

21 May 2019

Thank you for your request received 6 May 2019 requesting information under the Official Information Act 1982, regarding Leeches. You requested:

1. *“What are the leeches used for?”*
2. *“Why are methods using leeches preferred to alternative techniques (if there are any)?”*
3. *“What sort of leeches are used?”*
4. *“Where are they sourced from?”*
5. *“How many leeches did the HVDHB buy last year?”*
6. *“How much did the HVDHB spend on leeches last year?”*
7. *“Is there anything else you'd like to add?”*

The information pertaining to your request is below.

Question 1:

“What are the leeches used for?”

Leeches are used by the Plastic Surgery Unit to drain excessive blood that can collect in tissues and compromises circulation (venous congestion). Generally blood is flowing into the affected area, but the veins aren't working properly to relieve this blood and painful pressure and swelling build up. If the blood doesn't drain out adequately, fresh blood with oxygen and nutrients can't get into the affected area. This means that the skin and muscle or affected tissue may die. This technique is predominantly used if venous congestion occurs after surgically reattaching a digit or where tissue has been moved around to reconstruct a defect-called a flap in plastic surgery, and the veins are too small or insufficient to cope with normal circulation to start with. Leeches tie the tissues over the first 5 days or so until the body is able to grow new venous channels to cope with the needs of blood flow.

Question 2:

“What are the methods using leeches preferred to alternative techniques (if there are any)?”

Leeches have been used for a number of years both in New Zealand and overseas. Prior to that time, pricking the congested area and then applying saline and heparin (a blood thinner), soaks to keep the area bleeding were used, as was intravenous heparin but this is contraindicated for some patients.

Question 3:

“What sort of leeches are used?”

The leeches used are from New Zealand and the ones Hutt Valley DHB use are called Richardsonianus Mauianus. It is illegal to import leeches into New Zealand.

Question 4:

“Where are they sourced from?”

They are sourced from R & M Lupton in Waikato. They operate as a leech farm and supplies leeches to New Zealand hospitals for medical use. They are sent down by courier and generally come in lots of 100. They last quite a long time in water.

Question 5:

“How many leeches did the HVDHB buy last year?”

Hutt Valley DHB purchased 400 leeches last year.

Question 6:

“How much did the HVDHB spend on leeches last year?”

Hutt Valley spent \$12,008.15 on leeches including courier costs.

Question 7:

“Is there anything else you’d like to add?”

A leech is a freshwater amphibious worm, usually black or brown. New Zealand leeches tend to be between ten – fifteen centimetres long. Leeches attach themselves and then suck out small amounts of blood. In the last 35 years leeches have made a comeback in plastic and reconstructive surgery. Tissue (skin and muscle) suffering from venous congestion or poor venous drainage can benefit from leeching. The leech can stay attached for 20 – 45 minutes during which time the leech sucks between 5 – 15 ml of blood. When the leech comes off, the puncture wound (bite) will continue to ooze blood. Besides the leech removing the blood, leech saliva contains hirudin – a special chemical that works as a blood thinner (anticoagulant) and a vasodilator – making the veins bigger. All this helps improve blood flow. Prior to starting leech therapy the doctors and nurses explain the process to the patient and the benefits and possible side effects. Written consent must be obtained before leech therapy can be commenced.

Leeches are kept in a special tank in the Plastic Surgery Unit and can last for months. Because used leeches contain blood, they need to be disposed of in the same manner as other blood products. They are killed humanely using methylated spirits and then are put into a yellow hazardous waste bag for correct disposal.