

**COMPARATIVE ANALYSIS AND SYSTEMATIZATION OF INTERNATIONAL AND
NATIONAL CLINICAL GUIDELINES FOR THE MANAGEMENT OF POLYCYSTIC
OVARY SYNDROME**

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Abstract

Background:

Polycystic ovary syndrome (PCOS) is a complex endocrine disorder requiring evidence-based and standardized clinical management. Numerous international and national professional societies have developed clinical guidelines for PCOS; however, differences in diagnostic criteria and therapeutic approaches create challenges for clinical practice.

Objective:

To analyze and systematize current international and national clinical guidelines for the diagnosis and management of polycystic ovary syndrome, including recommendations from ESHRE, ACOG, and RARCh.

Methods:

An analytical review of official clinical guidelines published by leading international and national professional organizations was conducted. Diagnostic criteria, therapeutic strategies, and follow-up recommendations were systematically compared and structured according to clinical relevance.

Results:

Despite general consensus on core diagnostic principles, significant variability exists among guidelines regarding therapeutic prioritization, metabolic screening, and reproductive management. International guidelines emphasize individualized and multidisciplinary care, while national recommendations demonstrate adaptations to healthcare system capacities.

Conclusion:



Systematization of existing guidelines facilitates harmonization of clinical practice and supports the development of optimized, patient-centered management strategies for PCOS.

Keywords

Polycystic ovary syndrome; clinical guidelines; ESHRE; ACOG; RARCh; evidence-based medicine.

1. Introduction

Polycystic ovary syndrome remains one of the most prevalent endocrine disorders affecting women of reproductive age and represents a major clinical and public health challenge. The heterogeneity of its clinical manifestations necessitates standardized diagnostic and therapeutic approaches grounded in evidence-based medicine.

To address this need, several international and national professional societies have issued clinical guidelines aimed at optimizing PCOS management. Among the most influential are recommendations from the European Society of Human Reproduction and Embryology (ESHRE), the American College of Obstetricians and Gynecologists (ACOG), and national reproductive medicine associations. However, discrepancies among these guidelines may complicate their practical implementation.

2. Aim of the Study

To study and systematize current international and national clinical guidelines for the diagnosis and management of polycystic ovary syndrome, with particular focus on ESHRE, ACOG, and RARCh recommendations.

3. Materials and Methods

This study employed a structured analytical approach to review official clinical guidelines issued by ESHRE, ACOG, and RARCh. Documents were evaluated based on diagnostic criteria, recommended therapeutic strategies, metabolic assessment protocols, and reproductive management principles.

Comparative analysis was performed to identify areas of consensus and divergence. The guidelines were then systematized into thematic categories to facilitate clinical interpretation.

4. Results

4.1 Diagnostic Criteria

All reviewed guidelines recognize PCOS as a diagnosis of exclusion and emphasize the importance of comprehensive clinical and laboratory evaluation. ESHRE-based recommendations prioritize the Rotterdam diagnostic framework, whereas ACOG emphasizes clinical presentation supported by laboratory findings.

National guidelines largely align with international standards but include adaptations based on available diagnostic resources.

4.2 Therapeutic Approaches



Lifestyle modification is consistently identified as the cornerstone of PCOS management across all guidelines. Pharmacological interventions are recommended based on predominant clinical manifestations, including menstrual irregularity, hyperandrogenism, and metabolic disturbances. ESHRE guidelines highlight individualized therapy, while ACOG provides structured recommendations tailored to reproductive goals.

4.3 Metabolic and Reproductive Monitoring

All guidelines underscore the importance of metabolic risk assessment, although recommended screening intervals vary. Reproductive management strategies differ in terms of ovulation induction protocols and long-term follow-up recommendations.

5. Discussion

The comparative analysis reveals substantial overlap in foundational principles among international and national PCOS guidelines, reflecting a shared evidence base. However, differences in clinical emphasis and implementation strategies highlight the influence of regional healthcare priorities and resource availability.

Systematization of these recommendations allows clinicians to integrate guideline-based care while adapting management plans to individual patient needs. Such an approach supports personalized medicine and enhances clinical decision-making.

6. Conclusion

Current international and national clinical guidelines for PCOS management demonstrate both consensus and variability. Systematic analysis and structured comparison of these recommendations provide a valuable framework for optimizing clinical practice and developing harmonized treatment algorithms.

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