

*Instructions for Editors*

**MANUSCRIPT EVALUATION CHECKLIST**

**TITLE**

- A. IS IT READILY UNDERSTOOD?
- B. IS IT CLEAR AND CONCISE?
- C. IS IT INFORMATIVE AND RELATED TO CONTENT?

**ABSTRACT**

- A. DOES IT STATE THE PROBLEM?
- B. HYPOTHESIS CLEAR AND CONCISE?  
The hypothesis, or purpose, should be included in the first paragraph, usually in the last sentence.
- C. METHODOLOGY IDENTIFIED AND BRIEFLY DESCRIBED?
- A. RESULTS SUMMARIZED?  
Some data and statistics should be included.
- B. FINDINGS AND CONCLUSIONS STATED?
- C. THERE IS NO WORD LIMIT ALTHOUGH ABSTRACTS SHOULD GENERALLY CONTAIN BETWEEN TWO TO THREE HUNDRED WORDS.  
This will vary depending upon the style of the paper (clinical, laboratory, review, case report,...).

**INTRODUCTION**

- A. IS THE GENERAL PROBLEM OF THE STUDY INTRODUCED EARLY IN THE REPORT?
- B. ARE THE QUESTIONS TO BE ANSWERED STATED PRECISELY?
- C. IS THE HYPOTHESIS(ES) (PURPOSE) CLEAR AND CONCISE?
- D. IS THE PROBLEM RESEARCHABLE?
- E. IS THE STATED HYPOTHESIS(ES) PRECISE?

- F. CAN YOU IDENTIFY THE ASSUMPTIONS OF THE STUDY?
- G. CAN THE PERTINENT TERMS BE OPERATIONALLY IDENTIFIED?
- H. IS THE SIGNIFICANCE OF THE PROBLEM DISCUSSED?
- I. DOES THE RESEARCH SEEM JUSTIFIED?
- J. DOES THE INTRODUCTION INCLUDE A BRIEF SUMMARY OF RELEVANT LITERATURE AND IT'S IMPLICATIONS FOR THE RESEARCH PROBLEM UNDER STUDY?
- K. IS THE LITERATURE CITED PERTINENT TO THE RESEARCH PROBLEM?  
Are the references from relatively 'recent' sources? In manuscript format publications that are older than 10 years are not considered 'recent'. Of course, if the subject matter is not widely researched authors would be granted leeway.
- L. DOES THE CITED LITERATURE PROVIDE A RATIONALE FOR RESEARCH?
- M. ARE THE SOURCES MAINLY PRIMARY SOURCES?  
Textbook citations are not usually appropriate for research studies.
- N. IS THERE LOGICAL ORGANIZATION TO THE CITATIONS?
- O. IS THE RELATIONSHIP OF THE PROBLEM TO PREVIOUS RESEARCH MADE CLEAR?

## MATERIALS AND METHODS

- A. IS THE SUBJECT POPULATION DESCRIBED?
- B. IF THE SUBJECTS ARE HUMANS, OR SAMPLES DRAWN FROM HUMANS, WAS INFORMED CONSENT OR INSTITUTIONAL REVIEW BOARD APPROVAL OBTAINED. THIS IS MANDATORY.
- C. IF THE SUBJECTS WERE ANIMALS, WERE APPROPRIATE STANDARDS OF HUMANE CARE FOLLOWED, WITH ANIMAL CARE REVIEW COMMITTEE APPROVAL?  
The following statement must be contained if animals were utilized:  
**All animals received care in compliance with the "Guide for the Care and Use of Laboratory Animals" published by the National Institutes of Health (NIH Publication 85-23, revised 1985.**

- D. IS THE SAMPLING METHOD DESCRIBED AND DOES IT SEEM JUSTIFIED?
- E. ARE THE METHODS OF DATA COLLECTION SUFFICIENTLY DESCRIBED TO PERMIT JUDGMENT OF THEIR APPROPRIATENESS TO THE PRESENT STUDY?
- F. IS THE DESIGN APPROPRIATE TO STUDY THE HYPOTHESIS AND / OR QUESTIONS?
- G. ARE PROPER CONTROLS INCLUDED WHERE APPROPRIATE?
- H. ARE CONFOUNDING VARIABLES EXCLUDED AS FAR AS POSSIBLE, AND MENTIONED OTHERWISE?
- I. IS THE DESCRIPTION OF THE DESIGN EXPLICIT ENOUGH TO BE REPLICATED?
- J. ARE THE VARIABLES IDENTIFIED?
- K. ARE THE STATISTICAL TESTS USED IDENTIFIED AND APPROPRIATE TO THE DESIGN?  
If you are unsure of the adequacy of statistical test selection please make not on the 'Comments to Editor' form and a statistical consult will be made.

