

Review Form 3

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_120393
Title of the Manuscript:	OPTIMIZATION OF RADIOLOGICAL PROTECTION FOR COMPANIONS IN PEDIATRIC CHEST X-RAYS
Type of the Article	

Review Form 3

PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write few sentences regarding the importance this manuscript for scientific community. Why do you like (or dislike) this manuscript? Minimum 3-4 sentences may be required for this part.	It is well prepared manuscript about OPTIMIZATION OF RADIOLOGICAL PROTECTION FOR COMPANIONS IN PEDIATRIC CHEST X-RAYS, The results are interesting. It will have a great contribution to the JOURNAL.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes.	
Is the abstract of the article comprehensive? Do you suggest addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract of this article is comprehensive.	
Are subsections and structure of the manuscript appropriate?	Yes.	
Please write few sentences regarding the scientific correctness of this manuscript. Why do think that this manuscript is scientifically robust and technically sound? Minimum 3-4 sentences may be required for this part.	This manuscript is scientifically robust and technically sound according to following reason:A fixed conventional X-ray device and a phantom (simulating object) filled with 15 cm of water to represent a pediatric chest were used in this study. According to the results, authors give some scientific discussion about the curves of scattered radiation dose in relation to the position of the companion around the radiographic equipment for both measured heights. Authors also identified the ideal points for the companion's positioning, highlighting the locations with the lowest radiation doses.	
Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.	The references is sufficient and recent.	

Review Form 3

<p>Minor REVISION comments</p> <p>Is language/English quality of the article suitable for scholarly communications?</p>	<p>Yes. Some minor comments to the authors:</p> <ol style="list-style-type: none"> 1. At abstract part, authors state that "Measurements of the incident air KERMA ($K_{a,i}$)". Is that meant to K_{AIR}? 2. Authors state that "The 90° position consistently presents the lowest KAIR values, indicating lower exposure in this orientation. Conversely, the 180° position shows the highest average values, suggesting that this position offers the highest radiation exposure. This implies that the orientation of the companion during the procedures can significantly influence the dose received by the gonads, a crucial factor in optimizing radiological protection. Please give some explanation about this statement. 3. Authors state that "However, the significant reduction in dose at 270° highlights the importance of body orientation, with this position potentially providing better protection for the lens of the eye." Please give some explanation about this statement. 	
<p>Optional/General comments</p>	<p>It is well prepared manuscript about optimize the positioning of the companion during pediatric chest radiographic exams by analyzing the scattered radiation dose measured with an ionization chamber. The results are interesting and will have great contribution to the JOURNAL.</p>	

PART 2:

	Reviewer's comment	Author's comment (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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

<p>Name:</p>	<p>Jianwen Wang</p>
<p>Department, University & Country</p>	<p>Chung Hwa University of Medical Technology, Taiwan</p>