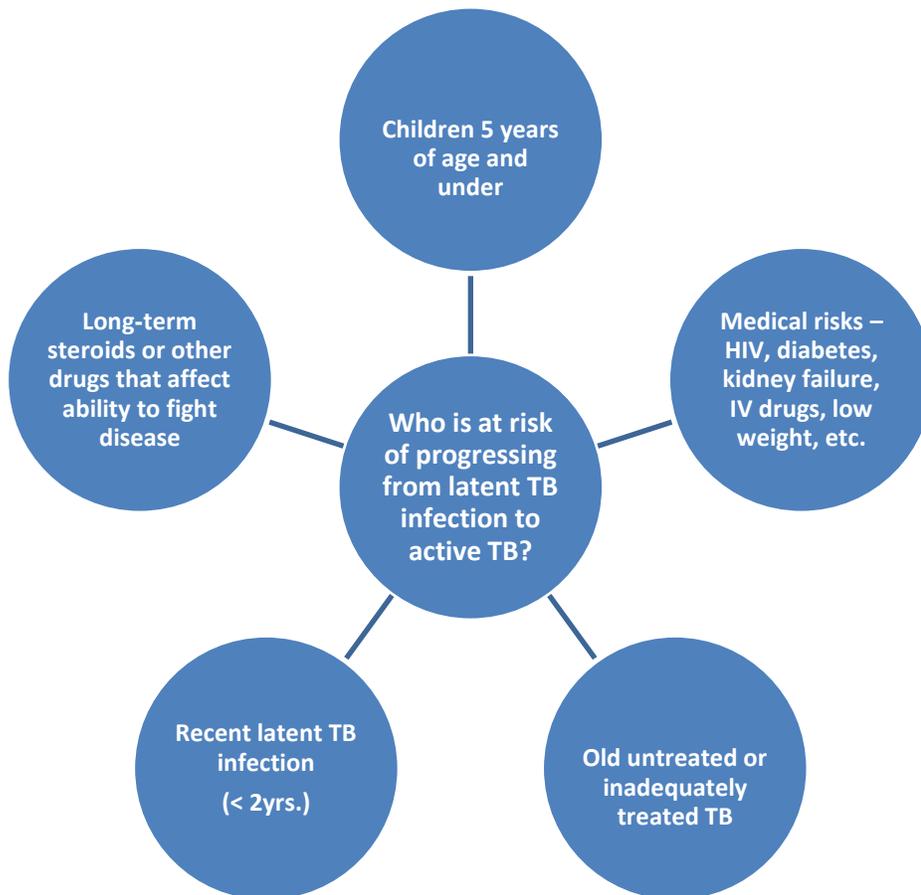


Blood tests called Interferon-Gamma Release Assays (IGRAs) can also be used instead of a TB skin test to diagnose latent TB infection, but are not likely widely available in Alaska, especially in rural or remote communities.



## Risk of progressing from latent TB infection to active TB disease

Progression from latent TB infection to TB disease may happen months or years after having been infected with the TB germ OR it may never happen. The period of greatest risk for developing TB disease from latent TB infection is in the first 2 years after being infected.



## Is Latent TB Infection Treated?

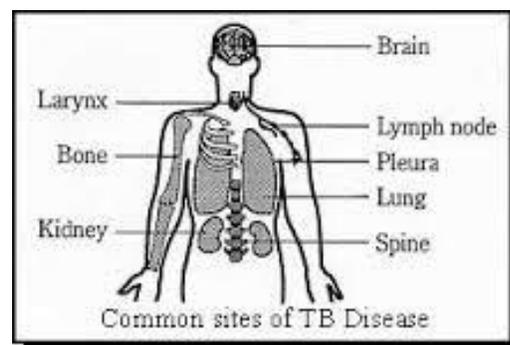
If a person has latent TB infection but not active TB disease, the doctor may prescribe drugs to kill the TB germs and prevent active TB disease. Treatment for latent TB infection can take 3 to 9 months depending upon the medications prescribed. Some latent TB infection treatments require DOT for all doses.

The decision about taking treatment for latent infection will be based on the chances of developing active TB disease now and in the future. Some people are more likely than others to develop active TB disease once they have TB infection. This includes babies and very young children, people with HIV infection, people who were recently exposed to someone with active TB disease, and people with certain medical conditions.

It is important to let the clients know that by taking the latent TB infection treatment pills he or she will be protecting his or her family and friends, as well as themselves, from active TB disease. Treating latent TB infection prevents future cases of active TB disease and subsequent transmission of TB in communities.

## Active TB Disease

Latent TB infection may progress to active TB disease if the immune system cannot keep the bacteria asleep. The body's fighter cells, called "macrophages" are no longer able to contain the germs. The hard shell surrounding the bacteria breaks down and TB germs escape and multiply. This means the TB germs are awake and causing harm to the body. This process can occur anywhere in the body, but usually occurs in the lungs. The germs cause damage to the tissues in which they are growing.



### Possible Sites of Active TB Disease:

- Lungs (this is the most common type in adults)
- Bone
- Brain
- Spinal cord
- Lymph nodes
- Kidneys
- TB can occur anywhere

### Diagnosis of Active TB Disease is made using:

- Medical history, including symptom review
- Physical examination
- Chest x-ray
- Sputum or other specimens (e.g., tissue)



## What Are the Symptoms of Active TB?

The general symptoms of active TB disease include feelings of sickness or weakness, weight loss, fever, and night sweats. The symptoms of active TB disease of the lungs also include coughing, chest pain, and the coughing up of blood. Symptoms of active TB disease in other parts of the body depend on the area affected. Some people with active TB have no symptoms at all.



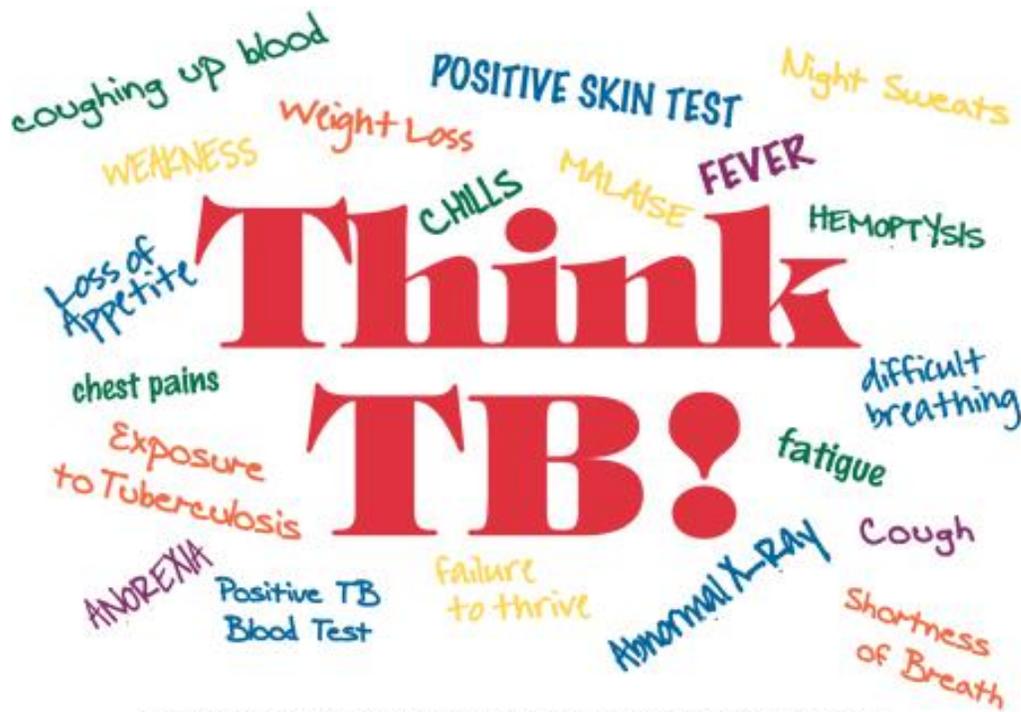
## Early Identification of Cases of Active TB Disease

Early identification and treatment of active TB disease are very important strategies needed to eliminate TB from communities. Treating cases of TB promptly prevents the spread of the disease within communities. Community members need to be aware of the symptoms of TB and be aware of who to call if they know someone is symptomatic. Providing community members with the right information will help prevent TB in the community.

## Treatment for Active TB Disease

TB has been a curable disease since the 1950s. Active TB disease can be treated by taking several medications for 6 to 9 months. It is very important that people who have active TB disease finish the medicine and take the drugs exactly as prescribed. If they stop taking the drugs too soon, they can become sick again; if they do not take the drugs correctly, the germs that are still alive may become resistant to those medications. TB that is resistant to medications is harder and more expensive to treat. In Alaska, DOT is the standard of care for treatment of active TB disease.

While the client is receiving TB treatment, the PHN Case Manager will be working closely with the client, family and DOT Aide. Clients are watched closely for side effects. Blood work may be done before and throughout to ensure that the liver is not being damaged. Sputum will be collected every 2-4 weeks during the first 2 months of treatment to make sure that the client is getting better.



Recognize possible signs and symptoms of Tuberculosis. Early diagnosis and treatment reduces spread. Contact your Health Department or physician for more information.



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## Fears, Beliefs and Concerns

Sometimes clients are fearful or worried about their TB diagnosis and treatment. They may worry that they “did” something to get TB. They may fear being blamed for making others sick, or be afraid that they will lose their jobs, friends or families. In some cultures, it may even be considered taboo to have TB.

Clients may also tell you they don’t believe they have TB because they “aren’t sick” or don’t want to take TB medicines because they “don’t work”. It is always important to listen to clients if they tell you things like this. Be sure to let your PHN Case Manager know if your DOT client has any of these concerns or issues. The PHN will work with the client to relieve their fears and provide the necessary education and support through their treatment.