## RESULTS

- A. ARE THE RESULTS PRESENTED WITH CLARITY AND PRECISION?
- B. ARE THE RESULTS LOGICALLY ORGANIZED?
- C. IS THE PRESENTED INFORMATION SUFFICIENT TO ANSWER THE RESEARCH QUESTION?
- D. ARE THE VALUES OBTAINED FOR THE STATISTICS REPORTED?
- E. ARE THE STATISTICS RELEVANT TO THE RESEARCH HYPOTHESIS?
- F. ARE THE TABLES AND FIGURES COMPLETE AND EASY TO UNDERSTAND?
- G. GENERALLY, DATA SHOULD BE REPORTED IN EITHER TABLE OR

FIGURE FORMAT, NOT BOTH. IF DATA IS LISTED IN A TABLE, THEN A FIGURE WITH THE SAME DATA SHOULD NOT BE INCLUDED, AND VICE A VERSA.

If there is significant data consider asking the authors to include the descriptive data in table format in an addendum to the paper.

## DISCUSSION

- A. ARE THE CONCLUSIONS CLEARLY STATED?
- B. DOES THE EVIDENCE PRESENTED SUBSTANTIATE THE CONCLUSIONS?
- C. WERE THE HYPOTHESES REVISITED?
- D. ARE THE IMPLICATIONS OF THE FINDINGS DISCUSSED?
- E. ARE THE RESULTS GENERALIZED ONLY TO THE POPULATION STUDIED?  
One of the greatest errors in research is extrapolation of the data. For example, if authors are presenting the results from laboratory or animal study, do they make conclusions that imply that the data could be used to guide clinical practice?
- F. ARE THE POSSIBLE SOURCES OF SAMPLING BIAS AND / OR ERROR DESCRIBED?
- G. IS RELEVANT RELIABLE DATA FROM PREVIOUS RESEARCH PRESENTED?
- H. IS VALID DATA PERTINENT TO PRESENT STUDY REPORTED?
- I. ARE THE PROBLEMS AND LIMITATIONS OF THE STUDY IDENTIFIED AND DISCUSSED?
- J. ARE RECOMMENDATIONS FOR FUTURE RESEARCH SUGGESTED?
- K. IS A CONCLUSION PARAGRAPH LOCATED AT THE END OF THE DISCUSSION?  
Some authors include a summary paragraph just prior to the 'conclusion' paragraph.

## REFERENCES

- A. ARE REFERENCES LOGICALLY ORGANIZED AND IN THE REQUIRED STYLE OF THE JOURNAL?
- B. PRIMARY SOURCE REFERENCES (JOURNAL CITATIONS) ARE PREFERRED MORE SO THEN TEXTBOOK CITATIONS.
- C. AS A GENERAL RULE, MANUSCRIPTS SHOULD CONTAIN SIGNIFICANT REFERENCE TO PREVIOUSLY PUBLISHED WORK TO SUPPORT THE DISCUSSION.

Although no standard is set, it is generally accepted that the reference numbers meet the style of the paper. Please refer to the chart below for reference number. These are 'general' guidelines.

<u>Manuscript Style</u>	<u>Reference Number</u>
Clinical Scientific	20 to 30
Laboratory Scientific	20 to 30
Case Report	3 to 10
How To	3 to 10
Review	50 to 150

## TABLES AND FIGURES

- A. DO THE FIGURES IMPART THE RESULTS IN A CLEAR AND CONCISE FORMAT?
- B. DO THE FIGURES CONTAIN SIMPLE SHADING SCHEMES?  
The best use of shading for histograms and bar diagrams is pure black and white. Multiple shades of gray or use of fill patterns, is confusing and transfers poorly to final copy.

## FORM AND STYLE

- A. IS THE REPORT CLEARLY WRITTEN?
- B. IS THE REPORT LOGICALLY ORGANIZED?
- C. IS THE TONE UNPARTIAL, UNBIASED AND SCIENTIFIC?
- D. DID THE AUTHOR FOLLOW THE JOURNAL 'INSTRUCTIONS FOR AUTHORS'? IF NOT, PLEASE NOTE AND THE EDITOR WILL REQUIRE THEM TO DO SO IN THE REWRITE.

E. DOES THE TITLE PAGE CONTAIN THREE TO FIVE KEYWORDS?

## SAMPLE EDITORIAL REVIEW

**Title:** Temperature Management during Cardiopulmonary Bypass

**Authors:** Freund et al

**Institution:** University Hospital, Amsterdam

### EDITORIAL REVIEW

#### **Abstract:**

##### *General Comments*

The Abstract is well written and contains the appropriate results to support the findings. Please include a conclusion statement at the end of the section.

#### **Introduction:**

##### **General Comments**

Please include a brief overview of the mechanism for temperature effect on oxygen uptake.

Why did the paper by Grinnes fail to show an effect of temperature during cardiopulmonary bypass? Please explain.

