DOWNLOAD PDF TUBERCULOSIS CONTROL

Chapter 1 : Tuberculosis management - Wikipedia

Infection Control in Health Care Settings. Tuberculosis (TB) transmission has been documented in health care settings where health care workers and patients come in contact with people who have TB disease.

Regimens omitting RMP are discussed below. Please refer to the entry on rifampicin for further details. The most frequent cause of neuropathy is INH. The peripheral neuropathy of INH is always a pure sensory neuropathy and finding a motor component to the peripheral neuropathy should always prompt a search for an alternative cause. Simply adding high dose pyridoxine to the regimen once neuropathy has occurred will not stop the neuropathy from progressing. Patients at risk of peripheral neuropathy from other causes diabetes mellitus , alcoholism , renal failure , malnutrition, pregnancy, etc. Please refer to the entry on isoniazid for details on other neurological side effects of INH. Test dosing using the same regimen as detailed below for hepatitis may be necessary to determine which drug is responsible. Itching RMP commonly causes itching without a rash in the first two weeks of treatment: Short courses of sedative antihistamines such as chlorpheniramine may be useful in alleviating the itch. Fever during treatment can be due to a number of causes. It can occur as a natural effect of tuberculosis in which case it should resolve within three weeks of starting treatment. Fever can be a result of drug resistance but in that case the organism must be resistant to two or more of the drugs. Fever may be due to a superadded infection or additional diagnosis patients with TB are not exempt from getting influenza and other illnesses during the course of treatment. In a few patients, the fever is due to drug allergy. The clinician must also consider the possibility that the diagnosis of TB is wrong. If the patient has been on treatment for more than two weeks and if the fever had initially settled and then come back, it is reasonable to stop all TB medication for 72 hours. If the fever persists despite stopping all TB medication, then the fever is not due to the drugs. If the fever disappears off treatment, then the drugs need to be tested individually to determine the cause. The same scheme as is used for test dosing for drug-induced hepatitis described below may be used. The drug most frequently implicated as causing a drug fever is RMP: Test dosing must be carried out to determine which drug is responsible this is discussed in detail below. Liver function tests LFTs should be checked at the start of treatment, but, if normal, need not be checked again; the patient need only be warned of the symptoms of hepatitis. Elevations in bilirubin must be expected with RMP treatment RMP blocks bilirubin excretion and usually resolve after 10 days liver enzyme production increases to compensate. Isolated elevations in bilirubin can be safely ignored. If the patient is asymptomatic and the elevation is not excessive then no action need be taken; some experts suggest a cut-off of four times the upper limit of normal, but there is no evidence to support this particular number over and above any other number. Some experts consider that treatment should only be stopped if jaundice becomes clinically evident. If clinically significant hepatitis occurs while on TB treatment, then all the drugs should be stopped until the liver transaminases return to normal. If the patient is so ill that TB treatment cannot be stopped, then STM and EMB should be given until the liver transaminases return to normal these two drugs are not associated with hepatitis. Fulminant hepatitis can occur in the course of TB treatment, but is fortunately rare; emergency liver transplantation may be necessary and deaths do occur. Test dosing for drug-induced hepatitis[edit] Drugs should be re-introduced individually. This cannot be done in an outpatient setting, and must be done under close observation. Patients can become very suddenly unwell and access to intensive care facilities must be available. The drugs should be given in this order: INH at full dose Day 4: RMP at full dose Day 7: EMB at full dose No more than one test dose per day should be given, and all other drugs should be stopped while test dosing is being done. So on day 4, for example, the patient only receives RMP and no other drugs are given. If the patient completes the nine days of test dosing, then it is reasonable to assume that PZA has caused the hepatitis and no PZA test dosing need be done. PZA is the most likely drug to cause hepatitis and is also the drug that can be most easily omitted. EMB is useful when the sensitivity pattern of the TB organism are not known and can be omitted if the organism is known to be sensitive to INH. Regimens omitting each of the standard drugs are listed below. The order in which the drugs are tested can be varied according to the following considerations: The most useful drugs INH and RMP should be tested first, because the absence of

