

TULAREMIA EMERGENCY: GENTAMICIN TO TREAT TULAREMIA FACT SHEET FOR RECIPIENTS

During a tularemia emergency, you will be given a medicine called **gentamicin** (sounds like GEN-ta-MYE-sin) because you are sick from being exposed to the germs that cause **tularemia** and need treatment. These germs can be deadly, especially if breathed in and left untreated. Treatment with this medicine reduces your chance of getting very sick and dying.

What is Tularemia?

Tularemia is a serious disease that can be **deadly**. The disease is caused by a germ called *Francisella tularensis*. You can get sick by breathing in the germs; by the bite of an infected tick, deerfly, or other insect; by direct skin contact with the tularemia germs; or by eating food or drinking water that contain tularemia germs. **You cannot get tularemia from another person.** Tularemia can cause these symptoms:

- High fever
- Chills
- Headaches
- Diarrhea
- Muscle aches
- Joint pain
- Dry cough
- Worsening weakness
- Pneumonia
- Chest pain
- Spitting up blood from the lungs
- Trouble breathing

Symptoms usually start within 3 to 5 days of contact with tularemia germs, but can take up to 14 days to appear.

What is Gentamicin?

Gentamicin is an antibiotic which is FDA-approved for the treatment of various infections. Gentamicin is not FDA-approved to treat tularemia. However, the FDA has allowed the use of gentamicin for this emergency under an Emergency Use Authorization.

Who should **NOT** be given Gentamicin?

Do not take gentamicin if you have had a severe allergic reaction to gentamicin or another aminoglycoside antibiotic (examples: streptomycin, amikacin, tobramycin). A severe reaction may include closing of the throat, trouble breathing, and/or swelling of the lips, tongue, or face. If you have had an allergic reaction in the past to gentamicin or another aminoglycoside then be sure to tell your healthcare provider. Additionally, tell your doctor if you have an allergy or sensitivity to sulfites, as this may impact whether or not you can receive gentamicin.

How is Gentamicin given?

Gentamicin will be given to you through a vein in your arm or will be injected into a large muscle by your healthcare provider. Gentamicin is usually given as 1 or 3 doses a day and treatment usually lasts 10 days, but you may need to take other antibiotics by mouth to finish your treatment based on your clinical condition. During treatment with gentamicin, blood tests will be done to check kidney function and gentamicin levels in your body. You should **drink or get a lot of liquids** while on gentamicin.

What are common side effects of gentamicin?

Common side effects include upset stomach, diarrhea, loss of appetite, vaginal itching and discharge (yeast infection) in women, or pain, bleeding, or bruising where the needles goes into the skin. Tell your healthcare provider if these symptoms do not go away or get worse. **This is not a complete list of all side effects that may occur.** If you have questions about side effects, contact your healthcare provider.

What are Possible Serious Side Effects of Gentamicin?

- Serious side effects from gentamicin are rare. **Severe allergic reactions** may happen in a small number of people. Tell your healthcare provider **IMMEDIATELY** if you experience any of these serious side effects:
 - Closing of the throat or trouble breathing
 - Severe itching or rash, especially hives and wheals (red swollen bumps on the skin)
 - Swelling of the lips, tongue, face, hands, or feet
 - Feelings of lightheadedness
 - Very fast or irregular heart beat

- **Skin infections** can happen where the needle enters the vein or skin. Tell your doctor right away if you feel tenderness, warmth, irritation, drainage, redness, swelling, or pain near the place where the needle enters the vein or skin.
- **Kidney, ear, and nerve or muscle problems** may occur in people who take too much gentamicin or take it too long. You should tell your healthcare provider right away if you have any of the following:

Kidney problems:

- Change in amount of urine

Nerve or muscle problems:

- Feeling of numbness or skin tingling
- Seizures
- Muscle twitching

Ear damage:

- Ringing in ears or hearing loss
- Dizziness or change in balance
- Ringing in ears or hearing loss

What are the Risks if I am Pregnant or Breastfeeding?

It is not known if gentamicin can cause fetal harm when administered to a pregnant woman. Additionally, gentamicin is found in human breastmilk. For a mother and fetus, the potential benefits of gentamicin may outweigh the potential risks. Talk to your healthcare provider about the risks of gentamicin during pregnancy and breastfeeding.

What if I am Taking Other Medicines?

Tell your doctor about **all** of the medicines you take, even pills that were bought at the store, such as vitamins or antacids. Certain other medicines can increase the chance of serious side effects when taken with gentamicin. Tell your healthcare provider if you are currently or have recently taken antibiotics like cephaloridine, kanamycin, amikacin, neomycin, polymyxin B, colistin, paromomycin, streptomycin, tobramycin, vancomycin, or viomycin, anticancer drugs like cisplatin, or water pills for high blood pressure like ethacrynic acid (Edecrin) or furosemide (Lasix).

What Should you tell your Healthcare Provider Before Receiving Gentamicin?

Tell your healthcare provider if you have had a history of allergic reaction or other serious reaction to antibiotics or sulfites, have any past or current medical conditions such as kidney disease, or are pregnant or breastfeeding.

Risk-Benefit Statement

Although gentamicin has some potential and serious adverse effects, the expected benefit of gentamicin in helping treat disease and prevent death associated with tularemia outweigh these risks.

What Alternative Medicines Can I Take Instead of Gentamicin?

Your healthcare provider will tell you if other antibiotics are available (such as streptomycin, doxycycline). The risks and benefits of other available antibiotics will be explained in separate instructions. For more information, visit www.cdc.gov.

How do I Report Side Effects or Medication Errors?

Tell your healthcare provider right away and report side effects or medication errors to FDA MedWatch at www.fda.gov/medwatch or 1-800-FDA-1088.

A federal program called the Countermeasures Injury Compensation Program (CICP) may help pay for costs of medical care and other specific expenses of certain people who have been seriously injured by some drugs or vaccines. To learn more about this program: visit <http://www.hrsa.gov/cicp> or call this toll-free number 1-855-266-2427.

How can I learn more?

You can contact your state/local public health department or your healthcare provider. You can also visit: www.cdc.gov and www.fda.gov.