**SUPPLEMENTARY MATERIAL**

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**Table S1:** The PRECISE Working Group

|  |  |
| --- | --- |
| **Institution** | **Members** |
| King’s College London | Peter von Dadelszen, Laura A. Magee, Lucilla Poston, Hiten D. Mistry, Marie-Laure Volvert, Cristina Escalona Lopez, Sophie Moore, Rachel M. Tribe, Andrew Shennan, Tatiana Salisbury, Rachel Craik [also University of Oxford] |
| Aga Khan University, Nairobi | Marleen Temmerman, Angela Koech Etyang, Sikolia Wanyonyi, Geoffrey Omuse, Patricia Okiro, Grace Mwashigadi |
| Centro de Investigação de Saúde de Manhiça | Esperanca Sevene, Helena Boene, Corssino Tchavana, Eusebio Macete, Lazaro Quimice, Sonia Maculuve |
| Eduardo Mondlane University, Maputo | Carla Carrilho |
| Donna Russell Consulting | Donna Russell |
| Imperial College London | Benjamin Barratt |
| London School of Hygiene and Tropical Medicine | Joy Lawn, Hannah Blencowe, Veronique Filippi, Matt Silver |
| Midlands State University | Prestige Tatenda Makanga, Liberty Makacha, Yolisa Dube, Newton Nyapwere, Reason Mlambo |
| MRC Unit The Gambia at LSHTM | Umberto D’Alessandro, Anna Roca, Melisa Martinez-Alvarez, Hawanatu Jah, Brahima Diallo, Abdul Karim Sesay, Fatima Touray, Abdoulie Sillah |
| University of Oxford | Alison Noble, Aris Papageorghiou |
| St George’s, University of London | Judith Cartwright; Guy Whitley, Sanjeev Krishna, Rosemarie Townsend, Asma Khalil |
| University of British Colombia | Marianne Vidler, Joel Singer, Jing (Larry) Li, Jeffrey Bone, Mai-Lei [Maggie] Woo Kinshella, Kelly Pickerill, Ash Sandhu, Domena Tu |
| University of Malawi | William Stones |

 **Table S2**: Clinical practice guidelines included in this review

|  |  |  |
| --- | --- | --- |
| **CPG ABBREVIATION** | **YEAR\*** | **CPG FULL NAME AND REFERENCES** |
| **INTERNATIONAL** |  |  |
| WHO | 2011 | World Health Organization 2011 with updates on calcium supplementation to prevent preeclampsia, management of severe hypertension, and timed delivery for severe preeclampsia. (21)(22)(23)(24) |
| SOMANZ | 2014 | Society of Obstetric Medicine of Australia and New Zealand (SOMANZ) 2014 (25) |
| ESC | 2018 | European Society of Cardiology (ESC) 2018 (26) |
| ISSHP | 2018 | International Society for the Study of Hypertension in Pregnancy 2018 (27) |
| **NORTH AMERICA** |  |  |
| Canada (CAN) | 2014 | Society of Obstetricians and Gynaecologists of Canada (SOGC) 2014 with update on antihypertensive therapy in partnership with Hypertension Canada(28,29) |
| United States of America (USA) | 2019 | American College of Obstetricians and Gynecologists (ACOG) 2019 in three publications on gestational hypertension and preeclampsia, chronic hypertension, and the Committee Opinion on emergent therapy of severe hypertension (30)(31)(32) |
| **SOUTH AMERICA** |  |  |
| Brazil (BRA) | 2016 | Sociedade Brasileire de Cardiologia (SBC) 2016 (33) |
| **EUROPE** |  |  |
| France (FRA) | 2016 | French Society of Hypertension (SFH) 2016 (2016 English translation)(34) |
| Ireland (IRL) | 2016 | Institute of Obstetricians and Gynaecologists Royal College of Physicians of Ireland (RCPI) 2016 in two publications about hypertensive disorders and severe preeclampsia and eclampsia (35)(36)  |
| The Netherlands (NED) | 2011 | Nederlandse Vereniging voor Obstetrie en Gynaecologie (NVOG) 2011 with updates on BP measurement and aspirin for preeclampsia prevention (37)(38)(39) |
| Germany (DEU) | 2019 | German Society of Gynecology and Obstetrics (DGGG) 2019 (40) |
| United Kingdom (UK) | 2019 | National Institute for Health and Care Excellence (NICE) 2019 (41) |
| Poland (POL) | 2019 | Polish Society of Hypertension (PSH), Polish Cardiac Society and Polish Society of Gynecologists and Obstetricians 2019 (2019 English translation)(42) |
| **AUSTRALASIA** |  |  |
| New Zealand (NZL) | 2018 | Ministry of Health, New Zealand 2018 (43) |
| **AFRICA** |  |  |
| Tunisia (TUN) | 2016 | La Société Tunisienne de Gynécologie Obstétrique (STGO)2016 (44) |

