PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 38945

Title: Machine learning to relate PM2.5 and PM10 concentrations to outpatient visits for upper respiratory tract infections in Taiwan: A nationwide analysis

Reviewer's code: 00503345

Reviewer's country: Canada

Science editor: Fang-Fang Ji

Date sent for review: 2018-04-21

Date reviewed: 2018-04-24

Review time: 3 Days

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[ ] Grade E: Do not publish		[ ] Rejection	[ ] Advanced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

SPECIFIC COMMENTS TO AUTHORS

The authors have examined using machine learning whether particulate matter (PM)2.5 and PM10 concentrations in the air could predict the number of outpatient visits for acute upper respiratory tract infections (URI) in Taiwan. The proposed algorithm

suggests that the nationwide data for PM2.5 and PM10 in the air could accurately predict the occurrence of URI, with best result for the elderly population. The test was less accurate in regard to regional data analyses. The study is original and informative. The data and the limitations of the algorithm, that takes only the concentrations of PM2.5 and PM10 into account for predicting the occurrence of URI, are well discussed.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

[   ] The same title

[   ] Duplicate publication

[   ] Plagiarism

[Y] No

BPG Search:

[   ] The same title

[   ] Duplicate publication

[   ] Plagiarism

[Y] No

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 38945

Title: Machine learning to relate PM2.5 and PM10 concentrations to outpatient visits for upper respiratory tract infections in Taiwan: A nationwide analysis

Reviewer's code: 00526025

Reviewer's country: Japan

Science editor: Fang-Fang Ji

Date sent for review: 2018-04-21

Date reviewed: 2018-05-01

Review time: 9 Days

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

SPECIFIC COMMENTS TO AUTHORS

The authors report the concentrations of particulate matters 2.5 (PM2.5) and 10 (PM10) can predict upper respiratory infections in Taiwan. The study is interesting; however, the authors have to show direct evidence of concentrations of PM2.5 and PM10 and

upper respiratory infections. The authors have to rule out coincidence of increases of PM2.5 and PM10 and upper respiratory infections in summer and spring. General comments: Descriptions of scientific manuscript have to be easily clearly understood by everyone. I cannot understand what the authors did by "machine learning" or "multilayer perception." I cannot understand the meaning of "URI burden." I think your study was a retrospective one; however, you use "predict" to show relationship between concentrations of PM2.5 and PM10 and upper respiratory infections. I think the proper verb should be "be related." Specific comments; Not all researchers are good at decoding the International Classification of Diseases. Disease names should be written, instead of code numbers. How were upper respiratory infections diagnosed? Were they really "upper respiratory infections?" I think that "upper respiratory symptoms" seem more appropriate. Methods I cannot understand the meaning of "burden of outpatient visit." Discussion Your epidemiological study is important because we are being exposed worsening air pollution. However, I cannot understand that increases in PM2.5 and PM10 provoke upper respiratory infections. I think that you need to show direct evidence of increases in upper airway "infections" by increases in PM2.5 and PM10. END

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

[ ] The same title

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[ ] Plagiarism

[Y] No

BPG Search:

[　] The same title

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[Y] No

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 38945

Title: Machine learning to relate PM2.5 and PM10 concentrations to outpatient visits for upper respiratory tract infections in Taiwan: A nationwide analysis

Reviewer's code: 02484487

Reviewer's country: Saudi Arabia

Science editor: Fang-Fang Ji

Date sent for review: 2018-04-21

Date reviewed: 2018-05-07

Review time: 16 Days

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

SPECIFIC COMMENTS TO AUTHORS

Very informative,well written article.in my opinion there is nothing to be changed,or altered.Itcan be published As it is.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

[   ] The same title

[   ] Duplicate publication

[   ] Plagiarism

[Y] No

BPG Search:

[   ] The same title

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[   ] Plagiarism

[Y] No