

PEER-REVIEW REPORT

Name of journal: World Journal of Nephrology

Manuscript NO: 39966

Title: Evaluation of Blood Bicarbonate Levels and Blood Gas Analysis in Hemodialysis Patients who switch from Lanthanum Carbonate to Sucroferric Oxyhydroxide

Reviewer's code: 00505686

Reviewer's country: Turkey

Science editor: Fang-Fang Ji

Date sent for review: 2018-06-04

Date reviewed: 2018-06-14

Review time: 10 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input checked="" type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input checked="" type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

that is a valuable study

INITIAL REVIEW OF THE MANUSCRIPT



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PEER-REVIEW REPORT

Name of journal: World Journal of Nephrology

Manuscript NO: 39966

Title: Evaluation of Blood Bicarbonate Levels and Blood Gas Analysis in Hemodialysis Patients who switch from Lanthanum Carbonate to Sucroferric Oxyhydroxide

Reviewer's code: 00503286

Reviewer's country: Romania

Science editor: Fang-Fang Ji

Date sent for review: 2018-06-15

Date reviewed: 2018-06-21

Review time: 5 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input checked="" type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The paper "Evaluation of Blood Bicarbonate Levels and Blood Gas Analysis in Hemodialysis Patients who switch from Lanthanum Carbonate to Sucroferric Oxyhydroxide" should be published, only after minor corrections with the editor.



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PEER-REVIEW REPORT

Name of journal: World Journal of Nephrology

Manuscript NO: 39966

Title: Evaluation of Blood Bicarbonate Levels and Blood Gas Analysis in Hemodialysis Patients who switch from Lanthanum Carbonate to Sucroferric Oxyhydroxide

Reviewer's code: 02874644

Reviewer's country: India

Science editor: Fang-Fang Ji

Date sent for review: 2018-06-15

Date reviewed: 2018-06-25

Review time: 9 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
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<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input checked="" type="checkbox"/> Grade D: Fair	<input checked="" type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input checked="" type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Stavroulopoulos et al in the manuscript of "evaluation of blood bicarbonate levels and blood gas analysis in hemodialysis patients who switch from lanthanum carbonate to sucroferricoxyhydroxide" has examined the effect on the acid-base parameters by

switching of phosphate binder of lanthanum carbonate (LanC) to sucroferricoxyhydroxide (SFOH) in hemodialysis patients. In the study the patients, who were taking LanC of dose 750 mg for 6 months were change to another phosphate binder of SFOH of 500 mg doses and blood samples were collected on the 3-day and the last 2-day interdialytic interval of the week prior to switching and 6 weeks after, at the same intervals for further biochemical analysis. Whole blood pH, pO₂, pCO₂, bicarbonate levels (HCO₃⁻), base excess (BE), potassium (K⁺) and serum phosphate levels were measured through blood gas analyzer and standard laboratory methods. In the study only 9 hemodialysis patients continued on the new binder however 3 patients were returned to LanC and another 3 switched to SevC. I have several major concerns about this manuscript

Comments 1) Very small samples size; From the study it's concluded that switching from LanC to another phosphate binder SFOH did not have any significant effect on blood bicarbonate levels and gas analysis, however the sample size of the study is very small to draw any conclusion and to find out the significance of this study. Moreover, the data is not sufficient to meaningfully draw any conclusion, additional data is required to understand the demographic of the subjects in two groups. Parameters that could confound the acid-base findings such as dietary protein intake should have been included .

2) I am unable to understand what the rationale for switching phosphate binders in these subjects when they do not have acidosis to begin with. Having said that, it seems irrational to me to study how SFOH affects acidosis.

2) In the study protocols authors stated that "The patients were taking LanC in the form of 750 mg chewable pills (Fosrenol, Shire Pharmaceuticals Cont. Ltd, UK) for at least 6 months, but they had to change phosphate binder due to logistic reasons". The logistic problem should be specifically defined as that may have a bearing on the findings/interpretation.

3) As per table 2, in SFOH group, the reductions in phosphate levels were not significantly different between pre- and post- switching



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samples?? Moreover, the baseline phosphate levels between SFOH and Control groups are substantially different. In order to get determine the real effect of switching versus non-switching to a new phosphate binder the baseline phosphate values should be similar between the two groups. 4) Similar Concerns are for baseline values of partial oxygen pressure and BE? 5) What was the reason for increase in phosphate values in Control group?

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PEER-REVIEW REPORT

Name of journal: World Journal of Nephrology

Manuscript NO: 39966

Title: Evaluation of Blood Bicarbonate Levels and Blood Gas Analysis in Hemodialysis Patients who switch from Lanthanum Carbonate to Sucroferric Oxyhydroxide

Reviewer's code: 03521962

Reviewer's country: Nigeria

Science editor: Fang-Fang Ji

Date sent for review: 2018-06-15

Date reviewed: 2018-06-30

Review time: 15 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input checked="" type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input checked="" type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This is an interesting paper with the potential to contribute to the existing knowledge in the field. It is well articulated and the presentation is good. I therefore, wish to accept the manuscript for publication in its current form. Regards, Dr. Chris Ekpenyong



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PEER-REVIEW REPORT

Name of journal: World Journal of Nephrology

Manuscript NO: 39966

Title: Evaluation of Blood Bicarbonate Levels and Blood Gas Analysis in Hemodialysis Patients who switch from Lanthanum Carbonate to Sucroferric Oxyhydroxide

Reviewer's code: 02885976

Reviewer's country: Argentina

Science editor: Fang-Fang Ji

Date sent for review: 2018-06-15

Date reviewed: 2018-06-30

Review time: 15 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
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SPECIFIC COMMENTS TO AUTHORS

The aim of this study was to evaluate possible alterations in acid-base equilibrium after switching from LanC to SFOH. This is a small, pilot study, that conclude switching from LanC to SFOH did not affect blood bicarbonate levels and gas analysis. Therefore, the



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authors conclude that there is no need to change hemodialysis prescription regarding these parameters. Considering the limitation of the present study (small sample size, and other clinical scenarios like ESKD, peritoneal vs hemodialysis) the study is acceptable. I have some few comments to the authors: - Table 1 must be re-structured and include both groups to compare the baseline characteristics (also include a separate column with the statistical difference value corresponding to each parameter) - Although the authors mentioned "data not shown" for the analysis of data for the 3-day and the 2-day interdialytic intervals between the two groups, this is a relevant issue that it must be included in the manuscript. - The authors mentioned in result section (third paragraph): "the only significant differences that we found were between the 3-day and 2-day measurements. HCO₃⁻, BE and pH were significantly lower and K higher at the 3-day vs. 2-day interdialytic interval, as expected". For which group of patients are referring these results?

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