*CPG (clinical practice guideline)*

*\* Year of publication refers to the date of the main document, even if there have been subsequent partial updates of information.*

**Table S3**: Details of search strategy for evidence review, Medline, January 2010-January 2021

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| --- | --- | --- | --- |
|  | **RISK FACTORS for preeclampsia** | **STUDY METHODOLOGY** | **PATIENT SELECTION** |
| **Umbrella review** | **Systematic review** | **Large observational study** | **Pre-eclampsia** | **Pregnancy or women** |
| **1** | **●** | **●** |  |  | **●** |  |
| **2** | **●** | **●** |  |  |  | **●** |
| **3** | **●** |  | **●** |  | **●** |  |
| **4** | **●** |  | **●** |  |  | **●** |
| **5** | **● (risk factors individually)** |  |  | **●** | **●** |  |
| **6** | **● (risk factors individually)** |  |  | **●** |  | **●** |
| **KEY WORDS** |
|  | 1 Diabetes Mellitus/ 2 diabetes mellitus, type 1/ or diabetes mellitus, type 2/ 3 Diabetes, Gestational/ 4 (diabetes or diabetic).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] 5 Polycystic Ovary Syndrome/ 6 polycystic ovar$ syndrome.mp. 7 pcos.mp. 8 maternal age/ 9 (maternal age or adolescence or teenager).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]10 exp Rheumatic Diseases/ 11 rheumatic disease$.mp. 12 Antiphospholipid Syndrome/ 13 (antiphospholipid syndrome or anti-phospholipid syndrome).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] 14 exp Lupus Erythematosus, Systemic/ 15 systemic lupus erythematosus.mp. 16 exp Hypertension/17 (hypertension or hypertensive or high blood pressure).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]18 exp Hemoglobinopathies/19 (H?emoglobinopath$ or thalass?emia or sickle cell or an?emi$ or h?emoglobin c disease).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]20 exp renal insufficiency/ or kidney failure, chronic/ 21 (renal insufficiency or chronic kidney disease or ckd or renal function or chronic renal disease or chronic kidney failure).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] 22 exp Contraception/ 23 exp Contraceptive Agents, Female/ 24 (contraception or barrier contraception or condom or contraceptive pill or sperm exposure).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]25 exp Pregnancy, Multiple/ 26 multiple pregnanc$.mp. 27 exp Infection/ 28 exp Sleep Apnea, Obstructive/ 29 (obstructive sleep apnoea or obstructive sleep apnea).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]30 exp Placenta Diseases/31 (Placenta$ Disease or placental abruption or intrauterine growth restriction or iugr or still birth or premature delivery or late spontaneous miscarriage).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]32 Stillbirth/33 exp Fetal Growth Retardation/ 34 (Intrauterine growth restriction or IUGR).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]35 exp Gestational Weight Gain/ or exp Weight Gain/ or excessive gestational weight gain.mp.36 exp Down Syndrome/ or exp Trisomy 13 Syndrome/ or exp Trisomy/37 (down syndrome or fetal trisomy 21 or trisomy 21).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]38 exp Birth Intervals/39 (pregnancy interval or inter-pregnancy interval 10 years or interpregnancy interval or inter-pregnancy interval).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]40 exp Uterine Hemorrhage/41 (Uterine Hemorrha\*ge or vaginal bleeding).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]42 exp Obesity/43 exp Body Mass Index/44 (obes$ or bmi or body mass index).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]45 exp Sexual Partners/ or exp Sexual behaviour/(new partner or change in partner or sexual partner).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]46 family history.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]47 (mother or sister).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]48 exp Mothers/ 49 father.mp. or exp Fathers/50 paternal.mo. or exp Paternal Inheritance/51 exp Cardiovascular diseases/52 (cardiovascular disease or CVD) mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]53 exp Methamphetamine/ or exp Substance-Related Disorders/ or exp Amphetamine-Related Disorders/ or exp Central Nervous System Stimulants/ or exp Illicit Drugs/

