

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Pediatrics

ESPS manuscript NO: 28116

Title: Pandemic influenza 2009: Impact of vaccination coverage on critical illness in children, a Canada and France observational study

Reviewer's code: 00214274

Reviewer's country: France

Science editor: Fang-Fang Ji

Date sent for review: 2016-07-06 09:30

Date reviewed: 2016-07-19 15:46

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input checked="" type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
		BPG Search:	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

This manuscript is an observational study on the impact of vaccination coverage on critical illness due to H1N1pdm09 in pediatrics. The data collected are clearly reported but the interpretation and the conclusion are questionable. General comments: The authors pointed out that there are significant benefits related to the vaccination, however: - The incidence of PICU hospitalization in Canada is twice as much as the incidence in France despite vaccination coverage ten times lower in France than in Canada. If this fact is explained by a difference in virulence of H1N1 pdm09 strains between the two countries (a fact not studied) this means that we are comparing apples with oranges. - There is no difference in mortality - There is no difference in mechanical ventilation duration The difference in PICU length of stay is present only on the mean and not on the median. I am not convinced that these data will persuade on the significant benefits of vaccination. Specific comments Abstract: In your first sentence the name of the two countries is missing. Data collection and outcomes: There was 160 children hospitalized in 17 PICUs in Canada corresponding to a population of 5600000 children. You should explain how do you calculate the incidence? (same

remark for incidence in France). Clinical presentation and hospital course. You should explain the difference between critical illness due to influenza and ARDS. Is there any difference in sedation between the two countries that could explain the difference in higher rate of seizures in France? Outcomes. I do agree on the fact that duration of invasive mechanical ventilation was shorter in Canada but total mechanical ventilation was not significantly different. Discussion Key findings Indeed there is a difference in duration of invasive mechanical ventilation but for the PICU length of stay this difference is less evident. As stated before, if there is a difference in virulence, you cannot compare fairly the two groups. We need more data on the short-term effects of vaccination on the pandemic second wave. As far as I understand correctly your fig 1, the decrease in incidence begins, before the expected effect of vaccination (2 weeks) Conclusions: Despite the fact that critically ill children with H1N1pdm09 were much less likely to have received vaccination against influenza A prior to hospitalization when compared with children in the general population, the country where the vaccination coverage was the higher (21% versus 2%) was the country with the higher incidence of hospitalization was observed and this is a major issue. The study fails to demonstrate the expected primary objective. Furthermore, few of the secondary objectives were in favor of vaccination. In summary: We need more convincing data to demonstrate the benefit of vaccination. May I suggest rewriting this manuscript focusing on the difficulties on comparison between impacts of pandemic viral infection in different countries.

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Pediatrics

ESPS manuscript NO: 28116

Title: Pandemic influenza 2009: Impact of vaccination coverage on critical illness in children, a Canada and France observational study

Reviewer's code: 00504271

Reviewer's country: Japan

Science editor: Fang-Fang Ji

Date sent for review: 2016-07-06 09:30

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

The manuscript by Flechelles et al. compared the numbers of the critical illness in children of influenza A (H1N1) pdm09 between Canada and France which showed similar background except vaccination coverage of the pandemic influenza 2009. This study described the relationship between the case numbers of severe condition in pediatric intensive care unit (PICU) of the two countries and the vaccination coverage of influenza H1N1pdm. 1. In table 2, the rate of ARDS, seizures and nosocomial infections (nosocomial infection and ventilator-associated pneumonia) were higher in France than in Canada with greater P value compared to that of invasive ventilation. Are there any relationship between vaccination coverage and the rate of ARDS, seizures and nosocomial infections? 2. In outcomes section, there is an association of vaccination and asthma with the risk of invasive ventilation (p. 12, table 3). This is controversial with the relationship between decrease risk of invasive and vaccination coverage.

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Pediatrics

ESPS manuscript NO: 28116

Title: Pandemic influenza 2009: Impact of vaccination coverage on critical illness in children, a Canada and France observational study

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Reviewer's country: Canada

Science editor: Fang-Fang Ji

Date sent for review: 2016-07-06 09:30

Date reviewed: 2016-08-23 03:21

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

The authors studied two national cohorts that included children with documented H1N1pdm09 infection, admitted to a PICU in Canada and in France between October 1 2009 and January 31 2010. They found that critically ill children were less likely to have received vaccination prior to hospitalization in comparison to general population and children vaccinated who had lower risk of ventilation.

The article is well-written and it is clear and innovative, specifically for the approaching season.

My suggestion is the lack of deep discussion with other programs and epidemiological studies specifically performed in

Argentina and Turkey. The article would benefit from a figure showing the rates with and without vaccination worldwide.

This is particularly important when compared with those in North America, Europe and Australia and New Zealand.

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Pediatrics

ESPS manuscript NO: 28116

Title: Pandemic influenza 2009: Impact of vaccination coverage on critical illness in children, a Canada and France observational study

Reviewer's code: 01213276

Reviewer's country: Serbia

Science editor: Fang-Fang Ji

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Date reviewed: 2016-09-02 04:01

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[Y] Grade A: Excellent	[Y] Grade A: Priority publishing	Google Search:	[Y] Accept
[] Grade B: Very good	[] Grade B: Minor language polishing	[] The same title	[] High priority for publication
[] Grade C: Good	[] Grade C: A great deal of language polishing	[] Duplicate publication	[] Rejection
[] Grade D: Fair	[] Grade D: Rejected	[Y] No	[] Minor revision
[] Grade E: Poor		BPG Search:	[] Major revision
		[] The same title	
		[] Duplicate publication	
		[] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

The study is well designed with detailed methodology to assess the impact of vaccination status on severity of infection and mortality rates. The rate of admission to PICU due to infection is much higher in children in Canada, despite the big difference in vaccination rate between two countries. A very interesting, well written paper. Congratulation, the manuscript is very good!