All clients have a right to care, dignity, information, choice, confidence, justice, organization and security. Clients also have a responsibility to share information, follow treatment, contribute to community health, and solidarity.



*“There is a TB patient and the other 2 people are staying far away from the patient because they don't want to be infected with the disease.”*

*Girl aged 14, Kamrula Street Children*

## Role and Responsibilities of Alaska TB Treatment Team

The following chart is meant to guide practice and clarify roles of TB treatment team members within Alaska. The DOT Aide role can be taken on by a nurse, Community Health Aide/Practitioner or other responsible individual hired and trained as a DOT Aide.

Public Health Nurse	DOT Aide	AK TB Program
<ol style="list-style-type: none"> <li>1. Identifies, hires and trains DOT Aide</li> <li>2. Receives and checks TB medications against prescription</li> <li>3. Ensures safe and proper storage of medications</li> <li>4. Completes TB medication teaching for client</li> <li>5. Ensures required testing is done and sent to AK TB program</li> <li>6. Sends completed, signed monthly DOT calendar and DOT Invoice to AK TB program</li> <li>7. Orders more medication as needed</li> <li>8. Counts medication doses to ensure correct number of doses is taken</li> <li>9. Supervises and monitors work of DOT Aide</li> <li>10. Reviews client progress with medical provider as needed</li> <li>11. Consults with AK TB Program about problems, medication side effects, and DOT Aide or client concerns monthly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Completes DOT training, accepts assignment and signs contract</li> <li>2. Checks TB medications</li> <li>3. Meets with client, asks about side effects, then delivers medication for DOT</li> <li>4. Always observes client swallowing medication, and <b>NEVER</b> leaves medication for client to take later</li> <li>5. Reports all side effects, missed doses and concerns to PHN</li> <li>6. Reviews client progress with PHN every month or as needed</li> <li>7. Reminds client when lab or other tests are requested by PHN or medical provider.</li> <li>8. Stores medication safely in a locked cabinet in a secure location</li> <li>9. Documents all doses on DOT calendar daily, signs, completes invoice and faxes/emails to PHN</li> <li>10. Maintains confidentiality with all client medications and information</li> <li>11. Provides cultural and language support to PHN/client as needed</li> <li>12. Reinforces TB teaching done by PHN</li> </ol>	<ol style="list-style-type: none"> <li>1. Provides support and clinical guidance for TB cases</li> <li>2. Processes DOT invoices for payment</li> <li>3. Coordinates TB medication delivery throughout AK</li> <li>4. Provides incentives &amp; enablers for PHN use</li> <li>5. Assists with preventing treatment interruptions when clients move</li> <li>6. Oversees and assists with PHN case management for all active TB cases/suspects.</li> </ol>

Every client with active TB in Alaska has a public health nurse who serves as a TB case manager, and a medical provider who writes prescriptions for TB medications. In addition the Alaska TB Program assists with coordination of care throughout Alaska.

## TB Medications

The DOT Aide role is vital to the success of the TB team!

Please don't forget to:

**Ask about side effects BEFORE each dose of medication!**



ASK ABOUT:

- Loss of appetite
- Yellow eyes or skin (jaundice)
- Nausea or vomiting
- Abdomen pain
- Fever
- Dark Urine
- Rash or itching
- Fatigue (very tired)
- Tingling or burning in hands or feet
- Vision changes



Report all side effects to the Public Health Nurse (PHN).



Do **not** continue with DOT if the symptoms are concerning.

If you have any trouble reading medication labels,

or have any questions, please contact your PHN.

Remember to document each dose after it's taken.



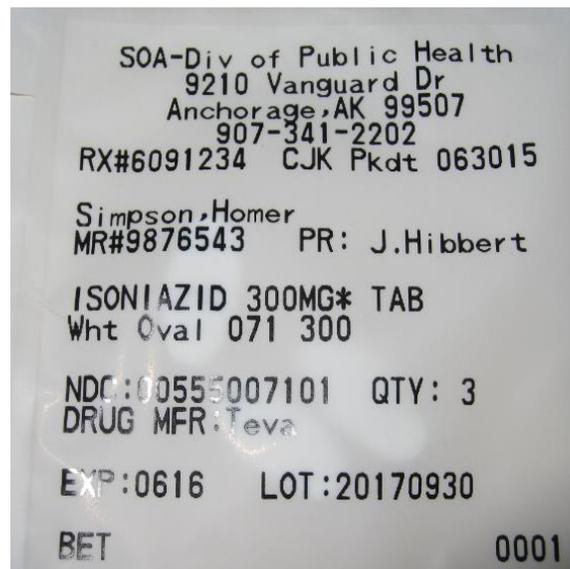
Thank you for being part of the TB team.

## TB Medication Dose Packs for Active TB

The Public Health Nurses receive medications for active TB in 'dose packs'. The dose packs are not child-proof. They should be stored at controlled room temperature (59-86° F), in a secure place until ready for client use.

Each 'dose pack' will contain:

- Client's name
- Medication name and strength
- Dose form (tablet or capsule)
- Quantity per pack
- Expiration date of the medication
- And other items for tracking and managing purposes



Can you find the client's name on this label? (Simpson, Homer)

Can you find what strength the pills are in the package? (300mg)

Can you find how many pills should be in the package? (QTY=3)

Can you find who the prescribing provider is? (Dr. J. Hibbert)

Can you tell when the pills expire? (EXP:0616)= June 30, 2016

Can you tell what the pills should look like? (white oval) =white oval pill and markings of 071 300



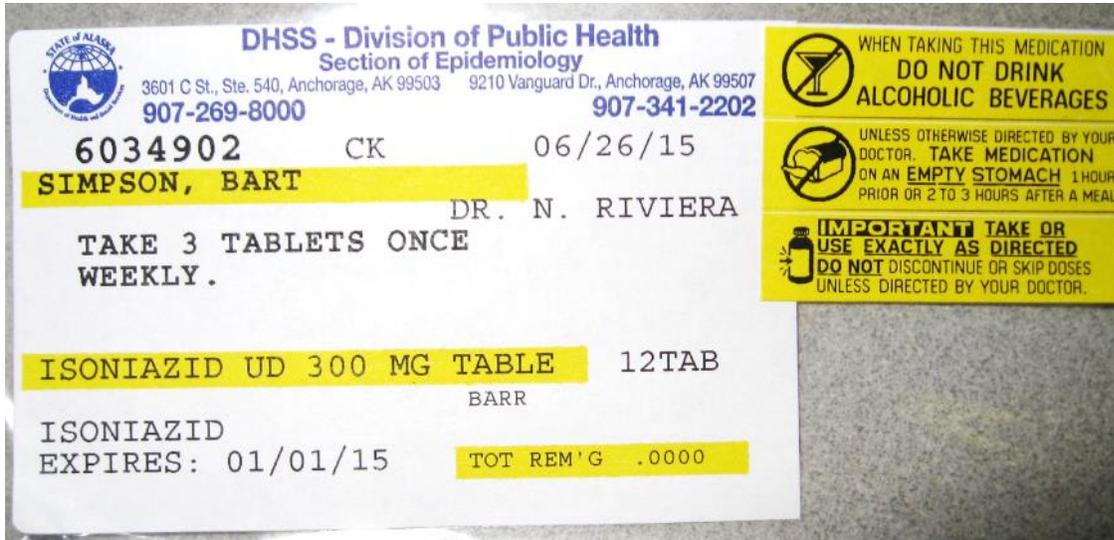
The above picture (front and back) shows a typical package for one day's dose of medication for **active TB**, also known as 'RIPE' therapy: Rifampin (RIF), Isoniazid (INH), Pyrazinamide (PZA), Ethambutol (EMB). The red capsule is RIF, the oval tablet is INH, and the two round tablets are PZA and EMB. The client will be receiving all 4 pills at the same time as one DOT dose. Active TB dose regimens are weight based dosing which will vary in the amount of tablets/capsules that need to be taken per day.



The photo above shows a typical zip-lock bag with the prescription labels affixed, pill crusher if necessary and general medication information printed out for the client to review. Typical medication orders will contain between a one to two month supplies of medication. Each prescription label contains the client name, doctor's name, medication name, directions for use regarding dose intervals and

quantity to take. Some therapies may require tablet crushing or splitting and can be provided to the client if necessary. Let your PHN know if you need one.

The writing on the labels can be small. Make sure you are able to read all labels before each DOT visit. If you have any questions, please contact the PHN or provider.



The label above is for a medication that is to be taken once a week. Can you read the label?

**When does this drug expire?** (01/01/15). It is expired and should be returned to the pharmacy for proper disposal.

**How many tablets are to be taken once a week?** (3)

Great job! Let your PHN know if you have any questions about giving medications to TB clients.