these drugs from a treatment regimen severely impairs its efficacy. The drugs most likely to be causing the reaction should be tested as late as possible and possibly need not be tested at all. This avoids rechallenging patients with a drug to which they have already had a possibly dangerous adverse reaction. A similar scheme may be used for other adverse effects such as fever and rash , using similar principles. Dysbiosis caused by HRZE antibiotic treatment[edit] Tuberculosis treatment results in changes to the structure of the gut microbiome both during and after treatment in mice [47] and humans. Deviations from the standard regimen[edit] There is evidence supporting some deviations from the standard regimen when treating pulmonary TB. Sputum culture positive patients who are smear negative at the start of treatment do well with only 4 months of treatment this has not been validated for HIV-positive patients ; and sputum culture negative patients do well on only 3 months of treatment possibly because some of these patients never had TB at all. Elderly patients who are already taking a large number of tablets may be offered 9HR, omitting PZA which is the bulkiest part of the regimen. It may not always be necessary to treat with four drugs from the beginning. An example might be a close contact of a patient known to have a fully sensitive strain of tuberculosis: Indeed, this was previously the recommended standard regimen in many countries until the early s, when isoniazid-resistance rates increased. TB involving the brain or spinal cord meningitis , encephalitis , etc. Regimens omitting isoniazid[edit] Isoniazid resistance accounts 6. The level of evidence for all these regimens is poor, and there is little to recommend one over the other. However, RMP intolerance is not uncommon hepatitis or thrombocytopaenia being the most common reasons for stopping rifampicin. Of the first-line drugs, rifampicin is also the most expensive, and in the poorest countries, regimens omitting rifampicin are therefore often used. Rifampicin is the most potent sterilising drug available for the treatment of tuberculosis and all treatment regimens that omit rifampicin are significantly longer than the standard regimen. Regimens omitting pyrazinamide[edit] PZA is a common cause of rash, hepatitis and of painful arthralgia in the HREZ regimen, and can be safely stopped in those patients who are intolerant to it. Isolated PZA resistance is uncommon in M. PZA is not crucial to the treatment of fully sensitive TB, and its main value is in shortening the total treatment duration from nine months to six. This mistake was rectified in the guidelines. Regimens omitting ethambutol[edit] EMB intolerance or resistance is rare. Tuberculosis and other conditions[edit] Liver disease[edit] People with alcoholic liver disease are at an increased risk of tuberculosis. The incidence of tuberculous peritonitis is particularly high in patients with cirrhosis of the liver. There are broadly two categories of treatment: Cirrhotic patients with essentially normal baseline liver function tests Childs A Cirrhosis Such patients may be treated with standard 4 drug re-gime for 2 months followed by 2 drugs for remaining 4 months total 6-month treatment. One or two hepatotoxic drugs may be used in moderate-ly severe disease e. Drug-induced hepatitis is discussed in a separate section above. Pregnancy[edit] Pregnancy itself is not a risk factor for TB. Rifampicin makes hormonal contraception less effective, so additional precautions need to be taken for birth control while tuberculosis treatment. Untreated TB in pregnancy is associated with an increased risk of miscarriage and major fetal abnormality, and treatment of pregnant women. There is extensive experience with the treatment of pregnant women with TB and no toxic effect of PZA in pregnancy has ever been found. High doses of RMP much higher than used in humans causes neural tube defects in animals, but no such effect has ever been found in humans. There may be an increased risk of hepatitis in pregnancy and during the puerperium. It is prudent to advise all women of child-bearing age to avoid getting pregnant until TB treatment is completed. Aminoglycosides STM , capreomycin , amikacin should be used with caution in pregnancy, because they may cause deafness in the unborn child. The attending physician must weigh the benefits of treating the mother against the potential harm to the baby, and good outcomes have been reported in children whose mothers were treated with aminoglycosides. Patients with kidney disease who are being given immunosuppressive drugs or are being considered for transplant should be considered for treatment of latent tuberculosis if appropriate. Aminoglycosides STM, capreomycin and amikacin should be avoided in patients with mild to severe kidney problems because of the increased risk of damage to the kidneys. If the use of aminoglycosides cannot be avoided e. If patient have end-stage renal failure and have no useful remaining kidney function, then aminoglycosides can be used, but only if drug levels can be easily measured often only amikacin levels can be

