RESEARCH ARTICLES TO BE PUBLISHED IN MEDICAL JOURNALS WITH SPECIAL REFERENCE TO VARIOUS TYPES OF MANUSCRIPTS

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1. INTRODUCTION

The term ‘Research Paper’ or ‘Research Article’ is commonly used word which refers to any type of Research Publication in certain scientific/medical journal. Actually, using term ‘Research Paper’ or ‘Research Article’ is not proper. Every published scientific/medical article published in the journal has a specific nomenclature depending upon its study design and further the contents differs accordingly. Every medical article is referred as ‘Manuscript’ when certain author submits it to journal and seeking for publication. It is hence always dilemma for new authors that ‘should he term his document either Manuscript or Article or Paper?’ In facts all three terms are correct subject to different conditions. The main focus we are dealing here is to study different types of Manuscript and their nomenclature.

2. WHAT IS MANUSCRIPT?

The word Manuscript reflects different meanings. Anciently hand-written documents were called manuscripts. Few definitions of manuscripts are as follows-

♦ A manuscript is an old document that was written by hand before printing was invented.¹

♦ Traditionally, any document that is written by hand is called manuscript.²

♦ A book, document, or piece of music written by hand rather than typed or printed.³

♦ An author’s handwritten or typed text that has not yet been published.³

In past typewriting and printing technology was not developed and hence hand-written materials were referred as manuscripts. It means before invention of typing-printing technology all the documents were manuscripts. Many of such precious manuscripts are found preserved safely worldwide. But dealing with todays era any ‘hand-written’, ‘typed’, ‘word processed’ or ‘printed’ document/article of certain author which is not published yet is called as manuscript. In short, every journal will refer your article as manuscript till it get published. After publication the nomenclature of article will be different viz. Research Article, Review Article and so on.

3. VARIOUS TYPES OF MANUSCRIPTS

Regarding Medical/Health Journal, manuscript is the medical article written by any author seeking for publication. Here manuscript is to be submitted in the structured format asked by that specific journal. Under author guidelines/instructions to authors section of every Medical Journal (Online/Print version) authors can find names of different types of manuscripts. It means that journal will accept anyone type among those manuscripts. There are various types of manuscripts. Few types of manuscripts are as follows⁴,⁵,⁶ -

♦ Editorial Article
♦ Original Article/Research Article/Research Paper
♦ Review Article
♦ Case Study/Case Series
♦ Short Communication / Short Review / Short Report
♦ Correspondence / Letter to Editor
♦ Book Review/Product Review
♦ Conference Report

Still there are few more types, but above enlisted types of manuscripts are commonly accepted by various medical journals. Contents, structure and limitations regarding manuscript style may vary journal to journal. Hence someone should always keep habit to watch out for Author Guidelines/Instructions to authors of that particular journal.

3.1. Editorial Article / Editorial⁴,⁶

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This type of article is not writing area of each and every author. The article written by any of the editors working for particular journal to get published in that journal only is called Editorial Article. It is clear that you should be editor to write such article. Despite that Chief Editor or Journal Management Body may invite a guest article as an Editorial. Editors are generally invited from Senior Academician, Research Personnel, Scientist, Well-known practitioner, Expert in certain field and so on. Editorials should be written within scope and framework of that journal. Editorials should highlight the current scenario of certain problem, possible future perspective, guidance to new researcher, self-opinion regarding specific topic etc. Editorial article doesn’t need specific subsections like other manuscripts, but references should be written at the end.

3.2. Original Article / Research Article / Research Paper

The terms ‘Original Article’, ‘Research Article’ and ‘Research Paper’ though different but reflect the same meaning. This article is based on and written after completion of specific research work/project. Depending upon study design Original article is categorized in different subtypes. The articles written after following studies is called as Original Article.

3.2.1. Clinical Study

It usually contains Randomized control trials, Comparative clinical trials, One sample clinical trial etc. Good and Ethical Clinical Practice is the prime factor to consider when research is conducted in humans. Approval by relevant ethical committee is mandatory. Patients' Rights to Privacy should be looked after. ‘Ethical clearance details’ and ‘Informed written consent’ should be mentioned in the article. Authors must register their clinical trials with either 1. CTRI (Clinical Trials Registry, India, http://www.ctri.nic.in)7 or 2. IEC (Institutional Ethical Committee)9 or 3. IRB (Institutional Review Board).9 Original Article / Research Article based on Clinical study should contain following heads-

- Observation & Results (Original findings, Statistical analysis, Tables & Graphs related to observations etc.)
- Discussion (Critical review and logical reasoning of results on the basis of relevant literature, Possible mode of action of drug, Effect of therapy, Scope-Limitations & Recommendations etc.) [You may write single section as Results & Discussion]
- Conclusion (Precise conclusions)
- References (Vancouver Style)
- Tables and Figures (At the end of article or as per journal’s guidelines)