## Medications Tips for Children

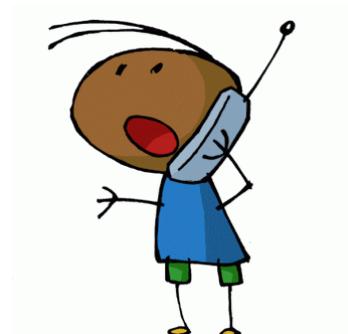
Age	Strategy
Infant	<ul style="list-style-type: none"> <li>• Offer medication when child is hungry</li> <li>• Crush pills between two spoons and put in applesauce</li> <li>• Use a bib with Rifampin so it does not <b><u>stain clothes</u></b></li> </ul>
Toddlers 1-3 years	<ul style="list-style-type: none"> <li>• Distract child with toy, object or sounds</li> <li>• Use simple directions</li> <li>• Keep it positive, offer small incentives for each dose</li> <li>• Expect difficulties and persist with patience</li> </ul>
Preschoolers 3-5 years	<ul style="list-style-type: none"> <li>• Keep it positive, offer lots of praise for a job well done</li> <li>• Use simple directions - smile</li> <li>• Be persistent and consistent</li> <li>• Offer medicine when child is rested</li> <li>• Offer incentives for each dose</li> </ul>
School age 5-12 years	<ul style="list-style-type: none"> <li>• Use simple explanations</li> <li>• Allow limited choices with taking meds (pills crushed or whole)</li> <li>• May be able to swallow pills- offer tips for swallowing meds</li> <li>• Offer praise and incentives</li> </ul>
Adolescent 12-18 years	<ul style="list-style-type: none"> <li>• Involve child in decision making</li> <li>• Should be able to swallow pills. Offer tips for swallowing meds – imagine the pill is like a piece of rice</li> <li>• Swallow the water versus drink the water</li> <li>• May be interested in bigger delayed incentives (gift or gift certificate)</li> <li>• Offer praise and incentives</li> </ul>

## Managing Directly Observed Therapy



## Principles of Directly Observed Therapy

- A trained health worker delivers each dose of TB medication
- A DOT Aide can be a: RN, Medical Assistant, Community Health Aide/Practitioner or a responsible person in the community with special training in DOT. A close family member of the client receiving medication is usually not a good choice for a DOT Aide.
- The DOT Aide asks about side effects before bringing each dose of medications to the client.
- The DOT Aide watches the client swallow each dose of medication. Medication must never be left with the client to take later.
- The DOT Aide documents all doses observed and potential side effects are reported to the PHN in a timely manner
- Regular communication between the PHN and DOT Aide are essential. The client should be encouraged to let the TB Treatment Team know well ahead of time of any travel plans so arrangements can be made to continue DOT medications.



## Advantages of DOT

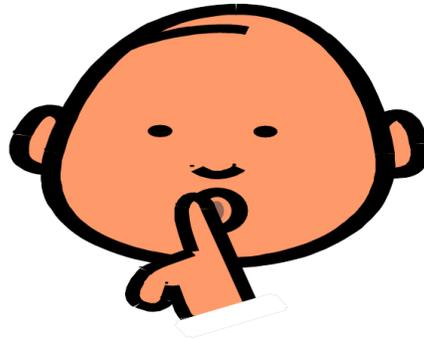


- DOT is the best way to cure and prevent the spread of TB in the community
- The client is supported and encouraged to complete the full course of medication
- The client is monitored closely for side effects of medications to prevent health problems
- The client is encouraged to complete lab tests and keep appointments
- A trusting relationship often develops between the DOT Aide and the client. This relationship:
  - Reduces fears about TB and treatment
  - Increases comfort level for client to ask questions
  - Improves health care for the client
  - Reduces TB germs from becoming resistant to the medication if the client forgets to take the pills

**TB** care  
and control  
is a **smart**  
investment

## Setting Up & Delivering Directly Observed Therapy

DOT is the standard in Alaska for providing medications to all clients taking TB medications for active TB. DOT is also used for some clients being treated for latent TB infection, including those on once or twice a week dosing. There could also be special circumstances in which DOT would be necessary in another medication plan. Contact with the client is important before starting DOT to decide on a place and time to meet that works for both of you. Be flexible, and always ensure confidentiality is maintained.

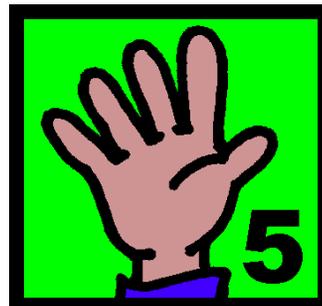


In Alaska it is common for clients to be hospitalized initially for active TB and discharged for DOT services in their home community. The PHN will have access to information that shows whether the person might still be infectious and on airborne precautions, or if they are no longer at risk for infecting others by coughing. In many cases, clients who have received two weeks of 4 drug therapy for active TB are no longer considered contagious to others.

## The 5 R's

The PHN is responsible for providing medications to the DOT Aide to deliver to the client. It is important that the DOT Aide understands the dose package labels and dosing instructions, and this is reviewed with the PHN. It is wise to check medications before each dose to make sure it is the:

- Right client
- Right medication
- Right dose
- Right route
- Right time



## Frequency of DOT



DOT can be ordered by the provider to be taken 5-7 times a week, 3 times a week, or 2 times a week for active TB. Often clients will receive doses 7 days a week for the first two weeks of treatment, then the schedule may be reduced to twice a week. If doses are ordered twice a week there must be at least 72 hours (3 days) between doses. Latent TB regimens are sometimes taken once a week for 12 weeks or twice a week for 9 months. If a client misses a dose, record this on the DOT calendar and do not give this extra dose to the client. Do not 'double up' on pills, as it can be harmful to your client. Do not leave TB medications with the client to take after you leave.

## Places for DOT

DOT can be done in any place that is convenient and agreeable to the client, family and DOT Aide. Locations might include the client's home, workplace, a restaurant, park or any other place where the client and DOT Aide can meet with some privacy so the DOT Aide can observe the client swallowing their medications.



## Documenting DOT Medications

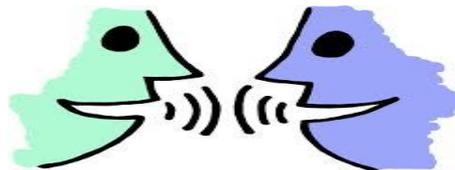
The DOT Aide receives a job description, signs a Memorandum of Agreement (MOA) with the Alaska TB Program, and thoroughly reviews this manual before starting DOT. The DOT Aide is required to ask about side effects with each dose and report to the PHN promptly if any side effects are reported by the client. A list of health problems at the top of the DOT calendar is an important reminder to ask about these problems and report to the PHN if the client has any of the symptoms listed. The DOT Aide should **document each dose on the calendar the same day it is taken** by the client. At the end of the month, the DOT Aide completes the monthly DOT calendar of doses observed and the monthly invoice for payment. These documents are sent to the PHN at the end of the month. These forms can be found in the forms section of the Alaska DOT Manual.



## Monitoring Client

The PHN is required to review each client's progress with the DOT Aide on a regular basis and the client should be assessed (signs & symptoms of TB, side effects of medications, general health) directly by the PHN on a monthly basis.

Regular communication between TB Treatment Team members is essential for the safe delivery of DOT. A plan for regular communication should be in place. When the PHN is not available, another nurse or resource should be identified as a contact for the DOT Aide.



The client should be encouraged to let the PHN Case Manager know well ahead of time of any travel plans so arrangements can be made to continue DOT in another location. This information should be discussed with the Alaska TB Program as it takes time to change the medication orders and coordinate correct delivery to the new area.



Regular lab work is important to help monitor the body and safely manage the TB medications. The PHN will be responsible for initiating the tests. The DOT Aide can provide encouragement and remind the client to get the tests done.

If the client is missing doses or is not willing to take the medications, this should be reported promptly to the PHN. If too many doses are missed, the client can sometimes develop a drug resistant type of TB that is harder to cure and treatment duration may be lengthy.

## Personal Safety

The DOT Aide should **never** put themselves in danger. If a DOT Aide is in doubt about personal safety, get away from the situation. A new meeting place for DOT may need to be arranged with the client.



Discuss home visiting safety in your community or village with the PHN Case Manager. Safety should be carefully considered when setting up the meeting place for DOT. The PHN can help you choose a good place or arrange a new place if the original plan isn't working. Be sure to report all problems to the PHN Case Manager.

Consider these safety issues:

- Are there loose or mean dogs or other animals around?
- Is the client or family intoxicated or in a location where alcohol or drug use may be happening?
- Are there physical hazards – missing steps, loose boards, trash, etc.?
- Weather hazards – is it dark, icy and cold?
- Isolation – is the DOT location far away from other houses or people?
- Is the client still infectious? If so, the PHN will advise you to do DOT outside or in the doorway to keep yourself safe.

## What if the client is infectious?

If the PHN determines that the client is still infectious or contagious (able to transmit TB), the DOT Aide can do several things to make DOT visits safer:



- Good ventilation and ultraviolet (UV) light decrease TB transmission risk.
  - Do DOT outside or in the doorway in a manner that still gives the client privacy.
  - If you must do DOT indoors, open a window, and talk to the client nearby.
- Have the client wear a mask while you ask about side effects and only lift the mask to swallow the pills.
- Remind the client that he/she should stay home and not have visitors while infectious. If the client must go out in public, a mask must be worn.
- The client should practice “cough etiquette” and always cover their cough with a tissue or their sleeve. Spitting in a can, bucket, or on the ground can spread TB germs.

## Handling impaired or intoxicated (drunk) clients

TB medicines are hard on the liver as are alcohol and street drugs. It is best for clients being treated for TB to not use alcohol and drugs, but this doesn't always happen. Clients with liver problems may have blood tests periodically to make sure the TB medicines or drinking isn't hurting their livers. The PHN will advise you if you need to temporarily stop DOT because of liver or other problems.



If a client is drunk or high when you meet for DOT, always think about safety first. If you are worried and feel unsafe, leave and call the PHN and ask for advice. The PHN will help you come up with a plan for safe DOT. Options could include changing the DOT Aide or trying DOT at a different location or time.

## “To Do” List for a DOT Visit

1. Confirm you have the right medicine for the right person



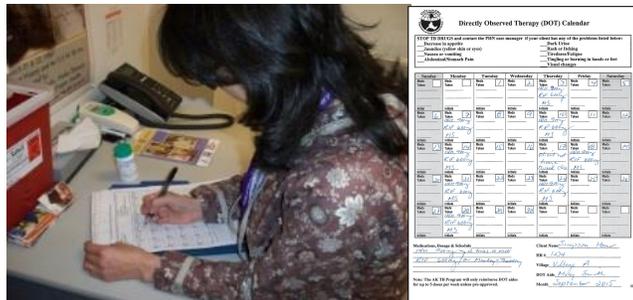
2. Ask about side effects before handing medicine to the client to take



3. Watch pills being swallowed



4. Document each dose taken on the day it's taken!  
Do not wait until the end of the month



## What if:

You think the pills are not being swallowed:

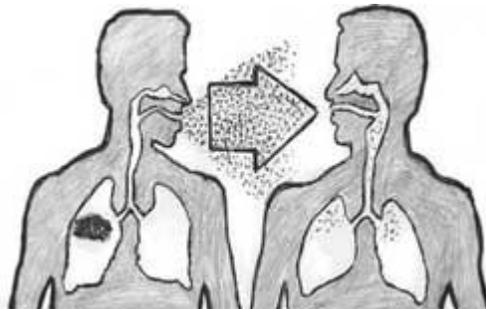


Consider asking client to open his/her mouth



What can happen if pills are not taken?

