Parenteral (Intravenous or Subcutaneous) Lidocaine for Neuropathic Pain

This handout was created for patients who may be receiving a lidocaine test dose, intermittent infusion or continuous (intravenous or subcutaneous) infusion of lidocaine for neuropathic pain. This will explain to you how the treatment may help. You will learn about side effects you may have. Finally, it will teach you how to care for your infusion at home. If you have any other questions, or if you don’t understand, please be sure to ask your doctor or your nurse.

Why do I need this?
In certain types of pain, the pain is caused either by nerves that are injured or nerves that are not working right. This is called “neuropathic” pain. Besides hurting, this kind of pain may also feel like “pins and needles”, “burning”, “stiffness”, “numbness”, or “tingling”. Lidocaine can be very useful in easing this type of pain. This medicine does not come as a pill, so it is given either through an intravenous catheter in a vein or a very small needle under the skin.

Are there any side effects?
Yes, like most medicines, lidocaine may have side effects. They can be mild, moderate or severe. Side effects are related to the level of lidocaine in your bloodstream. This is called the “serum” level. If you do have side effects, we may check your serum level.

Risk of severe side effects is low when your serum level is below 6 mcg/mL. At the start of your treatment, the nurse will be checking with you often. The side effects happen more often with test doses than with repeated doses. You need to report them at any time. The dose of your medicine may need to be changed.

You should report:

**Mild** side effects (at serum levels 3-8 mcg/mL)
- numbness and tingling in the fingers and toes
- numbness or tingling around your mouth
- a metallic taste in your mouth
- ringing in the ears
- feeling lightheaded or dizzy

**Moderate** side effects (at serum levels 8-12 mcg/mL)
- nausea and vomiting
- severe dizziness
- decreased hearing
- tremors (feeling shaky)
- changes in blood pressure and pulse

**Severe** side effects (at serum levels >12 mcg/mL)
- feeling drowsy
- confusion
- muscle twitching
- seizures
- loss of consciousness
- serious heart problems
If you have any of these side effects, turn off the infusion and be ready to have your lidocaine level drawn if needed. Remember that the mild side effects will occur first and are an early warning of lidocaine toxicity. It is very important to pay attention to the mild and moderate side effects listed.

Most of the time, the side effects will be gone within 30 minutes to an hour after stopping the infusion, but you may have to wait longer for them to go away. We suggest that when you restart the lidocaine, the dose should be reduced by 20%

**How can I help?**
- Use a pain scale to describe your pain. For example, on a scale of 0 to 10, with 0 being no pain, and 10 being the worst pain you can imagine, how much pain do you have right now?
- Talk with your doctors and nurses about any concerns or fears you may have about pain and its treatment.
- Tell us what medicines you are taking for other health problems. We need to know because mixing some drugs with pain medicines can cause problems.
- Take an active role in learning how to use this treatment at home.
- If you are getting a continuous infusion, know what side effects might happen and report them to your nurse and doctor. When at home, be prepared to have your lidocaine level drawn if needed.

**How long will I use this treatment?**
The test dose typically takes 30-60 minutes to infuse. If you are at an outpatient center, you will be discharged and will follow up with your provider as they have instructed you. The provider will determine if the therapy was beneficial to you and whether future treatment will be needed.

If you are in the hospital, the team will follow up with you typically in the next 24 hours. The team will decide if the test dose was a success and whether additional therapy is needed. They will decide, with your input, if a continuous infusion will be most beneficial or outpatient therapy with intermittent infusions. If you are getting a continuous infusion, it can take about 2-3 days to find the right dose. The total treatment time will depend on how well it works to control your pain. Most patients will receive treatments for at least a few months.

**How do I manage this treatment at home?**
Before you go home, a nurse from a home infusion company will meet with you to bring equipment and medicine for you to use. The nurse will also explain how to care for the pump and needle site and how to arrange for serum levels to be drawn when needed. If you need an infusion into the skin, there are instructions at the end of this Health Fact.

**Who do I call for questions or concerns?**

Home Infusion Company: ____________________________

Other: ____________________________________________

UWHC Nursing Policy #10.18. Continuous Subcutaneous Lidocaine Infusion.

Your healthcare team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your healthcare team when using this information. If you have an emergency, please call 911. Copyright © 4/2015. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#5314