

TB Case presentation without Public Health electronic data access:

Mr. Case is a 46 year old homeless man admitted to Any Hospital with an abnormal chest X-ray, and a three week history of cough and weight loss. He is a smoker with Type 2 Diabetes and admits to drinking a fifth of whiskey daily. He has been staying in the County night shelter off and on the past month.

On Thursday at 3:45 pm PHN, the public health nurse working Tuberculosis Control at the Milagro County Public Health Department, receives a CMR (confidential morbidity report) by fax alerting him that Mr. Case was admitted to Any Hospital two days earlier with “probable” pulmonary tuberculosis, a highly infectious condition. PHN sets about determining if Mr. Case actually has tuberculosis, if proper diagnostic tests are being done, and if Mr. Case is treated appropriately. Initially, it is important that Mr. Case remain in respiratory isolation and that diagnostic tests are performed before medication for TB is started, and that the medications are prescribed in the proper dose for Mr. Case’s weight.

PHN pages Any Hospital’s Infection Control Nurse, who doesn’t answer. After waiting 5 minutes, PHN learns from the Any Hospital operator that the Infection Control Nurse is signed out to The Other Hospital for the afternoon. PHN then calls the floor where Mr. Case is under treatment to ask the nurse who is Mr. Case’s primary doctor, what are Mr. Case's symptoms and history of exposure to tuberculosis and what his weight is so PHN can calculate medication doses. It is shift change time on the floor and the nurse is too busy to give PHN more than a cursory report. The floor nurse thinks Mr. Case’s skin test for TB will be read tomorrow. PHN then calls medical records, hoping to get the admission history and physical faxed over. The medical records clerk is new on the job and refuses to release patient information to PHN. PHN then sets about calling the laboratory for sputum smear results, and the Radiology Department for X-ray reports. The lab reports two smears, one of which is a good specimen negative for Tuberculosis and the other of which is an inadequate specimen. PHN has a hard time getting through to a person in X-ray, first getting a voice mail from scheduling. The person PHN finally reaches in X-ray department asks PHN to fax over a records request before they can release results. PHN calls the primary doctor, Dr Helpful, and learns that Mr. Case also had a chest X-ray two weeks earlier as an outpatient. By then it is 5:15 and PHN is working overtime. Dr Helpful is just finishing a busy clinic but offers to look up the earlier chest X-ray report on-line, read it to PHN and later fax it to PHN at the Health Department. Dr Helpful also prints out the admission history and physical and reviews it with PHN, whereby PHN learns Mr. Case weighs 135 pounds, had a positive skin test for Tuberculosis exposure 2 years ago at the Milagro County Jail but probably did not complete the recommended course of prophylactic treatment. PHN makes a note to check the jail records later. Dr Helpful states he ordered three sputum smears and cultures. PHN suggests Dr. Helpful order an HIV test and order more sputa or consider sputum induction to insure three adequate specimens for culture. Dr. Helpful confirms that Mr. Case is in respiratory isolation on the ward. Dr. Helpful will be signing out to his partner in the morning and heading on vacation.

By law, before Mr. Case can be discharged from the hospital with probable TB, the Health Officer has to approve the treatment plan. On Friday, PHN visits Any Hospital to interview Mr. Case about people he had been in close contact with and could have infected with TB. PHN also drops in on the Discharge Planner to make sure the Health Officer will be consulted prior to discharge and they discuss housing options. PHN faxes recommended doses of the four TB medications Mr. Case should be on to Dr. Helpful's partner after confirming that three good sputa will be collected before medications are started. PHN talks to the Infection Control Nurse at Any Hospital to confirm that the Health Officer will have all the needed information to approve Mr. Case's discharge to the Shady Grove Hotel on Monday. PHN will be administering directly observed therapy to Mr. Case for the next six to nine months so it is vital that PHN know exactly what drugs are prescribed.

Monday morning PHN has to make several more calls to get Mr. Case's baseline liver function blood test results and retrieve sputum smear results, one of which shows possible acid fast bacilli, which could be tuberculosis. It may be weeks before the culture confirms the diagnosis and PHN knows he will be making calls to the lab to check on the progress of the cultures, which Dr. Helpful will be able to check on-line. PHN learns a CT lung scan was performed over the weekend to help determine if the mass on Mr. Case's Chest X-ray is tuberculosis or lung cancer. The Health Officer will want the report, so PHN calls over to X-ray to get results faxed to the Milagro Health Department. Evidently, TB is still a strong possibility because Mr. Case has started four TB drugs.

PHN wishes he could retrieve lab, X-ray and dictated hospital reports electronically and save the time consuming phone and fax frenzy and reduce the chance of missing results. PHN would also be able to check for culture results over the coming weeks with the click of a mouse and monitor Mr. Case's X-ray results electronically to confirm that a follow up chest X-ray is done in a timely fashion and confirm the X-ray is improving, which suggests the treatment is appropriate. State and federal law permit Public Health to electronically access health records but the hospital attorney has opined that Any Hospital should not allow it.

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