- He/she may become infectious and pass TB to family and friends



- Development of a resistant type of TB that is very hard to treat

## Administrative Issues

### Turning in DOT Calendars and Invoices for Payment



#### At the end of each month:

- Look at each client's DOT Calendar and make sure that each day you watched them take medication is marked with the date, drug(s), dosage(s) and your initials. An example of how to fill in the DOT Calendar is in the Forms section of this manual.
- Complete and sign the Monthly DOT Invoice and fax or send it by mail with the DOT Calendar to the PHN Case Manager.
- The PHN Case Manager will send both the DOT Calendar and your Monthly DOT Invoice to the Alaska TB Program for payment.
- It can take up to 4 weeks after the DOT Calendar and Monthly DOT Invoice reach the Alaska TB Program for you to get paid. If you asked for payments directly into your bank account, you will be paid faster.
- If you have questions, call the PHN Case Manager or the Alaska TB Program at 907-269-8000.



## Protecting Client Privacy

DOT Aides must keep the privacy of each client and their family. The client's private health information should only be discussed with the PHN Case Manager or the client's health care provider.

- Confirm the client's identity the first time you meet them for DOT.
- Never discuss a client's private information with anyone without the client's permission (including family or friends).
- Make sure that anyone who requests client information has permission to see the information.
- All client records (calendars) and medications must be kept in a safe place where only people with permission may get to them.
- Only use a clinic fax machine or mail to send client information and always mark the sealed envelope "confidential".
- Only use interpreters that understand the importance of privacy. Try not to use a family member as an interpreter.
- Always meet with the client in a private room or area.
- Never talk about the client's private information or use client's name in public.
- Don't say client names on cell phone calls made in public.
- Don't leave private information on an answering machine or voicemail that other people may hear.
- Think about the client's privacy when making your DOT plans. Try to let the client choose the location.





## Frequently Asked Questions

### TB Medications and DOT:

1. ***When should I ask about side effects or symptoms?*** Ask about side effect BEFORE each dose of medication. Tell the PHN about any side effects the client may tell you. Do not continue with DOT if the symptoms are severe or concerning.
2. ***Should I plan DOT doses on the weekends?*** No. DOT doses are generally ordered two, three, or five days a week. Make sure you know how often pills are to be taken. The Alaska TB Program does not pay for DOT seven days a week unless approved in advance.
3. ***If pills are ordered two times a week when should I arrange DOT?*** Twice a week doses must be taken 3 days apart. Work out a schedule with your client such as Monday and Thursday. If your client misses a Thursday dose it could be taken on Friday. Do not schedule DOT less than 3 days apart.
4. ***If my client misses a dose, should I have the client take twice the number of pills for the next dose?*** No, only have the client take one dose at a time. Mark on the calendar that a dose was missed. Never have the client take more than one dose at a time (Do not “double up” to catch up).
5. ***I could not find my client the last two days for DOT, what should I do?*** Please let the PHN know if you cannot find your client, or if the client is planning on taking a trip or moving.
6. ***My client does not want me to watch him swallow pills. What should I do?*** Tell your client it is your job to watch all pills being swallowed. This is what DOT is.
7. ***I think my client is not swallowing the pills. What should I do?*** Ask him/her to open their mouth to see if the pills were swallowed. This is part of your job.
8. ***I told my client not to drink alcohol, but I can smell it when I go to her house. What should I do?*** Your job is to advise clients what is best for their health. Too much alcohol can hurt the liver and may make it harder to cure TB. Let the PHN know if you see behavior that impacts your ability to give DOT medications to the client.
9. ***My client takes a lot of Tylenol and other pain pills (or other cold/flu products that may contain Tylenol). Is this OK?*** Tylenol and aspirin can hurt the liver when taken in combination with TB medicines. Ask how often and how long they have been taking the pills. Many people don't realize Tylenol and Aspirin can be harmful to the liver. Alert the PHN or medical provider if you think the client is taking Tylenol or Aspirin frequently.
10. ***I don't feel safe when I meet my client at his house. What should I do?*** Your safety is the top priority. If you do not feel safe tell the PHN and ask for help. There may be other alternatives in your community. Some ideas: changing the DOT Aide, changing time or location of DOT, having assistance (two people deliver each dose of DOT). Avoid being alone with the client if you do not feel safe. DOT can be done in a public place or outside a door entrance to a home, as long as confidentiality is maintained.
11. ***If I ran out pills for a client, should I take pills from another client?*** No, please call the PHN to let them know you are out of pills. Pills should only be used for the right client, at the right time, with the right medication, dose, and route.
12. ***If my client stepped out to go to the store, can I leave the medicine with her mother?*** No, each dose must be delivered to the client and you must watch the pills being swallowed.

13. **Should I go ahead with DOT if my client is drinking beer and whiskey?** We advise and encourage clients to stop alcohol, but we do not enforce abstinence (no alcohol). If your client is too drunk to swallow pills then skip the dose. Otherwise continue with DOT, and report what you observe to the PHN. Alcohol is bad for the liver, and combining it with TB medicines can cause liver problems. The client may need blood tests to check for liver health.
14. **My client has INH (isoniazid) drug resistance. What is drug resistance?** INH resistance means INH will not kill the type of TB germ your client has. A different drug will be used instead. Our lab can check TB samples (usually sputum) when someone has active TB. The sample is grown in the lab, and drugs are added to see if the drugs kill the germs. If the TB germs do not die, then the medical provider will change the drugs to make sure the TB germs are killed. This means the client sometimes has to take more drugs for a longer period of time.

## DOT Calendars and Payment

1. **How do I fill out a DOT calendar?** There is an example in this manual for your review. Each day you provide DOT, fill out the box on the calendar with medicine name and dose. Do not wait until the end of the month.
2. **Where do I send my DOT calendars?** Give your DOT calendars and monthly invoice to the PHN at the end of the month.
3. **Why does it take so long to get paid?** Do not expect to be paid right away. The DOT calendar and invoice needs to be faxed to Anchorage, payment approved, and the funds sent back to you. This can take 4-6 weeks after the month you provided DOT service. Please be patient. If more time goes by and you have not received payment, please ask the PHN to follow up.
4. **Can I receive payment by direct deposit?** Yes, we can deposit funds directly into your bank account instead of mailing a check to you. This is generally a faster way to receive your payment. However, the first payment will still be by check, while we are setting this up for you.
5. **Why do you need my legal name and social security number for payment?** It is very important we have the correct spelling of your legal name and your social security number so there are not delays in receiving your payment. If we do not have the correct spelling of your name we cannot pay you. Check to make sure you write these correctly on your DOT agreement form.
6. **Do I receive payment for the time I invest in learning about DOT?** Yes, you will receive a small payment for taking the time to learn more about DOT. You can only receive payment for training once. If you provide DOT for another client, you will not receive payment for training again.
7. **What if my client plans to leave the village?** Please let the PHN know promptly if your client has plans to move or travel. The PHN and Alaska TB program will help coordinate care so the client can continue to receive medication.
8. **Do I receive payment if I spend the time looking for the client and cannot find him?** No, unfortunately we can only pay \$10 when you actually observe the client swallowing their medications. We cannot offer funds when DOT does not occur.
9. **Can I get paid for 7 day a week DOT?** No, the Alaska TB Program will only pay for doses up to 5 days per week unless approved in advance. Check with the PHN to make sure you understand how many doses a week your client needs.

NAME \_\_\_\_\_ DATE \_\_\_\_\_

## DOT Aide Test

Please circle one: **Pre Test**

**Post Test**

1. Directly Observed Therapy (DOT) means:
  - a) I watch the client swallow each day's pills
  - b) I always ask about side effects (belly pain, dark urine, vomiting, etc.) before I watch the client take their pills
  - c) I write the drugs, dose and my initials on the calendar on the day of DOT
  - d) All of the above
  
2. Active TB
  - a) Is transmitted by respiratory droplets through the air
  - b) Can be treated and cured
  - c) Usually requires treatment for 6-9 months
  - d) All of the above
  
3. Medications commonly used to treat active TB include:
  - a) Isoniazid, Rifampin, Aspirin and Ethambutol
  - b) Isoniazid, Rifampin, Pyrazinamide and Ethambutol
  - c) Isoniazid, Amoxicillin, Pyrazinamide and Ethambutol
  - d) Ibuprofen, Rifampin, Pyrazinamide and Ethambutol
  
4. List 3 signs and symptoms of TB:
  - a) \_\_\_\_\_
  - b) \_\_\_\_\_
  - c) \_\_\_\_\_

NAME \_\_\_\_\_ DATE \_\_\_\_\_

5. The DOT Aide should always call the PHN Case Manager when:
  - a) The client reports side effects (belly pain, dark urine, nausea, etc.) or is missing from the community
  - b) Misses 2 DOT visits in a row
  - c) The client should be on home isolation and is seen at bingo, the post office and the store without a mask
  - d) All of the above
6. Latent TB Infection is NOT contagious and cannot be spread from one person to another
  - a) True
  - b) False
7. What can happen if TB medications are taken irregularly or stopped too soon?
  - a) Treatment does not work
  - b) Resistant TB organisms develop and the usual TB drugs will not work
  - c) TB is not cured
  - d) All of the above
8. The DOT Aide and PHN case manager should review each client's status at least once a month.
  - a) True
  - b) False
9. Where do I store TB medications for the client to use when taking TB medicine?
  - a) Outside in my 4 wheeler cargo box
  - b) In a secure location at room temperature that is out of reach of children
  - c) On my living room floor
  - d) In my arctic entry on the top shelf

NAME \_\_\_\_\_ DATE \_\_\_\_\_

10. If I run out of pills for a client, I should take pills from another client and use these?

a) True

b) False

**PHN Comments:**

Meets Competency: YES

NO

PHN Signature \_\_\_\_\_ Date \_\_\_\_\_



## Directly Observed Therapy (DOT) Aide Job Description

### I. Overview:

Under the direct supervision of the local Public Health Nurse (PHN), acts a representative of the Alaska TB Program in the community to provide directly observed therapy (DOT) for clients with tuberculosis or latent tuberculosis infection (LTBI). The DOT Aide reinforces the importance of following medical advice, taking TB medications according to the prescribed schedule and regimen, and completing treatment to the client. DOT Aides also monitor client treatment and adverse reactions and report regularly to the Public Health Nurse.

