OBSTETRICS AND GYNECOLOGY GUIDELINE

OBSTETRICS & GYNECOLOGY EXPERT PANEL MEMBERS

Dr. Hournaz Ghandehari (chair), Radiologist, University of Toronto, Toronto, ON
Dr. Baharak Amir, Physician, IWK Health Centre, Halifax, NS
Barb Avard, Patient and Family advisor, North York General Hospital, North York, ON
Dr. Karen Fung Kee Fung, Physician, Fetal Maternal Medicine, Ottawa Hospital, Ottawa, ON
Dr. Beth Furey, Radiologist, Dalhousie University, Halifax, NS
Dr. Juliette Garel, Radiologist, Université de Montréal, Montréal, QC

Evidence Reviewer and Guideline Methodologist: Dr. Candyce Hamel, Senior Epidemiologist, Canadian Association of Radiologists, Ottawa, ON
Evidence Reviewer: Dr. Leila Esmaeilisaraji, Epidemiologist, Canadian Association of Radiologists, Ottawa, ON

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Correspondence: chamel@car.ca

Canadian Association of Radiologists
L'Association canadienne des radiologistes

CONTENTS

ABBREVIATIONS

ACOG	American College of Obstetricians and Gynecologists
ACR	American College of Radiology
AGREE-II	Appraisal of Guidelines for Research & Evaluation Instrument
AI	Artificial Intelligence
CAR	Canadian Association of Radiologists
CT	Computed Tomography
EP	Expert Panel
EtD	Evidence to Decision
GRADE	Grading of Recommendations Assessment, Development and Evaluation
HSG	Hysterosalpingogram
ISUOG	International Society of Ultrasound in Obstetrics and Gynecology
MRI	Magnetic Resonance Imaging
NICE	National Institute for Health and Care Excellence
RCOG	Royal College of Obstetricians and Gynaecologists
RCR	Royal College of Radiologists
SIS	Saline infusion sonohysterography
SOGC	Society of Obstetrics and Gynaecology of Canada
US	Ultrasound
XR	Radiograph

INTRODUCTION

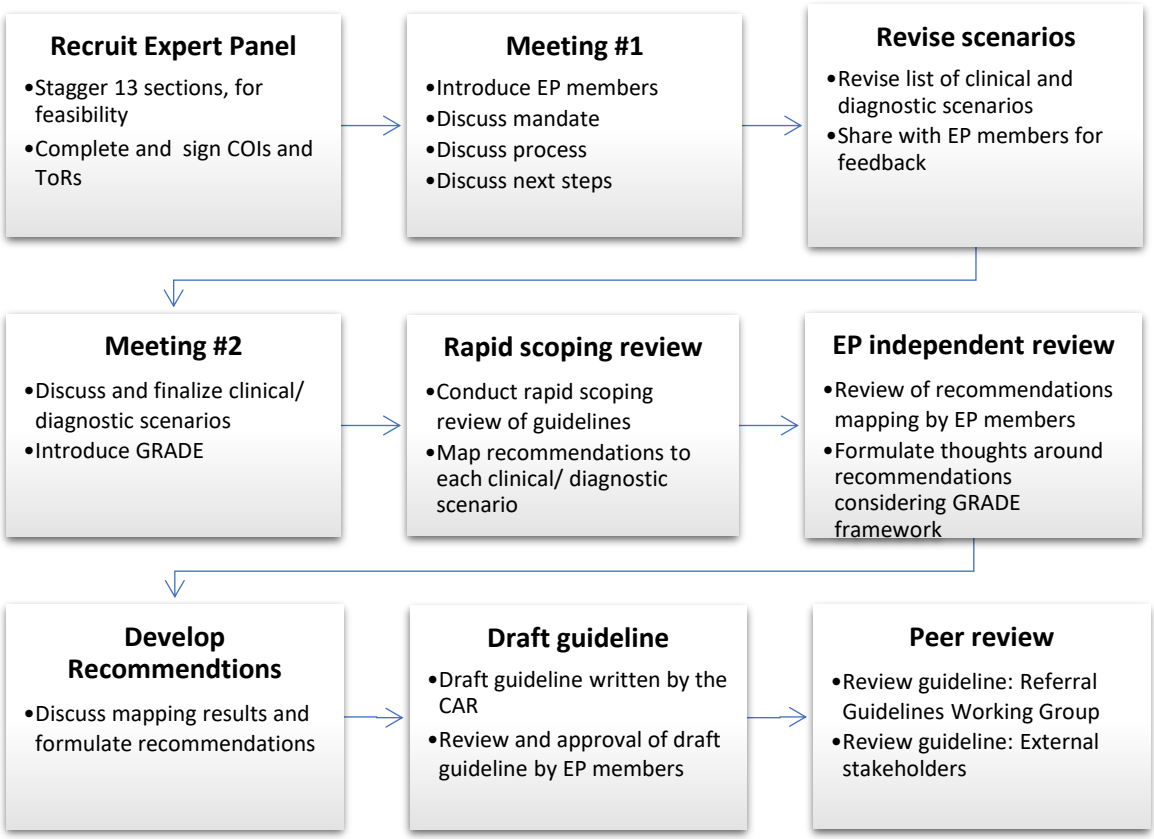
The diagnostic imaging referral recommendations from the Canadian Association of Radiologists (CAR) were last published in 2012 (https://car.ca/patient-care/referral-guidelines/) and are considered out of date. These recommendations were made up of 13 sections, one of which was obstetrics and gynecology.

In 2020, the CAR, funded by the Canadian Medical Association (CMA), developed a plan to update the CAR diagnostic imaging referral recommendations. The project mandate is to develop a comprehensive set of evidence-based diagnostic imaging referral guidelines suited for integration into clinical decision support (CDS) systems.

An Expert Panel (EP), made up of radiologists, physicians, a patient representative, and an evidence review/ guideline methodologist, from across Canada met over 11 meetings, from October 2021 to April 2022.

The 16 clinical/diagnostic scenarios in the 2012 CAR recommendations were used as the starting point for discussions. After a review and update of these scenarios, a list of 12 clinical/ diagnostic scenarios was created, which informed the search strategy and systematic rapid scoping review.

The protocol for the guideline process is available in *CMAJ Open* [1]. The general process of the guideline development is presented in **Figure 1**.



Abbreviations: CAR = Canadian Association of Radiologists; **COI** = Conflict of Interest; **EP** = Expert Panel; **GRADE** = Grading of Recommendations Assessment, Development and Evaluation; **ToR** = Terms of Reference

Figure 1 - Guideline development process

WHO ARE THESE RECOMMENDATIONS FOR?

These recommendations are primarily for referring clinicians (e.g., physicians, nurse practitioners); however, they may also be used by radiologists, patients, and/or patient representatives.

Scope

The guideline recommendations are to assist the choice of imaging modality in situations where it is felt clinically necessary to obtain imaging. Imaging should not delay definitive management. Additionally, we did not cover serial imaging, and time intervals for follow-up of known disease and/or treatment monitoring.

DISCLAIMER

These recommendations are not intended to stand alone. Medical care should be based on evidence, a clinician's expert judgment, the patient's circumstances, values, and preferences, and resource availability.

We recognize that not all imaging modalities are available in all locations, particularly in rural or remote areas of Canada. Decisions about whether to recommend that a patient travel for recommended imaging or perform alternate imaging locally can be difficult, and should consider the expected benefits of recommended imaging, risks of travel, patient preference, and other factors. This guideline is based on evidence related to diagnostic imaging tests only, not the clinical management of a patient.

METHODS OF THE RAPID SCOPIONG REVIEW

The conduct of the systematic rapid scoping review was guided by empirical review guidance: the Joanna Briggs Institute scoping review guidance [2], the Cochrane Handbook [3], and the rapid review interim guidance from the Cochrane Rapid Review Methods Group [4].

Inclusion Criteria

Publications were included if they met the following criteria:

Guidelines: Providing diagnostic imaging recommendations for one or more of the clinical/diagnostic scenarios identified by the Obstetrics & Gynecology EP.

Note: Only guidelines were included, systematic reviews and primary studies were not considered for inclusion.

Study design: Guidelines that were produced satisfying three criteria in the AGREE-II assessment tool [5]:

(1) Systematic methods were used to search for evidence: Searched and named at least 1 electronic database using an electronic search strategy (e.g., Medline, Embase, PubMed, CENTRAL);

(2) The criteria for selecting the evidence are clearly described: Described a formal process for study selection; AND reported the inclusion and exclusion criteria; OR if it is based on a systematic review even if it does not provide explicit methods; and

(3) The strengths and limitations of the body of evidence are clearly described: Performed critical appraisal on the included studies (e.g., risk of bias, describe study limitations); OR if it is based on a systematic review and GRADE is performed.

Interventions: We included diagnostic imaging modality (e.g., radiography [XR], magnetic resonance imaging [MRI], computed tomography [CT], ultrasound [US]). We elected to exclude bedside-ultrasound, as it forms part of the initial clinical assessment in some contexts.

Date of publication: We included guidelines that were published or updated in 2016 onward to identify the most recent guidelines, which would

contain the most recently published primary studies, and for feasibility.

Language of publication: English, for feasibility.

Search

An experienced information specialist, in consultation with the guideline methodologist, developed a systematic search strategy (**Appendix 1**) using the list of clinical/diagnostic scenarios identified by the Obstetrics and Gynecology EP members. The search was run in Medline and Embase on November 24, 2021. The search was limited to publications from 2016 onward. There was no language restriction in the search. Supplemental searching included searching the following national radiology and/or guideline groups: the American College of Radiology (ACR), the National Institute for Health and Care Excellence (NICE), and the Royal College of Radiologists (RCR) 8th Edition (2017).

Title/abstract screening

Using a standardized form in DistillerSR, an online systematic review software [6], one reviewer screened the records in prioritized order, using the artificial intelligence (AI) re-ranking tool in DistillerSR. A stop-screening approach was implemented once 95% of the predicted included studies were identified [7,8]. The AI reviewer tool in DistillerSR excluded the remaining records. The AI audit tool was run to identify any records that were excluded that had a high score for inclusion (i.e., a prediction score of 0.85 and above). These records were rescreened to ensure that they should have been excluded. A second reviewer verified a random sample of 10% of the included records and 20% of the excluded records, without knowledge of the inclusion or exclusion decision by the first reviewer. Any disagreements were resolved through discussion. The AI audit tool was rerun, and any records with a prediction score of ≥0.85 were rescreened.

Full text screening

Using a standardized form in DistillerSR, one reviewer evaluated the full texts of the guidelines against the eligibility criteria described above in the Inclusion Criteria.

Mapping

One senior reviewer extracted recommendations from all included guidelines and presented these in tabular form for each clinical/diagnostic scenario. The senior reviewer produced a synopsis (i.e., condensed version of the evidence table) for each clinical/diagnostic scenario based on the information in the evidence tables. These synopses highlighted the main recommendations across guidelines, with a focus on guidelines that used Grading of Recommendations Assessment, Development and Evaluation (GRADE), and highlighted any discordant recommendations. EP members used these to help guide discussion when formulating the recommendations.

Critical appraisal

Each guideline was assessed for the level of quality using the AGREE-II instrument [5]. This was performed by one reviewer with a quality control check on a random sample of 10% of the guidelines.

FORMULATING RECOMMENDATIONS

Over a series of six virtual meetings (February to April 2022), the Expert Panel members discussed each of the clinical/diagnostic scenarios using the information in the synopses as a guide. When required, the full evidence tables (**Appendix 2**) were consulted for additional information.

NOTE: Details have been removed from Appendix 2 to comply with copyright protection. For additional information on these recommendations, please access the full publications.

The focus of these recommendations was to provide the recommendation for the initial imaging modality. Certain scenarios provide a recommendation for the next imaging modality or an alternative to the first imaging modality, in situations where the first imaging modality is negative, non-diagnostic, or may not be available.

Specifying contrast protocols

The recommendations do not specify when contrast should or should not be used, as this decision may vary based on clinical presentation, regional practice preferences, preference of the referring clinician, radiologist and patient, and resource availability.

Grading of Recommendations Assessment, Development and Evaluation

The GRADE for Guidelines framework [9,10] was used as a guide to determine the strength (i.e., strong, conditional) and direction (i.e., for, against) of the recommendation. As the GRADE methodology requires an Evidence to Decision (EtD) framework for each recommendation, this would not have been feasible as:

(i) We used recommendations from existing guidelines as our evidence base, thereby not allowing for full assessment of each outcome within the primary studies, including the five GRADE domains to evaluate the certainty of the evidence: risk of bias, indirectness, imprecision, inconsistency, and publication bias [11]. Therefore, this information was inferred by the level and strength of the evidence provided in the included guidelines.

(ii) We covered 12 clinical/diagnostic scenarios in the Obstetrics and Gynecology section, which could have included several diagnostic imaging modality comparisons. This would have resulted in a minimum of 12 EtD frameworks, but realistically many more, as we would have had to create an EtD for each comparison (e.g., US vs no US, transabdominal US vs transvaginal US, US vs MRI) within each clinical/diagnostic scenario.

Therefore, in addition to the diagnostic imaging recommendations presented by each included guideline, and the clinical expertise of the EP members, additional criteria were considered specific to the Canadian healthcare context:

- Certainty of the evidence (as presented in the included guidelines)
- Consideration of benefits and harms (e.g., ionized radiation exposure)
- Values and preferences
- Equity, accessibility, and feasibility
- Resource use and costs

The strength and direction of the recommendations are represented by arrow directions and colours. Using GRADE as a guide [9], these can be interpreted as:

- **Strong recommendation ("recommend"), for (↑↑)**: All or almost all informed people would want/recommend this intervention and only a small proportion would not. If this intervention is not offered, the patient or patient representative should request a discussion.
- **Conditional recommendation ("suggest"), for (↑)**: Most informed people would choose/recommend this intervention, but a substantial number would not. This may be conditional upon patient values and preferences, the resources available or the setting in which the intervention will be implemented.
- **Conditional recommendation ("suggest), against (↓)**: Most informed people would not choose/recommend this intervention, but a substantial number would. This may be conditional upon patient values and

preferences, the resources available or the setting in which the intervention will be implemented.

- **Strong recommendation ("recommend"), against (↓↓)**: All or almost all informed people would not want/recommend this intervention, but a small proportion would.

When there were no guidelines to support recommendations, the EP formulated recommendations based on their clinical expertise while considering values and preferences, resources, cost, equity, and accessibility. These recommendations are denoted with (EP consensus).

The recommendations for each clinical/ diagnostic scenario are presented below, with reference to the guidelines that were included for that scenario. Recommendations are also summarized in tabular form in **Appendix 3**.

INCLUDED GUIDELINES

A total of 3493 unique records were identified through the electronic database. After reviewing 1515 records, the AI reviewer excluded the remaining records (n=1978), as 98% of the predicted included records had been identified and the likelihood for inclusion of the remaining records was low (highest remaining prediction score of 8.0%). A second reviewer screened a set of randomly selected records (n=683) for verification. Among these, there were eight conflicts, all between the two human screeners. These conflicts were resolved through discussion. An additional nine records were added from the supplemental searching. A total of 188 records were further evaluated. The full text for two records were not retrievable, and 22 records were non-English publications (**Appendix 4**). Among the remaining 164 full texts that were screened for eligibility, six were not guidelines providing recommendations for obstetrics and gynecology imaging, 99 did not use systematic methods or sufficiently describe the methods used in the formulation of the guideline, four were guidelines providing recommendations for scenarios not covered by this guideline, and two were excluded for 'other' reasons. A list of excluded records with reasons is available upon request. Recommendations from 53 guideline documents (46 unique guidelines) were included (**Figure 2 – PRISMA flow diagram**).

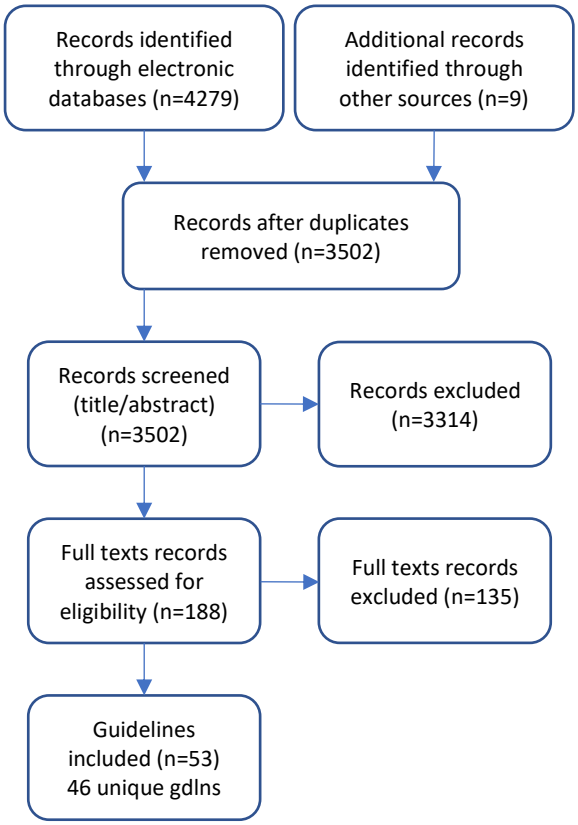


Figure 2 - PRISMA flow diagram

The number of guidelines included per clinical/diagnostic scenario ranged from 0 to 16. Twelve guidelines were rated as high quality, using the AGREE-II tool.

