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OPEN PEER REVIEW

# Practical Management of Neonatal Hypernatremic Dehydration: A Clinical Study

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## About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

More about open peer review: brieflands.com/knowledgebase/opr

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## 1 Original submission

4 comments · 14 May 2025 – 20 May 2025

### Referee 1 Reviewer

MINOR REVISION 14 May 2025

1. Sentence structure and text coherence:
In some sections, sentences are a bit long and compressed. It is suggested that some long sentences be divided into two short sentences for greater clarity.
Rewriting example:
"This hypertonic ECF state creates an osmotic gradient, drawing water from the ICF to the ECF, resulting in cellular dehydration and shrinkage."
"The hypertonic ECF state creates an osmotic gradient. This gradient draws water from the ICF into the ECF, resulting in cellular dehydration and shrinkage."
2. Citations:
The references are given in numerical form (e.g., 2, 4, 5), but the format is incorrect in some cases; for example, at the end of sentence 44, the numbers are followed by a period:
"...resulting in swelling. 4,5."
More correct: "...resulting in swelling [4,5]."
3. Ambiguity in some phrases:
The sentence "Although they emphasize a more individualized approach." is incomplete and lacks logical coherence. It is unclear what the pronoun they refers to (guidelines? specialists?).
Rewrite suggestion:
"However, newer guidelines recommend isotonic fluids due to their closer resemblance to plasma, while also emphasizing a more individualized approach based on clinical condition."
1. Inconsistency in study design:
The combination of the words “prospective” and “cross-sectional” is contradictory.
A prospective study is usually designed as a cohort or interventional study (e.g., RCT or quasi-experimental), whereas cross-sectional is inherently descriptive and cross-sectional.
Suggested rewrite:
“This prospective observational cohort study enrolled neonates…”
2. Incomplete or ambiguous referencing:
On line 89, it says: “…154 mEq/L for subgroup 2, and 10 mEq/L below the patient's measured serum sodium level for subgroup 3.9”
The number 9 appears at the end of the sentence as a reference, but is incorrectly inserted (it should not be attached to the end of the number).
Correct: “…serum sodium level for subgroup 3 [9].”
3. Lack of information about measurement tools:
No description of the laboratory instrument or technique used to measure serum sodium, urine output, or other data is provided. This information is essential for reproducibility.
Example to be added:
“Serum sodium levels were measured using an ion-selective electrode method (ISE) in the hospital central laboratory.”
4. Ambiguity in the definition of the secondary category:
In the secondary results, the level of 186 mEq/L is listed as the upper limit, but no category is defined for >186, while 108–109 refers to “levels exceeding 186”. It is better to maintain numerical consistency.
Suggested correction:

Introduce the fourth category as “>175 mEq/L” at the beginning of the category, or provide more precise values in accordance with the main table.

**Referee 2** Reviewer

MAJOR REVISION 19 May 2025

1-The title is clear and relevant to the topic. However, it could be refined for conciseness. Suggestion: "Practical Management of Neonatal Hypernatremic Dehydration: A Clinical Study"
2-Include specific statistical significance outcomes in the abstract.
3- In the Introduction section, the transition from the physiological basis to the study rationale feels abrupt.
4-The term "prospective cross-sectional" is a contradiction. A cross-sectional design is not longitudinal, yet the study follows patients over time.

5-The stratification method is reasonable but may lead to small subgroups (e.g., n=4 in group 2), limiting statistical power.

6-Tables should have clearer captions. “Admition” should be corrected to “Admission.”
7- In the discussion, repetition of textbook knowledge could be reduced.

8-Limited critical analysis of why some patients had prolonged sodium normalization or complications.

9-The discussion would benefit from comparison with similar studies.

10-The article contains multiple grammatical errors, such as "admition" instead of "admission" and awkward phrasing (e.g., “diuresis did not occur, followed by…”).

**Associate Editor**

MAJOR REVISION 19 May 2025

Dear EIC,
Thanks to the authors, and appreciation to the researchers. The manuscript presents valuable research. But some revisions are needed. The authors should revise it based on the comments. Also, a minor change should be made in the abstract:

A summary of the statistical analysis results should be mentioned in the results section of the ABSTRACT.

**Editor-in-Chief**

MAJOR REVISION 20 May 2025

It requires a major revision.