### II. Duties and Responsibilities:

#### A. Helps provide client care.

1. Obtains TB medications from the PHN and ensures that they are stored safely and out of the reach of children at all times. Dose packs are NOT child proof and must be stored securely. PHNs can assist with safe storage options as needed.
2. Delivers directly observed therapy (DOT) following medical and nursing direction to ensure that the client takes their TB medications according to the prescribed schedule. **DOT means that the Aide watches while the TB client swallows their medication. Doses that are NOT observed are not counted.**
3. Reviews possible medication side effects with client and family.
4. Asks about and observes client for signs/symptoms of medication side effects **before** each DOT dose.
5. **STOPS TB drugs and reports any signs/symptoms of TB medication side effects as soon as possible to the PHN. These include: nausea; vomiting; stomach pain; decreased appetite; jaundice (yellow eyes or skin); fever; dark urine; rash or itching; fatigue; tingling or burning in hands or feet; or visual changes.**
6. Locates client when client misses appointment with the DOT Aide. Encourages client cooperation with therapy.
7. Reports 2 or more missed DOT doses to the PHN Case Manager.
8. Keeps PHN informed of client's progress, whereabouts, and any client travel plans.

**B. Documents client care activities and fills out required forms.**

1. Documents all medications and dosages taken on the DOT Calendar.
2. Records each dose on the DOT Calendar on the day it is provided to the client. **The Alaska TB program will only reimburse DOT Aides for up to 5 doses per client per week unless approved by the Program before the doses are taken.**
3. Submits completed DOT Calendar and Monthly Invoice for Payment to the PHN Case Manager at the end of each month.

**C. Organizes workload.**

1. Delivers TB medications according to the plan agreed upon by the DOT Aide, PHN Case Manager, and the client.
2. Makes a plan with the PHN Case Manager, in case DOT Aide needs time off.

**III. Supervision Received:**

The DOT Aide will be recruited, trained, and supervised by the local or itinerant PHN.

**IV. Qualifications and Requirements:**

- A. Must read and review the Alaska DOT Manual and clarify any questions or concerns with the PHN Case Manager before starting DOT with a client. Will also complete the *Pre* and *Post Tests* and send to the PHN along with the signed *Memorandum of Agreement*. The Alaska DOT Manual should be used as a guide to best practices for DOT Aides.
- B. Must be able to deal tactfully and communicate effectively with client(s). Must feel comfortable meeting client(s) in unconventional settings such as work sites, homes, schools, and other places.
- C. Will be expected to maintain regular contact with the PHN Case Manager either in person or by phone to report on the client's status and DOT regimen.
- D. Prior training in health care, health education, social work, or public health is desirable, but not required. Must be mature and dependable and have the ability to complete written forms.
- E. It is very important for DOT Aides to maintain the privacy of clients and their families. The client's diagnosis, treatment, and related issues are confidential and should only be discussed with the PHN Case Manager and the client's health care provider.

# Appendices

## History of Tuberculosis

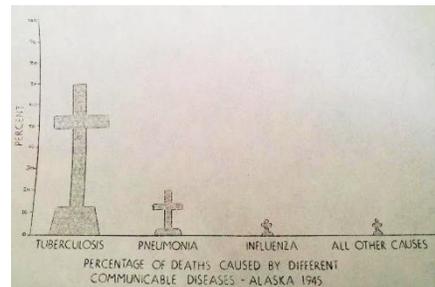
Tuberculosis, also known as consumption, phthisis, wasting, or white plague, has been affecting human populations for centuries. In the 1800's, Robert Koch, discovered *mycobacterium tuberculosis*, the organism that causes TB. It was not until the 1950s however, that treatment of TB with antibiotics was started, making it possible to cure the disease. Until that time, many people were sent far from their homes to sanatoriums where they were treated with fresh air, a good diet, bed rest and at times, invasive surgery to remove TB-affected parts of their lungs. Clients often spent years in sanatoriums; many got healthy enough to return home while others died never to see their families again. Today, we still treat TB with many of the same drugs first used in the 1950s.



## Tuberculosis in Alaska

There is evidence to suggest that the TB bacterium were present in Alaska as early as 400 AD. Historians also suspect that explorers and traders may have brought other and perhaps stronger types of TB to Alaska in the 1700 and 1800s which resulted in large numbers of Alaska Natives becoming ill and dying of TB. In the 1930s, the Yukon Kuskokwim (YK) area had the highest yearly number of TB cases and deaths worldwide! In the 1940s, 10% of all Alaska Natives had active TB disease. Sanatoriums were built in Skagway, Seward and Sitka to treat TB clients. 1 of

every 30 Alaska Natives lived for an average of 2 years in these facilities; some never went home. In the 1950s, Dr. George Comstock began isoniazid (INH) studies in 29 YK villages. His work proved that INH prevented the development of active TB in persons with latent TB infection. The current latent TB infection



treatment guidelines are based upon his study.

Later, the Community Health Aide Program (CHAP) was developed in in the 1960s largely in response to the TB epidemic experienced by Alaska Natives.

The history of TB in Alaska leaves many Alaska Natives with bad feelings and sad memories about TB. Today, TB is both preventable and curable. Your work as a DOT Aide helps to make that possible.

## Common Medications for Active TB Treatment

DRUG	DAILY DOSE		TWICE WEEKLY DOSE		HOW SUPPLIED	STORAGE	COMMENTS
	ADULTS	CHILDREN	ADULTS	CHILDREN			
<b>Isoniazid (INH)</b>	5mg/kg Max: 300mg	10-15mg/kg Max: 300mg	15mg/kg Max: 900mg	20-30mg/kg Max:900mg	White tablet 100mg or 300mg or syrup (50mg/5ml)	Secure/locked area. Protect from light and humidity. Store at room temperature.	Liquid INH may cause diarrhea in infants and children. Crushed tablets added to applesauce may be easier.
<b>Rifampin (RIF)</b>	10mg/kg Max:600mg	10-20mg/kg Max: 600mg	10mg/kg Max: 600mg	10-20mg/kg Max: 600mg	Red capsule 150mg or 300mg	Secure/locked area. Protect from light and humidity. Store at room temperature	RIF may produce reddish coloration of the urine, sweat, sputum, and tears. Soft contact lenses may be permanently stained.
<b>Pyrazinamide (PZA)</b>	1000-2000mg Max: 2000mg (2000mg=2g)	15-30mg/kg Max: 2000mg	2000-4000mg Max:4000mg	50mg/kg Max: 2000mg	Tablet 500mg	Secure/locked area. Protect from light and humidity. Store at room temperature	Not recommended during pregnancy.
<b>Ethambutol (EMB)</b>	800-1600mg Max: 1600mg	15-20mg/kg Max: 1000mg	2000-4000mg Max: 4000mg	50mg/kg Max: 2500mg	Tablet 100mg or 400mg	Secure/locked area. Protect from light and humidity. Store at room temperature	Usually not recommended in children too young for vision screening
DRUG	DAILY DOSE		TWICE WEEKLY DOSE		HOW IT LOOKS	STORAGE	COMMENTS
Vitamin B6 Pyridoxine (Vitamin B)	ADULTS	CHILDREN	ADULTS	CHILDREN	Tablet	Protect from light and humidity. Store at room temperature	Not toxic. Contains Vitamin only
	25-50 mg	1mg/kg	25-50 mg	Max: 25mg			

## Tuberculosis Medication Side Effects: Page 1 of 2

COMMON SIDE EFFECTS Report ANY side effect to the nurse as soon as possible.	ACTION/SOLUTION	COMMENTS	DRUGS THAT MAY HAVE CAUSED SIDE EFFECTS
<b>Allergic Reaction:</b> <ul style="list-style-type: none"> <li>• Fever</li> <li>• Itchy</li> <li>• Rash, hives</li> </ul> Difficulty breathing* (rare)	Medication change may be needed. Consult PHN. Antihistamines (Benadryl) may help with itching. <u>*If any difficulty breathing immediately seek help from a medical provider.</u>	Stop medications and call nurse if reactions are severe. Ask client if they are taking any new medicines. Report and document adverse events.	Any medication can cause an allergic reaction
<b>Liver problems/hepatitis</b> <ul style="list-style-type: none"> <li>• Abdomen pain</li> <li>• Nausea/vomiting</li> <li>• Tiredness</li> <li>• Loss of appetite</li> <li>• Jaundice (yellowing of eyes or skin)</li> </ul>	Consult PHN. <ul style="list-style-type: none"> <li>• If liver enzyme tests (AST/ALT) are high, a medication change may be needed.</li> <li>• Liver enzyme tests may need to be re-checked. Ask PHN whether TB medications by DOT should continue.</li> </ul>	Stop medications if symptoms are severe or client is developing yellow eyes or skin. Consult with PHN or medical provider as soon as possible.	INH RIF PZA EMB Or combined with alcohol
<b>Stomach upset</b>	If liver enzymes (AST/ALT) are normal: <ul style="list-style-type: none"> <li>• Try taking medication with food.</li> <li>• After a few doses client may get used to a medication.</li> <li>• Provider may recommend anti-nausea medication.</li> </ul> If liver enzymes are high or have not been tested recently, ask PHN or medical provider		INH RIF PZA EMB