All other guidelines were rated as moderate quality (**Appendix 5**). Often, reasons for rating an item down were due to a lack of reporting.

LIMITATIONS OF THE RAPID SCOPING REVIEW

As the unit of inclusion for the rapid scoping review was guidelines, the recommendations were extracted as presented in the guidelines. We also extracted the level/certainty of the evidence based on the criteria presented in the completed guidelines. There were several tools/methods used to assess the level/certainty of the evidence, for example GRADE [11], the Oxford Centre for Evidence-based Medicine [12], Level of Appropriateness (American College of Radiologists), consensus, or an adaptation/ modification of one or more methods. For feasibility, primary studies were not reviewed, and the level/certainty of the evidence was taken at face value from the guideline.

IONIZING RADIATION EXPOSURE

We have elected to not include any effective dose values (mSv), related metrics, or qualitative descriptors of radiation risk (e.g., symbol, risk level, approximate equivalent background radiation, lifetime additional risk of cancer induction/exam) for several reasons:

1) The Expert Panel members have considered the risks of ionizing radiation (i.e., GRADE for Guidelines benefits and harms) when formulating the recommendations.

2) The levels of ionizing radiation in modern medical imaging equipment should not unduly influence patient decision-making. The anticipated benefits of imaging to the patient, if a test is clinically indicated are likely to outweigh any potential small risks [13].

3) Per the following points, effective dose values and related metrics such as ot equivalent background radiation have very large uncertainties, and their utility is thus limited:

- There is uncertainty in the relative values of the effective dose for a reference patient with variation in the standard error [14];
- Effective doses are measured using reference phantoms with population, age and sex-averaged tissue weighting factors [14], therefore these should not be considered as the doses received by specific individuals;
- The publications providing data used to estimate the effective dose per scan (e.g., International Commission on Radiological Protection (ICRP) 1990 [15], 2007[16]) are occasionally updated and may impact the effective dose values;
- There is variation in the average dose from natural background radiation by geographic location. For example, in Canada, the average is 1.8 mSv/year, which ranges from 1.3 mSv/year in Vancouver to 4.1 mSv/year in Winnipeg [17]; and
- There are variables around the equipment (e.g., age) and facility (e.g., protocol) that may impact the actual amount of ionizing radiation exposure used for any particular exam.

EXTERNAL REVIEW

This guideline and its recommendations have been externally reviewed by the CAR Diagnostic Imaging Referral Guidelines Working Group (**Box 1**), Dr. Lucie Morin (Head of Obstetrics-Gynecology Department, CHU Sainte-Justine, Quebec) and Dr. Elissa Cohen (Physician, Obstetrics and Gynecology, Nova Scotia).

FUTURE RESEARCH IN THIS AREA

This guideline will be updated upon the emergence of new evidence that may change the validity of the recommendations.

We plan on developing Patient Friendly Summaries for some of the clinical/diagnostic scenarios covered in this guideline. The selection of scenarios will be dependent on a prioritization exercise, as well as funding. These summaries will be made available on the CAR website (www.car.ca).

Box 1. CAR Diagnostic Imaging Referral Guideline Working Group Members

Ryan Margau (co-chair), North York General Hospital, ON
Paul Pageau (co-chair), The Ottawa Hospital, ON

Other members listed alphabetically:
Barb Avard, Patient and Family Advisor, North York General Hospital, ON
Samuel Campbell, Charles V. Keating Emergency and Trauma Centre in Halifax, NS
Noel Corser, Hinton Medical Clinic, AB
Cathy MacLean, University of Saskatchewan, Department of Academic Family Medicine, SK
Erin Sarrazin, Nurse Practitioner Association of Canada, NS
Charlotte Yong-Hing, BC Cancer, Vancouver, BC
Kaitlin Zaki-Metias, Trinity Health Oakland Hospital, USA

Italicized name is a WG member who was also a member of the Obstetrics and Gynecology Expert Panel.

OBSTETRICS & GYNECOLOGY CLINICAL/DIAGNOSTIC SCENARIOS

RECOMMENDATIONS

The guideline recommendations are to assist the choice of imaging modality in situations where it is felt clinically necessary to obtain imaging. Imaging should not delay definitive management. Additionally, we did not cover serial imaging, and time intervals for follow-up of known disease and/or treatment monitoring.

These recommendations are not intended to stand alone. Medical care should be based on evidence, a clinician's expert judgment, the patient's circumstances, values, and preferences, and resource availability.

We recognize that not all imaging modalities are available in all locations, particularly in rural or remote areas of Canada. Decisions about whether to recommend that a patient travel for recommended imaging or perform alternate imaging locally can be difficult, and should consider the expected benefits of recommended imaging, risks of travel, patient preference, and other factors. This guideline is based on evidence related to diagnostic imaging tests only, not the clinical management of a patient.

OG01. 1st trimester assessment

Recommendations

1. In patients with suspected pregnancy, we recommend against **US** for pregnancy confirmation (↓↓).

Confirmed intrauterine pregnancy

2. In patients in the 1st trimester with confirmed intrauterine pregnancy, we recommend **transabdominal US** as the initial imaging modality for the following: pregnancy dating, to assess fetal number, chorionicity and amnionicity in multiple gestations, measurement of nuchal translucency (in single and multiple gestations), screening for select major anatomical abnormalities (such as anencephaly), and in patients with suspected complications of early pregnancy (↑↑).

↳ **2.1** If transabdominal US is indeterminate or suboptimal for these clinical indications, we recommend **transvaginal US** as an adjunct (↑↑).

3. In patients in the 1st trimester with a viable or potentially viable intrauterine pregnancy, we suggest not using **Doppler** as an adjunct to US without a clear clinical indication (↓).

Suspected pregnancy of unknown location (PUL) or ectopic pregnancy

4. In patients in the 1st trimester with a positive pregnancy test and a suspected PUL or ectopic pregnancy, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique (↑↑).

> *The uterus should be thoroughly scanned for the presence of a gestational sac, and in its absence, then the adnexa should be thoroughly scanned for the presence of a mass.*

↳ **4.1** If results are initially inconclusive, we recommend close clinical and biochemical assessment with follow-up repeat **US** assessment (↑↑).

Recommendations from 16 guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18], the 2017 RCR iRefer guideline [19], the 2020 ACR Appropriateness Criteria® nuchal translucency evaluation guideline [20], the 2021 Society of Obstetricians and Gynaecologists of Canada (SOGC) guideline on fetal neural tube defects [21], the 2017 SOGC guideline on early fetal anatomy US [22], the 2018 ACR Appropriateness Criteria® on first trimester vaginal bleeding [23], the 2019 ACR Appropriateness Criteria® on gestational trophoblastic disease [24], the 2021 SOGC guideline

on gestational trophoblastic disease [25], the 2021 American College of Obstetricians and Gynecologists (ACOG) guideline on multifetal gestations [26], the 2017 ACR Appropriateness Criteria® on multiple gestations [27], the 2016 International Society of Ultrasound in Obstetrics and Gynecology (ISUOG) guideline on twin pregnancy [28], the 2016 Royal College of Obstetricians and Gynaecologists (RCOG) guideline on monochorionic twins [29], the 2019 NICE guideline on twin and triplet pregnancy [30], the 2019 NICE guideline on ectopic pregnancy and miscarriage diagnosis [31,32], the 2021 SOGC guideline on pregnancy of unknown location and non-tubal ectopic pregnancies [33], and the 2017 SOGC guideline on borderline viability [34] **(Appendix 2: Table OG01)**.

OG02. 2nd trimester assessment

Recommendations

1. In patients in the 2nd trimester of pregnancy, typically between 18-20 weeks, we recommend routine screening with **transabdominal US**, for evaluation of fetal anatomy, fetal growth, and general assessment of the placenta (↑↑).
    - ↳ **1.1** Where indicated, in the evaluation of fetal growth and well-being, characterization of complex anatomy, and placental and cord assessment, we recommend **Doppler** as an adjunct (↑↑).
        - ↳ **1.2** For complex fetal conditions, if US is indeterminate or if further investigation is required, we suggest **MRI** (↑). Timing of the MRI may be determined based on clinical indication.
2. In patients in the 2nd trimester of pregnancy with suspected low location of the placenta or invasive placentation, we recommend a combined **transabdominal and transvaginal US** approach (↑↑).
    - ↳ **2.1** We recommend **Doppler** as an adjunct (↑↑).
        - ↳ **2.2** For suspected invasive placentation, if US is indeterminate or if further investigation is required, we suggest **MRI** (↑).
3. In patients in the 2nd trimester with a history of pre-term birth, or with other risk factors for pre-term birth, and in patients with suspected preterm labour, we recommend **transvaginal US** for assessment of the cervix (↑↑).
    - ↳ **3.1** If transvaginal US is declined or is not feasible, we recommend **transperineal US** as an alternative (↑↑).
4. In patients in the 2nd trimester experiencing vaginal bleeding, we recommend a combined **transabdominal and transvaginal US** approach (↑↑).
    - ↳ **4.1** We recommend **Doppler** as an adjunct (↑↑).
5. Following the routine anatomy scan, if risk factors are identified and/or fetal cardiac screening examination is abnormal, we suggest **fetal echocardiography US** (↑).

Recommendations from 16 guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18], the 2017 RCR iRefer [19], the 2021 SOGC guideline on fetal neural tube defects [21], the 2021 ACOG guideline on multifetal gestations [26], the 2017 ACR Appropriateness Criteria® on multiple gestations [27], the 2016 ISUOG guideline on twin pregnancy [28], the 2017 RCOG guideline on monochorionic twins [29], the 2019 NICE guideline on twin and triplet pregnancy [30], the 2021 ACR Appropriateness Criteria® on second and third trimester screening for fetal anomaly [35], the 2020 ACR Appropriateness Criteria® on placenta accreta spectrum disorder [36], the 2018 RCOG guideline on placenta previa and placenta accrete [37], the 2019 RCOG guideline on vasa previa [38], the 2020 SOGC guideline on placenta previa [39], the 2020 ACR Appropriateness Criteria® on gravid cervix [40], the 2019 NICE guideline on preterm labour and birth [41], and the 2020 ACR Appropriateness Criteria® on second and third trimester bleeding [42] (**Appendix 2: Table OG02**).

OG03. 3rd trimester assessment

Recommendations

1. In patients in the 3rd trimester who have not received a 1st or 2nd trimester diagnostic US, we recommend **transabdominal US** for general assessment of the pregnancy (↑↑).
   - ↳ **1.1** We recommend **Doppler** and/or **transvaginal US** as adjuncts, as clinically indicated (↑↑).
2. In high-risk 3rd trimester pregnancies, including multifetal pregnancy, we recommend **transabdominal US** surveillance to monitor fetal growth and well-being (↑↑).
   - ↳ **2.1** We recommend **Doppler** and/or **transvaginal US** as adjuncts, as clinically indicated (↑↑).
     - ↳ **2.2** For complex fetal conditions, if US is indeterminate or if further investigation is required, we suggest **MRI** (↑). Timing of the MRI may be determined based on clinical indication.
3. In patients diagnosed with low-lying placenta or placenta previa in the 2nd trimester, we recommend a **transvaginal US** to reassess placental location by the mid-3rd trimester (↑↑).
   - ↳ **3.1** We recommend **Doppler** as an adjunct (↑↑).
4. In patients in the 3rd trimester of pregnancy with suspected invasive placentation, we recommend a combined **transabdominal and transvaginal US** approach (↑↑).
   - ↳ **4.1** We recommend **Doppler** as an adjunct (↑↑).
     - ↳ **4.2** If further investigation is required, we suggest **MRI** (↑).
5. In patients in the 3rd trimester of pregnancy experiencing vaginal bleeding, we recommend a combined **transabdominal and transvaginal US** approach (↑↑).
   - ↳ **5.1** We recommend **Doppler** as an adjunct (↑↑).

Recommendations from 13 guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18], the 2017 RCR iRefer [19], the 2017 ACR Appropriateness Criteria® on multiple gestations [27], the 2016 ISUOG guideline on twin pregnancy [28], the 2021 ACR Appropriateness Criteria® on second and third trimester screening for fetal anomaly [35], the 2020 SOGC guideline on placenta previa [39], the 2020 ACR Appropriateness Criteria® on placenta accreta spectrum disorder [36], the 2018 RCOG guideline on placenta previa and placenta accrete [37], the 2020 ACR Appropriateness Criteria® on second and third trimester bleeding [42], the 2016 ACR Appropriateness Criteria® Assessment of fetal well-being [43], the 2019 ACR Appropriateness Criteria® on growth disturbances [44], the 2021 ACOG guideline on fetal growth restriction [45], and the 2020 Society for Maternal-Fetal Medicine guideline on fetal growth restriction [46] (**Appendix 2: Table OG03**).

OG04. Post-partum (up to 6 weeks)

Recommendations

Hemorrhage

1. In patients with early and/or late post-partum hemorrhage*, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging modality (↑↑).
   - ↳ **1.1** We recommend **Doppler** as an adjunct (↑↑).
     - ↳ **1.2** If US is indeterminate or further investigation is required, we suggest **MRI** as the next imaging modality (↑).

↳ **1.3** If MRI is unavailable or contraindicated, we suggest close clinical observation with follow-up **transabdominal and transvaginal US** (EP consensus).

2. In patients with early and/or late post-partum hemorrhage where there is clinical concern for intraabdominal bleeding, we suggest **CT** to confirm, localize, and assess for the presence of active bleeding (↑).

** Early PPH: within 24 hours; Late PPH: >24 hours to 6 weeks*

Post-partum infection

3. In patients with suspected or confirmed post-partum infection, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging modality to exclude retained products of conception and assess for complications of infection (↑↑).

↳ **3.1** If US is indeterminate or further investigation is required, we suggest **CT** or **MRI** as the next imaging modality depending on the clinical situation (↑).

↳ **3.2** If CT and MRI are unavailable or contraindicated, we suggest close clinical monitoring and follow-up **US** (EP consensus).

Recommendations from two guidelines were used during the discussions and formulation of these recommendations: the ACR Appropriateness Criteria® 2020 guideline on postpartum hemorrhage [47] and the 2016 French College of Gynecologists and Obstetricians guideline on pelvic inflammatory disease [48] **(Appendix 2: Table OG04)**.

OG05. Recurrent pregnancy loss (1st trimester)

Recommendations

1. In patients with recurrent 1st trimester pregnancy loss, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique (↑↑).

↳ **1.1** We suggest **Doppler** as an adjunct (↑).

↳ **1.2** If US is negative, indeterminate, or if additional workup of complex abnormalities identified on US is required, we recommend **MRI pelvis** as the next imaging technique (↑↑).

2. In patients with suspected Müllerian duct or intracavitary abnormalities based on initial assessment, we suggest **MRI**, **3-D US**, or **SIS** for further characterization (↑).

SIS: Saline Infusion Sonohysterogram

Recommendations from three guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18], the 2017 RCR iRefer recommendations [19], and the 2020 ACR Appropriateness Criteria® guideline on female infertility [49] **(Appendix 2: Table OG05)**.

OG06. Infertility assessment

Recommendations

1. In patients with infertility, we recommend **transabdominal US** and/or **transvaginal US** as the initial imaging technique (↑↑).

↳ **1.1** We suggest **Doppler** as an adjunct (↑).

- ↳ **1.2** If initial assessment by US is indeterminate or if additional workup of the endometrium is required, we recommend **3-D US**, **SIS**, or **MRI** as the next imaging technique (↑↑).
- ↳ **1.3** If US assessment of the adnexa is indeterminate or if additional workup of the adnexa is required, we recommend **MRI** as the next imaging technique (↑↑).

2. In patients with infertility, for the assessment of tubal patency, we recommend **SIS** or **HSG** (↑↑).
3. In the investigation of the male factor infertility, we recommend **US** as the initial imaging technique to assess for varicoceles (↑↑).

SIS: Saline Infusion Sonohysterogram

Recommendations from five guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18], the 2017 RCR iRefer [19], the 2020 ACR Appropriateness Criteria® guideline on female infertility [49], the 2020 European Society of Urogenital Radiology Scrotal and Penile Imaging Working Group guideline on ultrasound evaluation of varicoceles [50,51], and the 2017 NICE guideline on fertility problems [52] **(Appendix 2: Table OG06)**.

