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Title	Improved hospital safety performance and reduced medico-legal risk: an ecological study using 2 Canadian databases
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Reviewer 1	Petra Thürmann
Institution	Institute of Clinical Pharmacology, Helios Klinikum Wuppertal, Wuppertal, Germany
General comments (author response in bold)	<ul style="list-style-type: none"> • For better understanding it should be explained, how the events (= PSI) are coded, as ICD-10 diagnoses? I am wondering how in-hospital fractures are detected (and not fractures resulting in hospitalisation) and how iatrogenic pneumothoraces are found - not including the spontaneous ones. <p>Yes, PSI events were identified by ICD10. For iatrogenic conditions, in the Discharge Abstract Database, each diagnosis also has a diagnosis type code to differentiate whether it is a pre- or post-admission condition. In our study, we only included post-admission conditions. We have described this further in the methods, please see page 3, paragraph 2.</p> <ul style="list-style-type: none"> • The number of PSI / cases is given, but what was the total number of patients treated in-hospital? <p>Each year, there are approximately 2.5 million inpatient cases in the Canada. We have described their capture in the Discharge Abstract Database. Please see page 3, paragraph 3.</p> <ul style="list-style-type: none"> • Since CMPA represents the total number of all medico-legal cases, can you calculate independently, which of the 3 types of medico-legal cases decreases most. In other words: improving patient safety does result in less complaints or less law suits? <p>The CMPA represents most Canadian physicians. However, cases in the CMPA database do not represent the total of all medico-legal cases as we only have cases reported to the CMPA by member physicians, as described in the limitations (page 8, paragraph 1). While we capture most civil legal cases, the representativeness of our sample for College and Hospital cases is not as great. This is why we have not stratified by case type. Furthermore, our study has identified an association between improved patient safety in hospitals and reduction in medico-legal cases. We do not have evidence of a causal relationship between these factors.</p>
Reviewer 2	Christopher Fernandes
Institution	Division of Emergency Medicine, Hamilton Health Sciences, McMaster University, Hamilton, Ont.
General comments (author response in bold)	<ul style="list-style-type: none"> • Further detail in the background as to how the CIHI database was chosen would be useful. <p>We have added more background information about the Discharge Abstract Database in the manuscript. Please refer to page 3, paragraph 3.</p> <ul style="list-style-type: none"> • Methods--how were the specific 15 indicators chosen? <p>We have documented the reasons for the Patient Safety Indicators inclusion and exclusion in our study, as per our response to the Comments from the Editor question #10 above. Please refer to page 3, paragraph 2.</p> <ul style="list-style-type: none"> • Results--p. 12, line 52--in order to reproduce this study, you would need to explain how you incorporate the variable for year in the models. <p>We have added further description of the year variable in the model. Please refer to page 5, paragraph 2 and page 11.</p> <ul style="list-style-type: none"> • p.13, line 12--you should provide some thoughts in the discussion as to why there are so few obstetrics-related CMPA cases. I am not sure if that is what you are trying to do on p. 15, lines 34-46. <p>We realize the small number of obstetric-related CMPA cases is a limitation of the study. Many medico-legal cases are reported to the CMPA years after the incident occurred. This lag in report time is often longer for obstetric cases. We elaborated on this in the Limitations section, please refer to page 8, paragraph 2.</p> <ul style="list-style-type: none"> • References--I am not sure that all the references 3-12 need to be cited. What might be relevant would be one or two references from this group that demonstrate how focusing on PSIs reduces medico-legal events. A paragraph on this issue in the discussion would be very useful for the reader. <p>Thank you for this comment. We believe this study adds to a small number of published articles on this subject and wished to reflect these key previous sources for the reader. As such, we kept all the references. We have a sentence which places this in context, please see page 7, paragraph 3.</p>