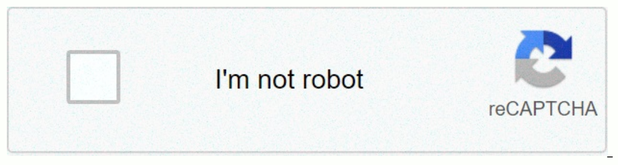

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Gestational hypertension guidelines 2018

And on behalf of the International Association for the Study of Hypertension in Pregnancy (ISSHP) these recommendations are from the International Association for the Study of Hypertension in Pregnancy (ISSHP) based on existing literature and expert opinion. It is intended that this is a live document, updated if needed as more research becomes available to affect good clinical practice. Unfortunately, there are no high-quality randomized trials on high blood pressure in pregnancy compared to studies on essential blood pressure outside of pregnancy, and ISSHP encourages more funding and attracting collaborative research in this area. Accordingly, the quality of the evidence for recommendations is not graded in this document, although relevant sources and explanations are provided for each recommendation. The document will be a live directive and we hope to be able to grade recommendations in the future. Guidelines and recommendations for managing high blood pressure in pregnancy are typically written for implementation in an ideal environment. It has been acknowledged that in many parts of the world, not all of these recommendations can be adopted, so options for managing in settings with fewer resources are discussed separately in relation to diagnosis, evaluation, and treatment. The document was approved by the International Association of Obstetricians and Gynecologists and the Japan Association for the Study of Hypertension in Pregnancy. Key PointsAll high blood pressure pregnant women management units should maintain and review uniform departmental management protocols and conduct regular audits of maternal and fetal outcomes. The cause(s) of preeclampsia and optimal clinical management of gestational hypertension disorders remain unclear, so we recommend that every pregnant woman with high blood pressure be offered an opportunity to participate in research, clinical trials and follow-up studies. The classification of blood pressure in pregnancy may be chronic (pre-pregnancy or diagnosed before 20 weeks of pregnancy) or de Nou (whether preeclampsia or pregnancy hypertension). Chronic hypertension is associated with adverse maternal and fetal outcomes and is best managed by strict maternal blood pressure control (BP, 110–140/85 mm Hg), monitoring fetal development, and repeatedly evaluating for the development of preeclampsia and maternal complications. This can be done in an outpatient environment. High blood pressure white coat refers to high office/clinic (≥140/90 mm Hg) blood pressure, but normal blood pressure measured at home or at work (lt;135/85 mm Hg); Masked blood pressure is another form of high blood pressure, more difficult to detect, marked by blood pressure that is normal in a clinic or visiting the office but high at other times, typically detected by 24-hour a calibrated blood pressure monitoring (ABPM) or BP home automated monitoring. Blood pressure is pregnancy De Nou-induced after 20 weeks of pregnancy in the absence of proteinuria and without biochemical or hematological abnormalities. It is usually not associated with fetal development restrictions. Results in pregnancies wrapped by gestational blood pressure are typically good, but about a quarter of women with gestational hypertension (especially those in 500 000 fetal and neonatal deaths and >70 000 maternal mortality exist <3 4 weeks)= will= progress= to = preeclampsia= and = poorer = outcomes.preeclampsia = is = a = complex = medical = disorder;= worldwide,= each = year, = it = is = responsible = for=>. Preeclampsia can deteriorate quickly without warning; we do not recommend classing it as mild or severe. Proteinuria is not mandatory for the diagnosis of preeclampsia. This is diagnosed despite de Nou's blood pressure after a 20-week pregnancy with proteinuria and/or evidence of acute maternal kidney injury (AKI), liver dysfunction, neurological characteristics, hemolysis or thrombocytopenia, or fetal growth restriction. Preeclampsia may develop or become known for the first time in childbirth or after early delivery in some cases. Hemoliosis, high liver enzymes, low platelet syndrome is a (serious) manifestation of preeclampsia and not a separate disorder. Diagnosis of high blood pressure and monitoring of proteinorihum blood pressure is a useful help in the management of chronic blood pressure and is mandatory in the management of white-coat blood pressure. Proteinuria is optimized by screening with automatic deepstic urine and then if positive quantitativeization is evaluated with urine/creatinine protein ratio. The ratio ≥ 30 mg/mmol (0.3 mg/mg) is abnormal. Prediction and prevention of preeclampsia and associated complications of first or second trimester tests or a set of tests can significantly predict