OG07. Evaluation of adnexal mass

Recommendations

1. In patients with suspected adnexal mass with no acute symptoms, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique (↑↑).
   - ↳ **1.1** We recommend **Doppler** as an adjunct (↑↑).
     - ↳ **1.2** If US is indeterminate or further investigation is required, we recommend **MRI** as the next imaging technique (↑↑).

Recommendations from six guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18], the 2017 RCR iRefer [19], the 2019 ACR Appropriateness Criteria® guideline on clinically suspected adnexal mass, no acute symptoms [53], the 2021 American Society of Clinical Oncology guideline [54], the 2020 guideline of the SOGC on adnexal mass [55], and the 2020 SOGC guideline on benign ovarian masses [56] **(Appendix 2: Table OG07)**.

OG08. Evaluation of acute pelvic pain of presumed gynecologic origin

Recommendations

1. In patients with acute pelvic pain of presumed gynecologic origin, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique (↑↑).
   - ↳ **1.1** We recommend **Doppler** as an adjunct (↑↑).
     - ↳ **1.2** If US is indeterminate or further investigation is required and immediate management is not indicated, we recommend follow-up combined **transabdominal and transvaginal US** approach (↑↑)**.**
       - ↳ **1.3** If further investigation is required, we suggest **CT** (in beta-HCG negative patients) (↑).
         - ↳ **1.4** In pregnant patients and for problem-solving, where indicated, we suggest pelvic **MRI** (↑).

Recommendations from five guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18], the 2017 RCR iRefer [19], the 2016 French guideline on Pelvic inflammatory disease [48], the 2016

ACR Appropriateness Criteria® guideline on acute pelvic pain in the reproductive age group [57], and the 2021 ACR Appropriateness Criteria® guideline on acute pelvic pain in the postmenopausal age group [58] **(Appendix 2: Table OG08)**.

OG09. Evaluation of chronic pelvic pain of presumed gynecologic origin

Recommendations

1. In patients with chronic pelvic pain of presumed gynecologic origin, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique (↑↑).
   - ↳ **1.1** We recommend **Doppler** as an adjunct (↑↑).
     - ↳ **1.2** If further investigation is required, we suggest **CT** (in beta-HCG negative patients) (↑).
       - ↳ **1.3** In pregnant patients and for problem-solving, where indicated, we suggest pelvic **MRI** (↑).

Recommendations from five guidelines were used during the discussions and formulation of these recommendations: the 2017 RCR iRefer [19], the 2018 ACR Appropriateness Criteria® guideline on postmenopausal subacute or chronic pelvic pain [59], the 2017 European Society of Urogenital Radiology guideline [60], the 2017 NICE guideline on endometriosis [61], and the 2020 guideline of the Society of Abdominal Radiology on pelvic endometriosis [62] **(Appendix 2: Table OG09)**.

OG10. Pelvic floor evaluation in females

No guidelines were identified (**Appendix 2: Table OG10**).

Recommendations

No recommendation. The role of imaging in evaluation of the pelvic floor is an evolving science and further research is required to guide recommendations in this field.

OG11. Disorders of menstruation

Recommendations

1. In patients with abnormal uterine bleeding, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique (↑↑).
   - ↳ **1.1** We suggest **Doppler** as an adjunct (↑).
     - ↳ **1.2** If further investigation of the endometrium is required, we recommend **SIS** as the next imaging technique (↑↑).
       - ↳ **1.3** If sonographic investigations are inconclusive or unavailable, we recommend **MRI** (↑↑).
2. For patients diagnosed on clinical and biochemical grounds with polycystic ovarian syndrome, we do not recommend the routine use of **US** for evaluation of ovarian morphology (↓↓).
   - ↳ **2.1** If clinical and biochemical indices are equivocal, we recommend **transvaginal US** to assess ovarian morphology (↑↑).

SIS: Saline Infusion Sonohysterogram

Recommendations from five guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18], the 2017 RCR iRefer [19], the 2020 ACR Appropriateness Criteria® guideline on abnormal uterine bleeding [63], the 2018 International guideline on polycystic ovary syndrome [64–67], and the 2018 NICE guideline on heavy menstrual bleeding [68–70] (**Appendix 2: Table OG11**).

OG12. Localization of intra-uterine contraceptive device

Recommendations

1. In patients where localization of an intra-uterine contraceptive device (IUCD) is required, we recommend a combined **transabdominal and transvaginal US approach** as the initial imaging technique (↑↑).

↳ **1.1** We suggest **3-D US** as an adjunct, where available (↑).

↳ **1.2** If IUCD is not seen in the uterus on US, we recommend **XR of the abdomen and pelvis** as the next imaging technique (↑↑).

Recommendations from two guidelines were used during the discussions and formulation of these recommendations: the 2012 CAR recommendations [18] and the 2017 RCR iRefer [19] **(Appendix 2: Table OG12)**.

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APPENDIX 1. SEARCH STRATEGIES

Database: Embase Classic+Embase <1947 to 2021 November 24>, Ovid MEDLINE(R) ALL <1946 to November 24, 2021>

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1 exp Pregnancy/ (1789773)
2 exp Pregnancy Complications/ (606007)
3 exp Pregnancy Trimesters/ (887987)
4 Pregnant Women/ (97945)
5 pregnan*.tw,kw,kf. (1337598)
6 Prenatal Diagnosis/ (99391)
7 (obstetric* or prenatal* or pre-natal* or antenatal* or ante natal* or antepartum or ante partum or perinatal* or peri natal* or peripartum or peri partum or postnatal* or post natal* or postpartum or post-partum or gestational*).tw,kw,kf. (1252628)
8 (assess* adj2 (cervix* or cervical*)).tw,kw,kf. (3976)
9 (amnionicit* or chorionicit*).tw,kw,kf. (1822)
10 ((subchorionic* or sub-chorionic*) adj3 h?emorrhag*).tw,kw,kf. (114)
11 exp Fetus/ (386157)
12 (fetus* or fetal* of foetus* or foetal*).tw,kw,kf. (322581)
13 (fetomaternal* or feto-maternal* or foetomaternal* or foeto-maternal*).tw,kw,kf. (9396)
14 (intrauterine or intra-uterine or "in utero").tw,kw,kf. (212775)
15 (placent* or transplacent* or trans-placent* or uteroplacent* or utero-placent*).tw,kw,kf. (281187)
16 Placenta, Retained/ (2289)
17 (retain* adj2 product? adj5 conception).tw,kw,kf. (1277)
18 or/1-17 [PREGNANCY/FETUS/PRENATAL PERIOD] (3099434)
19 Postmenopause/ and Uterine Hemorrhage/ (1301)
20 ((postmenopaus* or post-menopaus* or uteri* or uterus or vagina*) adj3 (bleed* or h?emorrhag*)).tw,kw,kf. (39951)
21 ((after or follow* or post*) adj3 menopaus* adj3 (bleed* or h?emorrhag*)).tw,kw,kf. (947)
22 exp Endometrium/pa [pathology] (9187)
23 (endometri* adj3 (abnormal* or anomal* or disease? or disorder? or patholog* or problem* or syndrome? or thicken* or cancer* or cyst* or lesion* or mass* or neoplasm* or tumo?r*)).tw,kw,kf. (93024)
24 Adnexal Diseases/ (5753)
25 (adnexa? adj3 (abnormal* or anomal* or disease? or disorder? or patholog* or problem* or syndrome? or torsion* or cancer* or cyst* or lesion* or mass* or neoplasm* or tumo?r*)).tw,kw,kf. (16377)
26 exp Pelvic Organ Prolapse/ (38127)
27 ((pelvic or pelvis) adj3 (descen* or prolaps* or procidentia*)).tw,kw,kf. (20616)
28 ((genital* or genitourinar* or genito-urinar* or urinary or urogenital* or uro-genital or uterus or uteri or uterine or uterovaginal or utero-vaginal or vagina* or vagino-uterine or vaginouterine) adj3 (descen* or prolaps* or procidentia* or eversion*)).tw,kw,kf. (19221)
29 (AVWP or colpoptos#s or cystocele or hysterocele or hysteroptos#s or metroptos#s or ptos#s or proctocele or PVWP or rectocele).tw,kw,kf. (32032)
30 Pelvic Pain/ (14183)
31 ((pelvic or pelvis) adj3 (ache? or aching or pain* or throb*)).tw,kw,kf. (31867)
32 exp Pelvic Inflammatory Disease/ (29475)
33 ((pelvic or pelvis) adj3 (inflam* or infecti* or venous disorder?)).tw,kw,kf. (16285)
34 adnexit#s.tw,kw,kf. (1751)
35 Endometriosis/ (66662)
36 (endometrios* or endometrioma*).tw,kw,kf. (67329)
37 exp Intrauterine Devices/ and (lost or missing or mislocat*).ti,kf. (319)
38 ((intracervical or intra-cervical or intrauterine or intra-uterine) adj2 (coil? or contracepti* or device?) adj5 (lost or missing or mislocat*)).tw,kw,kf. (249)
39 ((IUD or IUCD or "I.U.D." or "I.U.C.D.") adj5 (lost or missing or mislocat*)).tw,kw,kf. (318)
40 exp Abortion, Habitual/ (16838)
41 ((habitual* or recur* or repeat* or successive*) adj3 (abortion* or miscarr* or (early adj2 loss*))).tw,kw,kf. (18887)
42 ((uterine or uterus or uteri) adj3 (cyst* or disorder? or fibroid* or septum* or septa)).tw,kw,kf. (16690)
43 exp Infertility/ (208177)
44 (infertil* or sterilit* or subfertil* or sub-fertil* or infecundit*).tw,kw,kf. (217702)
45 (fertility adj3 (anomal* or disorder* or dysfunction* or problem*)).tw,kw,kf. (5955)
46 follicul* count?.tw,kw,kf. (417)
47 tubal patenc*.tw,kw,kf. (2385)
48 ((cervical or cervix) adj3 incompeten*).tw,kw,kf. (2442)
49 exp Ovarian Diseases/ (363245)
50 ((epoophoran or epo-ophoran or ovari* or ovary or parovaria* or parovary) adj3 (abnormal* or anomal* or disease? or disorder? or patholog* or problem* or syndrome? or torsion* or cancer* or cyst* or micropolycystic* or micro-polycystic* or micro-poly-cystic* or micropoly-cystic* or polycystic* or poly-cystic* or sclerocystic* or sclero-cystic* or neoplasm* or mass* or tumo?r*)).tw,kw,kf. (299171)
51 (follic* adj3 cyst*).tw,kw,kf. (5162)
52 (stein adj2 leventhal).tw,kw,kf. (1858)
53 Polycystic Ovary Syndrome/ (31424)
54 (PCOS and (polycystic* or poly-cystic*)).tw,kw,kf. (29920)
55 exp Menstruation Disturbances/ (106529)
56 ((menstrua* or menses or ovulat*) adj3 (abnormal* or anomal* or bleeding or disease? or disorder? or disturb* or excessive* or heavy or infrequent* or irregular* or pain* or problem* or retrograde)).tw,kw,kf. (36285)

Appendix 1. Search Strategies

57 (amenorrhea* or dysmenorrhea* or hypermenorrhea* or hyper-menorrhea* or hypomenorrhea* or hypo-menorrhea* or oligomenorrhea* or oligo-menorrhea* or menorrhagia* or polymenorrhea* or poly-menorrhea*).tw,kw,kf. (52685)
58 exp Urination Disorders/ (292599)
59 ((urine or urina* or voiding) adj3 (abnormal* or anomal* or disease? or disorder? or incontinen* or patholog* or problem* or retention*)).tw,kw,kf. (153023)
60 (anuria* or enures#s or glycosuria* or h?ematuria* or oliguria* or polyuria* or poly-uria*).tw,kw,kf. (111326)
61 or/19-60 [GYNAECOLOGICAL CONDITIONS] (1467852)
62 Diagnostic Imaging/ (256282)
63 dg.fs. [diagnostic imaging] (1318641)
64 (diagnos* adj3 (image? or imaging)).tw,kw,kf. (123151)
65 exp Ultrasonography, Prenatal/ (63427)
66 Ultrasonography/ (442747)
67 exp Ultrasonography, Doppler/ (117875)
68 (ultrasound* or ultrasonograph* or ultra-sonograph* or ultrasonic* or ultra-sonic*).tw,kw,kf. (1032846)
69 (echogra* or echo-gra* or echotomogra* or echo-tomogra* or echosonogra* or echo-sonogra*).tw,kw,kf. (28759)
70 (TAUS or TVUS).tw,kw,kf. (2082)
71 or/62-70 [ULTRASOUND] (2675468)
72 exp Radiography/ (2521310)
73 (radiograph* or radiographic imag* or roentgenograph* or roentgeno-graph*).tw,kw,kf. (595022)
74 (fluoroscop* or fluoro-scop*).tw,kw,kf. (83582)
75 (xray* or x-ray*).tw,kw,kf. (897761)
76 (hysterosonogra* or hystero-sonogra* or sonohysterogra* or sono-hysterogra*).tw,kw,kf. (1610)
77 exp Tomography/ (3074878)
78 (tomograph* or tomo-graph*).tw,kw,kf. (1080331)
79 (CAT scan* or CT scan* or PET scan* or PET imag* or PT scan* or PT imag*).tw,kw,kf. (368859)
80 (SPECTCT or SPECT CT or "SPECT/CT").tw,kw,kf. (15800)
81 (magnetic resonance imag* or MRI or MRIs or fMRI or fMRIs or NMR imag* or chemical shift imag* or magneti#ation transfer contrast imag* or spin echo imag* or zeugmatograph* or zeugmato-graph*).tw,kw,kf. (1163939)
82 (cineradiograph* or cine-radiograph* or cinefluorograph* or cine-fluorograph* or radiocinematograph* or radio-cinematograph*).tw,kw,kf. (4222)
83 or/72-82 [OTHER DIAGNOSTIC IMAGING TECHNOLOGIES] (5960896)
84 (18 or 61) and (71 or 83) [US/OTHER DIAGNOSTIC IMAGING TECHNOLOGIES - ALL CONDITIONS] (504027)
85 exp Animals/ not Humans/ (18007781)
86 84 not 85 [ANIMAL-ONLY REMOVED] (385280)
87 (case reports or case series or address or autobiography or bibliography or biography or comment or dictionary or directory or editorial or "expression of concern" or festschrift or historical article or interactive tutorial or lecture or legal case or legislation or news or newspaper article or patient education handout or personal narrative or portrait or video-audio media or webcast or (letter not (letter and randomized controlled trial))).pt. (6553462)
88 86 not 87 [OPINION PIECES REMOVED] (317095)
89 exp Guidelines as Topic/ (790782)
90 exp Clinical Protocols/ (288748)
91 Guideline.pt. (16455)
92 Practice Guideline.pt. (29304)
93 standards.fs. (760434)
94 Consensus Development Conference.pt. (12198)
95 Consensus Development Conference, NIH.pt. (799)
96 (consensus or guideline* or guidance? or standards or recommendation*).ti,kw,kf. (494627)
97 (expert consensus or consensus statement* or consensus conference* or clinical guideline? or practice guideline? or treatment guideline? or practice parameter* or position statement* or policy statement* or CPG or CPGs).tw,kw,kf. (276980)
98 or/89-97 [GUIDELINE FILTER] (2107008)
99 88 and 98 [GUIDELINES] (10955)
100 limit 99 to yr="2016-current" (4621)
101 100 use medall [MEDLINE RECORDS] (1650)
102 exp pregnancy/ (1789773)
103 exp pregnancy complication/ (606007)
104 pregnant woman/ (111125)
105 pregnan*.tw,kw,kf. (1337598)
106 prenatal diagnosis/ (99391)
107 (obstetric* or prenatal* or pre-natal* or antenatal* or ante natal* or antepartum or ante partum or perinatal* or peri natal* or peripartum or peri partum or postnatal* or post natal* or postpartum or post-partum or gestational*).tw,kw,kf. (1252628)
108 (assess* adj2 (cervix* or cervical*)).tw,kw,kf. (3976)
109 (amnionicit* or chorionicit*).tw,kw,kf. (1822)
110 ((subchorionic* or sub-chorionic*) adj3 h?emorrhag*).tw,kw,kf. (114)
111 exp fetus/ (386157)
112 (fetus* or fetal* of foetus* or foetal*).tw,kw,kf. (322581)
113 (fetomaternal* or feto-maternal* or foetomaternal* or foeto-maternal*).tw,kw,kf. (9396)
114 (intrauterine or intra-uterine or "in utero").tw,kw,kf. (212775)
115 (placent* or transplacent* or trans-placent* or uteroplacent* or utero-placent*).tw,kw,kf. (281187)
116 retained placenta/ (2730)
117 (retain* adj2 product? adj5 conception).tw,kw,kf. (1277)
118 or/102-117 [PREGNANCY/FETUS/PRENATAL PERIOD] (3100124)
119 postmenopause bleeding/ (582)
120 ((postmenopaus* or post-menopaus* or uteri* or uterus or vagina*) adj3 (bleed* or h?emorrhag*)).tw,kw,kf. (39951)
121 ((after or follow* or post*) adj3 menopaus* adj3 (bleed* or h?emorrhag*)).tw,kw,kf. (947)

