

## Review Form 1.6

Journal Name:	<a href="#">Journal of Pharmaceutical Research International</a>
Manuscript Number:	Ms_JPRI_77981
Title of the Manuscript:	Development and validation of UPLC-MS / MS method for obtaining favipiravir tablet dosage form and evaluation of its behavior under forced conditions
Type of the Article	Original Research Article

### **General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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**PART 1: Review Comments**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Compulsory</b> REVISION comments	<p>Taking into account that Favipiravir is a drug, I think that an in-depth comparison with the available literature should be mentioned. The manuscript lacks of discussion in the current literature. In introduction section, the authors refer "Only one study with the HPLC method [4] and an UPLC-MS/MS study on detection from human plasma [5] are found in the literature". The authors should add and discuss the above papers:</p> <ul style="list-style-type: none"> <li>• A novel stability-indicating HPLC-DAD method for determination of favipiravir, a potential antiviral drug for COVID-19 treatment; application to degradation kinetic studies and in-vitro dissolution profiling.</li> <li>• A simple, sensitive and economical hplc-uv method for determination of favipiravir in microsamples of rat plasma and its application in a pharmacokinetic study.</li> <li>• STABILITY INDICATIVE AND COST EFFECTIVE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION OF FAVIPIRAVIR AND PERAMIVIR IN BULK AND PHARMACEUTICAL DOSAGE FORM BY USING RP-HPLC.</li> <li>• A novel LC-MS/MS method for determination of the potential antiviral candidate favipiravir for the emergency treatment of SARS-CoV-2 virus in human plasma: Application to a bioequivalence study in Egyptian human volunteers.</li> </ul> <p>Additionally, why did the authors not take account what international pharmacopoeias refers about favipiravir?</p> <p>In 2.3 section "200 mg faripiravir (70 mg) tablet powder" is referred. What is the 70 mg?</p> <p>In 2.14 ROBUSTNESS section is referred the above: "Analysis of marketed formulations A total of 2 mL of the drug's homogenous solution was put to a 100 mL balloon. To make a 10 µg mL<sup>-1</sup> solution, fill to the mark with ultrapure water. Filtration using a 0.45 µm membrane filter was used to analyze the samples." Why it is in this section? What a 100 mL balloon is? Please clarify it.</p> <p>I think that additional information about the determination of λmax is required. Why the authors studied the λmax, while the analysis of the favipiravir is carried out through HPLC-MS/MS?</p> <p>In 3.2 METHOD VALIDATION, the authors refer that different mobile phases were studied. What mobile phases were studied? It is not sufficient; please add more information about the mobile phases and why water-methanol (80:20, v / v) containing 0.1% formic acid is selected as the optimum.</p> <p>In Table 1, SD of the slope and intercept are missing.</p> <p>In 3.8 section. The numbers are confusing. Write them with the correct order.</p> <p>In conclusion section, the significant merits of the paper should be referred and not why decomposition studies are important.</p>	
<b>Minor</b> REVISION comments	<p>The manuscript is not well written. The following sentences have to be revised; Abstract:</p> <ol style="list-style-type: none"> <li>1. "a recovery study from tablets" rephrase as "a recovery study of tablet formulations"</li> <li>2. "by developing the UPLC-MS/MS method of favipiravir" rephrase as "... a UPLC-MS/MS method"</li> <li>3. "which is used extensively in pandemic conditions" This subsentence is referred to the word "method" and not to the</li> </ol>	

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	<p>“favipiravir”. It should be removed or to be transferred in the first sentence.</p> <p>Introduction:</p> <ol style="list-style-type: none"> <li>1. “There is no LC-MS/MS investigation on the determination of favipiravir from a pharmaceutical dosage form in the literature” rephrase as “...favipiravir in pharmaceutical doage...”</li> <li>2. “Only one study with the HPLC method...”. HPLC is a technique, not method. In addition, I suggest this sentence has to be removed at all and more discussion about literature should be added, as I mentioned above.</li> </ol> <p>In 2.5 section: “The run time was 2 minutes under these situations” rephrase as “...these conditions.”</p> <p>In 2.9 section: “Each standard solution was chromatographed” rephrase as “...was analysed”</p> <p>In 2.10 section: “intraday analyzes and interday analyzes” rephrase as analysis.</p> <p>In 2.12 section: “To prove the specificity of the method, the mobile phase solution, sample solution, and standard solution were compared with the chromatogram” With what chromatogram? It is not make sense, please rephrase it.</p> <p>In 3.2 section: “Stronger theoretical plates (&gt; 2000) and the highest tailing factor (&lt;1.0) of the mobile phase then composed of water-methanol (80:20, v / v) containing 0.1% formic acid” It does not make sense. It should be rephrased.</p> <p>In 3.5 section:</p> <ol style="list-style-type: none"> <li>1. “The method's sensitivity was tested by injecting 1, 4, and 10 µg mL<sup>-1</sup> doses five times on the same and five different days” Please rewrite it.</li> <li>2. “In these conditions, the approach “ rephrase it as “...the method”.</li> </ol>	
<p><b>Optional/General</b> comments</p>	<p>Although the manuscript is written in 10-point Arial, the 2.8 section is written in 11-point. Please fix it.</p>	

**PART 2:**

	<p><b>Reviewer’s comment</b></p>	<p><b>Author’s comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</p>
<p><b>Are there ethical issues in this manuscript?</b></p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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