**Page 3. Line 4.** Change 'exemptions' to exceptions.

**Lines 9-11.** The sentence beginning with 'Systemic hypothermia' is fragmented and needs to be rewritten. Omit 'surgical comfort' since this is subjective.

#### **Materials and Methods:**

##### *General Comments*

Did the institutional review board of the hospital approve this study? Was informed consent obtained from the patient's parents prior to randomization? This needs to be included in the Materials and Methods section.

Identify where the temperature measurement occurred for the treatment groups (Page 4. Lines 12-14).

**Page 4. Line 15** should be moved to the Results section.

**Page 5. Line 5.** Change 'cardiopulmonary bypass' to CPB.

**Page 6. Lines 4-6.** Change the sentence beginning with 'We used' to Adequacy of protamine reversal was ascertained with the use of heparin-protamine titration.<sup>H</sup> The place in footnote:

H. Hemostasis Management System, Medtronic Cardiopulmonary, Englewood, CO.

**Results:**

***General Comments***

It is not necessary to state each of the variables when statistical significance was not achieved. This is readily obvious from examining Table 1 data.

Report standard deviation temperature data only to the tenths place since this was used for the mean values.

**Page 8. Lines 19-20.** What is meant by 'and not earlier than after 20 min on bypass a significance occurred'. Perhaps if the authors separate this sentence into two and rewrite, it may be clearer to readers.

**Page 9. Line 8.** Rewrite to: During CPB, the moderate hypothermic group had Significantly higher systemic vascular resistance at ...

**Discussion:**

***General Comments***

Combine the three paragraphs in the Conclusion subsection to one paragraph.

**Page 11. Line 15.** Omit 'tremendously'.

**Line 17.** Change sentence beginning with 'Clearly...' to In certain operations the selection of CPB temperature is dependent on the complexity of the operation.

**References:**

***General Comments***

Make sure a period is placed after the page numbers in all citations.

1. Include at least 3 authors in citation prior to using et al.
2. Citation should be 1993;5:44-48.
3. The correct citation of the journal should be J Thorac Cardiovasc Surg. Page numbers should be 1162-1163.

**Figures:**

Do not include the legend information directly in the Figures. Place this on a separate sheet.

Show statistical significant findings on Figures 3, 4, and 6 by the use of symbols such as asterixes.

On Figures 3 and 5 change 'y' axis to L/min/m<sup>2</sup> and ml/min/m<sup>2</sup>.

**Tables:**

***General Comments***

For all table data show mean and SDEV values at the same decimal places. IE: Change the data from  $54.5 \pm 2$  to  $54.5 \pm 2.0$ .

**Title:** Effects of Carnitine on Recovery of Cardiac Function After Hypothermic Cardioplegic Ischemia in Neonatal Rabbit Hearts

**Authors:** Johnson et. al.

**Institution:** University of Tokyo

**Location:** Tokyo, Japan

**General Comments:**

The use of the Students 't' test following ANOVA is not correct. Instead the authors should use a suitable multiple comparison test such as Least Significant Difference or Tukey's test.

Please confirm that the reported values of coronary blood flow (Table 1) are correct. These seem rather low and should be compared to other papers that have utilized the neonatal model.

Figure 1 may be improved by including a time line on the X-axis with the sampling points delineated. The other figures can be improved by omitting the stippled area as a background. Since only two groups are reported in Figures 2, 3, and 5 change the fill area to solid black and white. Use standard error bars instead of bar graphs.

In the Discussion section the authors refer to the metabolic enhancement of including carnitine in the cardioplegic solution. However, no metabolic indicators were measured. This would have undoubtedly have lent credibility to these comments.

**Abstract:**

Consider including some of the numeric data to support the conclusions in this section. The inclusion of p values is acceptable, but the Abstract would be strengthened by the inclusion of numeric information.

**Materials and Methods:**

Page 5. Line 20. Change 'totally lacked sensation' to after achieving an appropriate plane of anesthesia, or similar statement.

Line 26. How was the homologous blood obtained and what was the standard deviation of hematocrit level?

How was oxygenation achieved? One can not assume that the gas mixture was bubbled in since the presence of blood proteins would have generated a tremendous quantity of foam in the perfusate.

Page 6. Line 17. What is modified compliance?

Page 7. Line 2. Please express hemoglobin concentration in grams.

Line 11. How was topical cooling applied to hearts?

**Comment:**

Please contrast the results of others that have suggested that carnitine should not be added to cardioplegic solutions since it may induce further injury – Reference 17.

Page 10. Line 17. This sentence is unclear and needs to be evaluated. Why does the use of carnitine post-cardioplegic arrest produce additive benefits that are insignificant?

Begin new paragraphs at the following locations in the manuscript:

Page 10. Line 27.

Page 11. Line 1.

Page 11. Line 16.

Page 12. Line 1

Page 12. Line 20.

**Tables:**

The legend for table 1 should list variables in alphabetical order.

**Figures:**

See comments above.