122 (endometri* adj3 (abnormal* or anomal* or disease? or disorder? or patholog* or problem* or syndrome? or thicken* or cancer* or cyst* or lesion* or mass* or neoplasm* or tumo?r*)).tw,kw,kf. (93024)
123 adnexa disease/ (4448)
124 (adnexa? adj3 (abnormal* or anomal* or disease? or disorder? or patholog* or problem* or syndrome? or torsion* or cancer* or cyst* or lesion* or mass* or neoplasm* or tumo?r*)).tw,kw,kf. (16377)
125 exp pelvic organ prolapse/ (38127)
126 ((pelvic or pelvis) adj3 (descen* or prolaps* or procidentia*)).tw,kw,kf. (20616)
127 ((genital* or genitourinar* or genito-urinar* or urinary or urogenital* or uro-genital or uterus or uteri or uterine or uterovaginal or utero-vaginal or vagina* or vagino-uterine or vaginouterine) adj3 (descen* or prolaps* or procidentia* or eversion*)).tw,kw,kf. (19221)
128 (AVWP or colpoptos#s or cystocele or hysterocele or hysteroptos#s or metroptos#s or ptos#s or proctocele or PVWP or rectocele).tw,kw,kf. (32032)
129 pelvic pain/ (14183)
130 ((pelvic or pelvis) adj3 (ache? or aching or pain* or throb*)).tw,kw,kf. (31867)
131 exp pelvic inflammatory disease/ (29475)
132 ((pelvic or pelvis) adj3 (inflam* or infecti* or venous disorder?)).tw,kw,kf. (16285)
133 adnexit#s.tw,kw,kf. (1751)
134 endometriosis/ (66662)
135 (endometrios* or endometrioma*).tw,kw,kf. (67329)
136 exp intrauterine contraceptive device/ and (lost or missing or mislocat*).ti,kf. (319)
137 ((intracervical or intra-cervical or intrauterine or intra-uterine) adj2 (coil? or contracepti* or device?) adj5 (lost or missing or mislocat*)).tw,kw,kf. (249)
138 ((IUD or IUCD or "I.U.D." or "I.U.C.D.") adj5 (lost or missing or mislocat*)).tw,kw,kf. (318)
139 recurrent abortion/ (15459)
140 ((habitual* or recur* or repeat* or successive*) adj3 (abortion* or miscarr* or (early adj2 loss*))).tw,kw,kf. (18887)
141 ((uterine or uterus or uteri) adj3 (cyst* or disorder? or fibroid* or septum* or septa)).tw,kw,kf. (16690)
142 exp infertility/ (208177)
143 (infertil* or sterilit* or subfertil* or sub-fertil* or infecundit*).tw,kw,kf. (217702)
144 (fertility adj3 (anomal* or disorder* or dysfunction* or problem*)).tw,kw,kf. (5955)
145 follicul* count?.tw,kw,kf. (417)
146 tubal patenc*.tw,kw,kf. (2385)
147 ((cervical or cervix) adj3 incompeten*).tw,kw,kf. (2442)
148 exp ovary disease/ (240871)
149 exp ovary cyst/ (45539)
150 ((epoophoran or epo-ophoran or ovari* or ovary or parovaria* or parovary) adj3 (abnormal* or anomal* or disease? or disorder? or patholog* or problem* or syndrome? or torsion* or cancer* or cyst* or micropolycystic* or micro-polycystic* or micro-poly-cystic* or micropoly-cystic* or polycystic* or poly-cystic* or sclerocystic* or sclero-cystic* or neoplasm* or mass* or tumo?r*)).tw,kw,kf. (299171)
151 (follic* adj3 cyst*).tw,kw,kf. (5162)
152 (stein adj2 leventhal).tw,kw,kf. (1858)
153 ovary polycystic disease/ (31435)
154 (PCOS and (polycystic* or poly-cystic*)).tw,kw,kf. (29920)
155 menstruation disorder/ (17533)
156 exp "amenorrhea and oligomenorrhea"/ (37141)
157 dysmenorrhea/ (18449)
158 exp "menorrhagia and metrorrhagia"/ (18662)
159 ((menstrua* or menses or ovulat*) adj3 (abnormal* or anomal* or bleeding or disease? or disorder? or disturb* or excessive* or heavy or infrequent* or irregular* or pain* or problem* or retrograde)).tw,kw,kf. (36285)
160 (amenorrhea* or dysmenorrhea* or hypermenorrhea* or hyper-menorrhea* or hypomenorrhea* or hypo-menorrhea* or oligomenorrhea* or oligo-menorrhea* or menorrhagia* or polymenorrhea* or poly-menorrhea*).tw,kw,kf. (52685)
161 exp micturition disorder/ (178522)
162 ((urine or urina* or voiding) adj3 (abnormal* or anomal* or disease? or disorder? or incontinen* or patholog* or problem* or retention*)).tw,kw,kf. (153023)
163 (anuria* or enures#s or glycosuria* or h?ematuria* or oliguria* or polyuria* or poly-uria*).tw,kw,kf. (111326)
164 or/119-163 [GYNAECOLOGICAL CONDITIONS] (1352591)
165 diagnostic imaging/ (256282)
166 (diagnos* adj3 (image? or imaging)).tw,kw,kf. (123151)
167 (ultrasound* or ultrasonograph* or ultra-sonograph* or ultrasonic* or ultra-sonic*).tw,kw,kf. (1032846)
168 exp echography/ (1345260)
169 (echogra* or echo-gra* or echotomogra* or echo-tomogra* or echosonogra* or echo-sonogra*).tw,kw,kf. (28759)
170 (TAUS or TVUS).tw,kw,kf. (2082)
171 or/165-170 [ULTRASOUND] (2158695)
172 exp radiography/ (2521310)
173 (radiograph* or radiographic imag* or roentgenograph* or roentgeno-graph*).tw,kw,kf. (595022)
174 (fluoroscop* or fluoro-scop*).tw,kw,kf. (83582)
175 (xray* or x-ray*).tw,kw,kf. (897761)
176 (hysterosonogra* or hystero-sonogra* or sonohysterogra* or sono-hysterogra*).tw,kw,kf. (1610)
177 exp tomography/ (3074878)
178 (tomograph* or tomo-graph*).tw,kw,kf. (1080331)
179 (CAT scan* or CT scan* or PET scan* or PET imag* or PT scan* or PT imag*).tw,kw,kf. (368859)
180 (SPECTCT or SPECT CT or "SPECT/CT").tw,kw,kf. (15800)
181 exp nuclear magnetic resonance imaging/ (1071735)

182 (magnetic resonance imag* or MRI or MRIs or fMRI or fMRIs or NMR imag* or chemical shift imag* or magneti#ation transfer contrast imag* or spin echo imag* or zeugmatograph* or zeugmato-graph*).tw,kw,kf. (1163939)
183 (cineradiograph* or cine-radiograph* or cinefluorograph* or cine-fluorograph* or radiocinematograph* or radio-cinematograph*).tw,kw,kf. (4222)
184 or/172-183 [OTHER DIAGNOSTIC IMAGING TECHNOLOGIES] (5960896)
185 (118 or 164) and (171 or 184) [US/OTHER DIAGNOSTIC IMAGING TECHNOLOGIES - ALL CONDITIONS] (513511)
186 exp animal/ or exp animal experimentation/ or exp animal model/ or exp animal experiment/ or nonhuman/ or exp vertebrate/ (56746118)
187 exp human/ or exp human experimentation/ or exp human experiment/ (44238192)
188 186 not 187 (12509819)
189 185 not 188 [ANIMAL-ONLY REMOVED] (488807)
190 (conference abstract or conference review or editorial or letter).pt. (7925104)
191 case report/ or exp case study/ or directory/ (5095821)
192 189 not (190 or 191) [CONFERENCE ABSTRACTS, CASE REPORTS AND OPINION PIECES REMOVED] (268409)
193 exp practice guideline/ (649093)
194 (consensus or guideline* or guidance? or standards or recommendation*).ti,kw,kf. (494627)
195 (expert consensus or consensus statement* or consensus conference* or clinical guideline? or practice guideline? or treatment guideline? or practice parameter* or position statement* or policy statement* or CPG or CPGs).tw,kw,kf. (276980)
196 or/193-195 [GUIDELINE FILTER] (1168079)
197 192 and 196 [GUIDELINES] (8537)
198 limit 197 to yr="2016-current" (3460)
199 198 use emczd [EMBASE RECORDS] (2629)
200 101 or 199 [BOTH DATABASES] (4279)
201 remove duplicates from 200 (3520) [TOTAL UNIQUE RECORDS]
202 201 use medall [MEDLINE UNIQUE RECORDS] (1648)
203 201 use emczd [EMBASE UNIQUE RECORDS] (1872)
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APPENDIX 2. EVIDENCE TABLES

Grading and Levels of Evidence

2012 CAR and 2017 RCR Grades

[A] Any of the following:

(1) High-quality diagnostic studies in which a new test is independently and blindly compared with a reference standard in an appropriate spectrum of patients;

(2) Systematic review and meta-analyses of such high-quality studies.

[B] Any of the following:

(1) Studies with a blind and independent comparison of the new test with the reference standard in a set of non-consecutive patients or confined to a narrow spectrum of patients;

(2) Studies in which the reference standard was not applied to all patients;

(3) Systematic reviews of such studies.

[C] Any of the following:

(1) Studies in which the reference standard was not objective;

(2) Studies in which the comparison of the new test with the reference standard was not blind or independent;

(3) Studies in which positive and negative test results were verified using different reference standards;

(4) Expert opinion.

Oxford Centre for Evidence-based Medicine 2009 Levels of Evidence [12]

Oxford Centre for Evidence-based Medicine 2011 Levels of Evidence [71]

American College of Obstetricians and Gynecologists (ACOG) levels of evidence [72]

Royal College of Obstetricians and Gynaecologists (RCOG) Grading [73]

Table OG01. 1st trimester assessment

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
Initial/early screening	
CAR 2012 [18]	**I01. Screening in pregnancy** - US: Indicated [B]: Screening in early pregnancy accurately dates a pregnancy by measuring the total crown-rump length. This reduces the intervention rate for infants born at or after full term. US accurately assesses fetal number and chorionicity and amnionicity and improves outcome for multiple pregnancies. US accurately identifies fetal demise. First trimester ultrasound is important for aneuploidy screening to confirm dates and measurement of nuchal translucency (NT) by accredited operators. Nuchal translucency is performed between 11-14 weeks. US has a proven value in assessing placenta previa and intrauterine growth restriction and incompetent cervix and fetal demise at any stage of pregnancy. **I03. Suspected pregnancy** - US: Not indicated: There is no evidence that diagnosing pregnancy by US is appropriate. Hcg testing is the most appropriate. **I05. Pregnancy dating** - US: Indicated [B]: US may be used in the first trimester to accurately date the pregnancy, if menstrual dates are uncertain or to confirm dates if there is any clinical doubt.
RCR 2017 [19] High quality	**OG01. Imaging for screening in pregnancy** - US [B] - MRI [C] **OGO2. Suspected pregnancy** - US [C]
Nuchal translucency evaluation	
CAR 2012 [18]	See OG1. 1st trimester assessment - I01. Screening in pregnancy
ACR 2020 [20] Moderate quality	**Nuchal Translucency Evaluation at 11 to 14 Weeks of Gestation** ▪ Variant 1. Routine nuchal translucency measurement at 11 to 14 weeks of gestation for single or twin gestations. Initial imaging.
RCR 2017 [19] High quality	See OG1. 1st trimester assessment - OG01. Imaging for screening in pregnancy
SOGC 2021 [21] Moderate quality	**Fetal neural tube defects** - First-trimester sonographic neural tube defect screening and diagnostic techniques (GRADE Strength/Level of Evidence: STRONG/MODERATE). - Prenatal MRI (GRADE Strength/ Level of Evidence: STRONG/HIGH).
Early fetal anatomy	
SOGC 2017 [22] Moderate quality	**Early fetal anatomy US** - Transabdominal and transvaginal US (GRADE Strength/Level of Evidence: STRONG/HIGH) - Comprehensive fetal anatomic scanning (GRADE Level of Evidence: HIGH)

Appendix 2. Evidence Tables

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
1st trimester vaginal bleeding	
CAR 2012 [18]	**I04. Symptomatic early pregnancy** - US: Indicated [C]: US is indicated if early pregnancy is symptomatic: pain, vaginal bleeding, or excessive vomiting.
ACR 2018 [23] Moderate quality	**First trimester vaginal bleeding** ▪ Variant 1. First trimester vaginal bleeding. Positive urine or serum pregnancy test.
Gestational trophoblastic disease (GTD)	
ACR 2019 [24] Moderate quality	**Gestational trophoblastic disease** ▪ Variant 1. Suspected or initial diagnosis of gestational trophoblastic disease
SOGC 2021 [25] Moderate quality	**Gestational trophoblastic disease** - Chest X-ray (GRADE Strength/Level of Evidence: STRONG/MODERATE)
Multiple gestations	
CAR 2012 [18]	See OG1. 1st trimester assessment - I01. Screening in pregnancy
ACOG 2021 [26] Moderate quality	**Multifetal gestations** - Chorionicity: US (LEVEL B)
ACR 2020 [20] Moderate quality	**See Nuchal translucency evaluation section for NT evaluation in twin gestations** ▪ Variant 1. Routine nuchal translucency measurement at 11 to 14 weeks of gestation for single or twin gestations. Initial imaging. ▪ Variant 3. Increased nuchal translucency in dichorionic twins at 11 to 14 weeks of gestation. ▪ Variant 4. Increased nuchal translucency in monochorionic twins at 11 to 14 weeks of gestation.
ACR 2017 [27] Moderate quality	**Multiple gestations** ▪ Variant 1. Known or suspected multiple gestations. Monochorionic or dichorionic. First trimester US.
ISUOG 2016 [28] Moderate quality	**Twin pregnancy** - US (GRADE OF RECOMMENDATION: D) - Chorionicity: Transabdominal US, transvaginal US (EVIDENCE LEVEL: 3) - Screening for trisomy 21 (GRADE OF RECOMMENDATION: B) - Major anomalies (GOOD PRACTICE POINT)
RCOG 2016 [29] High quality	**Monochorionic Twin** - US (GRADE OF RECOMMENDATION: B) - Chorionicity: US (GRADE OF RECOMMENDATION: D) - Aneuploidy screening (GRADE OF RECOMMENDATION: C) - Screening for TTTS (GRADE OF RECOMMENDATION: C)
RCR 2017 [19] High quality	See OG1. 1st trimester assessment - OG01. Imaging for screening in pregnancy
NICE 2019 [30]	**Twin and triplet pregnancy**

Appendix 2. Evidence Tables

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
High quality	- US - Transvaginal US - 3-dimensional (3-D) US
Pregnancy of unknown location (PUL) and non-tubal ectopic pregnancies	
CAR 2012 [18]	**I07. Suspected pregnancy of unknown location (PUL)** - US: Indicated [B]: The uterus should be thoroughly scanned for the presence of a gestational sac. An intrauterine gestational sac should be seen when the quantitative hcg is >2000 IU. However, many intrauterine or extrauterine pregnancies can be detected by US at much lower hcg levels. Therefore, if an intrauterine gestational sac is not identified, the adnexa should be thoroughly scanned for the presence of a mass. If there is no US evidence of either intra or extrauterine pregnancy, correlation should be made with hcg levels. In patients undergoing assisted reproduction techniques, the adnexa should be scanned thoroughly even in the presence of an intrauterine pregnancy, as the incidence of heterotopic pregnancy is much higher in these patients. Serial quantitative hcg in an ectopic pregnancy is variable (may be similar to normal pregnancy, increase less than normal pregnancy, decrease or show a fluctuating increase, decrease, increase pattern).
NICE 2019 [31,32] High quality	**1.4 Diagnosis of viable intrauterine pregnancy and of tubal ectopic pregnancy** - TVUS (Based on moderate to very low-quality evidence, and the experience and opinion of the Guideline Committee) - Transabdominal US
RCR 2017 [19] High quality	**OG03. Suspected pregnancy of unknown location (including ectopic pregnancy)** - US [B] - MRI [B]
SOGC 2021 [33] Moderate quality	**PUL and non-tubal ectopic pregnancies** - US diagnosis (MODERATE)
Non-viable/borderline viability	
CAR 2012 [18]	**I06. Possible non-viable pregnancy** - US: Indicated [C]: In a normal pregnancy, an embryo should be present when the mean diameter of the gestational sac measures > 16 mm and an embryonic heartbeat detected when the embryonic crown-rump length measures >5 mm. Lack of these findings suggest a non-viable pregnancy. However, these findings should be correlated with quantitative hcg levels. In a normal pregnancy, hcg has a doubling time of approximately 2 days. In a non-viable pregnancy, hcg will decrease. When there is any doubt, a repeat US within a week should be done, prior to any intervention in a desired pregnancy.
RCR 2017 [19] High quality	**OG04. Intrauterine pregnancy of uncertain viability** - US [C]
SOGC 2017 [34] Moderate quality	**Borderline viability** - First trimester US (GRADE Strength/Level of Evidence: STRONG/LOW)

