



Chocolate-flavoured painkiller a breakthrough for children

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A chocolate-based, child friendly pain relieving tablet is now being trialled in an Australian first study that could revolutionise pain treatment for children.

Paediatric anaesthetist and researcher Professor Britta Regli-von Ungern-Sternberg and medicinal product formulation researcher Professor Lee Yong Lim have developed a chocolate flavoured version of tramadol, a commonly used pain relieving medication that is prescribed for moderate to severe pain.

The study, now underway at the Perth Children's Hospital, involves 150 children aged between 3 and 16 years.

The chocolate works with other ingredients in the tablet to mask the bitterness of the medication. The tablet is taken in chewable form without the need for water, and can also be mixed with hot water to make a liquid chocolate drink.

Early results confirm the chocolate tramadol tablet is a more convenient, tastier option while being just as safe and effective tablet for children experiencing moderate to severe pain.

The Australian and New Zealand College of Anaesthetists (ANZCA) Research Foundation's John Boyd Craig Research Award helped fund the tramadol research project.

"Anaesthesia is not sleep. It's so much deeper" is the theme for this year's National Anaesthesia Day which falls on Tuesday October 16. The day is organised by ANZCA and marks the first time ether anaesthesia was demonstrated in Boston, Massachusetts 172 years ago.

The development of the chocolate version is a significant breakthrough because doctors who prescribe tramadol for young patients have to break open a tramadol capsule and then empty the contents into a liquid, stir and dispense the prescribed volume to the children — a process which is time consuming, wasteful and cumbersome and often inaccurate when it comes to dosing.

Professor Regli-von Ungern-Sternberg hopes the outcomes of her study will lead to the manufacture of chocolate-based tramadol tablets for use in paediatric hospital wards and for elderly patients.

"Tramadol is a very strong pain killer that is used after surgery or for chronic or cancer pain. It's considered very safe but there's no single, smaller dose formulation for children. This study means we can give children a very accurate dose in a nice tasting way," she said.

"This really could revolutionise pain management for children. The children really like it and for many of them it is their first contact with the health system.

"So many parents struggle to give their children medicine but we've found that the children in this trial are very positive about the chocolate taste. Many chronically ill children would really benefit from this. For some children the thought of having to take pain relieving medication can be quite traumatising.

"Our aim from this research is to develop a chocolate 'platform' so that many more current and

future drugs will be more palatable for both children and adults.”

Prof Regli-von Ungern-Sternberg led an earlier research study which tested a chocolate-based tablet of the sedative midazolam which is used to help prepare children before an anaesthetic.

That study, recently reported in the international journal *Anaesthesia* found that children preferred the chocolate based tablet. The study found that the effect of the medication was not affected by mixing the medicine into the chocolate based tablet.