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# Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

*Dear Reviewers :*
*Thank you for valuable comments.*
*Reviewer 1:*
*1. Sentence structure and text coherence:*
*In some sections, sentences are a bit long and compressed. It is suggested that some long sentences be divided into two short sentences for greater clarity.*
*Rewriting example:*
*"This hypertonic ECF state creates an osmotic gradient, drawing water from the ICF to the ECF, resulting in cellular dehydration and shrinkage."*
*"The hypertonic ECF state creates an osmotic gradient. This gradient draws water from the ICF into the ECF, resulting in cellular dehydration and shrinkage."*
We corrected them.
*2. Citations:*
*The references are given in numerical form (e.g.: 2, 4, 5), but the format is incorrect in some cases; for example, at the end of sentence 44, the period after the numbers is:*
*"...resulting in swelling. 4,5."*
*More correct: "...resulting in swelling [4,5]."*
We corrected them.
*3. Ambiguity in some phrases:*
*The sentence "Although they emphasize a more individualized approach." is incomplete and lacks logical coherence. It is unclear what the pronoun they refers to (guidelines? specialists?).*
*Rewrite suggestion:*
*"However, newer guidelines recommend isotonic fluids due to their closer resemblance to plasma, while also emphasizing a more individualized approach based on clinical condition."*
*We corrected them..*

*1. Inconsistency in study design:*
*The combination of the words "prospective" and "cross-sectional" is contradictory.*
*A prospective study is usually designed as a cohort or interventional study (e.g., RCT or quasi-experimental); whereas cross-sectional is inherently descriptive and cross-sectional.*
*Suggested rewrite:*
*"This prospective observational cohort study enrolled neonates..."*
*We corrected them..*
*2. Incomplete or ambiguous referencing:*
*On line 89, it says: "...154 mEq/L for subgroup 2, and 10 mEq/L below the patient's measured serum sodium level for subgroup 3.9"*
*The number 9 appears at the end of the sentence as a reference, but is incorrectly inserted (it should not be attached to the end of the number).*
*Correct: "...serum sodium level for subgroup 3 [9]."*
*We corrected them.*

*3. Lack of information about measurement tools:*
*No description of the laboratory instrument or technique used to measure serum sodium, urine output, or other data is provided. This information is essential for reproducibility.*
*Example to be added:*
*"Serum sodium levels were measured using an ion-selective electrode method (ISE) in the hospital central laboratory."*
*We corrected them.*
*4. Ambiguity in the definition of the secondary category:*
*In the secondary results, the level of 186 mEq/L is listed as the upper limit but no category is defined for >186; while 108–109 refers to "levels exceeding 186". It is better to maintain numerical consistency.*
*Suggested correction:*
*Introduce the fourth category as ">175 mEq/L." at the beginning of the category, or provide more precise values in accordance with the main table.*
*We corrected them.*
*Reviewer 2:*
*1-Title is clear and relevant to the topic. However, it could be refined for conciseness. Suggestion: "Practical Management of Neonatal Hypernatremic Dehydration: A Clinical Study"*
*We corrected it*
*2-Include specific statistical significance outcomes in the abstract.*
*Done as wished*
*3- In Introduction section the transition from physiological basis to study rationale feels abrupt.*
*Done as wished*
*4-The term "prospective cross-sectional" is a contradiction. A cross-sectional design is not longitudinal, yet the study follows patients over time.*
*Done as wished*

*5-The stratification method is reasonable but may lead to small subgroups (e.g., n=4 in group 2), limiting statistical power.*
*Dear reviewer you are completely right but high levels of hypernatremia in neonates are very rare so we have no more choice unless we design a multicenter study*

*6-Tables should have clearer captions. "Admition" should be corrected to "Admission.*
*We corrected them.*
*7- In discussion Repetition of textbook knowledge could be reduced.*
*We corrected them.*

*8-Limited critical analysis of why some patients had prolonged sodium normalization or complications.*
*Done as wished*

*9-The discussion would benefit from comparison with similar studies.*
*Done as wished*

*10-The article contains multiple grammatical errors, such as "admition" instead of "admission" and awkward phrasing (e.g., "diuresis did not occur, followed by...").*
We corrected them.

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**Associate Editor's Comments:**
*Associate Editor 1:*
*Dear EIC,*
*Thanks to the authors and appreciation to the researchers. The manuscript is a valuable research. But some revisions are needed. Authors should revise it based on comments. Also minor change should be done in abstract:*

*Summary of Statistical analysis results should be mention in result section of ABSTRACT.*
Done as wished

## 2 Revision 1

4 comments · 24 May 2025 – 28 May 2025

**Referee 1** Reviewer

ACCEPT 24 May 2025

It is approved based on the answers to the questions and the resolution of the relevant problems.

**Referee 2** Reviewer

ACCEPT 24 May 2025

Dear AE,
I reviewed the manuscript again. The great effort in improving the manuscript is highly appreciated.
The authors have addressed all comments.
Thank you

**Associate Editor**

ACCEPT 24 May 2025

Dear EIC,
I read the manuscript, and the authors corrected the requested items. The article could be accepted at this stage.
Sincerely;

**Editor-in-Chief**

ACCEPT 28 May 2025

It is acceptable for publication.