Appendix 2. Evidence Tables

Abbreviations: ACOG: American College of Obstetricians and Gynecologists; ACR: American College of Radiology; ISUOG: International Society of Ultrasound in Obstetrics and Gynecology; NICE: National Institute for Health and Care Excellence; RCOG: Royal College of Obstetricians and Gynaecologists; RCR: Royal College of Radiologists; SOGC: Society of Obstetricians and Gynaecologists of Canada

Table OG02. 2nd trimester assessment

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
Fetal anatomy	
CAR 2012 [18]	**I01. SCREENING IN PREGNANCY** ▪ US: Indicated [B]: The scan at 18-20 weeks is recommended for fetal anatomy. However, screening at this time has not been shown to alter perinatal mortality except where selective termination of pregnancy is applied in the presence of gross fetal abnormality and in cases where fetal therapy or direction of delivery to a high-risk center has proven useful. US has a proven value in assessing placenta previa and intrauterine growth restriction and incompetent cervix and fetal demise at any stage of pregnancy.
ACR 2021 [35] Moderate quality	**Second and third trimester screening for fetal anomaly** ▪ Variant 1. Second and third trimester screening for fetal anomaly. Low-risk pregnancy. Initial imaging ▪ Variant 2. Second and third trimester screening for fetal anomaly. High-risk pregnancy. Initial imaging
RCR 2017 [19] High quality	**OG01. IMAGING FOR SCREENING IN PREGNANCY** - US [B] - MRI [C]
Neural tube defects	
SOGC 2021 [21] Moderate quality	**Fetal neural tube defects** - US (GRADE STRENGTH/Level of Evidence: STRONG/MODERATE). - MRI (GRADE STRENGTH/ Level of Evidence: STRONG/HIGH).
Placental assessment	
CAR 2012 [18]	See OG1. 1st trimester assessment - I01. Screening in pregnancy
ACR 2020 [36] Moderate quality	**Placenta Accreta Spectrum Disorder** ▪ Variant 1. Low risk for placenta accreta spectrum disorder. No known clinical risk factors. Initial imaging ▪ Variant 2. High risk for placenta accreta spectrum disorder. Initial imaging
RCOG 2018 [37] High quality	**Placenta Praevia and Placenta Accreta** - US placental localisation (GOOD PRACTICE POINT) - Transvaginal, transabdominal, and transperineal (GOOD PRACTICE POINT) - Diagnostic value of MRI and ultrasound imaging (GRADE OF RECOMMENDATION: C) - MRI as a complement to US (GOOD PRACTICE POINT)
RCOG 2019 [38] High quality	**Vasa previa** - US diagnosis (GRADE OF RECOMMENDATION: B) - Transabdominal and transvaginal colour Doppler imaging (GRADE OF RECOMMENDATION: D) - Universal screening for vasa praevia (GRADE OF RECOMMENDATION: D).

Appendix 2. Evidence Tables

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
RCR 2017 [19] High quality	See OG1. 1st trimester assessment - OG01. Imaging for screening in pregnancy
SOGC 2020 [39] Moderate quality	**Diagnosis of placenta previa** - Transabdominal and transvaginal US (GRADE STRENGTH/LoE: STRONG/MODERATE)
Cervical assessment	
CAR 2012 [18]	See OG1. 1st trimester assessment - I01. Screening in pregnancy
ACR 2020 [40] Moderate quality	**Gravid Cervix** ▪ Variant 1. Assessment of gravid cervix. Nulliparous or no history of prior preterm birth. Initial imaging ▪ Variant 2. Assessment of gravid cervix. History of prior preterm birth. Initial imaging ▪ Variant 3. Assessment of gravid cervix. Suspected preterm labor. Initial imaging
NICE 2019 [41] High quality	**Preterm labour and birth** - Transvaginal US
RCR 2017 [19] High quality	See OG1. 1st trimester assessment - OG01. Imaging for screening in pregnancy
2nd trimester vaginal bleeding	
ACR 2020 [42] Moderate quality	**Second and third trimester bleeding** ▪ Variant 1. Second and third trimester vaginal bleeding. Painless bleeding. Initial imaging. ▪ Variant 2. Second and third trimester vaginal bleeding. Painful bleeding. Initial imaging. ▪ Variant 3. Second and third trimester vaginal bleeding. Suspicion of or known placenta previa, low-lying placenta, or vasa previa. Initial imaging.
Fetal growth restrictions	
CAR 2012 [18]	See OG1. 1st trimester assessment - I01. Screening in pregnancy
RCR 2017 [19] High quality	See OG1. 1st trimester assessment - OG01. Imaging for screening in pregnancy
Multiple gestations	
ACR 2017 [27] Moderate quality	**Multiple gestations** ▪ Variant 2. Multiple gestations. Dichorionic. Second trimester US. Anatomy scan. ▪ Variant 3. Multiple gestations. Monochorionic. Second trimester US. Anatomy scan.
ISUOG 2016 [28] Moderate quality	**Twin pregnancy** - US - Cervical length assessment (EVIDENCE LEVEL: 2+, 2++) - Routine second-trimester (anomaly) scan (GOOD PRACTICE POINT)

Appendix 2. Evidence Tables

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
ACOG 2021 [26] Moderate quality	**Multifetal gestations** - US for twin-to-twin transfusion syndrome (Level A)
RCOG 2016 [29] High quality	**Monochorionic Twin** - 2nd trimester US for those with monochorionic twin pregnancies who 'miss' or who have unsuccessful first trimester screening for aneuploidy (GRADE OF RECOMMENDATION: D) - Routine detailed ultrasound scan (GRADE OF RECOMMENDATION: C) - US screening for twin-to-twin transfusion syndrome (GOOD PRACTICE POINT) - Umbilical artery Doppler evaluation (GRADE OF RECOMMENDATION: C)
NICE 2019 [30] High quality	**Twin and triplet pregnancy** - US

Abbreviations: ACOG: American College of Obstetricians and Gynecologists; ACR: American College of Radiology; ISUOG: International Society of Ultrasound in Obstetrics and Gynecology; NICE: National Institute for Health and Care Excellence; RCOG: Royal College of Obstetricians and Gynaecologists; RCR: Royal College of Radiologists; SOGC: Society of Obstetricians and Gynaecologists of Canada

Table OG03. 3rd trimester assessment

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
Fetal well-being	
ACR 2016 [43] Moderate quality	**Fetal well-being** ▪ Variant 1. Low-risk pregnancy ▪ Variant 2: Pregnancy at Risk for Adverse Fetal Outcome. ▪ Variant 3: Preterm Pregnancy; Abnormal Antenatal Test Results. ▪ Variant 4: Term Pregnancy; Abnormal Antenatal Test Results.
Fetal anatomy	
ACR 2021 [35] Moderate quality	**2nd & 3rd trimester screening for fetal anomaly** ▪ Variant 1. Second and third trimester screening for fetal anomaly. Low-risk pregnancy. Initial imaging ▪ Variant 2. Second and third trimester screening for fetal anomaly. High-risk pregnancy. Initial imaging
Placental assessment	
CAR 2012 [18]	- US: Indicated [B]: US has a proven value in assessing placenta previa and intrauterine growth restriction and incompetent cervix and fetal demise at any stage of pregnancy.
ACR 2020 [36] Moderate quality	**Placenta Accreta Spectrum Disorder** ▪ Variant 3: Follow-up of placenta accreta spectrum disorder
RCOG 2018 [37] High quality	**Placenta Praevia and Placenta Accreta** - Follow-up US including a transvaginal US for diagnosis (GRADE OF RECOMMENDATION: D) - Additional transvaginal US (GRADE OF RECOMMENDATION: D)
RCR 2017 [19] High quality	**OG01. Imaging for screening in pregnancy** - US [B] - MRI [C]
SOGC 2020 [39] Moderate quality	**Diagnosis of placenta previa** - US (GRADE Strength/Level of Evidence: STRONG/MODERATE) - Transvaginal US (GRADE Strength/Level of Evidence: STRONG/MODERATE)
3rd trimester vaginal bleeding	
ACR 2020 [42] Moderate quality	**Second and third trimester bleeding** ▪ Variant 1. Second and third trimester vaginal bleeding. Painless bleeding. Initial imaging. ▪ Variant 2. Second and third trimester vaginal bleeding. Painful bleeding. Initial imaging. ▪ Variant 3. Second and third trimester vaginal bleeding. Suspicion of or known placenta previa, low-lying placenta, or vasa previa. Initial imaging.
Multiple gestations	
ACR 2017 [27]	**Multiple gestations**

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
Moderate quality	▪ Variant 4. Multiple gestations. Dichorionic. Growth and antepartum surveillance. ▪ Variant 5. Multiple gestations. Monochorionic. Growth and antepartum surveillance. ▪ Variant 6. Multiple gestations. Known twin discordance. Monochorionic or dichorionic.
ISUOG 2016 [28] Moderate quality	**Twin pregnancy** - US
Fetal growth restriction	
CAR 2012 [18]	See OG1. 1st trimester assessment - I01. Screening in pregnancy
ACR 2019 [44] Moderate quality	**Growth disturbances** ▪ Variant 1. Growth disturbance. Low risk for fetal growth restriction. Initial evaluation. ▪ Variant 2. Growth disturbance. High risk for fetal growth restriction. Initial evaluation.
ACOG 2021 [45] Moderate quality	**Fetal Growth Restriction** - US
Society MFM 2020 [46] Moderate quality	**Fetal growth restriction** - US (GRADE 1B: Strong recommendation, moderate-quality evidence)

Abbreviations: ACR: American College of Radiology; ACOG: American College of Obstetricians and Gynecologists; ISUOG: International Society of Ultrasound in Obstetrics and Gynecology; MFM: Maternal-fetal medicine; RCR: Royal College of Radiologists; SOGC: Society of Obstetricians and Gynaecologists of Canada

Table OG04. Post-partum (up to 6 weeks)

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
CT: computed tomography; MRI: magnetic resonance imaging; US: ultrasound	
CAR 2012 [18]	This scenario was not addressed in the 2012 CAR guidelines.
ACR 2020 [47] Moderate quality	**Postpartum hemorrhage** ▪ Variant 1. Postpartum hemorrhage. Early (within first 24 hours) after cesarean delivery. Initial imaging. ▪ Variant 2. Postpartum hemorrhage. Early (within first 24 hours) after vaginal delivery. Initial imaging. ▪ Variant 3. Postpartum hemorrhage. Late (greater than 24 hours to 6 weeks) after caesarian delivery. Initial imaging. ▪ Variant 4. Postpartum hemorrhage. Late (greater than 24 hours to 6 weeks) after vaginal delivery. Initial imaging.
French College of Gynecologists and Obstetricians 2016 [48] Moderate quality	**Pelvic inflammatory disease** - US (GRADE: B) - CT scan or MRI with injection of a contrast (GRADE: B) *Grade A indicates that the guidelines are based on established scientific evidence, grade B indicates a basis of scientific presumption, and grade C indicates a basis of a low level of evidence.*

Abbreviations: ACR: American College of Radiology; CAR: Canadian Association of Radiologists

Table OG05. Recurrent pregnancy loss (1st trimester)

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
	HSG: Hystero-salpingography; MRI: magnetic resonance imaging; SIS: saline-infusion sonohysterography; US: ultrasound
CAR 2012 [18]	**I12. Recurrent miscarriages** - US: Indicated [C]: Will show the major uterine congenital and acquired problems and is useful to identify ovarian pathology. 3D US with coronal reconstruction is valuable in detecting congenital uterine abnormalities. - MRI: Specialized investigation [C]: Supplements US for uterine anatomy.
ACR 2020 [49] Moderate quality	**Female infertility** ▪ Variant 5. Female infertility. Recurrent pregnancy loss. Initial imaging.
RCR 2017 [19] High quality	**OG09: Recurrent miscarriages (3 or more)** - US [B] - MRI [C] - Hystero-salpingography/Sono-HSG [B]

Abbreviations: ACR: American College of Radiology; CAR: Canadian Association of Radiologists; RCR: Royal College of Radiologists

Table OG06. Infertility assessment

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
HSG: Hystero-salpingography; MRI: magnetic resonance imaging; US: ultrasound	
CAR 2012 [18]	**I13. Basic infertility** - US: Indicated [C]: US should be used to confirm the presence of normal uterus and ovaries.
ACR 2020 [49] Moderate quality	**Female Infertility** ▪ Variant 1. Female infertility. Evaluation of ovulatory function and ovarian reserve. Initial imaging. ▪ Variant 2. Female infertility. Clinical features or history of polycystic ovary syndrome. Initial imaging. ▪ Variant 3. Female infertility. History or clinical suspicion of endometriosis. Initial imaging. ▪ Variant 4. Female infertility. Suspicion of tubal occlusion. Initial imaging.
ESUR-SPIWG 2019 [50,51] Moderate quality	**Varicoceles** - Grey-scale and Doppler US (LoE 3, GoR C). - Colour Doppler (LoE 3, GoR C). - Bilateral colour Doppler US (LoE 3, GoR B). - US in patients with an isolated clinical right-sided varicocele (LoE 5, GoR D). **Note**: LoE in Table 1 (Oxford Centre for Evidence Based Medicine 2011), GoR in Table 2 of manuscript.
NICE 2017 [52] High quality	**Fertility problems** - Hysterosalpingography - Hysterosalpingo-contrast-ultrasonography - Hysteroscopy **Note:** Recommendations from 2004, but guideline was last updated in 2017.
RCR 2017 [19] High quality	**OG10. Infertility** - US [B] - Sono-HSG/HSG [A] - MRI [C]

Abbreviations: ACR: American College of Radiology; CAR: Canadian Association of Radiologists; ESUR-SPIWG: European Society of Urogenital Radiology Scrotal and Penile Imaging Working Group; GoR: Grade of Recommendation; LoE: Level of Evidence; RCR: Royal College of Radiologists; PCOM: Polycystic ovarian morphology

Table OG07. Evaluation of adnexal mass

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
CT: computed tomography; MRI: magnetic resonance imaging; US: ultrasound	
CAR 2012 [18]	**I09. Clinically suspected adnexal mass** ▪ US: Indicated [C]: Combination of transabdominal and transvaginal US is often required. US should confirm the presence of a lesion and determine the likely organ of origin. Transvaginal scanning should be used to better characterize the internal morphology of the lesion. MRI is the best second-line investigation, although CT is still widely used but is not recommended in premenopausal age group. **I15. Ovarian cyst** - US: Indicated in appropriate circumstances: US is the appropriate initial imaging modality for following up simple ovarian cysts when this is indicated. The indications are: cysts > 5 cm and < 7 cm in the reproductive age group or > 1 cm and < 7 cm in the postmenopausal age group should have yearly follow-up. Smaller cysts do not need any follow-up. Hemorrhagic cysts > 5 cm should have a follow-up examination in 6-12 weeks at a different stage of the menstrual cycle. In patients with pelvic pain and hemorrhagic cysts < 5 cm, a follow up ultrasound is recommended to rule out endometriosis.
ACR 2019 [53] Moderate quality	**Clinically suspected adnexal mass, no acute symptoms** ▪ Variant 1: Clinically Suspected Adnexal Mass, No Acute Symptoms. Premenopausal. Initial Imaging ▪ Variant 2: Clinically Suspected Adnexal Mass, No Acute Symptoms. Postmenopausal. Initial Imaging ▪ Variant 8. Clinically suspected adnexal mass, no acute symptoms. Pregnant. Initial imaging and follow-up.
ASCO 2021 [54] High quality	**What are the optimal diagnostic strategies for adult women with ovarian masses and/or symptoms of EOC (including fallopian tube and primary peritoneal cancer)?** - US (abdominal and transvaginal ultrasound, Doppler-enhanced) - Contrast-enhanced computed tomography - MRI - Capacities by setting: Basic, limited, enhanced
RCR 2017 [19] High quality	**OG06. Suspected pelvic mass** - US [B] - MRI [B] - CT [B] **OG14. Ovarian cysts found incidentally in pre-menopausal women: follow-up** - US [B] **OG15. Ovarian cysts found incidentally in postmenopausal women: follow-up** - US [B] - MRI [C]
SOGC 2020 [55] Moderate quality	**Adnexal mass** - US (GRADE STRENGTH/LoE: STRONG/MODERATE). - US or MRI in women with adnexal masses (GRADE STRENGTH/LoE: STRONG/LOW).

