

Lignocaine (Lidocaine) and Magnesium Infusions

Information and advice for patients

Pain Management

Why am I having Lidocaine/Magnesium infusions?

You are having this form of pain management because:

- you have pain all over your body that is not being helped with medication.
- the pain is so widespread that injections are not a realistic option.
- you may receive Magnesium if you are already receiving a Lidocaine infusion and your doctor wants to add it alongside for further management of pain. However, Magnesium can also be given as an infusion by itself.

What is a Lidocaine infusion?

Lidocaine infusions are a form of treatment given via an intravenous infusion (you may know this as a 'drip') through a small plastic tube (cannula) into a vein in your hand or arm, which aims to improve your symptoms, allowing you to increase your activity and improve your quality of life.

It is a form of symptom management and is not a cure for your pain.

What is a Magnesium infusion?

Similarly to Lidocaine infusions, Magnesium infusions are a form of treatment given via an intravenous infusion (you may know this as a 'drip') through a small plastic tube (cannula) into a vein in your hand or arm, which aims to improve your symptoms, allowing you to increase your activity and improve your quality of life.

It is a form of symptom management and is not a cure for your pain.

Magnesium infusions are used for fibromyalgia, pelvic pain/endometriosis, abdominal pain, migraines and complex regional pain syndrome.

How do they work and what are the benefits to the treatment?

Nobody is one hundred percent sure why Lidocaine helps reduce pain levels, but it is thought to alter the chemical balance in the cells in your body, altering the movement of pain signals along the nerves.

Clinical experience and studies have shown that people who have pain like you, have responded well to this form of treatment, although some patients report no benefit at all.

Whilst the mechanism for how Magnesium works is unclear, it is thought to block different receptors to the Lidocaine, dampening down the pain signals and improving the effect of the lidocaine.

Are there any alternative treatments?

Alternative treatments may include other medications or attending a Pain Self-Management Programme (SMP).

Are there any risks or side-effects from this treatment?

Common side-effects:

- Hypotension - low blood pressure in around 16% of patients (This normally requires no intervention and can be managed simply by slowing down the rate of infusion or stopping.)
- Headache
- Problems with the cannula
- Hypertension- high blood pressure
- Tachycardia- fast heart rate
- Nausea
- Magnesium infusions can specifically cause slight arm pain for up to 30 minutes and make you feel thirsty (we advise to be prepared for this by perhaps attending your appointment well hydrated)
- Hot flushes (warmth and hot feeling)

Rare risks:

- irregular heartbeat
- Muscle Weakness
- Drowsiness
- Slurred speech

What to expect

Before the procedure

You may eat and drink and should take all your regular medications as usual.

Please bring a list of your medications with you on the day of the procedure.

You will be admitted to the procedures unit and weighed in order to calculate the correct dose

The doctor will explain the procedure. Please make sure that you have understood the explanation and ask any relevant questions. If you are happy to proceed , we will ask you to sign a consent form.

During the procedure

A cannula will be inserted into your hand or arm and the infusion will be connected. Your heart rate and blood pressure will be checked regularly.

The procedure will take between one and three hours.

We ask you to remain on a bed or a reclining chair during the procedure. However, should you need the toilet, ask a member of staff who will assist you.

Please bring something to pass the time whilst having your infusion. If you wish to use music/ videos, please use headphones as you will be in an open ward.

After the procedure

We recommend that you have someone accompany you home after the procedure or take a taxi and ideally have someone stay with you overnight. You should take it easy for the first 24 hours.

Follow up

After the procedure we will discharge you back to the care of your GP. They should review your progress and request re-referral back to the Pain Clinic if required.

If you have had previous successful infusions, you may be on the Patient-Initiated Follow Up (PIFU) pathway, in which case you should follow the instructions on the leaflet for PIFU to request future infusions.

How to contact us

If you have any questions or concerns please contact the Pain Management Service on:

Tel: 0121 507 4866

Monday to Friday 9am-4pm

If you have any problems outside of these times or are experiencing severe side effects, please contact your GP or attend the nearest Emergency Department.

References

- Staud, R. (2009) 'Fibromyalgia syndrome', in Smith, H. *Current therapy in pain*. Philadelphia: Saunders Elsevier, pp. 233-241
- Raphael, J. H., Southall, J. L., & Kitas, G. D. (2003). 'Adverse effects of intravenous lignocaine therapy in fibromyalgia syndrome'. *Rheumatology*, 42(1), 185-186.
- Eipe, N., Gupta, S., & Penning, J. J. B. E. (2016). 'Intravenous lidocaine for acute pain: an evidence-based clinical update'. *BJA Education*, 16(9), 292-298.
- Onyeaka H et al. (2024). 'Intravenous Magnesium for the Management of Chronic Pain: An Updated Review of the Literature'. *Psychopharmacology Bulletin*. 54(4), pp.81-105
- Morel V. et al. (2021). 'Magnesium for Pain Treatment in 2021? State of the Art.' *Nutrients*. 13(5), pp. 1397.

Further information

You may find the following websites useful:

Versus Arthritis

<https://www.versusarthritis.org/>

Fibromyalgia action UK

<https://www.fibromyalgia-associationuk.org/>

(Websites accessed 27 March 2025)

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