



**SDI Review Form 1.6**

Journal Name:	<a href="#">British Journal of Medicine and Medical Research</a>
Manuscript Number:	Ms_BJMMR_20354
Title of the Manuscript:	Health risk Assessment of water polluted with fluoride in the mining area in southern Tunisia: The case of the region of Berka
Type of the Article	Case Study

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Compulsory</b> REVISION comments	<p><b>General remarks</b></p> <p>This work presents an epidemiologic survey which was conducted to determine dental fluorosis among children and adult populations. Therefore, this epidemiologic survey is very poor in term of technical knowledge to make decision about dental fluorosis prevalence, incidence and health risk assessment. This work can be improved with the following two key points:</p> <ul style="list-style-type: none"> <li>- Authors should make other survey in non-fluoride areas among the same population. This can help on defining the dental fluorosis incidence rate</li> <li>- Authors should mention physio-chemical proprieties of drinking water (fluoride level, salinity...etc.). This can determine the relation between diseases diagnosis and Berka region's water quality (authors have mentioned joint pain (arthritis), damage of kidneys, bones, nerves and muscles).</li> </ul> <p><b>Material and methods section remarks</b></p> <p>The authors have mention that the study area is located in southern Tunisia. They should justify this choice by other scientific references citations.</p> <p>In the other hand, the authors conclude that water contamination by fluoride is caused by laundry discharges but this contamination can be made by other naturel factors as rocks nature of the aquifer.</p> <p>The used method of "Kenny" is not detailed and shortly described; the used parameters (E, R, P) are unit less and not</p>	<ul style="list-style-type: none"> <li>- In fact, in our survey, we are not interested on a comparative analysis. This study assesses mainly health risks of consuming polluted water with fluoride.</li> <li>- Physio-chemical proprieties of drinking water can be found in reference number 2 (Hamed Y. Hydrogeological, hydrochemical and Isotopic Characterization of Aquifer Systems of Moulares-Tamerza Syncline (Tunisian Southeast). 2009. French).</li> </ul> <p>This site was largely studied for its aquifer system and pollution. References:</p> <ul style="list-style-type: none"> <li>• Hamed Y., Dassi L., Ahmadi R., Ben Dhia H., Geochemical and isotopic study of the multilayer aquifer system in the Moulares-Redayef basin, southern Tunisia. Hydrol. Sci. J. Sci. Hydrol.2008. 53 (5).</li> <li>• Hamed Y., Zairi M., Ali W., Ben Dhia H., Estimation of residence times and recharge</li> </ul>



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	<p>obvious.</p> <p><b>Results section remarks</b> Authors haven't mention how they calculated the risk scores based on the used method of "Kenny". Lecturer doesn't see the value of the different used parameters; i.e. E, F and P. Are these parameters age dependent?</p> <p><b>Comments and discussion section remarks</b> Water fluoride exposure levels and fluoride toxicity are not defined. The proposed action plan is not realistic and not applicable. Authors have mentioned that a support is crucial for subjects with a very high risk score but they don't explain the nature of this support.</p>	<p>area of groundwater in the Moulares Mining Basin by using carbon and oxygen isotopes (South Western Tunisia). J. Environ. Protect.2010a. 1, 466–474, <a href="http://dx.doi.org/10.4236">http://dx.doi.org/10.4236</a>.</p> <ul style="list-style-type: none"> <li>• Hamed Y. Effect of Industrial Pollution on Water Resources in the Mining Basin of South Gafsa (Southwest Tunisia). The 2nd Edition of the International Congress: Water, Waste and Environments. Mediterranean Countries Union -El Jadida, Marocco. 2009.</li> </ul> <p>Actually, this information was reported in reference number 2 where a hydrogeological study was conducted.</p> <p>The method of "Kinney" and its parameters are more detailed from line 75to line 96: "The Kinney method is based on..."</p> <p>The risk score calculation is detailed from line 116 to line 133: "The main clinical manifestations".</p> <p>Indeed, floride exposure and risks are only estimated and assessed by the method of kinney.</p> <p>We meant medical care and treatment if necessary, simply for the 7 cases who presented the highest risk score.</p>
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<b><u>Minor</u></b> REVISION comments	References are not formatted in the journal layout. Lack of figures. Figures can add clarification to lecturer. English must be improved.	References are corrected. Tables were added to detail more methodology and results. English is improved.
<b><u>Optional/General</u></b> comments	//	