Appendix 2. Evidence Tables

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
CT: computed tomography; MRI: magnetic resonance imaging; US: ultrasound	
SOGC 2020 [56] Moderate quality	**Benign ovarian mass** - US and follow-up US (GRADE Strength/Level of Evidence: STRONG/MODERATE)

Abbreviations: ACR: American College of Radiology; ASCO: American Society of Clinical Oncology; CAR: Canadian Association of Radiologists; EOC: epithelial ovarian cancer; LoE: Level of Evidence; RCR: Royal College of Radiologists; SOGC: Society of Obstetricians and Gynaecologists of Canada

Table OG08. Evaluation of acute pelvic pain of presumed gynecologic origin

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
CT: computed tomography; MRI: magnetic resonance imaging; US: ultrasound	
CAR 2012 [18]	**I10. Acute pelvic pain in the reproductive age group** - US: Indicated [C]: Where the gynaecological cause and etiology are highly suspected and serum hCG negative, US is indicated, especially when clinical examination is difficult or impossible. US can diagnose cyst leak or haemorrhage. Focal uterine tenderness can be elicited by the transvaginal probe with focal palpation of the uterus in some cases of adenomyosis. Doppler exam can be an aid to diagnosis of torsion along with the 2D ultrasound. US has a poor predictive power when diagnosing pelvic inflammatory disease and some forms of endometriosis. - CT: Specialized investigation [B]: CT may be requested by a specialist for further investigation in assessing pelvic masses and other pathologies such as abscesses but should be avoided in the reproductive age group. - MRI: Specialized investigation [B]: Can be useful to localize the larger foci of endometriosis or other ovarian pathology when US inconclusive.
ACR 2016 [57] Moderate quality	**Acute pelvic pain in the reproductive age group** ▪ Variant 1: Gynecological Etiology Suspected, Serum β-hCG Positive ▪ Variant 2: Gynecological Etiology Suspected, Serum β-hCG Negative
ACR 2021 [58] Moderate quality	**Postmenopausal Acute Pelvic Pain** ▪ Variant 1. Postmenopausal acute pelvic pain. Initial imaging.
French College of Gynecologists and Obstetricians 2016 [48] Moderate quality	**Pelvic inflammatory disease** - Routine pelvic US (GRADE: B) - Abdominopelvic CT, MRI (GRADE: C) *Grade A indicates that the guidelines are based on established scientific evidence, grade B indicates a basis of scientific presumption, and grade C indicates a basis of a low level of evidence.*
RCR 2017 [19] High quality	**OG07. Pelvic pain: suspected benign cause (including suspected pelvic inflammatory disease and suspected endometriosis)** ▪ US [B] ▪ MRI [B] ▪ CT [B]

Abbreviations: ACR: American College of Radiology; CAR: Canadian Association of Radiologists; hCG: human chorionic gonadotropin; RCR: Royal College of Radiologists

Table OG09. Evaluation of chronic pelvic pain of presumed GYNECOLOGIC ORIGIN

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
CT: computed tomography; MRI: magnetic resonance imaging; US: ultrasound	
CAR 2012 [18]	This scenario was not addressed in the 2012 CAR guidelines.
ACR 2018 [59] Moderate quality	**Postmenopausal Subacute or Chronic Pelvic Pain** ▪ Variant 1. Postmenopausal subacute or chronic pelvic pain, localized to the deep pelvis. Initial imaging. ▪ Variant 2. Postmenopausal subacute or chronic pelvic pain, clinically suspected pathologies in perineum, vulva, or vagina. Initial imaging.
ESUR 2017 [60] Moderate quality	**MRI of pelvic endometriosis** - MRI (OCEMB 2011: grade A)
NICE 2017 [61] High quality	**Endometriosis** - Transvaginal US - Transabdominal US - MRI
RCR 2017 [19] High quality	**OG07. Pelvic pain: suspected benign cause (including suspected pelvic inflammatory disease and suspected endometriosis)** ▪ US [B] ▪ MRI [B] ▪ CT [B]
SAR 2020 [62] Moderate quality	**Pelvic endometriosis** - MRI (OCEMB 2011: Evidence Level 3) - Targeted US - Follow-up MRI (OCEMB 2011: Evidence Level 5) - Vaginal contrast (OCEMB 2011: Evidence Level 3) - Rectal contrast (OCEMB 2011: Evidence Level 3)

Abbreviations: CAR: Canadian Association of Radiologists; ESUR: European society of urogenital radiology; NICE: National Institute for Health and Care Excellence; OCEMB: Oxford Centre for Evidence-based Medicine; RCR: Royal College of Radiologists; SAR: Society of Abdominal Radiology

TABLE OG10. Pelvic floor evaluation in females

Guideline Group	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered
CAR 2012 [18]	This scenario was not addressed in the 2012 CAR guidelines.

Abbreviations: CAR: Canadian Association of Radiologists

TABLE OG11. Disorders of menstruation

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
MRI: magnetic resonance imaging; US: ultrasound	
CAR 2012 [18]	**I08. Post-menopausal bleeding: to exclude significant endometrial pathology** - US: Indicated [B]: Endometrial thickening of 5 mm or greater is considered abnormal and warrants further clinical investigation. Focal endometrial thickening or mass may require hysterosonography or hysteroscopy for further evaluation. Doppler may be useful in diagnosing an endometrial polyp by showing a feeding vessel. **I16. Polycystic ovarian syndrome/disease** - US: Not indicated: Definitive diagnosis of this syndrome is made by laboratory tests. Although characteristic sonographic abnormalities can be seen in some patients with polycystic ovarian syndrome, not all patients have these findings.
ACR 2020 [63] Moderate quality	**Abnormal uterine bleeding** ▪ Variant 1. Abnormal uterine bleeding. Initial imaging. ▪ Variant 2. Abnormal uterine bleeding. Follow-up imaging when original ultrasound is inconclusive or further imaging characterization is needed.
Intl. Guideline on PCOS 2018 [64–67] High quality	- US in those with a gynecological age of < 8 years (< 8 years after menarche) (GRADE CERTAINTY: HIGH) - Transvaginal US (GRADE CERTAINTY: HIGH) - US in patients with irregular menstrual cycles and hyperandrogenism (CLINICAL PRACTICE POINT)
NICE 2018 [68–70] High quality	**Heavy menstrual bleeding** - Hysteroscopy - Pelvic US - Saline infusion sonography - MRI
RCR 2017 [19] High quality	**OG05. Postmenopausal bleeding: to exclude significant endometrial pathology** - US [A] **OG12. Suspected polycystic ovary syndrome** - US [B] - MRI [B]

Abbreviations: ACR: American College of Radiology; CAR: Canadian Association of Radiologists; Intl: International; NICE: National Institute for Health and Care Excellence; PCOS: polycystic ovary syndrome; RCR: Royal College of Radiologists

Table OG12. Localization of intra-uterine contraceptive device

Guideline Group AGREE-II Assessment	Imaging modality addressed in guideline recommendations and/or clinical scenarios covered (Note: Recommendations are not included, except for the 2012 CAR guideline)
XR: radiograph; US: ultrasound	
CAR 2012 [18]	**I11. Lost IUCD** - US: Indicated [C]: To confirm or refute the presence of the IUCD in uterus, and to check for position. 3D US with coronal reconstruction is valuable in determining location of IUCD. - Pelvic XR: Indicated only in specific circumstances [C]: Indicated only when IUCD is not seen in uterus on US.
RCR 2017 [19] High quality	**OG08. Lost IUCD** - US [C] - Abdominal radiograph [C]

Abbreviations: CAR: Canadian Association of Radiologists; IUCD: intra-uterine contraceptive device; RCR: Royal College of Radiologists

APPENDIX 3. OBSTETRICS AND GYNECOLOGY SUMMARY OF RECOMMENDATIONS

Appendix 3A. English

Clinical/ Diagnostic Scenario	Recommendation	Strength of Rec.
CT: computed tomography; **HSG**: hysterosalpingogram; **MRI**: magnetic resonance imaging; **SIS**: saline infusion sonohysterography; **US**: ultrasound; **XR**: radiograph **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓↓: strong against; ↓: conditional against; **EPc**: Expert Panel consensus		
OG1. 1st trimester assessment	**1.** In patients with suspected pregnancy, we recommend against **US** for pregnancy confirmation.	↓↓
	Confirmed intrauterine pregnancy	
	2. In patients in the 1st trimester with confirmed intrauterine pregnancy, we recommend **transabdominal US** as the initial imaging modality for the following: pregnancy dating, to assess fetal number, chorionicity and amnionicity in multiple gestations, measurement of nuchal translucency (in single and multiple gestations), screening for select major anatomical abnormalities (such as anencephaly), and in patients with suspected complications of early pregnancy.	↑↑
	↳ **2.1** If transabdominal US is indeterminate or suboptimal for these clinical indications, we recommend **transvaginal US** as an adjunct.	↑↑
	3. In patients in the 1st trimester with a viable or potentially viable intrauterine pregnancy, we suggest not using **Doppler** as an adjunct to US without a clear clinical indication.	↓
	Suspected pregnancy of unknown location (PUL) or ectopic pregnancy	
	4. In patients in the 1st trimester with a positive pregnancy test and a suspected PUL or ectopic pregnancy, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique. *The uterus should be thoroughly scanned for the presence of a gestational sac, and in its absence, then the adnexa should be thoroughly scanned for the presence of a mass.*	↑↑
	↳ **4.1** If results are initially inconclusive, we recommend close clinical and biochemical assessment with follow-up repeat **US** assessment.	↑↑
OG2. 2nd trimester assessment	**1.** In patients in the 2nd trimester of pregnancy, typically between 18-20 weeks, we recommend routine screening with **transabdominal US**, for evaluation of fetal anatomy, fetal growth, and general assessment of the placenta.	↑↑

The guideline recommendations are to assist the choice of imaging modality in situations where it is felt clinically necessary to obtain imaging. Imaging should not delay definitive management. Additionally, we did not cover serial imaging, and time intervals for follow-up of known disease and/or treatment monitoring. These recommendations are not intended to stand alone. Medical care should be based on evidence, a clinician's expert judgment, the patient's circumstances, values, and preferences, and resource availability. We recognize that not all imaging modalities are available in all locations, particularly in rural or remote areas of Canada. Decisions about whether to recommend that a patient travel for recommended imaging or perform alternate imaging locally can be difficult, and should consider the expected benefits of recommended imaging, risks of travel, patient preference, and other factors. This guideline is based on evidence related to diagnostic imaging tests only, not the clinical management of a patient.

Clinical/ Diagnostic Scenario	Recommendation	Strength of Rec.
CT: computed tomography; **HSG**: hysterosalpingogram; **MRI**: magnetic resonance imaging; **SIS**: saline infusion sonohysterography; **US**: ultrasound; **XR**: radiograph **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓↓: strong against; ↓: conditional against; **EPc**: Expert Panel consensus		
	↳ **1.1** Where indicated, in the evaluation of fetal growth and well-being, characterization of complex anatomy, and placental and cord assessment, we recommend **Doppler** as an adjunct.	↑↑
	↳ **1.2** For complex fetal conditions, if US is indeterminate or if further investigation is required, we suggest **MRI**. *Timing of the MRI may be determined based on clinical indication.*	↑
	2. In patients in the 2nd trimester of pregnancy with suspected low location of the placenta or invasive placentation, we recommend a combined **transabdominal and transvaginal US** approach.	↑↑
	↳ **2.1** We recommend **Doppler** as an adjunct.	↑↑
	↳ **2.2** For suspected invasive placentation, if US is indeterminate or if further investigation is required, we suggest **MRI**.	↑
	3. In patients in the 2nd trimester with a history of pre-term birth, or with other risk factors for pre-term birth, and in patients with suspected preterm labour, we recommend **transvaginal US** for assessment of the cervix.	↑↑
	↳ **3.1** If transvaginal US is declined or is not feasible, we recommend **transperineal US** as an alternative.	↑↑
	4. In patients in the 2nd trimester experiencing vaginal bleeding, we recommend a combined **transabdominal and transvaginal US** approach.	↑↑
	↳ **4.1** We recommend **Doppler** as an adjunct.	↑↑
	5. Following the routine anatomy scan, if risk factors are identified and/or fetal cardiac screening examination is abnormal, we suggest **fetal echocardiography US**.	↑
OG3. 3rd trimester assessment	**1.** In patients in the 3rd trimester who have not received a 1st or 2nd trimester diagnostic US, we recommend **transabdominal US** for general assessment of the pregnancy.	↑↑
	↳ **1.1** We recommend **Doppler** and/or **transvaginal US** as adjuncts, as clinically indicated.	↑↑
	2. In high-risk 3rd trimester pregnancies, including multifetal pregnancy, we recommend **transabdominal US** surveillance to monitor fetal growth and well-being.	↑↑
	↳ **2.1** We recommend **Doppler** and/or **transvaginal US** as adjuncts, as clinically indicated.	↑↑

The guideline recommendations are to assist the choice of imaging modality in situations where it is felt clinically necessary to obtain imaging. Imaging should not delay definitive management. Additionally, we did not cover serial imaging, and time intervals for follow-up of known disease and/or treatment monitoring. These recommendations are not intended to stand alone. Medical care should be based on evidence, a clinician's expert judgment, the patient's circumstances, values, and preferences, and resource availability. We recognize that not all imaging modalities are available in all locations, particularly in rural or remote areas of Canada. Decisions about whether to recommend that a patient travel for recommended imaging or perform alternate imaging locally can be difficult, and should consider the expected benefits of recommended imaging, risks of travel, patient preference, and other factors. This guideline is based on evidence related to diagnostic imaging tests only, not the clinical management of a patient.

Clinical/ Diagnostic Scenario	Recommendation	Strength of Rec.
CT: computed tomography; **HSG**: hysterosalpingogram; **MRI**: magnetic resonance imaging; **SIS**: saline infusion sonohysterography; **US**: ultrasound; **XR**: radiograph **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓↓: strong against; ↓: conditional against; **EPc**: Expert Panel consensus		
	↳ **2.2** For complex fetal conditions, if US is indeterminate or if further investigation is required, we suggest **MRI**. *Timing of the MRI may be determined based on clinical indication.*	↑
	3. In patients diagnosed with low-lying placenta or placenta previa in the 2nd trimester, we recommend a **transvaginal US** to reassess placental location by the mid-3rd trimester.	↑↑
	↳ **3.1** We recommend **Doppler** as an adjunct.	↑↑
	4. In patients in the 3rd trimester of pregnancy with suspected invasive placentation, we recommend a combined **transabdominal and transvaginal US** approach.	↑↑
	↳ **4.1** We recommend **Doppler** as an adjunct.	↑↑
	↳ **4.2** If further investigation is required, we suggest **MRI**.	↑
	5. In patients in the 3rd trimester of pregnancy experiencing vaginal bleeding, we recommend a combined **transabdominal and transvaginal US** approach.	↑↑
	↳ **5.1** We recommend **Doppler** as an adjunct.	↑↑
OG4. Post-partum (up to 6 weeks)	**Hemorrhage**	
	1. In patients with early and/or late post-partum hemorrhage*, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging modality. ** Early PPH: within 24 hours; Late PPH: >24 hours to 6 weeks*	↑↑
	↳ **1.1** We recommend **Doppler** as an adjunct.	↑↑
	↳ **1.2** If US is indeterminate or further investigation is required, we suggest **MRI** as the next imaging modality.	↑
	↳ **1.3** If MRI is unavailable or contraindicated, we suggest close clinical observation with follow-up **transabdominal and transvaginal US**.	EPc
	2. In patients with early and/or late post-partum hemorrhage where there is clinical concern for intraabdominal bleeding, we suggest **CT** to confirm, localize, and assess for the presence of active bleeding.	↑

The guideline recommendations are to assist the choice of imaging modality in situations where it is felt clinically necessary to obtain imaging. Imaging should not delay definitive management. Additionally, we did not cover serial imaging, and time intervals for follow-up of known disease and/or treatment monitoring. These recommendations are not intended to stand alone. Medical care should be based on evidence, a clinician's expert judgment, the patient's circumstances, values, and preferences, and resource availability. We recognize that not all imaging modalities are available in all locations, particularly in rural or remote areas of Canada. Decisions about whether to recommend that a patient travel for recommended imaging or perform alternate imaging locally can be difficult, and should consider the expected benefits of recommended imaging, risks of travel, patient preference, and other factors. This guideline is based on evidence related to diagnostic imaging tests only, not the clinical management of a patient.