## Tuberculosis Medication Side Effects: Page 2 of 2

COMMON SIDE EFFECTS Report ANY side effect to the nurse as soon as possible.	ACTION/SOLUTION	COMMENTS	DRUGS THAT MAY HAVE CAUSED SIDE EFFECTS
<b>Tiredness</b>	<p>If liver enzymes (AST/ALT) are normal:</p> <ul style="list-style-type: none"> <li>• Try taking medication at a different time of day</li> <li>• Tiredness often gets better within first month of starting meds</li> </ul> <p>If liver enzymes are high or have not been tested recently, ask PHN or medical provider</p>		<p>INH RIF PZA</p>
<b>Tingling</b> in fingers and toes	<p>If client is taking INH, vitamin B6 (pyridoxine) can help prevent this symptom. Consult with PHN about tingling. Vitamin B6 can be added or dose can be changed</p>	<p>Advise continuing medicine. Ask PHN about vitamin B6</p>	<p>INH</p>
<b>Red/orange color</b> of body fluids (tears, urine, sweat)	<p>Red/orange color is expected when taking Rifampin. Warn client this may happen and will not harm them. It can stain soft contact lenses.</p>	<p>Advise continuing medicine</p>	<p>RIF RPT</p>
<b>Joint pain</b> and/or gout ( a condition with acute swelling and pain of a joint)	<p>If the joint pain is severe, a medication change may be considered. Consult with PHN.</p>	<p>If symptoms are mild, continue medication</p>	<p>PZA</p>
<p><b>Visual Changes</b></p> <ul style="list-style-type: none"> <li>• Visual acuity</li> <li>• Color perception</li> </ul>	<p>Eye testing needed if client develops vision changes while taking Ethambutol (EMB). A medication change may be needed.</p>	<p>If client is having difficulty with vision, hold medication and contact PHN.</p>	<p>EMB</p>

## Common Laboratory Tests for Management of TB and TB Medications

Testing for TB bacteria	Test Results	Notes
<p><b>Sputum</b> for AFB (Acid Fast Bacilli) Smear- a sample of sputum is put on a slide and viewed with a microscope. This is a quick lab test that checks for AFB. Specimens from other body areas can be tested for TB. Some types of TB are not in the lungs.</p>	<ul style="list-style-type: none"> <li>• If smear positive, client probably has pulmonary TB</li> <li>• Number of bacteria is measured: 1+, 2+, 3+, 4+. The highest number is 4+ which means there are a lot of TB germs. The higher number usually means the client is more contagious to others.</li> </ul>	<ul style="list-style-type: none"> <li>• Keep samples in refrigerator</li> <li>• Send samples to lab as soon as possible</li> <li>• Other bacteria that are not TB can sometimes cause AFB to be positive. A positive smear will have follow-up testing done to check for TB.</li> <li>• This test is used to monitor progress. The number (1-4+) should decrease after the client has been taking medication for 2-4 weeks.</li> </ul>
<p><b>NAAT or PCR</b> is a DNA test done on sputum that can confirm if someone has pulmonary TB. The test can be completed in a few days</p>	<p>A positive or 'reactive' result means the client has active TB. This sample will be cultured by the lab.</p>	<ul style="list-style-type: none"> <li>• Not all labs do NAAT or PCR testing.</li> </ul>
<p><b>Culture</b> - the sample is put on a special plate to help the TB bacteria to grow. This can take up to six weeks for a test result.</p>	<p>A positive culture result means active TB disease. If the culture is positive, the lab will run '<b>sensitivities</b>' to see what medications help kill the TB bacteria.</p>	<ul style="list-style-type: none"> <li>• Sensitivities can show if the TB germ is 'resistant' to the medications used to treat TB.</li> <li>• <b>If the TB germ is resistant</b>, a different medication may be needed for the client.</li> </ul>

Tests to Monitor Clients	Test Results	Notes
<p><b>Chest X-ray</b> Adults: usually AP view Children: PA and lateral view</p>	<p>A picture before starting therapy can help show signs of disease. After therapy for active disease, it can show healing.</p>	<p>A 'cavity' or cavitory lesion found on chest X-ray is a collection of pus in the lungs. It usually means the client has had TB for longer and feels sick.</p>
<p><b>Blood Tests</b>- vary with medications client is taking.</p> <ul style="list-style-type: none"> <li>• <b>AST and ALT</b> (liver function)</li> </ul>	<p>Often done before starting meds and to monitor client while taking medications. General guidance- if AST or ALT is 3x normal and client has symptoms, hold medications until provider is consulted.</p>	<p>Testing is helpful if client has symptoms of liver problems, or has risk factors for liver problems such as hepatitis or alcohol use. Always report results to provider and PHN. Testing is sometimes ordered monthly to monitor clients.</p>
<p><b>Vision Testing</b>- acuity (Snellen test) and color test. Do Snellen test with and without glasses.</p>	<p>Check vision prior to starting the TB medication Ethambutol (EMB), and monthly while client is taking this medication. Report any changes.</p>	<p>EMB can cause vision changes. Ask about blurry vision or change in ability to see colors.</p>

## Instructions for Collecting Sputum Samples

### Why is a Sputum Test Necessary?

- Your doctor needs you to collect a sputum sample to test for tuberculosis (TB) in your lungs. Checking your sputum is the best way to find out if you have TB disease or to see if your treatment is working.
- To collect an acceptable sample you need to cough up sputum from deep inside of your lungs as soon as you wake up in the morning. The lab needs at least 5 mL of sputum.

### How to Collect a Sputum Sample

1. The TB sputum tube must not be opened until you are ready to use it. DO NOT REMOVE preservative (white powder) from the tube.
2. As soon as you wake up in the morning, before you eat or drink, rinse your mouth with WATER.
3. Take a very deep breath and hold air for 5 seconds. Slowly breathe out. Take another deep breath and cough hard until some sputum comes up into your mouth.
4. Spit the sputum into the TB tube.
5. Keep collecting until the sputum reaches the 5 mL line on the TB tube.
6. Screw the orange cap on the tube tightly so it doesn't leak.
7. Wash and dry the outside of the TB tube.
8. Write your NAME, BIRTH DATE, and the DATE/TIME you collected the sputum on the tube and lab form.
9. Put the tube into the bag provided.
10. Deliver sample(s) to your Community Health Aide, doctor(s) office, or PHN AS SOON AS POSSIBLE. (*Samples must be received at the Anchorage laboratory for testing within 10 days of collection.*)
11. If you need to collect three TB samples, collect them in the morning on three different days. Keep in refrigerator until all are collected. Do not collect more than one per day unless you are told otherwise.

**Alaska State Public Health Laboratory:** 5455 Dr. Martin Luther King Jr. Ave., Anchorage, AK 99507 Phone: (907) 334-2100 Fax: (907) 334-2161

**Alaska Tuberculosis Control Program:** For more information about TB call Epidemiology at (907) 269-8000 or visit their website at: [www.epi.hss.state.ak.us/id/tb.stm](http://www.epi.hss.state.ak.us/id/tb.stm).

## TB Glossary

1. **Active TB disease:** Type of TB that makes client feel sick and can sometimes spread to other people if not treated properly
2. **AFB= Acid Fast Bacilli.** A quick lab test checking for TB bacteria. 1-4+ means it is likely the person has active TB. More testing will be done because similar bacteria can make this test positive when the person does not have TB. See lab tests table for more information.
3. **Antibiotic:** Medication able to kill or slow down bacteria. It is used to treat bacterial infections.
4. **AST and/or ALT:** Blood tests that checks liver function.
5. **CHA/CHAP:** Community Health Aide/Practitioner provides primary care in villages in rural AK. See <http://www.akchap.org/html/home-page.html> to learn more.
6. **Contacts:** People who spent a lot of time with someone who was infectious with active TB. 'Close contacts' are often family members or close friends to an active TB case during the infectious period.
7. **Contagious:** This means that a person is able to pass TB to someone else. TB is generally spread by someone who has active TB disease during their infectious period sharing air in close contact with another person. Infectious is another word for contagious.
8. **Culture:** TB lab test that takes 3-6 weeks. See lab test table.
9. **CXR:** chest x-ray
10. **DOT:** Directly Observed Therapy: A person trained in DOT ensures all doses of medication are delivered and swallowed, asks about side effects, and documents medications on a calendar. This method helps clients finish their doses to ensure they are cured of TB.
11. **DOT Aide:** Person who has received training in DOT and takes on the role of bringing TB medications to the client and watching the client swallow the pills.
12. **EMB = Ethambutol,** a common antibiotic used to treat active TB
13. **Immune System:** The body's natural defense system against infection and disease
14. **Infectious:** Same as contagious. This means that a person is able to pass TB to someone else. TB is generally spread by someone who has active TB disease during their infectious period sharing air in close contact with another person.
15. **INH = Isoniazid,** a common antibiotic used to treat active and latent TB
16. **Interactions:** Sometimes TB medications can interact, or impact, how other medicines a person is taking work.
17. **Jaundice:** Yellow coloring of skin and eyes caused by liver problems.
18. **Latent TB infection:** A dormant or inactive type of TB. This type of TB cannot make others sick.
19. **LTBI = Latent Tuberculosis Infection.** Inactive TB. Latent TB is not contagious
20. **Liver:** Large organ in the body that is very important. Some TB drugs, alcohol, and other medications can affect the liver. AST and ALT are blood tests to check the health of the liver.
21. **NAAT test:** DNA lab test that checks for active TB. Reactive = positive for TB. Non-reactive = negative for TB. Also called PCR.
22. **Nausea:** Feeling like throwing up: feeling sick to your stomach.
23. **PCR:** DNA lab test. See NAAT above for TB lab testing.
24. **PHN:** Public Health Nurse

25. **PPD:** TB screening test to check for latent or active TB
26. **PZA = Pyrazinamide**, a common antibiotic used to treat active TB
27. **Quantiferon Gold:** Blood test to check for latent or active TB. See lab test table for more information.
28. **Resistant:** Type of TB bacteria that is more difficult to treat with antibiotics. Some of the common antibiotics will not work against these germs.
29. **RIF = Rifampin**, a common antibiotic used to treat active and latent TB
30. **RPT = Rifapentine**, a longer acting type of Rifampin used in combination with INH to treat latent TB
31. **Screening:** A tool used to identify cases of disease early so treatment can be started promptly.
32. **Sensitivities:** A lab test that checks that TB antibiotics work against the TB bacteria.
33. **Side effect:** A reaction that happens from taking a medication. Example: A medicine can be helpful but may also cause a rash and itching.
34. **Sputa/sputum:** Liquid coughed up from the lungs; mucus or phlegm. See lab tests table for more information.
35. **TB:** Tuberculosis
36. **Transmission:** The spread of infectious disease from one person to another.

## User Guide for Public Health Nurses

The Alaska *Directly Observed Therapy (DOT) Manual* was developed by Public Health Nurses (PHNs) and the Alaska Tuberculosis (TB) Program, to provide DOT Aides and other partners with standardized information and guidance for the important work they do in treating clients with TB in Alaska. This document will serve as a guide for PHNs utilizing the DOT Manual in the field.

### General Guidelines:

- Ideally, DOT Aides will receive face-to-face training with a PHN prior to observing a client take medication. Since PHNs do not always reside in the same community as the DOT Aide, it is acceptable to do the training remotely.
- In some circumstances, it may not be feasible to train DOT Aides utilizing the DOT Manual prior to the start of their service. In this case, it is acceptable to train a DOT Aide initially with the DOT Aide Job Description. However, it is expected that all DOT Aides will receive face-to-face or remote training, utilizing the DOT Manual, within 2 weeks of hire.
  - There may be extenuating circumstances in which the training cannot be done within 2 weeks. In these cases, PHNs should work with their Nurse Manager and the TB Program to arrange a training as soon as practical.
- If there are no clients with TB in a community, but the community had historical TB activity, the PHN may train a DOT Aide to serve as needed.
- DOT Aides may be re-trained every 2 years or as needed. The PHN should determine if re-training is necessary.
- DOT Aides that have been trained prior to release of the DOT Manual are not required to be re-trained. However, PHNs may determine that a current DOT Aide needs re-training. In this case, the DOT Aide can receive payment for completing training with the DOT Manual.

### Recommendations for face-to-face training:

- Arrange a time and setting that will allow for 2 hours of uninterrupted training.
- Administer and collect the DOT Aide pre-test.
- Review the DOT Manual with the trainee.
- Administer the post-test.
  - Create a supportive environment and remind trainees that it is acceptable to locate answers in the manual.
- Discuss the post-test and review incorrect answers.
  - Since some trainees may have a difficult time completing the post-test, it is the PHN's responsibility to assess the level of competency.
  - A trainee may still be hired as a DOT Aide regardless of the post-test results if the PHN has confirmed the trainee meets the competency.
- Ask the DOT Aide to complete the W-9 form, memorandum of agreement, and invoice for payment.
- Fax the pre-test, post-test, and other DOT paperwork to the Alaska TB Program.
- Print a completion certificate to give to the DOT Aide.

### **Recommendations for remote training:**

- Provide an electronic or paper copy of the DOT Manual to the trainee.
- Ask the trainee to complete the pre-test prior to reviewing the manual.
- Ask the trainee to review the DOT Manual.
- Contact the trainee to assess basic level of understanding of TB concepts, and to answer questions prior to post-test. Provide guidance to acquaint trainee with all sections of the manual.
- Ask the trainee to complete the post-test using the DOT manual as a resource.
- Ask the trainee to fax the post-test and other DOT paperwork to the PHN.
- Call the trainee to discuss the post-test and review incorrect answers.
  - Since some trainees may have a difficult time completing the post-test, it is the PHN's responsibility to assess the level of competency.
  - A trainee may still be hired as a DOT Aide regardless of the post-test results if the PHN has confirmed the trainee meets the competency.
- Fax the pre-test, post-test, and other DOT paperwork to the Alaska TB Program.
- Print a completion certificate and mail it to the DOT Aide.

# Forms



## Directly Observed Therapy (DOT) Calendar

**STOP TB DRUGS and contact the PHN case manager if your client has any of the problems listed below:**

- |  |   |
|--|---|
| <input type="checkbox"/> Decrease in appetite<br><input type="checkbox"/> Jaundice (yellow skin or eyes)<br><input type="checkbox"/> Nausea or vomiting<br><input type="checkbox"/> Abdominal/Stomach Pain | <input type="checkbox"/> Dark Urine<br><input type="checkbox"/> Rash or Itching<br><input type="checkbox"/> Tiredness/Fatigue<br><input type="checkbox"/> Tingling or burning in hands or feet<br><input type="checkbox"/> Visual changes |
|--|---|

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Meds Taken <input type="checkbox"/> _____ _____ _____ Initials						
Meds Taken <input type="checkbox"/> _____ _____ _____ Initials						
Meds Taken <input type="checkbox"/> _____ _____ _____ Initials						
Meds Taken <input type="checkbox"/> _____ _____ _____ Initials						
Meds Taken <input type="checkbox"/> _____ _____ _____ Initials						

Medications, Dosage & Schedule \_\_\_\_\_

Client Name \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

HR # \_\_\_\_\_

Village \_\_\_\_\_

DOT Aide \_\_\_\_\_

**Note: The AK TB Program will only reimburse DOT Aides for up to 5 doses per week unless pre-approved.**

Month \_\_\_\_\_

# Sample DOT Calendar



## Directly Observed Therapy (DOT) Calendar

**STOP TB DRUGS and contact the PHN case manager if your client has any of the problems listed below:**

<input type="checkbox"/> Decrease in appetite	<input type="checkbox"/> Dark Urine
<input type="checkbox"/> Jaundice (yellow skin or eyes)	<input type="checkbox"/> Rash or Itching
<input type="checkbox"/> Nausea or vomiting	<input type="checkbox"/> Tiredness/Fatigue
<input type="checkbox"/> Abdominal/Stomach Pain	<input type="checkbox"/> Tingling or burning in hands or feet
	<input type="checkbox"/> Visual changes

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Meds Taken <input type="checkbox"/>	Meds Taken <input type="checkbox"/>	Meds Taken <input checked="" type="checkbox"/> 1	Meds Taken <input checked="" type="checkbox"/> 2	Meds Taken <input checked="" type="checkbox"/> 3 INH 900mg RIF 600mg MS	Meds Taken <input checked="" type="checkbox"/> 4	Meds Taken <input checked="" type="checkbox"/> 5
Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____
Meds Taken <input checked="" type="checkbox"/> 6	Meds Taken <input checked="" type="checkbox"/> 7 INH 900mg RIF 600mg MS	Meds Taken <input checked="" type="checkbox"/> 8	Meds Taken <input checked="" type="checkbox"/> 9	Meds Taken <input checked="" type="checkbox"/> 10 INH 900mg RIF 600mg MS	Meds Taken <input checked="" type="checkbox"/> 11	Meds Taken <input checked="" type="checkbox"/> 12
Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____
Meds Taken <input checked="" type="checkbox"/> 13	Meds Taken <input checked="" type="checkbox"/> 14 INH 900mg RIF 600mg MS	Meds Taken <input checked="" type="checkbox"/> 15	Meds Taken <input checked="" type="checkbox"/> 16	Meds Taken <input checked="" type="checkbox"/> 17 Client not home Missed dose	Meds Taken <input checked="" type="checkbox"/> 18 INH 900mg RIF 600mg MS	Meds Taken <input checked="" type="checkbox"/> 19
Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____
Meds Taken <input checked="" type="checkbox"/> 20	Meds Taken <input checked="" type="checkbox"/> 21 INH 900mg RIF 600mg MS	Meds Taken <input checked="" type="checkbox"/> 22	Meds Taken <input checked="" type="checkbox"/> 23	Meds Taken <input checked="" type="checkbox"/> 24 INH 900mg RIF 600mg MS	Meds Taken <input checked="" type="checkbox"/> 25	Meds Taken <input checked="" type="checkbox"/> 26
Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____
Meds Taken <input checked="" type="checkbox"/> 27	Meds Taken <input checked="" type="checkbox"/> 28 INH 900mg RIF 600mg MS	Meds Taken <input checked="" type="checkbox"/> 29	Meds Taken <input checked="" type="checkbox"/> 30	Meds Taken <input type="checkbox"/>	Meds Taken <input type="checkbox"/>	Meds Taken <input type="checkbox"/>
Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____	Initials _____

**Medications, Dosage & Schedule**  
 INH 900mg 2 times a week  
 RIF 600mg on Monday & Thursday

Client Name Simpson, Homer  
 HR # 1234  
 Village Village A  
 DOT Aide Mary Smith  
 Month September 2015

Note: The AK TB Program will only reimburse DOT aides for up to 5 doses per week unless pre-approved.





