

Peer Review File

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Reviewer A:

I would like to congratulate you with the results of presented study:

"Door-to-Device Time and Mortality in Patients with ST-Elevation Myocardial Infarction treated with primary Percutaneous Coronary Intervention: Insight from Real World Data of Thai PCI Registry" by Champasri et al.

Basically, you confirm the current recommendations.

The manuscript is well written and interesting though not revealing.

From my humble opinion, is still worthy for publishing consideration.

Comment: In multivariable analysis you presented the following factors as crucial for survival: D2D time, age, kidney failure and prior heart failure.

Would you explain why D2D timing not Age/KF/HF was taken to analysis and presented as the topic?

Would you be so kind to perform comparative analysis?

Reply: Thanks for your comments. We feel that additional analyses are not needed because we have already included all the variables in the univariate and multivariate analyses. The magnitude of impact can be compared by looking at the ODD ratio. Age/CKD/HF is another important factor in the survival rate of STEMI patients. We took Age/CKD/HF into multivariate analysis and they were independent factors associated with increased risk of mortality, as shown in Table 4; however, the main objective of the study was to assess the association between D2D, time, and mortality.

However, if additional analysis is needed, please kindly let us know. We will perform future analysis as suggested.

Reviewer B:

Part one.

Please check the comments from Editorial Office. Mainly, the comments below are used to increase the transparency of your manuscript, following the STROBE reporting checklist.

Structure of the original article

1. Due to the Author's Instruction (<https://cdn.amegroups.cn/static/public/2.1-Structure%20of%20Original%20Articles-template-V2022.11.4.docx?v=1677031736411>), please kindly organize the structure of the manuscript. Including the structure of the Introduction and Discussion.

Reply1: We have modified our text as advised

Changes in the text: "Original Article, IRB Information and Keywords" in TITLE PAGE were deleted. Keywords was added to Abstract (page 2, line 27-28). Reorganized Introduction to 3 parts (1.1 Background, 1.2 Rationale and knowledge gap, 1.3 Objective), Reorganized Discussion to 5 parts (4.1

Key Findings, 4.2 Strengths and limitations, 4.3 Comparison with similar researches, 4.4 Explanations of findings, 4.5 Implications and actions needed)

Title

2. Are “Door-to-Device Time” and “door-to-balloon time” equivalent?

Reply2: The overall meaning is similar. But most of newer articles use the term Door-to-Device time more often because only Wire-cross lesion can cause reperfusion in STEMI patients.

Abstract

3. Please supplement the study design (cohort study), participants’ inclusion and exclusion criteria, variables of interest, and statistical methods in the Abstract-Methods.

Reply3: We have modified our text as advised

Changes in the text: “cohort study” was added in abstract (page 2, line 10) and in method (page 4, line 7). Inclusion and exclusion criteria were in page 2, line 11-14 and page 4, line 16-20. Variables of interest were in page 2, line 7-8 and page 4, line 23-27. Statistical analysis was in page 4, line 43-49 and page 5, line 1-9.

4. P.2, L4 “current guideline” please state the name of this guideline.

Reply4: We have modified our text as advised

Changes in the text: 2017 ESC Guidelines for the management of STEMI was added to abstract (page 2, line 4-5)

5. Also, the authors need to report the number of patients (including those transferred from other hospital groups and those directed to PCI centre groups).

Reply5: We have modified our text as advised

Changes in the text: Number of patients in both groups were added in abstract (page 2, line 18, 19), results (page 5, line 16) and in heading of table 1.

Highlight Box

6. This research is only conducted in Thailand, please modify the statement “... in low- to middle-income nations.”

Reply6: We have modified our text as advised

Changes in the text: change text to “Thailand” (page 3, line 5)

Introduction

7. In the Introduction, the authors should indicate the proportion of PCI centers that are not set up to monitor D2D time in low- and middle-income countries or Thailand. This will help readers comprehend the reason for conducting this study.

Reply7: We have modified our text as advised

Changes in the text: Page 3, Line 42-44

8. Please highlight the value of this study in the introduction. What does this study add to existing knowledge? To communicate the importance of research, including conclusions from high-quality meta-analyses is necessary.

Reply8: We have modified our text as advised

Changes in the text: Page 3, Line 39-42

Methods

9. Please describe the time frame, the design (cohort study), and when the authors collected the data.

Reply9: We have modified our text as advised

Changes in the text: the time frame was added to methods (page 4, line 11-12), the design (cohort study) was added (page 4, line 7) and time when the authors collected the data was added in page 4, line 12-13.

10. Please illustrate exhaustively how the four variables were assessed, by whom, and if the assessors were aware of the intent of the study. Additionally, how did the authors ensure the assessors' operation methods were consistent when multiple people were taking them?