the development of all cases of preeclampsia; However, a combination of maternal risk factors, hypertension, coupon growth factor (PlGF), and uterine artery dopplers can choose women who may benefit from 150 mg per de aspirin to prevent prematurely (before pregnancy 37 weeks) but preeclampsia is not a term. ISSHP supports first-trimester screening for preeclampsia risk when this could be integrated into the local health system although the cost effectiveness of this approach remains in place. ISSHP recommends that women with strong clinical risk factors created for preeclampsia (as one, previous preeclampsia, chronic hypertension, pre-pregnancy diabetes, maternal body mass index >30 kg/m2), antiphospholipid syndrome, and receiving Auxiliary reproduction) is treated, ideally before 16 weeks but definitely before 20 weeks, with low-dose aspirin (defined as 162–75 mg per d, as studied in randomized controlled trials). We are recommended at this stage against the usual clinical use of law-in or law tests (specifically PlGF or sFlt-1 [fms solution such as Tyrosine kinase-1]/PlGF ratio) for preeclampsia, which should continue to be evaluated within the framework of clinical trials. >lt;/34>Women inمیلی متر 160/110) دریافت خواهید کرد اگر مصرف آنها به احتمال زیاد کم است (گرم در د 2.5–1.2) خطر ابتلا به پره اکلامپسی به عنوان بالا باید کلسیم مکمل Hg);عوامل قابل قبول برای این شامل نیفیدیپین دهانی و یا لابتالول وریدی یا<600 mg/d),= in= addition= to= aspirin.= when= intake= cannot= be= assessed= or= predicted,= it= is= reasonable= to= give= calcium.low= molecular= weight= heparin= is= not= indicated= to= prevent= preeclampsia,= even= with= a= history= of= prior= early= onset= preeclampsia.women= should= exercise= during= pregnancy= to= maintain= health,= appropriate= body= weight,= and= reduce= the= likelihood= of= hypertension.managementregardless= of= the= hypertensive= disorder= of= pregnancy,= bp= requires= urgent= treatment= in= a= monitored= setting= when= severe= (=>یا مداوم به طور فشار خون بارداری، فشار خون از اختلال فشار خون درمانگاه یا دفتر در Hg (یا ≤135/85 میلی متر Hg در >140/90 میلی متر Hg هیدرالازین. در صورت در دسترس نبودن این درمان ها ممکن است از لیتالول شفاهی استفاده شود. صرف نظر از اختلال فشار خون بارداری، فشار خون به طور مداوم در یا) باید درمان شود، با هدف هدف فشار خون دیاستولیک 85 میلی متر جیگر در دفتر (و فشار خون سیستولی 110–140 میلی متر) برای کاهش احتمال ابتلا به فشار خون شدید مادر و عوارض دیگر، مانند پلاکت های پایین و آنزیم های کبدی بالا یا علائم. داروهای ضد فشار خون باید کاهش یابد یا متوقف شود اگر فشار خانه) باید درمان شود، با هدف هدف فشار خون دیاستولیک 85 میلی متر جیگر در دفتر (و فشار خون سیستولی 110–140 میلی متر) برای کاهش احتمال ابتلا به فشار خون شدید مادر و عوارض دیگر، مانند پلاکت های پایین و آنزیم های کبدی بالا یا علائم. داروهای ضد فشار خون باید کاهش یابد یا متوقف شود اگر فشار <80 mm Hg. Acceptable agents include oral methyldopa, labetalol, oxprenolol, and nifedipine, and second or third line agents include hydralazine and prazosin. Women with preeclampsia should be assessed in hospital when first diagnosed; thereafter, some may be managed as outpatients once it is established that their condition is stable and they can be relied on to report problems and monitor their BP. Women with preeclampsia who have proteinuria and severe hypertension, or hypertension with neurological signs or symptoms, should receive magnesium sulfate (MgSO4) for convulsion prophylaxis. Fetal monitoring in preeclampsia should include an initial assessment to confirm fetal well-being. In the presence of fetal growth restriction, a recommended schedule for serial fetal surveillance with ultrasound is detailed within these recommendations. Maternal monitoring in preeclampsia should include BP monitoring, repeated assessments for proteinuria if it is not already present, clinical assessment including clonus, and a minimum of twice weekly blood tests for hemoglobin, platelet count, and tests of liver and renal function, including uric acid, the latter being associated with worse maternal and fetal outcomes. Women with preeclampsia should be delivered if they have reached 37 weeks' (and zero days) gestation or if they develop any of the following:Repeated episodes of severe hypertension despite maintenance treatment with 3 classes of antihypertensive agents; Progressive thrombocytopenia; Progressively abnormal renal or liver enzyme tests; Pulmonary edema; Abnormal neurological features, such as severe intractable headache, repeated visual scotomata, or convulsions; Nonreassuring fetal CareIn the early mm= hg.