Mycobacterium Avium Complex (MAC)

Mycobacterium avium complex (MAC) is an infection caused by bacteria. It is related to tuberculosis. MAC can affect your lungs or spread throughout your body. About half of the people with AIDS develop MAC. If your CD4 cell count is less than 50, then you are at greatest risk.

Symptoms of Mycobacterium Avium Complex

Signs include:
- A low red blood cell count (anemia)
- Chills
- Diarrhea
- Fatigue
- High fever
- Stomach ache
- Weight loss

If MAC has spread, it can cause problems such as blood infections, hepatitis and pneumonia.

Causes of Mycobacterium Avium Complex

MAC bacteria are common. They can be found in water, soil, dust and food. Almost everyone has them. A healthy immune system controls them, but people with weak immune systems may get sick.

Preventing Mycobacterium Avium Complex

It is difficult to avoid MAC bacteria because they are so common. The best protection against the infection is to keep your immune system strong.

Anti-HIV prescription drugs can help this and keep MAC in check.

Certain antibiotics can be taken to help prevent MAC. Once CD4 cell counts go over 100 and stay there for three months, the antibiotics may be stopped.

Diagnosing Mycobacterium Avium Complex

A doctor will take samples of blood, urine or saliva to check for MAC. The sample will be used to grow bacteria to see what is there. This process can take several weeks. Even if a person is infected with MAC, it can be hard to find the bacteria.

If a person has a CD4 cell count less than 50, the doctor may treat him or her for MAC anyway. This is because MAC infection is common but hard to confirm.

Treating Mycobacterium Avium Complex

There is not a cure for MAC. Treatment must go on for life to keep the infection from coming back.

The most common MAC drugs are:
- Amkin® (amikacin): given in a shot. It may cause kidney and ear problems.
- Zithromax® (azithromycin): given as a shot or in capsules. It may cause nausea, headaches, vomiting or diarrhea.
- Cipro® or Ciloxan® (ciprofloxacin): given as a shot or in tablets. It may cause nausea, vomiting or diarrhea.
• Biaxin® (clarithromycin): given as a shot or in capsules. It may cause nausea, headaches, vomiting or diarrhea.

• Myambutol® (ethambutol): it may cause nausea, vomiting or eye problems

• Mycobutin® (rifabutin): it may cause rashes, nausea or anemia

• Rifampicin®, Rifadin®, Rimactane® (rifampin): it may cause fever, chills, and muscle or bone pain. This drug can turn urine, sweat, and saliva red-orange. (It may stain contact lenses.)

People react differently to these drugs. Several combinations may have to be tried before the best is found.

A person being treated for MAC needs to be sure his or her doctor knows all the medication he or she is taking. This is very important for preventing problems.

Sometimes the medication used to fight MAC no longer works. Different antibiotics are used to prevent this.

For more information:
Contact your Registered Nurse Care Manager, or call Positive Healthcare’s nurse advice line at: (800) 832-0778.