ISSN(O): 2320-5407 | ISSN(P): 3107-4928

ISSN NO. 2320-5407

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-56441

Title: Prescription Pattern of Glucose-Lowering Agents in Patients with Type 2 Diabetes Mellitus and Dyslipidaemias: A Cross-Sectional Study

Recommendation:
Accept as it is .....
Accept after minor revision.....
Accept after major revision .....YES.....
Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality			✓	
Clarity		✓		
Significance		✓		

Reviewer Name: Dr.Dillip Kumar Mohapatra

Detailed Reviewer's Report

1. Overall Assessment

The manuscript evaluates prescribing patterns of glucose-lowering and lipid-lowering agents in patients with Type 2 Diabetes Mellitus (T2DM) and dyslipidaemia using WHO prescribing indicators. The topic is clinically relevant, particularly in the Indian outpatient setting, where rational drug use and cardiovascular risk reduction are major public health priorities.

The study provides useful descriptive data; however, methodological clarification and deeper analytical interpretation are required to strengthen the scientific value.

2. Strengths

1. Relevant Public Health Topic
   T2DM with dyslipidaemia significantly increases cardiovascular risk. Evaluating prescribing trends is important for improving rational pharmacotherapy.
2. Adequate Sample Size
   Inclusion of 600 prescriptions provides reasonable power for descriptive analysis.
3. Use of WHO Prescribing Indicators
   Application of standardized WHO core prescribing indicators improves comparability and methodological validity.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

4. Focus on Real-World Practice
   Data collected from a tertiary care outpatient department reflect routine clinical prescribing behavior.
5. High Generic and Essential Medicine Use
   The reported high percentage of generic prescribing (96.8%) and essential medicines (92.8%) is commendable and policy-relevant.

3. Weaknesses

3.1 Methodological Limitations

- Lack of Detailed Inclusion/Exclusion Criteria
  The manuscript does not clarify:
  - Duration of diabetes
  - Presence of comorbidities (e.g., hypertension, CKD)
  - Whether prescriptions were consecutive or randomly selected
- No Sample Size Justification
  There is no explanation of how the sample size (600 prescriptions) was determined.
- Limited Statistical Analysis
  Only descriptive statistics were used. No inferential analysis or subgroup comparisons were performed (e.g., age-wise, gender-wise, mono vs. combination therapy).
- No Clinical Correlation
  The study does not correlate prescribing patterns with:
  - HbA1c levels
  - Lipid profile
  - Cardiovascular risk status
  - Guideline adherence

3.2 Interpretation Issues

- The predominance of DPP-4 inhibitors (60.9%) is reported but not critically discussed in light of:
  - Current ADA/EASD recommendations
  - Cost considerations

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

  - Cardiovascular outcome evidence
- Polypharmacy is mentioned but not analyzed in depth:
  - Are four drugs per prescription appropriate given comorbidities?
  - Were fixed-dose combinations used?
- The rationale behind injection use (23.2%) is not explained (e.g., insulin vs. other injectables).

3.3 Presentation Issues

- Minor formatting and typographical inconsistencies.
- The abstract could be more concise.
- Discussion section likely needs stronger comparison with previous Indian and international studies.

4. Significance of the Study

The study is significant because:

- India has a high burden of T2DM and cardiovascular disease.
- Rational prescribing audits are essential in resource-limited settings.
- Data on real-world prescribing trends in semi-urban tertiary hospitals are limited.
- The high use of generic medicines aligns with national health policy goals.

However, the study's impact would increase substantially if it linked prescribing trends to guideline adherence and clinical outcomes.

5. Key Points for Improvement

1. Clarify methodology:
   - Sampling method
   - Study duration
   - Inclusion/exclusion criteria
2. Provide rationale for:

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

- High DPP-4 inhibitor usage
- Injection prescribing rate
- Average number of drugs per prescription

3. Compare findings with:
   - National and international guidelines
   - Similar Indian studies
4. Add statistical comparisons (if data available).
5. Strengthen discussion on:
   - Rationality vs. cost-effectiveness
   - Cardiovascular protection strategies
   - Polypharmacy risks
6. Improve language editing and formatting consistency.

6. Recommendation

Decision: Major Revision

The manuscript addresses an important topic and has a good data foundation. However, substantial improvements in methodological clarity, analytical depth, and discussion are necessary before it can be considered for publication.

The recommendation for major revision is not because the study is weak or unsuitable — it is because several core scientific elements need strengthening before publication. Here is a clear explanation:

---

1. Methodological Clarity Is Incomplete (Major Issue)

a) Sampling Method Not Described

- Were prescriptions collected consecutively?
- Randomly selected?
- Over what exact time period?

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

Without this, reproducibility and bias assessment are limited.

b) No Inclusion/Exclusion Criteria

- Were newly diagnosed and long-standing T2DM patients included?
- Were patients with CKD, CVD, hypertension included?
- Were repeat prescriptions excluded?

This affects interpretation of polypharmacy and drug choice.

c) No Sample Size Justification

Why 600 prescriptions?
Was there a calculation based on prevalence or precision? Journals usually expect this.

These are structural methodological gaps — hence major, not minor.

2. Limited Statistical Analysis

The study uses only descriptive statistics in Excel.

For publication-level quality, reviewers expect at least:

- Subgroup analysis (age, gender)
- Combination vs monotherapy patterns
- Association between number of drugs and demographics

Without deeper analysis, the study remains descriptive and less impactful.

3. Lack of Guideline-Based Interpretation

The most important scientific concern:

You report:

- 60.9% DPP-4 inhibitor use
- 78% statin use

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

But there is no discussion comparing these findings with:

- Current diabetes management guidelines
- Cardiovascular risk recommendations
- Cost-effectiveness considerations

For example:

- Why are DPP-4 inhibitors more common than metformin?
- Are SGLT2 inhibitors underused?
- Is therapy aligned with risk stratification?

Without this discussion, the manuscript lacks clinical depth.

4. Polypharmacy Discussion Is Superficial

Average of 4 drugs per prescription is reported.

But:

- Is this inappropriate polypharmacy?
- Or justified due to comorbidities?
- Were fixed-dose combinations used?

The conclusion raises concern but does not analyze it.

5. Clinical Correlation Missing

No data on:

- HbA1c levels
- Lipid profile severity
- ASCVD risk
- Duration of diabetes

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

So it is impossible to determine whether prescribing was appropriate — only that it occurred.

6. Discussion Needs Expansion

Currently, the abstract suggests:

- What was prescribed
- That generic use is high
- That audits are needed

But it does not:

- Compare with previous Indian studies
- Highlight novelty
- Explain why findings matter beyond description

Why Not "Minor Revision"?

Minor revision would apply if:

- Only language editing was needed
- Small clarifications were required
- Formatting corrections were needed

In this case, improvements are needed in:

- Methods section
- Analytical depth
- Interpretation
- Discussion framing

Those are structural components — therefore Major Revision.