

# Research raises antibiotic questions

July 12 2017

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A James Cook University scientist has warned about the side effects of overusing topical antibiotics, including concerns they're contributing to global antibiotic resistance.

The ground-breaking work from JCU Professor of General Practice Dr

Clare Heal and her team has featured in the *British Journal of Surgery*—the premier peer-reviewed surgical journal in Europe and one of the top surgical journals in the world.

Professor Heal said the researchers looked at nearly 6500 cases where topical antibiotics (creams, etc) had been applied to surgical wounds to prevent infection.

"We found that although topical antibiotics were moderately effective, their use could not be justified because there was not enough information about [adverse effects](#) such as resistance and allergy."

Professor Heal said adverse effects of topical antibiotics include [allergic contact dermatitis](#), anaphylaxis (a severe and dangerous allergic reaction) and antibiotic resistance.

"The results of this study will discourage the overuse of topical [antibiotics](#) by the surgical community and help to fight the global issue of [antibiotic resistance](#)," she said.

Professor Heal has been pioneering national and internationally recognised clinical research over the past 10 years in Mackay.

Her program of research has focused on pragmatic, evidence based research questions, looking at wound management in [general practice](#). Her work has produced several important outcomes which have changed medical practices.

She said collaborations with local general practices have been crucial.

"These collaborations have helped grow research capacity in our region as well as addressing questions of practical relevance to primary care and the broader healthcare system," Professor Heal said.

As a result of this program of research, Professor Heal was one of three finalists in the annual Queensland Health and Medical Research awards last month, which recognise researchers pushing the boundaries of [medical research](#).

She continues her research through the newly opened Mackay Institute for Research and Innovation.

**More information:** C. F. Heal et al, Meta-analysis of randomized and quasi-randomized clinical trials of topical antibiotics after primary closure for the prevention of surgical-site infection, *British Journal of Surgery* (2017). [DOI: 10.1002/bjs.10588](https://doi.org/10.1002/bjs.10588)

Provided by James Cook University

Citation: Research raises antibiotic questions (2017, July 12) retrieved 25 April 2024 from <https://medicalxpress.com/news/2017-07-antibiotic.html>

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