Reply9: We have modified our text as advised

Changes in the text: The data was added into methods (page 4, line 37-41)

11. The authors ought to construct a conceptual diagram of time, encompassing the period from the symptom onset to reperfusion. And state the possible reason for the delay. Just for your information, "...Symptom onset—treatment delay—FMC—system delay—PCI..."

Reply11: We have added our diagram as advised

Changes in the figures: Figure 1 was added

12. P.4, L.27-31, "The patients were stratified into two groups before being transferred to a PCI centre from another hospital", the classification of the groups should be reported here clearly.

Reply12: We have modified our text as advised.

Changes in the text: The classification of the groups was reported in P.4, line 32-34.

13. Please state that there is no missing data in the text.

Reply13: We have modified our text as advised.

Changes in the text: We added the text, "there was no missing data" in methods (page 4, line 13).

14. Please report the level of testing for the P value, and report whether the P value was a one-sided or two-sided test.

Reply14: The level of testing for the P is 0.05 and it was a two-sided test

Changes in the text: The sentence was added in Page 5, line 5, 6 as your advised.

Results

15. The sum of patients of transferred from another hospital (n=2,871) and directed to a PCI centre (n=1,011) is not 3874. Please check the data.

Reply15: We have modified our text as advised

Changes in the text: After check the data, we correct the text to 1,003 (page 5, line16 and line 28)

16. P.5, L.43-48, please state the unit of time.

Reply16: We have modified our text as advised

Changes in the text: Unit of time were added (Page 5, line 43-48)

17. In Figure 2, excluding 16368 patients out of 22741 patients should leave 6373 patients (rather than 6737), the sum of the 766, 1106, and 597 is 2469 (rather than 2499). Please recheck the data.

Reply17: We have modified our text as advised

Changes in the text: After check the data, we correct the data in figure 2 as advised

18. In Table 1, why not report treatment delay and patient delay of the two groups?

Reply18: We have modified our text as advised

Changes in the text: We report treatment delay and patient delay of the two groups in Table 1 as advised.

19. P.5, L.2, “CKD, CVD, and PVD”, PVD should be PAD. Please also define the abbreviations in the main text when first mentioned.

Reply19: We have modified our text as advised

Changes in the text: We define the abbreviations in the main text when first mentioned and change PVD to PAD as advised.

Discussion

20. P.6, L.27-48, P.7, L.1-16, please analyze the reasons for the inconsistency between the results of this study and other studies.

Reply20: We have modified our text as advised.

Changes in the text: We analyze the reasons for the inconsistency between the results in Page 7, line 10-17.

Other concerns

21. Please kindly revise the form of the P-value in the report (revisions are needed for supplementary material):

The description of the P-value should be in the uppercase italic format, i.e., “P”.

If $P < 0.001$, please report “ $P < 0.001$ ” to avoid reporting unnecessarily excessive precision (with the exception of hypothesis tests that include correlations or studies with exponentially small P-values, such as genetic association studies, which can be reported exponentially, e.g., $P = 1 \times 10^{-5}$);

If $0.001 \leq P < 0.01$, please report the specific P-value to 3 decimal places, e.g., “ $P = 0.001$ ”, “ $P = 0.009$ ”;

If $P \geq 0.01$, please report the specific P-value to 2 decimal places, e.g., “ $P = 0.01$ ”, “ $P = 0.06$ ”, “ $P = 0.10$ ”, “ $P = 0.90$ ”;

If $P > 0.99$, report “ $P > 0.99$ ”.

Do not round P-values, do not report “not significant” simply when the data is greater than an arbitrary value, and do not report only vague bounds, such as $P < 0.05$, as described above, but report the exact P-value.

Reply21:

Reply22: We have modified our text as advised.

Changes in the text: We revise the form of P-value in the report (included in the supplementary material).

22. Please rephrase places (pages 1-5) highlighted in the attached Similarity Report.

Reply23: We have rephrasing as advised.

Changes in the text: Page 1-5.

Part two.

1. Regarding item 15(Outcome Data) in the reporting checklist, please confirm which study type your paper belongs to(cohort, case-control, or cross-sectional), and revise the item 15 in the STROBE checklist that you provided. Just for example, if it is a cohort study, the rest of 2 items should be filled with N/A.

Reply1: We have modified our text as advised

Changes in the text: Our study type is cohort study and the rest of 2 items were filled with N/A in the reporting checklist.

2. You need to write in the main text where you want to cite the SUPPLEMENTARY MATERIALS. Of note, the references in the supplement materials need to be numbered according the first appearance of the supple material in the main text.

Reply2: We have modified our supplementary material as advised.

Changes in the text: We removed the text in supplementary material that it duplicated to main text and we write in the main text where we cite the supplementary materials (page 6, line 43)