PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Timing, Delays, and Pathways to Diagnosis of Endometriosis: A Scoping Review Protocol
AUTHORS	Cromeens, Martha Grace; Carey, Erin; Robinson, W. R.; Knafl, Kathleen; Thoyre, SM

VERSION 1 – REVIEW

REVIEWER	Paolo Vercellini Università degli Studi, Department of Women's and Children's Health
REVIEW RETURNED	21-Mar-2021

GENERAL COMMENTS	The authors describe a scoping review protocol on timing, delays and pathways to diagnosis for endometriosis. As acknowledged by the authors, some systematic reviews on this issue have been already performed and published. However, this is intended to be the first scoping review on diagnostic delay in women with endometriosis, designed to map concepts, describe the current knowledge in the literature, and identify gaps for future investigations from a broad perspective. The topic is current and important, as issues related to quality of life, delay in diagnosis and the subjective experience of the disease in women suffering from endometriosis are widely debated. The protocol is well written and complete, according to the methodology proposed by the Joanna Briggs Institute (JBI) guidelines for scoping reviews and also according to the Preferred Reporting Items for Systematic Reviews (PRISMA-ScR) checklist. The authors followed the required methodological steps for a scoping review of the literature. Specific points: 1 Abstract: in the "Introduction" paragraph of the Abstract, please define more clearly the aim of the present scoping review. 2. Introduction, line17-21. The authors state "Although health care providers make provisional diagnoses based on symptoms and treatment response, surgical evaluation with adjunct histologic review remains the gold standard of diagnosis". This reviewer considers that this was true until the recent past. However, since a couple of years, there is a strong international move toward nonsurgical diagnosis of endometriosis, based on specific symptoms and physical findings, transvaginal ultrasonography and, in selected cases, MRI.

This should greatly shorten the time to diagnosis because, indeed, if surgery would be the only mean to diagnose endometriosis, several variables might expectedly cause an extended delay (woman's fear to undergo surgery, health care provider's doubts, long waiting lists, insurance covering issues, etc.). In the opinion of this reviewer, the authors should clarify, either in the Introduction or Conclusions section, that surgery should no longer considered the gold standard for diagnosis, and that the findings of this scoping review may apply to the past clinical practice situation but, hopefully, not to the future diagnostic approach based on non-surgical modalities (see, and cite, Clinical diagnosis of endometriosis: a call to action. Agarwal SK, Chapron C, Giudice LC, Laufer MR, Leyland N, Missmer SA, Singh SS, Taylor HS.

Am J Obstet Gynecol. 2019 Apr;220(4):354.e1-354.e12).

- 3. Methods: how will grey literature be identified and accessed?
- 4. Methods: please, provide a draft of the data extraction form as a supplementary material.
- 5. The authors state that the submission of the scoping review results for publication is expected in March 2021 (see Page 10, lines 10-13). Can this deadline be considered consistent with the publication of the protocol? In the Instructions for reviewers of study protocol, the Editors note that "If data collection is complete, we will not consider the manuscript".

REVIEWER	Hugh Taylor Yale University
REVIEW RETURNED	25-Mar-2021

GENERAL COMMENTS	This is a proposal for an interesting review paper. The manuscript
	needs editing for proper English. Numerous grammatical errors and
	awkward sentences are present, especially in the introduction. The
	review will be an important contribution to the literature when
	completed. The current manuscript provides a proper framework for
	conducting this review.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1 comment: Abstract: in the "Introduction" paragraph of the Abstract, please define more clearly the aim of the present scoping review.

Author response: The final sentence of the "Introduction" in the Abstract is now a more detailed aim of the scoping review. P. 3, paragraph 1

Reviewer 1 comment: Introduction, line17-21. The authors state "Although health care providers

make provisional diagnoses based on symptoms and treatment response, surgical evaluation with adjunct histologic review remains the gold standard of diagnosis". This reviewer considers that this was true until the recent past. However, since a couple of years, there is a strong international move toward non-surgical diagnosis of endometriosis, based on specific symptoms and physical findings, transvaginal ultrasonography and, in selected cases, MRI.