Clinical/ Diagnostic Scenario	Recommendation	Strength of Rec.
CT: computed tomography; **HSG**: hysterosalpingogram; **MRI**: magnetic resonance imaging; **SIS**: saline infusion sonohysterography; **US**: ultrasound; **XR**: radiograph **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓↓: strong against; ↓: conditional against; **EPc**: Expert Panel consensus		
	Post-partum infection	
	3. In patients with suspected or confirmed post-partum infection, we recommend combined **transabdominal and transvaginal US** approach as the initial imaging modality to exclude retained products of conception and assess for complications of infection.	↑↑
	↳ **3.1** If US is indeterminate or further investigation is required, we suggest **CT** or **MRI** as the next imaging modality depending on the clinical situation.	↑
	↳ **3.2** If CT and MRI are unavailable or contraindicated, we suggest close clinical monitoring and follow-up **US**.	EPc
OG5. Recurrent pregnancy loss (1st trimester)	**1.** In patients with recurrent 1st trimester pregnancy loss, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique.	↑↑
	↳ **1.1** We suggest **Doppler** as an adjunct.	↑
	↳ **1.2** If US is negative, indeterminate, or if additional workup of complex abnormalities identified on US is required, we recommend **MRI pelvis** as the next imaging technique.	↑↑
	2. In patients with suspected Müllerian duct or intracavitary abnormalities based on initial assessment, we suggest **MRI**, **3-D US**, or **SIS** for further characterization.	↑
OG6. Infertility assessment	**1.** In patients with infertility, we recommend **transabdominal US** and/or **transvaginal US** as the initial imaging technique.	↑↑
	↳ **1.1** We suggest **Doppler** as an adjunct.	↑
	↳ **1.2** If initial assessment by US is indeterminate or if additional workup of the endometrium is required, we recommend **3-D US**, **SIS**, or **MRI** as the next imaging technique.	↑↑
	↳ **1.3** If US assessment of the adnexa is indeterminate or if additional workup of the adnexa is required, we recommend **MRI** as the next imaging technique.	↑↑
	2. In patients with infertility, for the assessment of tubal patency, we recommend **SIS** or **HSG**.	↑↑
	3. In the investigation of the male factor infertility, we recommend **US** as the initial imaging technique to assess for varicoceles.	↑↑

The guideline recommendations are to assist the choice of imaging modality in situations where it is felt clinically necessary to obtain imaging. Imaging should not delay definitive management. Additionally, we did not cover serial imaging, and time intervals for follow-up of known disease and/or treatment monitoring. These recommendations are not intended to stand alone. Medical care should be based on evidence, a clinician's expert judgment, the patient's circumstances, values, and preferences, and resource availability. We recognize that not all imaging modalities are available in all locations, particularly in rural or remote areas of Canada. Decisions about whether to recommend that a patient travel for recommended imaging or perform alternate imaging locally can be difficult, and should consider the expected benefits of recommended imaging, risks of travel, patient preference, and other factors. This guideline is based on evidence related to diagnostic imaging tests only, not the clinical management of a patient.

Appendix 3. Obstetrics and Gynecology Summary of Recommendations

Clinical/ Diagnostic Scenario	Recommendation	Strength of Rec.
CT: computed tomography; **HSG**: hysterosalpingogram; **MRI**: magnetic resonance imaging; **SIS**: saline infusion sonohysterography; **US**: ultrasound; **XR**: radiograph **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓↓: strong against; ↓: conditional against; **EPc**: Expert Panel consensus		
OG7. Evaluation of adnexal mass	**1.** In patients with suspected adnexal mass with no acute symptoms, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique. ↳ **1.1** We recommend **Doppler** as an adjunct. ↳ **1.2** If US is indeterminate or further investigation is required, we recommend **MRI** as the next imaging technique.	↑↑ ↑↑ ↑↑
OG8. Evaluation of acute pelvic pain of presumed gynecologic origin	**1.** In patients with acute pelvic pain of presumed gynecologic origin, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique. ↳ **1.1** We recommend **Doppler** as an adjunct. ↳ **1.2** If US is indeterminate or further investigation is required and immediate management is not indicated, we recommend follow-up combined **transabdominal and transvaginal US** approach**.** ↳ **1.3** If further investigation is required, we suggest **CT** (in beta-HCG negative patients). ↳ **1.4** In pregnant patients and for problem-solving, where indicated, we suggest pelvic **MRI**.	↑↑ ↑↑ ↑↑ ↑ ↑↑
OG9. Evaluation of chronic pelvic pain of presumed gynecologic origin	**1.** In patients with chronic pelvic pain of presumed gynecologic origin, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique. ↳ **1.1** We recommend **Doppler** as an adjunct. ↳ **1.2** If further investigation is required, we suggest **CT** (in beta-HCG negative patients). ↳ **1.3** In pregnant patients and for problem-solving, where indicated, we suggest pelvic **MRI**.	↑↑ ↑↑ ↑ ↑
OG10. Pelvic floor evaluation in females	No recommendation. The role of imaging in evaluation of the pelvic floor is an evolving science and further research is required to guide recommendations in this field.	
OG11. Disorders of menstruation	**1.** In patients with abnormal uterine bleeding, we recommend a combined **transabdominal and transvaginal US** approach as the initial imaging technique. ↳ **1.1** We suggest **Doppler** as an adjunct.	↑↑ ↑

The guideline recommendations are to assist the choice of imaging modality in situations where it is felt clinically necessary to obtain imaging. Imaging should not delay definitive management. Additionally, we did not cover serial imaging, and time intervals for follow-up of known disease and/or treatment monitoring. These recommendations are not intended to stand alone. Medical care should be based on evidence, a clinician's expert judgment, the patient's circumstances, values, and preferences, and resource availability. We recognize that not all imaging modalities are available in all locations, particularly in rural or remote areas of Canada. Decisions about whether to recommend that a patient travel for recommended imaging or perform alternate imaging locally can be difficult, and should consider the expected benefits of recommended imaging, risks of travel, patient preference, and other factors. This guideline is based on evidence related to diagnostic imaging tests only, not the clinical management of a patient.

Clinical/ Diagnostic Scenario	Recommendation	Strength of Rec.
CT: computed tomography; **HSG**: hysterosalpingogram; **MRI**: magnetic resonance imaging; **SIS**: saline infusion sonohysterography; **US**: ultrasound; **XR**: radiograph **Strength of Recommendation:** ↑↑: strong for; ↑: conditional for; ↓↓: strong against; ↓: conditional against; **EPc**: Expert Panel consensus		
	↳ **1.2** If further investigation of the endometrium is required, we recommend **SIS** as the next imaging technique.	↑↑
	↳ **1.3** If sonographic investigations are inconclusive or unavailable, we recommend **MRI**.	↑↑
	2. For patients diagnosed on clinical and biochemical grounds with polycystic ovarian syndrome, we do not recommend the routine use of **US** for evaluation of ovarian morphology.	↓↓
	↳ **2.1** If clinical and biochemical indices are equivocal, we recommend **transvaginal US** to assess ovarian morphology.	↑↑
OG12. Localization of IUCD	**1.** In patients where localization of an intra-uterine contraceptive device (IUCD) is required, we recommend a combined **transabdominal and transvaginal US approach** as the initial imaging technique.	↑↑
	↳ **1.1** We suggest **3-D US** as an adjunct, where available.	↑
	↳ **1.2** If IUCD is not seen in the uterus on US, we recommend **XR of the abdomen and pelvis** as the next imaging technique.	↑↑

Appendix 3A. French

Scénario clinique/diagnostique	Recommandations	Force de la rec.
HSG: hystérosalpingographie; **IRM**: imagerie par résonance magnétique; **SIS:** sonohystérographie avec injection de solution saline; **TDM**: tomodensitométrie **Force de la recommandation:** ↑↑: fortement en faveur; ↑: en faveur sous certaines conditions; ↓: contre sous certaines conditions; ↓↓: fortement contre; **EPc**: Consensus d'un panel d'experts		
OG01. Évaluation du 1er trimestre	**1.** Chez les patientes chez qui on soupçonne une grossesse, nous déconseillons de pratiquer une **échographie** de confirmation de la grossesse (↓↓).	↓↓
	Grossesse intra-utérine confirmée	
	2. Chez les patientes enceintes ayant une grossesse intra-utérine confirmée au 1er trimestre, nous recommandons une **échographie transabdominale** comme modalité d'imagerie initiale pour les motifs suivants : datation de la grossesse, évaluation du nombre de fœtus, évaluation du chorion (chorionicité) et de l'amnion en cas de grossesse multiple, mesure de la clarté nucale (pour les grossesses simples et multiples), dépistage des anomalies anatomiques majeures (comme une anencéphalie) et chez les patientes ayant des complications suspectées en début de grossesse.	↑↑
	↳ **2.1** Si l'échographie transabdominale est non concluante ou sous-optimale pour ces indications, nous recommandons une **échographie transvaginale** en supplément.	↑↑
	3. Chez les patientes au 1er trimestre ayant une grossesse intra-utérine viable ou potentiellement viable, nous suggérons de ne pas utiliser le **Doppler** en supplément à l'échographie à moins d'une indication clinique évidente	↓
	Grossesse suspectée de localisation inconnue ou grossesse ectopique	
	4. Chez les patientes ayant un test de grossesse positif et au cours de leur 1er trimestre de grossesse chez qui on suspecte une grossesse de localisation inconnue ou ectopique, nous recommandons la combinaison d'une approche mêlant **échographies transabdominale et transvaginale** comme technique d'imagerie initiale. *L'utérus doit être examiné très soigneusement à la recherche d'un sac gestationnel et, si on n'en trouve pas, les annexes doivent être attentivement examinées à la recherche d'une masse.*	↑↑
	↳ **4.1** Si les résultats initiaux ne sont pas concluants, nous recommandons une évaluation clinique et biochimique à court terme avec répétition de l'évaluation **échographique**.	↑↑

Ces recommandations ne sont pas conçues pour être utilisées seules. Les soins médicaux doivent reposer sur des données probantes, le jugement expert d'un clinicien, la situation, les valeurs et les préférences d'un patient, ainsi que sur la disponibilité des ressources. Nous sommes conscients que certaines modalités d'imagerie ne sont pas disponibles partout, en particulier dans les zones rurales et isolées du Canada. Il peut être difficile de décider s'il vaut mieux recommander à un patient de se déplacer pour obtenir l'imagerie recommandée ou d'effectuer localement un autre type d'imagerie; à cet égard, il faut tenir compte des avantages attendus de l'imagerie recommandée, des risques liés au déplacement, des préférences du patient et d'autres facteurs. La présente ligne directrice repose sur des données probantes liées uniquement aux tests d'imagerie diagnostique et non à la gestion clinique du patient.

Scénario clinique/diagnostique	Recommandations	Force de la rec.
HSG: hystérosalpingographie; **IRM**: imagerie par résonance magnétique; **SIS:** sonohystérographie avec injection de solution saline; **TDM**: tomodensitométrie **Force de la recommandation:** ↑↑: fortement en faveur; ↑: en faveur sous certaines conditions; ↓: contre sous certaines conditions; ↓↓: fortement contre; **EPc**: Consensus d'un panel d'experts		
OG02. Évaluation du 2er trimestre	**1.** Chez les patientes au 2e trimestre de grossesse, habituellement entre les semaines 18 et 20, nous recommandons un dépistage de routine avec une **échographie transabdominale** pour l'évaluation de l'anatomie fœtale et une évaluation globale du placenta	↑↑
	↳ **1.1** Lorsque cela est indiqué, au cours de l'évaluation de la croissance et du bien-être fœtal, de la caractérisation d'une anatomie complexe et de l'évaluation du placenta et du cordon ombilical, nous recommandons d'ajouter un examen **Doppler**.	↑↑
	↳ **1.2** Face à une situation fœtale complexe, si l'échographie n'est pas concluante ou si un examen supplémentaire est nécessaire, nous suggérons une **IRM**. Le moment auquel pratiquer l'IRM peut être déterminé par l'indication clinique.	↑
	2. Chez les patientes enceintes au 2e trimestre de grossesse chez lesquelles on soupçonne un placenta situé bas ou un développement placentaire anormal, nous recommandons une approche combinée avec **échographie transabdominale et transvaginale**.	↑↑
	↳ **2.1 Nous** recommandons le **Doppler** à titre de supplément.	↑↑
	↳ **2.2** Face à une placentation invasive suspectée, si l'échographie n'est pas concluante ou si un examen supplémentaire est nécessaire, nous suggérons une **IRM**.	↑
	3. Chez les patientes au cours du 2e trimestre ayant des antécédents d'accouchement prétermе ou d'autres facteurs de risque liés au fait de donner naissance prématurément, ainsi que chez les patientes chez qui on suspecte un risque d'entrer prématurément en travail, nous recommandons une **échographie transvaginale** pour l'évaluation du col utérin.	↑↑
	↳ **3.1** Si l'échographie transvaginale est refusée ou n'est pas faisable, nous recommandons une **échographie transpérinéale** en remplacement.	↑↑
	4. Chez des patientes au 2e trimestre de grossesse présentant des saignements vaginaux, nous recommandons une approche combinée avec **échographie transabdominale et transvaginale**.	↑↑
	↳ **4.1** Nous recommandons le **Doppler** à titre de supplément.	↑↑

Scénario clinique/diagnostique	Recommandations	Force de la rec.
HSG: hystérosalpingographie; **IRM**: imagerie par résonance magnétique; **SIS:** sonohystérographie avec injection de solution saline; **TDM**: tomodensitométrie **Force de la recommandation:** ↑↑: fortement en faveur; ↑: en faveur sous certaines conditions; ↓: contre sous certaines conditions; ↓↓: fortement contre; **EPc**: Consensus d'un panel d'experts		
	5. Si, après un examen usuel de l'anatomie, des facteurs de risque sont identifiés et/ou si un examen de dépistage cardiaque du fœtus est anormal, nous suggérons de pratiquer une **échocardiographie fœtale**.	↑
OG03. Évaluation du 3e trimestre	**1.** Chez les patientes au 3e trimestre de grossesse qui n'ayant pas reçu de diagnostic échographique au cours du 1er ou du 2e trimestre, nous recommandons une **échographie transabdominale** pour une évaluation globale de la grossesse.	↑↑
	↳ **1.1** Nous recommandons un **Doppler** et/ou une **échographie transvaginale** à titre de suppléments, selon les indications cliniques.	↑↑
	2. Dans les grossesses à risque élevé au 3e trimestre, y compris les grossesses multiples, nous recommandons une surveillance par **échographie transabdominale** pour suivre la croissance et le bien-être fœtal.	↑↑
	↳ **2.1** Nous recommandons un **Doppler** et/ou une **échographie transvaginale** à titre de suppléments, selon les indications cliniques.	↑↑
	↳ **2.2** Face à une situation fœtale complexe, si l'échographie n'est pas concluante ou si un examen supplémentaire est nécessaire, nous suggérons une **IRM**. *Le moment auquel pratiquer l'IRM peut être déterminé par l'indication clinique.*	↑
	3. Chez les patientes ayant reçu un diagnostic de placenta bas ou de placenta previa au cours du 2e trimestre, nous recommandons une **échographie transvaginale** pour réévaluer la localisation placentaire au milieu du 3e trimestre.	↑↑
	↳ **3.1** Nous recommandons le **Doppler** à titre de supplément.	↑↑
	4. Chez les patientes enceintes qui en sont au 3e trimestre de grossesse et chez lesquelles on soupçonne un placenta situé bas ou un développement placentaire anormal, nous recommandons une approche combinée avec **échographie transabdominale et transvaginale**.	↑↑
	↳ **4.1** Nous recommandons le **Doppler** à titre de supplément.	↑↑

Scénario clinique/diagnostique	Recommandations	Force de la rec.
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	↳ **4.2** Si un examen complémentaire est nécessaire, nous suggérons une **IRM**.	↑
	5. Chez des patientes au 3e trimestre de grossesse présentant des saignements vaginaux, nous recommandons une approche combinée avec **échographie transabdominale et transvaginale**.	↑↑
	↳ **5.1** Nous recommandons le **Doppler** à titre de supplément.	↑↑
OG04. Post-partum (jusqu'à 6 semaines)	**Hémorragie**	
	1. Chez les patientes ayant une hémorragie du post-partum précoce et/ou tardive*, nous recommandons une approche combinée avec **échographie transabdominale et transvaginale** comme modalité d'imagerie initiale. ** HPP précoce : dans un délai de 24 heures; HPP tardive : > 24 heures à 6 semaines*	↑↑
	↳ **1.1** Nous recommandons le **Doppler** à titre de supplément.	↑↑
	↳ **1.2** Si l'échographie n'est pas concluante ou si un examen supplémentaire est nécessaire, nous suggérons une **IRM** comme modalité d'imagerie suivante.	↑
	↳ **1.3** Si une IRM n'est pas disponible ou est contre-indiquée, nous suggérons une surveillance clinique étroite avec **échographie transabdominale et transvaginale** de suivi.	EPc
	2. Chez les patientes ayant une hémorragie du post-partum précoce et/ou tardive pour lesquelles on craint une hémorragie intraabdominale, nous suggérons de pratiquer une **TDM** pour confirmer, localiser et évaluer l'existence d'un saignement actif.	↑
	Infection du post-partum	
	3. Chez les patientes chez qui une infection du post-partum est suspectée ou confirmée, nous recommandons d'une approche mêlant **échographies transabdominale et transvaginale** comme modalité d'imagerie initiale pour exclure la rétention de produits de la conception et pour évaluer d'éventuelles complications de l'infection.	↑↑