measured. In mild renal impairment, no change needs to be made in dosing any of the other drugs routinely used in the treatment of TB. In the continuation phase, the drugs should be given at the end of each haemodialysis session and no dose should be taken on non-dialysis days. CD4 count to â€"delay treatment until the initial two-month intensive phase of therapy is complete CD4 count less than â€"the situation is unclear and patients should be enrolled in clinical trials examining this question. There is evidence that if these patients are managed by a specialist in both TB and HIV then outcomes are not compromised for either disease. Nevirapine should not be used with rifampicin. Efavirenz levels should be checked early after starting treatment unfortunately, this is not a service routinely offered in the US, but is readily available in the UK. The protease inhibitors should be avoided if at all possible: Epilepsy[edit] INH may be associated with an increased risk of seizures. There is no evidence that INH causes seizures in patients who are not epileptic. TB treatment involves numerous drug interactions with anti-epileptic drugs and serum drug levels should be closely monitored. There are serious interactions between rifampicin and carbamazepine, rifampicin and phenytoin, and rifampicin and sodium valproate. The advice of a pharmacist should always be sought.

Chapter 2 : WHO | Tuberculosis control

San Francisco Tuberculosis Control. The mission of the San Francisco Tuberculosis (TB) Control Section is to control, prevent, and finally eliminate tuberculosis in San Francisco by providing compassionate, equitable, and supportive care of the highest quality to all persons affected by this disease.

Chapter 3 : WHO | Tuberculosis infection control

The Tuberculosis (TB) Control Program at the Sonoma County Department of Health Services offers a number of services to assist both patients and health providers, including: Evaluation and treatment of patients with suspected or active tuberculosis (TB).

Chapter 4 : Tuberculosis (TB) | CDC

The association of TB and HIV/AIDS, the lack of concern paid to TB transmission in health care and congregate settings, and the absence of a global TB infection control strategy have created a suitable environment for efficient transmission and spread of multidrug-resistant tuberculosis (MDR-TB) and.

Chapter 5 : Infection Control | TB |CDC

The TB Program provides lab testing, technical assistance, TB medications and analysis of surveillance data to assist with accomplishing these goals. Read the TB Program Fact Sheet (pdf) to learn more about TB and what the TB Program is doing to control the rate of tuberculosis disease in Oregon.

Chapter 6 : LA County Department of Public Health

The goal of the Alaska Tuberculosis (TB) Program is the eventual elimination of TB from Alaska. This will be accomplished through a collaborative effort with federal, state and local partners. The State TB program oversees TB control in the state and manages a cooperative agreement from CDC which provides some funding to assist with TB control.

Chapter 7 : Tuberculosis Control

The state tuberculosis control program is authorized by state law to coordinate TB control activities in Kentucky. The program's overarching objective is to eliminate TB as a public health problem.

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Chapter 8 : Department of Health | HIV, STD, and TB Services | Tuberculosis Control Program

Tuberculosis (TB) Control The Department's TB Control Program strives to reduce the incidence of TB morbidity and mortality in the exile Tibetan community. The program emphasizes early detection and treatment of new TB cases.

Chapter 9 : Tuberculosis (TB) Control | Department Of Health

Tuberculosis Control Branch To protect and improve the health of all, the California Tuberculosis Control Branch (TBCB) provides leadership and resources to prevent and control tuberculosis (TB). The vision of the Tuberculosis Control Branch is to speed the decline of TB morbidity and mortality.