

# References Supporting Recommendations in Obstetrical Green Top Guidelines: an Overview

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## Abstract

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**Title: References Supporting Recommendations in Obstetrical Green Top Guidelines: an Overview** Authors: Halime Meryem Soylu,<sup>1</sup> Hector Mendez-Figueroa,<sup>2</sup> Suneet P Chauhan,<sup>2</sup> Benjamin JF Huntley,<sup>2</sup>1. Department of Obstetrics, Gynecology, and Reproductive Sciences, the University of California at San Diego, San Diego, California

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- **Halime Meryem Soylu (HMS)** – Data Extraction, Formal Analysis, Writing - Original Draft
- **Hector Mendez-Figueroa (HMF)** - Methodology, Writing - Review & Editing
- **Suneet P. Chauhan (SPC)** – Conceptualization, Methodology, Writing - Review & Editing
- **Benjamin JF Huntley (BJFH)** – Conceptualization, Methodology, Project Administration, Data Audit, Writing - Review & Editing

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**REFERENCES SUPPORTING RECOMMENDATIONS IN OBSTETRICAL GREEN TOP GUIDELINES (584 words)**

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**Introduction** (82 words) Green-top guidelines (GTGs), published by the Royal College of Obstetrics and Gynaecology (RCOG), guide clinical practice and foster research initiatives. Prior analyses of GTG noted that the majority (88-91%) of the recommendations were not supported by the Grade A evidence<sup>1</sup>, and do not consistently meet the high-quality standards and applicability expected of guidelines produced by professional bodies.<sup>2</sup> In this study we examined the evidence supporting the obstetrical-related GTGs. Our aim was to characterize the quality of evidence (i.e., references) underpinning these recommendations.

**Method** (194 words) From the list of GTGs available in July 2023, we identified all current obstetrical-related RCOG GTGs. We reviewed the body of each GTG and catalogued both the grade of every recommendation and the classification of reference levels for citations deemed to support the recommendation of interest, according to the Clinical Governance Advice No.1: Development of RCOG Green-top Guidelines. Each reference's source journal was identified and categorized as to whether it was published in weekly journals (New England Journal of Medicine, Journal of the American Medical Association, or The Lancet), one of three top OB/GYN journals (American Journal of Obstetrics & Gynecology, British Journal of Obstetrics and Gynaecology, and Obstetrics & Gynecology), or others. Each citation was verified within the PubMed database to confirm if it was a randomized controlled trial (RCT). In addition, recommendations without discernable references were tracked. A random audit of 10% of manually entered data (182 of 1822 recommendations) was performed by the senior author (B.J.F.H.). Consensus regarding which references, if any, supported a recommendation was reached by deliberation and resolved by discussion with a third reviewer (S.P.C.). All data were entered in an Excel spreadsheet (Microsoft, Seattle, WA) and summarized.

**Results** (167 words)

Thirty-seven obstetrical-related GTGs were identified at the RCOG website (<https://www.rcog.org.uk/guidance/browse-all-guidance/green-top-guidelines>), published between 04/2010 – 06/2023, and analyzed. Of 1822 recommendations in the GTG, 6% are grade A, 10% grade B, 14% grade C, 28% grade D, and 42% are Good Practice Points (GPP). While 1267 (70%) recommendations were supported by references, 555 (30%) did not have a discernible supporting reference. When omitting GPPs from the analysis, 89% of GTG recommendations are supported by references, and 10% are recommendation strength A

Of the 3652 references supporting the recommendations, of which 4% Evidence level 1++, 8% Evidence level 1+, 3% Evidence level 1-, 9% Evidence level 2++, 19% Evidence level 2+, 10% Evidence level 2-, 18% Evidence level 3, and 20% Evidence level 4. Additionally, 9% of the references were not assigned an evidence level. While 4% of all references cited were published in the “weekly journals”, 23% were published in the “top 3 journals”, and 55% were published in other journals. Lastly, approximately 7% of references were RCT (Table).

**Conclusion** (141 words)

Though only 6% of GTG recommendations were strength A, 70% of them are supported by references. Excluding GPP, almost 90% of the recommendations have supportive references. A prior publication comparing the same topics in obstetric guidelines published by the American College of Obstetrics and Gynecology (ACOG) and RCOG, revealed the heterogeneity on the type of recommendations and source of references.<sup>3</sup> Similar to our findings, Practice Bulletins (PBs) published by ACOG 70% of recommendations lack identifiable references, and 8 out of 10 references in ACOG PBs aren't linked with recommendations, indicating the necessity for improved transparency in supporting recommendations.<sup>4</sup> While insufficient qualities of evidence should not prevent guideline formation, the distribution of these findings are comparable with those published 1 and 2 decades ago,<sup>1,2</sup> which may serve as a call to action to encourage further research related to evidence-based obstetrical care.

**References**

1. Prusova K, Churcher L, Tyler A, Lokugamage AU. Royal College of Obstetricians and Gynaecologists guidelines: How evidence-based are they? *Journal of Obstetrics and Gynaecology* [Internet]. 2014 Jun

12;34(8):706–11.

2. Coomarasamy A, Ola B, Gee H, Khan K. Quality of brief guidelines produced by professional bodies: a study of the “green-top” guidelines by the UK Royal College of Obstetricians and Gynaecologists. *Journal of Obstetrics and Gynaecology*. 2003 Jan;23(5):479–83.
3. Chauhan S, Hendrix N, Berghella V, Siddiqui D. Comparison of Two National Guidelines in Obstetrics: American versus Royal College of Obstetricians and Gynecologists. *American Journal of Perinatology*. 2010 Apr 20;27(10):763–70.
4. Stanfield VR, Chauhan SP, Huntley BJB. References Supporting Recommendations in ACOG Obstetric Practice Bulletins. *American Journal of Obstetrics & Gynecology MFM*. 2022 May;100669.

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