= acceptable= agents= include= oral= methyldopa,= labetalol,= oxprenolol,= and= nifedipine,= and= second= or= third= line= agents= include= hydralazine= and= prazosin.women= with= preeclampsia= should= be= assessed= in= hospital= when= first= diagnosed;= thereafter,= some= may= be= managed= as= outpatients= once= it= is= established= that= their= condition= is= stable= and= they= can= be= relied= on= to= report= problems= and= monitor= their= bp.women= with= preeclampsia= who= have= proteinuria= and= severe= hypertension,= or= hypertension= with= neurological= signs= or= symptoms,= should= receive= magnesium= sulfate= (mgso4)= for= convulsion= prophylaxis.fetal= monitoring= in= preeclampsia= should= include= an= initial= assessment= to= confirm= fetal= well-being.= in= the= presence= of= fetal= growth= restriction,= a= recommended= schedule= for= serial= fetal= surveillance= with= ultrasound= is= detailed= within= these= recommendations.maternal= monitoring= in= preeclampsia= should= include= bp= monitoring ,= repeated= assessments= for= proteinuria= if= it= is= not= already= present,= clinical= assessment= including= clonus,= and= a= minimum= of= twice= weekly= blood= tests= for= hemoglobin,= platelet= count,= and= tests= of= liver= and= renal= function,= including= uric= acid,= the= latter= being= associated= with= worse= maternal= and= fetal= outcomes.women= with= preeclampsia= should= be= delivered= if= they= have= reached= 37= weeks'= (and= zero= days)= gestation= or= if= they= develop= any= of= the= following:repeated= episodes= of= severe= hypertension= despite= maintenance= treatment= with= 3= classes= of= antihypertensive= agents;progressive= thrombocytopenia;progressively= abnormal= renal= or= liver= enzyme= tests;pulmonary= edema;abnormal= neurological= features,= such= as= severe= intractable= headache,= repeated= visual= scotomata,= or= convulsions;nonreassuring= fetal= status.postpartum= carein= the= early=></80 mm Hg. Acceptable agents include oral methyldopa , labetalol, oxprenolol, and nifedipine, and second or third line agents include hydralazine and prazosin. Women with preeclampsia should be assessed in hospital when first diagnosed; thereafter, some may be managed as outpatients once it is established that their condition is stable and they can be relied on to report problems and monitor their BP. Women with preeclampsia who have proteinuria and severe hypertension, or hypertension with neurological signs or symptoms, should receive magnesium sulfate (MgSO4) for convulsion prophylaxis. Fetal monitoring in preeclampsia should include an initial assessment to confirm fetal well-being. In the presence of fetal growth restriction, a recommended schedule for serial fetal surveillance with ultrasound is detailed within these recommendations. Maternal monitoring in preeclampsia should include BP monitoring, repeated assessments for proteinuria if it is not already present, clinical assessment including and a minimum of twice weekly blood tests for hemoglobin, platelet count, and tests of liver and renal function, including uric acid, the latter being associated with worse maternal and fetal outcomes. Women with preeclampsia should be delivered if they have reached 37 weeks' (and zero days) gestation or if they develop any of the following:Repeated episodes of severe hypertension despite maintenance treatment with 3 classes of antihypertensive agents; Progressive thrombocytopenia; Progressively abnormal renal or liver enzyme tests; Pulmonary edema; Abnormal neurological features, such as severe intractable headache, repeated visual scotomata, or convulsions; Nonreassuring fetal status. Postpartum CareIn the early >خون دیاستولیک سقوط کند</600>کند</600> Period, women with preeclampsia should be considered at high risk for preeclamptic complications for at least 3 days and should monitor their blood pressure and clinical condition at least every 4 hours while awake. Antihypressant administration should continue antenatally, and attention should be given to treating any high blood pressure before day 6 after partum with antihymetic treatment. After that, antihytensant treatment may be slowly withered over the days but did not stop abruptly. It is important to note that eclamptic seizures may first develop early in the postpartum period. Nonsteroidal anti-inflammatory drugs (NSAIDs) for postpartum analgesia should be avoided in women with preeclampsia unless other painkillers do not work; , Sepsis, postpartum hemorrhage). All women should be examined in the 3 months after delivery to ensure that BP, urine, and any laboratory abnormalities have been normal. If proteinuria or high blood pressure persists, then a suitable referral should be initiated for further investigations. There are significant long-term cardiovascular risks for women with chronic hypertension and those who have had gestational blood pressure or preeclampsia. An initial recommendation may be aimed at reaching pre-pregnancy weight for up to 12 months and limiting weight gain between pregnancies through a healthy lifestyle. Annual medical reviews recommend long life, and all women including should adopt a healthy lifestyle that includes exercising, eating well, and aiming for ideal body