State of Alaska  
 Department of Administration  
**Substitute Form W-9**

Questions? Email [DOA.DOF.Vendor.Auth@alaska.gov](mailto:DOA.DOF.Vendor.Auth@alaska.gov)

RETURN COMPLETED FORM TO:

Department of Administration  
 Division of Finance  
 P.O. Box 110204  
 Juneau, AK 99811-0204  
 Or FAX to: (907) 465-2169

**DO NOT send to IRS**

**Taxpayer Identification Number (TIN) Verification**

The Internal Revenue Service requires the State of Alaska to issue 1099 forms when payments to individuals, partnerships or limited liability companies for rents, services, prizes, and awards meet or exceed \$600.00 for the year. An IRS Form 1099 is not required when payments are specifically for merchandise or made to some types of corporations.

Print or Type

Please see attachment or reverse for complete instructions

<b>Legal Name</b> (as shown on your income tax return)	<b>State of Alaska Vendor Number</b> (if known)
<b>Business Name</b> , if different from above (use if doing business as (DBA) or enter business name of Sole Proprietorship)	<b>Entity Designation</b> (check only one type) <input type="radio"/> Individual / Sole Proprietor <input type="radio"/> Partnership <input type="radio"/> General Corporation <input type="radio"/> Medical Corporation <input type="radio"/> Legal Corporation <input type="radio"/> Limited Liability Company – Individual <input type="radio"/> Limited Liability Company – Partnership <input type="radio"/> Limited Liability Company – Corporation <input type="radio"/> Government Entity <input type="radio"/> Estate / Trust <input type="radio"/> Organization Exempt from Tax - Nonprofit (under Section 501 (a)(b)(c)(d))
<b>Primary Address</b> (for 1099 form) PO Box or Number and Street, City, State, Zip + 4	<b>Exemption</b> (See Instructions) <input type="text"/> Exempt payee code (if any) <input type="text"/> Exemption from FATCA Reporting Code (if any)
<b>Remit Address</b> (where payment should be mailed, if different from Primary Address) PO Box or Number and Street, City, State, Zip + 4	

**Taxpayer Identification Number (TIN) Provide Only One** (If sole proprietorship provide EIN, if applicable)

<b>Social Security Number (SSN)</b>	<b>Employer Identification Number (EIN)</b>
<b>If Change of Ownership or Entity Designation</b>	<b>Date of Change:</b>
<b>Previous Owner / Business Name</b>	<b>Previous Taxpayer Identification Number (TIN)</b>

**Certification**

The Internal Revenue Service does not require your consent to any provision of this document other than the certifications required to avoid backup withholding.

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number, AND
2. I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, AND
3. I am a U.S. person (including a U.S. resident alien), AND
4. The FATCA code(s) entered on this form (if any) indicating I am exempt from FATCA reporting is correct.

<b>Printed Name</b>	<b>Printed Title</b>	<b>Telephone Number</b>
<b>Signature</b>	<b>Date</b>	<b>Email Address</b>

Alaska TB Program  
Section of Epidemiology  
Alaska TB Program  
3601 C Street, Suite 540  
Anchorage, AK 99503  
(907) 269-8000

**DOT Aide Monthly Invoice for Payment**

Today's date: \_\_\_\_\_

Invoice for the month of: \_\_\_\_\_

Client  
HR# \_\_\_\_\_

Completed review of AK DOT Aide  
Manual/training: \_\_\_/\_\_\_/\_\_\_

Number of daily DOT doses observed:  x \$10.00

\$25.00 (**one-time payment only**)

**Total payment requested: \$** \_\_\_\_\_

**Send payment to:**

Name: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PVN: \_\_\_\_\_

Signed: \_\_\_\_\_

DOT Aide

Signed: \_\_\_\_\_

PHN Case Manager

***Please fax this form and monthly calendar to:***

\_\_\_\_\_, PHN at 907-\_\_\_\_\_-\_\_\_\_\_

# STATE OF ALASKA

## ELECTRONIC PAYMENT AGREEMENT

Mail completed form to:  
 DEPT OF ADMINISTRATION / DIV OF FINANCE  
 PO BOX 110204 / JUNEAU AK 99811-0204  
 or FAX to: (907) 465-2169  
 Questions? Call (907) 465-5622

### FOR VENDORS DOING BUSINESS WITH THE STATE OF ALASKA

#### PAYEE INFORMATION

STATE OF ALASKA VENDOR NUMBER		TAXPAYER ID - SSN / EIN <i>Required</i>		<i>ID number assigned to the legal name below and used for tax reporting</i>	
LEGAL NAME <i>Required</i> (Name that Tax ID above is assigned to and is used for tax reporting)					
BUSINESS NAME (DBA - Doing Business As Name. If different from legal name shown above)				ACCEPT CREDIT CARD PAYMENTS <i>Required</i> <input type="radio"/> YES <input type="radio"/> NO	
MAILING ADDRESS <i>Required</i>			CITY	STATE	ZIP CODE + 4
CONTACT NAME	DAYTIME PHONE <i>Required</i>	FAX NUMBER	EMAIL ADDRESS		

#### BANKING INFORMATION

Per National Automated Clearing House Association (NACHA) Operating Rules, the State of Alaska must send a pre-note zero dollar test transaction to verify the accuracy of the banking information below. Payments will not be sent electronically until the pre-note process is complete, generally five business days. The State of Alaska will contact you if the pre-note fails.

ARE YOU  ADDING,  \* CHANGING,  OR CANCELLING THIS AGREEMENT? *Required*

*Please attach a voided check or other bank verification of account number as applicable*

CURRENT ACCOUNT INFORMATION <i>Required</i>		PRIOR ACCOUNT INFORMATION (for Changes only)	
FINANCIAL INSTITUTION NAME	ACCOUNT TYPE	<i>For verification purposes you must provide your prior account information if you are requesting a change.</i>	
ACCOUNT NAME (Business / Legal Name on Account)	<input type="radio"/> Checking <input type="radio"/> Savings	ABA/ROUTING TRANSIT NUM	FULL ACCOUNT NUMBER
ABA/ROUTING TRANSIT NUMBER	FULL ACCOUNT NUMBER		

IS THIS ACCOUNT PRIMARILY A PERSONAL OR BUSINESS ACCOUNT? *Required*  PERSONAL - OR -  BUSINESS

**FOR BUSINESS ACCOUNTS.** Choose ONE of the business account addenda information format options below.

Payments deposited separately with one addendum (remittance) record for each payment.  Payments combined into one deposit with multiple addenda (remittance) records for each payment in the deposit.

NACHA Operating Rules requires your banking institution to provide you with addenda (remittance) information that the State includes on each payment. Any banking charge to receive this information is the responsibility of the account holder.

#### AGREEMENT AND AUTHORIZATION

I hereby authorize the State of Alaska to satisfy payment obligations due me by making deposits to the account indicated above. I understand that receipt of the electronic fund transfer(s) will fulfill the State's payment obligation and the State will be credited for the full amount on the date the fund transfer is completed. I understand the State will make a reasonable effort to notify me within 24 hours if a reversing entry is made against this account. This authority is to remain in full force through the duration of this agreement. I understand that thirty (30) days written notice is required if I change financial institutions, account numbers or type of account.

In addition, as required by the Federal Office of Foreign Asset Control in support of U.S.C. Title 50, War and National Defense, I attest that the full amount of my direct deposit is not being forwarded to a bank in another country and that if at any point I establish a standing order with my receiving bank to forward the full direct deposit to a bank in another country, I will inform the State of Alaska immediately.

I certify all information regarding this authorization is true and correct. Any intent to falsify information is punishable under AS 11.56.210 as a class A misdemeanor.

If the State discovers that the full amount of a direct deposit has been forwarded to another country or if information on the form has been falsified, this agreement shall be terminated. All correspondence with the State concerning this agreement or any changes to account information should be sent to the address at the top of this form. All terms remain in effect until this agreement is terminated by either party.

PRINTED NAME <i>Required</i>	TITLE
SIGNATURE <i>Required</i>	DATE <i>Required</i>

Print  
Reset

**DOT Plan for:**

Client Name

Client Birthdate

DOT Aide:

Village

DOT Location:

Drug Storage Site:

- Consider client infectious until \_\_\_\_\_. Make sure client is masked during visit except to swallow pills. Do DOT outside if possible.
- Ask about side effects BEFORE medicines are taken. If client reports side effects, such as stomach pain, vomiting, dark urine, etc., DO NOT HAVE CLIENT TAKE MEDS. Call PHN at immediately at \_\_\_\_\_.
- Client will be taking these pills all at once at the same time from unit dose packages.

Drug	Dose	How Often	Comments
<input type="checkbox"/> Isoniazid (INH)	_____	_____	_____
<input type="checkbox"/> Rifampin (RIF)	_____	_____	_____
<input type="checkbox"/> Ethambutol (EMB)	_____	_____	_____
<input type="checkbox"/> Pyrazinamide (PZA)	_____	_____	_____
<input type="checkbox"/> Rifapentine (RPT)	_____	_____	_____
<input type="checkbox"/> _____	_____	_____	_____

DO NOT USE ANY OTHER TB MEDICINES that client or the clinic may have!

- PHN can provide juice, applesauce, or pudding for crushed pills if necessary.
- Watch to make sure that client swallows all pills.
- Record all medicines, doses, dates, and your Initials on the DOT Calendar.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

DOT Plan start date: \_\_\_\_\_

DOT Plan end date: \_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
PHN Case Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
DOT Aide

**DIRECTLY OBSERVED THERAPY  
(DOT) AIDE TRAINING  
CERTIFICATION**



**THIS CERTIFICATE IS AWARDED TO**

\_\_\_\_\_

**TO ACKNOWLEDGE COMPLETION OF DOT AIDE TRAINING FOR THE STATE OF  
ALASKA TB PROGRAM**

*Thank you for your important work in tuberculosis prevention and control in Alaska!*



\_\_\_\_\_ **SIGNATURE** \_\_\_\_\_ **DATE**