Scénario clinique/diagnostique	Recommandations	Force de la rec.
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	↳ **3.1** Si l'échographie n'est pas concluante ou si un examen supplémentaire est nécessaire, nous suggérons une **TDM** ou une **IRM** comme modalité d'imagerie suivante en fonction de la situation clinique.	↑
	↳ **3.2** Si la TDM et l'IRM ne sont pas disponibles ou sont contre-indiquées, nous suggérons une surveillance clinique étroite avec une **échographie** de suivi.	EPc
OG05. Récidive de perte de la grossesse (1er trimestre)	**1.** Chez les patientes ayant des avortements spontanés récurrents au 1er trimestre récurrente, nous recommandons une approche combinée avec **échographie transabdominale et transvaginale** comme modalité d'imagerie initiale.	↑↑
	↳ **1.1** Nous suggérons l'utilisation du **Doppler** à titre de supplément.	↑
	↳ **1.2** Si l'échographie est négative, non concluante, ou si l'évaluation complémentaire d'anomalies complexes identifiées par l'échographie est nécessaire, nous recommandons une **IRM du pelvis** comme technique d'imagerie suivante.	↑↑
	2. Chez les patientes chez qui on suspecte des anomalies Müllériennes ou des anomalies intracavitaires au cours de l'évaluation initiale, nous suggérons une **IRM**, une **échographie 3D** ou une **SIS** pour obtenir davantage de précisions.	↑
OG06. Évaluation de l'infertilité	**1.** Chez les patientes présentant une infertilité, nous recommandons une **échographie transabdominale** et/ou une **échographie transvaginale** comme technique d'imagerie initiale.	↑↑
	↳ **1.1** Nous suggérons l'utilisation du **Doppler** à titre de supplément.	↑
	↳ **1.2** Si l'évaluation initiale par échographie est non concluante ou si une étude supplémentaire de l'endomètre est nécessaire, nous recommandons une **échographie 3D**, une **SIS** ou une **IRM** comme technique d'imagerie suivante.	↑↑
	↳ **1.3** Si l'évaluation échographique des annexes est non concluante ou si une évaluation supplémentaire des annexes est requise, nous recommandons une **IRM** comme technique d'imagerie suivante.	↑↑

Scénario clinique/diagnostique	Recommandations	Force de la rec.
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	2. Chez les patientes atteintes d'infertilité, nous recommandons une **SIS** ou une **HSG** pour l'évaluation de la perméabilité des trompes.	↑↑
	3. Dans le cadre de l'investigation d'infertilité chez l'homme, nous recommandons une **échographie** comme technique d'imagerie initiale pour évaluer la présence d'un varicocèle.	↑↑
OG07. Évaluation d'une masse annexielle	**1.** I Chez les patientes chez qui on suspecte une masse annexielle sans symptôme aigu, nous recommandons une approche combinée avec **échographie transabdominale et transvaginale** comme technique d'imagerie initiale.	↑↑
	↳ **1.1** Nous recommandons le **Doppler** à titre de supplément.	↑↑
	↳ **1.2** Si l'échographie n'est pas concluante ou si un examen supplémentaire est nécessaire, nous recommandons une **IRM** comme modalité d'imagerie suivante.	↑↑
OG08. Évaluation d'une douleur pelvienne aiguë d'origine supposément gynécologique	**1.** Chez les patientes ayant une douleur pelvienne aiguë d'origine supposément gynécologique, nous recommandons une approche combinée avec **échographie transabdominale et transvaginale** comme technique d'imagerie initiale.	↑↑
	↳ **1.1** Nous recommandons le **Doppler** à titre de supplément.	↑↑
	↳ **1.2** Si l'échographie n'est pas concluante ou si un examen supplémentaire est nécessaire et que la gestion immédiate n'est pas indiquée, nous recommandons un suivi combinant une **échographie transabdominale et une échographie transvaginale.**	↑↑
	↳ **1.3** Si des examens supplémentaires sont nécessaires, nous suggérons une **TDM** (chez les patientes dont le dosage de bêta-HCG est négatif).	↑
	↳ **1.4** Chez les patientes enceintes et pour résoudre le problème, nous suggérons, si cela est indiqué, une **IRM** du pelvis.	↑↑
OG09. Évaluation d'une douleur pelvienne chronique d'origine	**1.** Chez les patientes ayant une douleur pelvienne chronique d'origine supposément gynécologique, nous recommandons une approche combinée avec une **échographie transabdominale et transvaginale** comme technique d'imagerie initiale.	↑↑

Scénario clinique/diagnostique	Recommandations	Force de la rec.
HSG: hystérosalpingographie; **IRM**: imagerie par résonance magnétique; **SIS:** sonohystérographie avec injection de solution saline; **TDM**: tomodensitométrie **Force de la recommandation:** ↑↑: fortement en faveur; ↑: en faveur sous certaines conditions; ↓: contre sous certaines conditions; ↓↓: fortement contre; **EPc**: Consensus d'un panel d'experts		
supposément gynécologique	↳ **1.1** Nous recommandons le **Doppler** à titre de supplément. ↳ **1.2** Si des examens supplémentaires sont nécessaires, nous suggérons une **TDM** (chez les patientes dont le dosage de bêta-HCG est négatif). ↳ **1.3** Chez les patientes enceintes et pour résoudre le problème, nous suggérons, si cela est indiqué, une **IRM** du pelvis.	↑↑ ↑ ↑
OG10. Évaluation du plancher pelvien chez les femmes	Pas de recommandation. Les connaissances sur le rôle de l'imagerie dans l'évaluation du plancher pelvien sont en pleine évolution et des recherches supplémentaires sont nécessaires pour proposer des recommandations dans ce domaine.	
OG11. Troubles des menstruations	**1.** Chez des patientes ayant des saignements utérins anormaux, nous recommandons une approche combinée avec une **échographie transabdominale et transvaginale** comme technique d'imagerie initiale. ↳ **1.1** Nous suggérons l'utilisation du **Doppler** à titre de supplément. ↳ **1.2** Si une étude supplémentaire de l'endomètre est requise, nous recommandons une **SIS** comme technique d'imagerie suivante. ↳ **1.3** Si les investigations échographiques ne sont pas concluantes ou ne peuvent avoir lieu, nous recommandons une **IRM**. **2.** Pour les patientes chez qui un syndrome des ovaires polykystiques a été diagnostiqué à partir de constatations cliniques ou biologiques, nous ne recommandons pas l'usage régulier de l'**échographie** pour l'évaluation de la morphologie ovarienne. ↳ **2.1** Si les indices cliniques et biochimiques sont douteux, nous recommandons une **échographie transvaginale** pour l'évaluation de la morphologie ovarienne.	↑↑ ↑ ↑↑ ↑↑ ↓↓ ↑↑
OG12. Localisation d'un dispositif contraceptif intra-utérin	**1.** Chez les patientes chez lesquelles il est nécessaire de localiser un dispositif contraceptif intra-utérin (DCIU), nous recommandons une approche combinée avec **échographie transabdominale et transvaginale** comme technique d'imagerie initiale.	↑↑

Appendix 3A. Obstetrics and Gynecology Summary of Recommendations (English)

Scénario clinique/diagnostique	Recommandations	Force de la rec.
HSG: hystérosalpingographie; **IRM**: imagerie par résonance magnétique; **SIS:** sonohystérographie avec injection de solution saline; **TDM**: tomodensitométrie **Force de la recommandation:** ↑↑: fortement en faveur; ↑: en faveur sous certaines conditions; ↓: contre sous certaines conditions; ↓↓: fortement contre; **EPc**: Consensus d'un panel d'experts		
	↳ **1.1** Nous suggérons une **échographie 3D** à titre supplémentaire, si cela est possible.	↑
	↳ **1.2** Si le DCIU n'est pas visible dans l'utérus à l'échographie, nous recommandons **une radiographie de l'abdomen et du pelvis** comme technique d'imagerie suivante.	↑↑

APPENDIX 4. POTENTIALLY RELEVANT NON-ENGLISH GUIDELINES

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APPENDIX 5. AGREE-II ASSESSMENTS

Guideline	Domain 1				Domain 2				Domain 3									Domain 4				Domain 5					Domain 6			Overall quality rating
	1	2	3	Score (%)	4	5	6	Score (%)	7	8	9	10	11	12	13	14	Score (%)	15	16	17	Score (%)	18	19	20	21	Score (%)	22	23	Score (%)	
RCR 2017 [19]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	1	3	1	20 (83)	3	3	3	9 (100)	3	2	3	1	9 (75)	2	2	4 (67)	High
ACR 2020 [20]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	2	7 (58)	2	3	5 (83)	Moderate
SOGC 2021 [21]	3	2	3	8 (89)	2	1	3	6 (67)	3	2	3	2	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	2	1	7 (58)	1	3	4 (67)	Moderate
SOGC 2017 [22]	3	2	3	8 (89)	2	1	2	5 (56)	3	3	3	2	3	3	1	3	21 (88)	3	3	3	9 (100)	3	2	2	1	8 (67)	3	1	4 (67)	Moderate
ACR 2018 [23]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	3	5 (83)	Moderate
ACR 2019 [24]	2	2	2	6 (67)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	2	4 (67)	Moderate
GOC/SOGC 2021 [25]	3	2	3	8 (89)	2	1	3	6 (67)	3	3	3	2	3	3	1	3	21 (88)	3	3	3	9 (100)	2	2	2	3	9 (75)	1	2	3 (50)	Moderate
ACOG 2021 [26]	3	3	3	9 (100)	1	1	3	5 (56)	3	3	3	2	3	3	1	2	20 (83)	3	3	3	9 (100)	3	2	1	1	7 (58)	3	3	6 (100)	Moderate
ACR 2017 [27]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	3	5 (83)	Moderate
ISUOG 2015 [28]	3	2	3	8 (89)	2	1	3	6 (67)	3	2	3	2	3	3	1	1	18 (75)	3	3	3	9 (100)	2	2	1	2	7 (58)	1	1	2 (33)	Moderate
RCOG 2016 [29]	3	3	3	9 (100)	3	3	3	9 (100)	3	2	3	3	3	3	3	3	23 (96)	3	3	3	9 (100)	2	2	2	2	8 (67)	3	3	6 (100)	High
NICE 2019 [30]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	3	3	3	24 (100)	3	3	3	9 (100)	3	3	3	3	12 (100)	3	3	6 (100)	High
NICE 2019 [31,32]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	3	3	3	24 (100)	3	3	3	9 (100)	3	3	3	3	12 (100)	3	3	6 (100)	High
SOGC 2021 [33]	3	2	3	8 (89)	1	1	3	5 (56)	3	3	3	3	3	3	1	1	20 (83)	3	3	3	9 (100)	2	3	2	2	9 (75)	1	3	4 (67)	Moderate
SOGC 2017 [34]	3	2	3	8 (89)	3	1	3	7 (78)	3	2	3	3	3	3	1	3	21 (88)	3	3	3	9 (100)	3	2	1	1	7 (58)	3	2	5 (83)	Moderate

Appendix 5. AGREE-II ASSESSMENTS OF INCLUDED GUIDELINES

Guideline	Domain 1				Domain 2				Domain 3								Domain 4				Domain 5					Domain 6			Overall quality rating
	1	2	3	Score (%)	4	5	6	Score (%)	7	8	9	10	11	12	13	14	Score (%)	15	16	17	Score (%)	18	19	20	21	Score (%)	22	23	Score (%)	
ACR 2021 [35]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	3	5 (83)	Moderate
ACR 2020 [36]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	3	5 (83)	Moderate
RCOG 2018 [37]	3	3	3	9 (100)	3	3	3	9 (100)	3	2	3	3	3	3	3	3	23 (96)	3	3	3	9 (100)	2	2	2	1	7 (58)	3	3	6 (100)	High
RCOG 2018 [38]	3	3	3	9 (100)	3	3	3	9 (100)	3	2	3	3	3	3	3	3	23 (96)	3	3	3	9 (100)	2	2	2	1	7 (58)	3	3	6 (100)	High
SOGC 2020 [39]	3	2	3	8 (89)	3	1	3	7 (78)	3	2	3	2	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	3	8 (67)	1	3	4 (67)	Moderate
ACR 2020 [40]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	3	5 (83)	Moderate
NICE 2019 [41]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	3	3	3	24 (100)	3	3	3	9 (100)	3	3	3	3	12 (100)	3	3	6 (100)	High
ACR 2020 [42]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	3	5 (83)	Moderate
ACR 2016 [43]	2	2	3	7 (78)	3	2	3	8 (89)	2	2	2	2	3	3	1	3	18 (75)	3	3	3	9 (100)	1	2	1	1	5 (42)	2	2	4 (67)	Moderate
ACR 2019 [44]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	2	4 (67)	Moderate
ACOG 2021 [45]	3	3	3	9 (100)	2	1	3	6 (67)	3	3	3	2	3	3	1	1	19 (79)	3	3	3	9 (100)	2	2	1	1	6 (50)	3	3	6 (100)	Moderate
SMFM 2020 [46]	3	2	3	8 (89)	2	1	2	5 (56)	3	2	3	3	3	3	3	3	23 (96)	3	3	3	9 (100)	2	2	1	1	6 (50)	3	3	6 (100)	Moderate
ACR 2020 [47]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	2	4 (67)	Moderate
CNGOF 2016 [48]	3	2	3	8 (89)	3	1	3	7 (78)	3	2	3	3	3	3	3	1	21 (88)	3	3	2	8 (89)	1	2	1	3	7 (58)	1	3	4 (67)	Moderate
ACR 2020 [49]	3	2	3	8 (89)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	2	7 (58)	2	3	5 (83)	Moderate
ESUR-SPIWG 2019 [50,51]	3	3	3	9 (100)	2	1	2	5 (56)	3	2	3	3	3	3	1	1	19 (79)	3	3	3	9 (100)	1	2	1	2	6 (50)	3	3	6 (100)	Moderate

Appendix 5. AGREE-II ASSESSMENTS OF INCLUDED GUIDELINES

Guideline	Domain 1				Domain 2				Domain 3									Domain 4				Domain 5					Domain 6			Overall quality rating
	1	2	3	Score (%)	4	5	6	Score (%)	7	8	9	10	11	12	13	14	Score (%)	15	16	17	Score (%)	18	19	20	21	Score (%)	22	23	Score (%)	
NICE 2017 [52]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	3	3	3	24 (100)	3	3	3	9 (100)	3	3	3	3	12 (100)	3	3	6 (100)	High
ACR 2019 [53]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	3	8 (67)	2	2	4 (67)	Moderate
ASCO 2021 [54]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	3	3	3	24 (100)	3	3	3	9 (100)	3	3	3	1	10 (83)	3	2	5 (83)	High
GOC/SOGC 2020 [55]	3	2	3	8 (89)	2	1	3	6 (67)	3	2	3	2	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	3	8 (67)	1	3	4 (67)	Moderate
SOGC 2020 [56]	3	2	3	8 (89)	2	1	3	6 (67)	3	3	3	2	3	3	3	3	23 (96)	3	3	3	9 (100)	2	3	3	1	9 (75)	1	3	4 (67)	Moderate
ACR 2016 [57]	2	2	3	7 (78)	3	2	2	7 (78)	2	2	2	2	3	3	1	3	18 (75)	3	3	3	9 (100)	1	2	1	1	5 (42)	2	2	4 (67)	Moderate
ACR 2021 [58]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	3	5 (83)	Moderate
ACR 2018 [59]	2	2	3	7 (78)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	1	1	1	5 (42)	2	2	4 (67)	Moderate
ESUR 2017 [60]	3	2	3	8 (89)	3	1	1	5 (56)	3	2	3	3	3	3	1	1	19 (79)	3	3	3	9 (100)	1	2	2	2	7 (58)	3	3	6 (100)	Moderate
NICE 2017 [61]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	3	3	3	24 (100)	3	3	3	9 (100)	3	3	3	3	12 (100)	3	3	6 (100)	High
SAR 2020 [62]	3	2	3	8 (89)	2	1	2	5 (56)	3	2	3	3	3	3	1	1	19 (79)	3	3	3	9 (100)	2	2	1	1	6 (50)	1	1	2 (33)	Moderate
ACR 2020 [63]	3	2	3	8 (89)	3	2	3	8 (89)	3	2	2	3	3	3	1	3	20 (83)	3	3	3	9 (100)	2	2	1	1	6 (50)	2	3	5 (83)	Moderate
Intl. Gdln. PCOS 2018 [64–67]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	3	3	3	24 (100)	3	3	3	9 (100)	3	3	3	3	12 (100)	3	3	6 (100)	High
NICE 2021 [68–70]	3	3	3	9 (100)	3	3	3	9 (100)	3	3	3	3	3	3	3	3	24 (100)	3	3	3	9 (100)	3	3	3	3	12 (100)	3	3	6 (100)	High