Reviewer's report

**Title:** Microbiological properties of Tualang honey dressing for treatment of partial thickness burn wound: A comparison with Manuka honey and silver based-dressing.

**Version:** 1  **Date:** 21 February 2010

**Reviewer:** Laid Boukraa

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Minor Essential Revisions

It would be much easier to review the paper if line numbers were included.

The whole work is about the role of honey to prevent infection of burn wound. This should be stated clearly in the text.

**Title**
- Should be brief and concise
- lack of key words

**Abstract**
- Background should focus on the subject, this is a general one.
- The aim of the work should be stated
- In vitro in italics
- Summary of results related to the effectiveness of dressings should be given
- Some of the facts given in conclusion are misplaced; they might be in result section. The conclusion should be given in not more than 3 sentences.

**Background**
- there is misplacement of some sentences; they might be in methods section

**Methods**
- subheadings need revision (order and fusion of some of them under one subheading)
- there is confusion while reading this section; revision should be done to make the methodology clear (see specific comments)

**Results**
- methodology should not be repeated in results section
- section should be revised to improve the flow

**Discussion**
- This whole section could be better written, it does not flow very well
- some of the information given in this section belong to result section

General comments

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Major Compulsory Revisions

Background
- the authors should state:
  o what is the problematic
  o what others have done to solve this problematic
  o what is their contribution
  o why their contribution is important and what are the expectations

Methods
- Authors should explain why dressings were limited to tualang honey only. Why they did not compare its effectiveness in vivo with manuka honey.
- “One swab was put in normal saline and the other one was kept in a container without normal saline.” Why?
- How the type of dressing to apply for each patient was chosen?
- “Disc Diffusion Assay” in this section many questions arise:
  - Is this really a Disc Diffusion Assay?
  - How they could talk about MIC if they have used 100% of honey?
  - Could MIC be obtained by diffusion method? How?
  - Why 200 #l of tualang honey represents 276.4 mg whereas 200 #l of manuka honey represents 298.2 mg?
  - How bactericidal effect was assessed?

**Results**
- Table 1 is not reflecting the findings stated in the text. It should be rewritten to represent with fidelity the methods and results.
- “Day 6 showed microorganisms isolated from 5 samples of burn wounds after 3 days of treatment.” After 3 days of treatment OR 3 days after the treatment?
- “On day 6, 50% of the swab samples could not be collected.” How could the study be significant?
- The Figure is confusing and making no sense. How could we know the effect of the different dressings on burn wound if we do not have 50 % of samples at day 6?
- Which title should be allocated to Table 2?
- “It was most effective against Pseudomonas spp., with a MIC of 18 mm.” is this really MIC? The whole paragraph should be revised.

**Discussion**
- As the manuscript is dealing with the role of honey in preventing burn wound infection, authors should focus on the antibacterial activity of honey.
- The 1st paragraph is a repetition from results section.
- “Aquacel plain dressing soaked with 100% tualang honey, Aquacel plain dressing soaked with 100% manuka honey, and Aquacel-Ag dressing, with Aquacel plain as a control.” Does 100 % honey mean pure honey?
- Statistical analysis should be done to measure the significance of the study?

The entire manuscript should be revised severely.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being
published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests