

INTRODUCTION

Primary Ciliary Dyskinesia (PCD) is a genetic condition leading to altered structure and function of motile cilia and sperm flagellum

Infertility is commonly reported but the prognosis and optimal management is unclear

AIM

To summarise the prevalence of subfertility, underlying mechanisms, and success of ART in Primary ciliary dyskinesia

METHODS

Systematic literature searches performed in Medline, Embase, Cochrane Library, and PubMed electronic databases

781 unique publications screened by two independent reviewers

108 publications included between 1964 and 2022 reporting fertility outcomes in men and women with PCD

Data extraction and quality of evidence assessed

RESULTS

Quality of evidence

Low: consisting of case reports and small cross-sectional studies

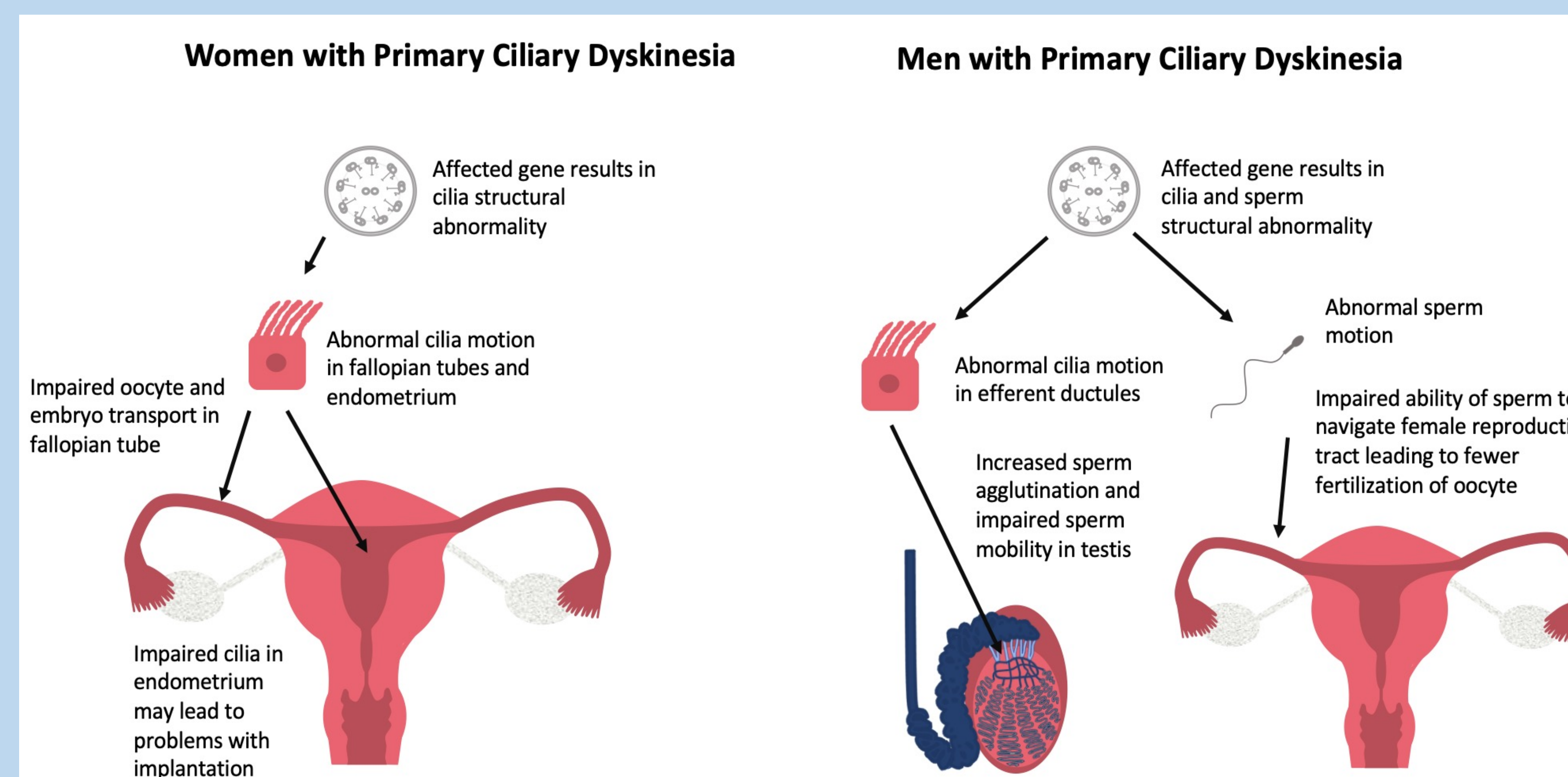
Prevalence of subfertility in PCD

Reported prevalence of fertility problems varied greatly between studies and geographic populations