3.2.2. Experimental Study

It may contain Standardization of raw drugs, formulations and final products, Toxicity and Efficacy studies, Studies exploring significance of pharmaceutical processes, a different experimental method, a new diagnostic test, therapeutic or diagnostic procedure, Animal studies etc. Details about raw drug authentication used for certain formulation is mandatory to mention. Give details of methodology adapted and followed for the study. For all biochemical/laboratory procedures, provide sufficient details relevant reference for it. For trade name or commercial product, the address of the manufacturer is necessary. ARRIVE guidelines for reporting in-vivo research should be followed.10 Animal ethics committee clearance in case of Animal Experimental study should be mentioned. Original Article / Research Article based on Experimental study should contain following heads-

- Introduction (Background and need for study)
- Methods / Material & Methods (Objectives, Standard procedure adapted, Details of procedure [drug / test / therapy], Authentication, Standardization [Physical / Chemical / Analytical], Assessment parameters, Ethical clearance etc.)
- Observation & Results (Original findings, Statistical analysis, Tables & Graphs related to observations etc.)
- Discussion (Critical review and logical reasoning of test / procedure on the basis of relevant literature, Scope-Limitations & Recommendations etc.) [You may write single section as Results & Discussion]
- Conclusion (Precise conclusions)
- References (Vancouver Style)
- Tables and Figures (At the end of article or as per journal’s guidelines)
3.2.3 Observational Study

It may contain Cohort study, Cross-sectional study, Case control study or Field survey. These studies should be guided towards drawing a new advancement and aspect of the concept in present health scenario. Though therapeutic intervention is not used here, ethical clearance is mandatory here as you are dealing with personal details of someone. ‘Ethical clearance details’ and ‘Informed written consent’ should be mentioned in the article. Authors must take ethical clearance prior their study. Original Article / Research Article based on Observational study should contain following heads-

♦ Introduction (Background and need for study)
♦ Methods / Material & Methods (Objectives, Sample size, Grouping & Randomization, Inclusion & Exclusion, Parameters to watch out, Parameter gradation / Questionnaire, Ethical clearance etc.)
♦ Observation & Results (Original findings, Statistical analysis, Tables & Graphs related to observations etc.)
♦ Discussion (Critical review and logical reasoning of results on the basis of relevant literature, Scope-Limitations & Recommendations etc.) [You may write single section as Results & Discussion]
♦ Conclusion (Precise conclusions)
♦ References (Vancouver Style)
♦ Tables and Figures (At the end of article or as per journal’s guidelines)

3.3. Case study / Case Series\(^4,5,6\)

Case study may contain Successful treatment, Adverse events, Observation of a single case. The cases should be unique and describing a great diagnostic or therapeutic challenge. Cases should be providing a learning point for the readers. Case Series may contain Collection of similar cases, Application of a traditional treatment. Indicating a solution to some contemporary medical problem.

Case study is a good mean for new researchers and students to learn scientific and systematic approach on clinical / practical background. A prime aim of Case studies / Case series is to make aware of the chances that a certain result/phenomenon may occur. Article based on Case study / Case series should contain following heads-

♦ Introduction (Background of the disease and case)
♦ Methods / Material & Methods (Case study may not contain this section. Author can mention detailed Case history, Investigations, Examination, Diagnosis and Treatment plan under Methods. Case History can be made separate section instead of Methods.)
♦ Observation & Results (Original findings, Follow-up wise changes, Tables & Graphs related to observations etc.)
♦ Discussion (Critical review and logical reasoning of results on the basis of relevant literature, Scope-Limitations & Recommendations etc.) [You may write single section as Results & Discussion]
♦ Conclusion (Precise conclusions)
♦ References (Vancouver Style)
♦ Tables and Figures (At the end of article or as per journal’s guidelines)

3.4. Review article\(^4,5,6\)

Review articles are commonly based on Literary or Fundamental research. Review article does not express new findings but elaborates what is already known. Review article may be written on previously done researches on the particular topic. A review article should not be just like compilation or essay. Reviews should cover particular subject/topic and should be systematic and comprehensive. It should include Author’s own inputs and Author’s claim or view on the base of scientific literature. The sub-section titles may depend upon the topic reviewed and may vary. Some journals do not accept review articles rather they invite review articles from experts or senior persons. So, Authors must look after this thing as well or he/she may first send enquiry mail to journal prior to submit a review. Article based on a Review / Literary study should contain following heads-