This should greatly shorten the time to diagnosis because, indeed, if surgery would be the only mean to diagnose endometriosis, several variables might expectedly cause an extended delay (woman's fear to undergo surgery, health care provider's doubts, long waiting lists, insurance covering issues, etc.). In the opinion of this reviewer, the authors should clarify, either in the Introduction or Conclusions section, that surgery should no longer considered the gold standard for diagnosis, and that the findings of this scoping review

may apply to the past clinical practice situation but, hopefully, not to the future diagnostic approach based on non-surgical modalities (see, and cite, Clinical diagnosis of endometriosis: a call to action. Agarwal SK, Chapron C, Giudice LC, Laufer MR, Leyland N, Missmer SA, Singh SS, Taylor HS. Am J Obstet Gynecol. 2019 Apr;220(4):354.e1-354.e12).

Author response:

Thank you for raising this important point to the diagnosis of endometriosis. The authors agree that healthcare providers use a combination of symptom recognition, physical exam, imaging, and treatment response to diagnose endometriosis (consistent with the recommended article by Agarwal et al.). However, this sentence merely points out that surgical visualization and histological confirmation remains the gold standard, as stated in the recommended Agarwal et al. article. The authors of this manuscript are not arguing that it should be so, but merely explaining it as a possible obstacle to receiving a diagnosis.

We expanded the list of methods used to diagnose endometriosis: "Although health care providers make provisional diagnoses based on symptoms, physical exams, imaging, and treatment response, surgical evaluation with adjunct histologic review remains the gold standard of diagnosis. This significant barrier compounds on other obstacles to diagnosis including patient-, provider-, and health system-centered influences." We also raised this point and referenced the recommended article. P. 4, paragraph 1.

We did not add further information about future diagnostic approaches, because this scoping review is not addressing diagnostic tests or methods (specifically excluded). This scoping review is focused on research surrounding individual experiences/pathways to diagnosis.

Reviewer 1 comment: Methods: how will grey literature be identified and accessed?

Author response:

Thank you for the question. Grey literature (e.g., dissertations, white papers) was not filtered out of the database searches. As a result, the search results included materials such as dissertations. Grey literature would also be gathered from the references of included articles/materials if relevant. This information was clarified in the "search strategy process" (P. 8, paragraph 2) and the "abstract and full-text screening" (P. 11, paragraph 1).

Reviewer 1 comment: Methods: please, provide a draft of the data extraction form as a

supplementary material.

Author response: The extraction categories were provided in Table 4 of the manuscript

(highlighted in yellow in the marked copy). This information is provided in an

Excel file as a supplement ("supplementary file for editors only").

Reviewer 1 comment: The authors state that the submission of the scoping review results for

publication is expected in March 2021 (see Page 10, lines 10-13). Can this deadline be considered consistent with the publication of the protocol? In the Instructions for reviewers of study protocol, the Editors note that "If data

collection is complete, we will not consider the manuscript".

Author response: Thank you for pointing this out. The original projected timeline to repeat the

search was March 2021. This goal was not achieved. In light of challenges over the last year, we have reworked the timeline to repeat the search in September 2021. In the meantime, we are still extracting data from articles. Therefore, data collection is not complete. The date was changed in the

"Information sources" section. P. 9, paragraph 1.

Reviewer 2 comment: The manuscript needs editing for proper English. Numerous

grammatical errors and awkward sentences are present, especially in the

introduction.

Author response: Thank you for your feedback. We have reviewed the manuscript and edited

the grammar. (Throughout manuscript).

In addition to the recommended issues addressed above, we have added two points previously missed:

- 1. An exclusion criterion was accidentally left out of Table 3: "Studies in which the participants are solely healthcare providers and focus on knowledge base, understanding, and opinions concerning endometriosis.
- 2. A critical narrative review was added to the history of literature review materials related to timing, delays, and pathways to diagnosis of endometriosis (Culley L, Law C, Hudson N, et al. The social and psychological impact of endometriosis on women's lives: a critical narrative review. *Human reproduction update*. 2013;19(6):625-639).

VERSION 2 - REVIEW

REVIEWER	Paolo Vercellini Università degli Studi, Department of Women's and Children's Health
REVIEW RETURNED	05-Jun-2021
GENERAL COMMENTS	The authors have adequately addressed the issues raised and this reviewer has no further modifications to suggest. Paolo Vercellini