Fertility problems reported more frequently in men with PCD compared to women

Underlying mechanisms

Limited evidence leads to the below proposed mechanisms



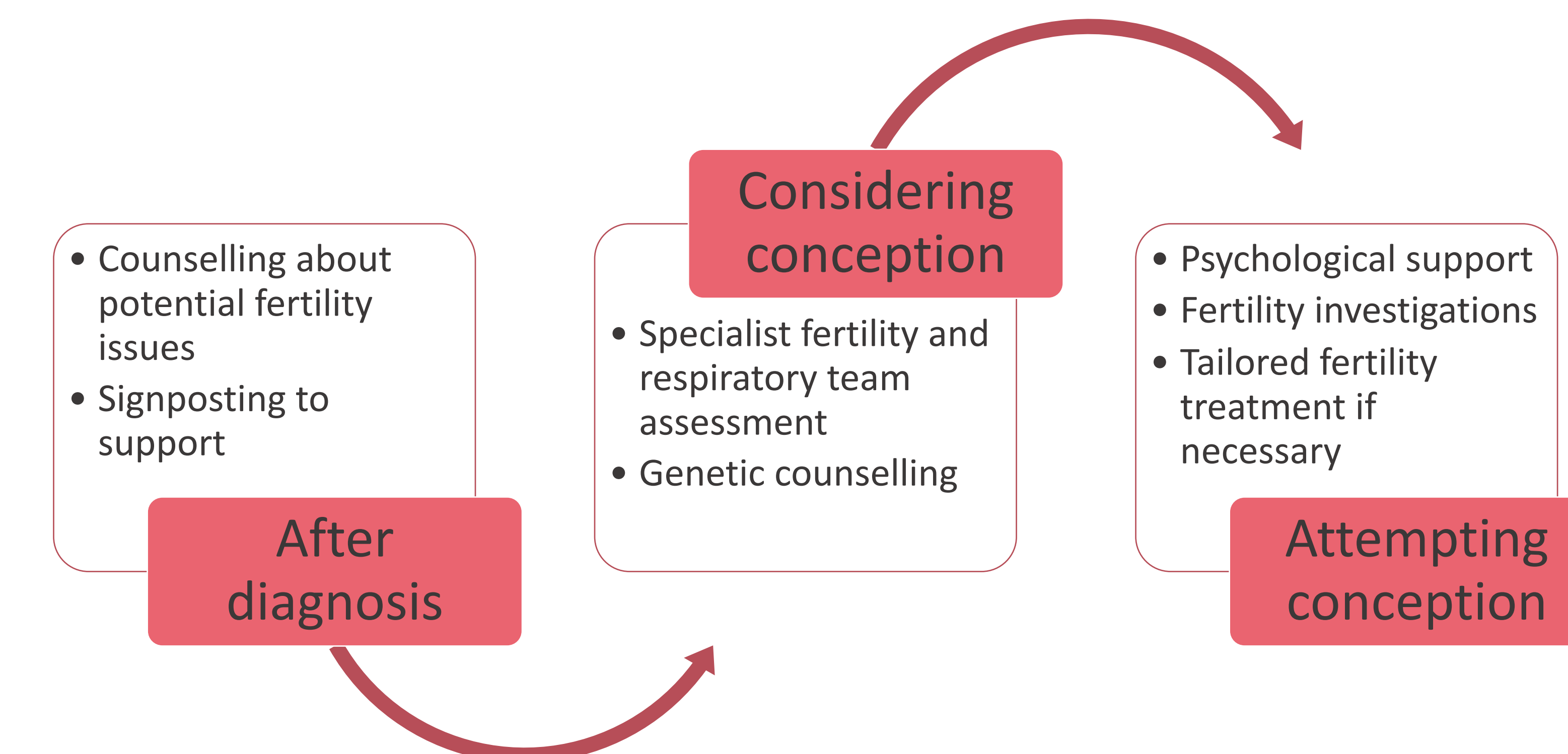
Efficacy of artificial reproductive techniques

Some men and women benefitted from artificial reproductive techniques

Suggests that use can be considered in this patient group

Success rates including live birth rate are not known

CONSIDERATIONS FOR PRACTICE



CONCLUSIONS

Limited evidence indicates that PCD is associated with higher risk of fertility problems and some couples may benefit from artificial reproductive techniques

Further studies are warranted to determine predictors of fertility and optimal management in this patient group

This work is now published:

L Newman, J Chopra, C Dossett, E Shepherd, A Bercusson, M Carroll, W Walker, JS Lucas, Y Cheong, The impact of primary ciliary dyskinesia on female and male fertility: a narrative review, *Hum. Reprod. Update*, 29, 3, 2023, 347–367, <https://doi.org/10.1093/humupd/dmad003>