Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

About Tumor Lysis Syndrome (TLS)

This information explains tumor lysis syndrome (TLS), its symptoms, and its treatment.

TLS is a condition that happens when tumor cells break apart as they die. When the cells break apart, their parts are released into your bloodstream. This causes a change in some of the electrolytes (ee-LEK-troh-lites) in your blood.

Normally, electrolytes help your nerves, muscles, heart, and brain work the way they should. Changes in your electrolytes can harm your organs, including your kidneys, heart, and liver. In some cases, it can even lead to death if it's not treated. These harmful changes are called TLS.

TLS can happen after treatment for a fast-growing cancer. You can also get it if you're not in treatment.

Here's what you can do to help lower your risk of getting TLS:

- Stay hydrated. Try to drink 8 (8-ounce) cups of liquids every day.
- Take medications as prescribed. Your healthcare provider may tell you to continue taking them after your treatment is done.
- Talk with your care team. Let them know how you're feeling and if you have any of the symptoms below.

These things will help prevent organ failure (when your organs stop working). They will also help keep your electrolytes from getting very unbalanced.

Symptoms of TLS

TLS usually happens 24 to 72 hours (1 to 3 days) after treatment starts. It may last up to 7 days after treatment. Here are some symptoms of TLS:

- Malaise (an overall feeling of discomfort and lack of well-being).
- Nausea (feeling like you're going to throw up).
- Vomiting (throwing up).
- Diarrhea (loose or watery poop).
- Lack of appetite (not feeling hungry).
- Seizures (shaking or stiffening of your body that you can't control).
- Abnormal heartbeat, such as skips or flutters.
- Fatigue (feeling more tired or weaker than usual).
- Muscle twitching or cramping.

You're at higher risk of getting TLS if you have fast-growing cancers. This includes cancers of the blood, such as leukemias and lymphomas.

You may also be at higher risk of getting TLS if you have other diseases, such as kidney failure.

Be sure to report any new symptoms you may have to your care team. Noticing these symptoms early will lower your risk of serious side effects and organ failure. When treated early, TLS usually does not cause long term effects.

In some cases, people do not have symptoms. If you're at risk for TLS, your care team will closely monitor and treat you as needed.

Treatment for TLS

Your care team may suggest you get admitted to the hospital. Some of your treatments and monitoring can include:

- Intravenous (IV) hydration. This treatment puts fluids directly into your

bloodstream through a small IV inserted into your arm.

- An electrocardiogram (EKG) to monitor your heart. Based on your results, you may be placed on continuous telemetry (cardiac monitoring).
- Medications to help fix electrolyte imbalance.
- Blood draws more often than usual.
- A central venous catheter (CVC), if you don't have one. Your care team will give you more information if you need one.
- Measuring the amount of liquid you drink and how much you urinate (pee).
- Changing your diet (depending on your electrolyte balance).
- In severe cases, you may need dialysis. Dialysis is the process of filtering your blood when your kidneys are unable to clean it.

When to Contact Your Healthcare Provider

Contact your healthcare provider right away if you:

- Have questions or concerns about your condition.
- Have a slower or faster heartbeat than normal.
- Have a fever of 100.4 °F (38 °C) or higher.
- Have muscle twitching or cramping.
- Have blood in your urine.
- Have not urinated for longer than usual.
- Feel weak.

When to Call 911

Call 911 or go to your nearest emergency room right away if you are having a seizure or other emergency.

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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