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| --- |
| 54 (methamphetamine or crystal meth).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]55 cocaine.mp. or exp Cocaine-Related Disorders/ or exp Cocaine/ or exp Cocaine Smoking/ or exp Crack coaine56 exp Abortion, Spontaneous/57 (spontaneous abortion or miscarriage).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]58 (prior or previous or history of).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]59 (recurrent miscarriage).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]60 (same father or same partner or same paternity).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]61 exp Socioeconomic Factors/ or exp Social class62 exp Health Status disparities/ or exp “Social Determinants of Health”/ or exp Health Equity/63 (Socioeconomic status or socioeconomic factors or low socioeconomic status or income social gradient or poverty or social class or socioeconomic or health disparities).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] 64 (Pasifika or Pasefika or pacific islander).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]65 exp pacific islands/ or exp polynesia/66 exp Oceanic Ancestry Group/67 (pacific islands or pacific islanders or maori or polynesia$).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]68 exp African Continental Ancestry Group/69 (African).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] |

 | Umbrella review or review or reviews or review of systematic reviews or overview of systematic reviews | 1. Meta-Analysis as Topic/2. meta analy$.tw.3. metaanaly$.tw.4. Meta-Analysis/5. (systematic adj (review$1 or overview$1)).tw.6. exp Review Literature as Topic/7. or/1-68. cochrane.ab.9. embase.ab.10. (psychlit or psyclit).ab.11. (psychinfo or psycinfo).ab.12. (cinahl or cinhal).ab.13. science citation index.ab.14. bids.ab.15. cancerlit.ab.16. or/8-1517. reference list$.ab.18. bibliograph$.ab.19. hand-search$.ab.20. relevant journals.ab.21. manual search$.ab.22. or/17-2123. selection criteria.ab.24. data extraction.ab.25. 23 or 2426. Review/27. 25 and 2628. Comment/29. Letter/30. Editorial/31. animal/32. human/33. 31 not (31 and 32)34. or/28-30,3335. 7 or 16 or 22 or 2736. 35 not 34 | 1 Epidemiologic studies/2 Exp case control studies/3 Exp cohort studies/4 Case control.tw.5 (cohort adj (study or studies)).tw.6 Cohort analy$.tw.7 (Follow up adj (study or studies)).tw.8 (observational adj (study or studies)).tw.9 Longitudinal.tw.10 Retrospective.tw.11 Cross sectional.tw.12 Cross-sectional studies/13 Or/1-12 | 1 Pre-Eclampsia/2 (pre-eclampsia or preeclampsia).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]3 1 or 2  | 1 Exp Pregnancy/2 pregnan$.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]3 exp Women/4 (women or woman).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]5 or/1-4 |

**References**

Please see manuscript bibliography for references corresponding to citations in appendix tables.