♦ Introduction (Background of the topic to be reviewed)
♦ Conceptual Review (Detailed scientific and systematic review of concept / topic is necessary. Under this section many subsection titles may come according to the topic.)
♦ Results & Discussion (This section is difficult to write but important. The main findings from the review along with author’s own inputs and own claims are necessary.)
♦ Conclusion (Precise conclusions)
♦ References (Vancouver Style)
♦ Tables and Figures (At the end of article or as per journal’s guidelines)
3.5. Short Review / Short Communication\textsuperscript{4,5,6}  

It may include important preliminary studies and reports. It is expected to overlook a brief idea or concept. Such articles highlight brief and concise reports of data from various original researches carried out. This type of article has strictly length limits, hence methodology or experimental details should be in brief. This type of article always attracts Editors, Scientists or New researchers because, it may be useful for further research on that specific topic. Format of article depends upon type of study design.

3.6. Correspondence / Letter to Editor\textsuperscript{4,5,6}  

Such letters are written by readers or authors on subjects and consequences related to articles in last few editions. Letters should be brief, concise and to the point. Unnecessary descriptions should be avoided. Commonly authors should restrict such manuscript up to 1000 to 1100 words excluding references. No specific format is needed.

3.7. Other reviews\textsuperscript{4,6}  

3.7.1. Product review  

Product review includes brief and evidence-based information. The product may be a drug, a diagnostic / therapeutic instrument (device), food product, health / research software or any other health related product. Author should restrict the review for not more than 500 words. Photographs/Graphs/Images/Charts should not be more than two. No specific format is needed.

3.7.2. Book review  

Book Review may be written on Academic, Clinical, Research etc. book related to any of the streams of medical sciences. The author of review of a book (reviewer) must achieve the permission from author(s) of the book and same should be forwarded to journal along with his/her review. Considering the target readers, reviewer should focus on the topic of book, its reliability and possible significance towards reader. In case of edited book (the collection of articles of many authors) the reviewer should be able to highlight the central idea or common theme. If similar books are available in the market earlier then, unbiased comparison should be carried out by reviewer. He should take a look on how the book is different and standouts from other books. Article based on a Book Review should cover all the following heads viz. Introduction of Author/Authors, Main theme of the book, Unbiased comparison with earlier similar books, Evaluation of book’s quality, Significance of book in the specific field, Summary of main purpose of author behind writing the book.

4. Limitations of the Manuscripts  

There are two types of medical journals viz. Online Version and Print Version. Many of the journals publish both of the versions. Usually print version journals are strict on the limitations (i.e. pages, number of words, number of figures/tables/non-text items etc.) of manuscripts. Possible limitations of different types of manuscripts\textsuperscript{8} are elaborated in the Table No. 1. There may be different opinions regarding the contents in the following table. Such limitations may vary journal to journal and there is no such standard parameter about the length of articles. Author should always look for such limitations prior submitting the manuscript. But one thing is very true that your article must be short and sweet explaining all details without elaborating unnecessary things.

5. REFERENCES  

3. Definition / Manuscript. Available from, https://www.google.com/search?q=what+is+manuscript&rlz=1C1CHBD_enIN799IN799&oq=what+is+manuscript&aqs=chrome..69i57j0l5.10877j0j7&sourceid=chrome&ie=UTF-8. Last accessed on 21/12/2018.  
8. Institutional Ethical Committee. Available from, http://www.jli.edu.in/blog/role-of-institutional-

TABLES

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Manuscript Type</th>
<th>Pages</th>
<th>Abstract (words)</th>
<th>Tables/ Figures</th>
<th>Methodology needed?</th>
<th>References</th>
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<td>4-6</td>
<td>#</td>
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<td>#</td>
<td>10 to 15</td>
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<td>2</td>
<td>Original (Clinical)</td>
<td>8-14</td>
<td>150-250</td>
<td>Up to 10</td>
<td>Yes</td>
<td>Up to 30</td>
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<td>Original (Experimental)</td>
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<td>150-250</td>
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<tr>
<td>4</td>
<td>Original (Clinical)</td>
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<td>150-250</td>
<td>Up to 10</td>
<td>Yes</td>
<td>Up to 30</td>
</tr>
<tr>
<td>5</td>
<td>Case Study/Series</td>
<td>6-12</td>
<td>150-200</td>
<td>Up to 10</td>
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<td>6</td>
<td>Review Article</td>
<td>8-16</td>
<td>150-250</td>
<td>Up to 10</td>
<td>No</td>
<td>Up to 30</td>
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<tr>
<td>7</td>
<td>Short Review/Report</td>
<td>3-6</td>
<td>100-150</td>
<td>Up to 2</td>
<td>In short</td>
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<td>8</td>
<td>Letter to Editor</td>
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Table No. 1. Possible limitations of various Manuscripts

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