

INPLASY

Revitalizing Reproductive Health: Innovations and Future Frontiers in Restorative Medicine

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ADMINISTRATIVE INFORMATION

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Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 November 2024 and was last updated on 16 November 2024.

INTRODUCTION

Review question / Objective To synthesize current evidence on innovations in RRM, evaluate their effectiveness in managing infertility and reproductive disorders, and identify emerging technologies and therapeutic pathways.

Rationale The transfer of sequential 5 euploid embryos in the MAR programs are resulting in 98% of successful implantation when the women population are selected for exclusion of known causes of implantation failure. What is the role of those causes to reduce the efficiency of fertility treatments?

Condition being studied Infertile women population aging 18 to 44 years old.

METHODS

Search strategy Databases to Be Searched: PubMed

Cochrane Library
Embase
Web of Science
Scopus

Keywords:
"Restorative reproductive medicine"
"Infertility management"
"Innovative therapies in reproductive health"
"Future directions in fertility treatment"
Search Strategy Example (PubMed):
("Restorative reproductive medicine" OR "RRM")
AND ("Infertility" OR "Reproductive health") AND
("Innovations" OR "Therapies").

Participant or population Infertile women population aging 18 to 44 years old.

Intervention Women with and without known extraembryonic causes of infertility.

Comparator Women with and without known extraembryonic causes of infertility.

Study designs to be included Identifies studies focused on infertility causes beyond IVF and embryo quality. It will differentiate low-risk-of-bias studies from high-risk ones. Systematic reviews with meta-analyses will include bias analysis for each study..

Eligibility criteria

Inclusion Criteria:

Studies on RRM interventions, including pharmacological, surgical, lifestyle, and bioengineering innovations.

Articles published in peer-reviewed journals.

Randomized controlled trials, cohort studies, systematic reviews, and meta-analyses.

Studies involving adult populations (18-44 years) with infertility or reproductive health conditions.

Exclusion Criteria:

Case reports, opinion pieces, and non-peer-reviewed articles.

Studies focused exclusively on non-restorative interventions, such as IVF.

Information sources

Databases to Be Searched:

PubMed

Cochrane Library

Embase

Web of Science

Scopus.

Main outcome(s)

Primary Outcomes:

Identification of critical extra-embryonic factors contributing to infertility.

Reduction in time to conception through effective interventions for reversing impediments.

Additional outcome(s)

Secondary Outcomes:

Patient satisfaction and quality of life.

Cost-effectiveness of interventions.

Adverse events.

Quality assessment / Risk of bias analysis The Cochrane Risk of Bias Tool (for randomized trials) and the Newcastle-Ottawa Scale (for observational studies) will assess study quality.

Strategy of data synthesis Findings will be summarized narratively.

Subgroup analysis Myomas, AUterine abnormalities, uterine septae, Hydrosalpinx, Intra Uterine adhesions, Pelvic Factors of sterility, Hypothyroidism, BMI, Age.

Sensitivity analysis All studies are selected as for risk of biases.

Language restriction English.

Country(ies) involved Italy.

Keywords Myomas, AUterine abnormalities, uterine septae, Hydrosalpinx, Intra Uterine adhesions, Pelvic Factors of sterility, Hypothyroidism, BMI, Age.

Dissemination plans Submission for publication in a peer-review journal.

Contributions of each author

Author 1 - Francesco Maria Bulletti - Concpetualization , first enad last draft.

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