weight. Introduction Worldwide there are disagreements about many aspects of classification, diagnosis, and management of hypertension disorders from pregnancy. This lack of consensus hinders our ability to study not only the immediate rate of adverse maternal and fetal outcomes for various high blood pressure disorders in pregnancy, particularly preeclampsia, but also the long-term health outcomes of women and babies who survive this condition. It also affects research on the pathopsology of this condition and has almost certainly delayed the development of effective screening tests and treatments, leading to weaker pregnancy outcomes. A scientific review of existing guidelines has shown broad agreement in the following areas1:Definitions of high blood pressure, proteinuria, chronic hypertension, and gestational blood pressure; Prevention of low-dose preeclampsia and calcium supplementation (if you receive low calcium); treatment of severe blood pressure; use of MgSO4 for severe eclampsia and preeclampsia; use of anthontal corticosteroids to increase fetal lung maturation in pregnancy <34 weeks' if childbirth is likely within the next 7 days;delivery for preeclampsia in the next 7 days; and oxytocin in the third stage of labor. However, in this analysis, there was little agreement on the definition of preeclampsia; High blood pressure is not severe; Delivery time for women with chronic hypertension, gestational blood pressure, or premature preeclampsia; andPostpartum maternal monitoring. After the ISSHP World Congress in 2016, it was agreed that a single up-to-date directive should be available that reflects current evidence, as well as the collective expertise of ISSHP membership and the leadership role that ISSHP wants to assume in improving the implications of high blood pressure in pregnancy. After Congress, ISSHP accused a small group of clinical expert researchers to update the latest isshp 2013 and 2014.2,3This statements of a set of practical advice on classification, diagnostic criteria, and management for all physicians, everywhere, who play a role in managing women with high blood pressure in pregnancy. Part One. The classification of gestational hypertension disorders is the recommended classification for gestational hypertension disorders as follows: known high blood pressure before pregnancy or present in the first 20 weeks of high blood pressure essential secondary white coat high blood pressureMasked hypertensionHypertens Aion arising de novo at or after 20 weeksTransient gestational hypertensionGestational hypertensionPreeclampsia* de novo or superimposed on chronic hypertension*The term severe preeclampsia should not be used in clinical practice. NotesPreeclampsia, transient gestational hypertension, and gestational hypertension are characterized by the new onset of hypertension (BP ≥140 mm Hg systolic or ≥90 mm Hg diastolic) at or after 20 weeks' gestation4; As such, it is important that there is a natural BP documented either prepregnancy or early pregnancy before a very pregnancy-related reduction in blood pressure. Otherwise, blood pressure is measured for the first time after a 12-week pregnancy which may naturally reflect a common fall in blood pressure from the baseline that occurs until the end of the first trimester; In that case, there may still be an underlying chronic blood pressure that has been masked by this first quarter of BP's fall. Transient pregnancy blood pressure is high blood pressure that arose in the second or third trimester. High blood pressure is usually diagnosed at the clinic but then resolved with repeated BP readings, such as those taken over several hours in a day evaluation unit. This is different from white coat blood pressure, which by definition should exist from early pregnancy. Transient pregnancy hypertension is associated with a 40% risk of actual pregnancy hypertension or preeclampsia in the remainder of pregnancy, 5 facts that highlight the importance of careful follow-up of such women. When a woman offers high blood pressure during pregnancy or after 20 weeks of pregnancy and previous blood pressure is unknown, it should be managed in pregnancy as if she has gestational blood pressure or preeclampsia. Proper research should be done after pregnancy to determine if she has an underlying Hypertension. This will generally be obvious because BP will not be normal within 3 months of giving birth. Masked blood pressure is another form of high blood pressure that is determined by blood pressure, which is normal in a clinic or office visit but goes up at other times, normally diagnosed by 24-hour ABPM or BP home automatic monitoring. Such a diagnosis is generally searched when a patient has unexplained abnormalities consistent with target organ damage caused by high blood pressure but does not have obvious blood pressure. Although this is a form of chronic hypertension, the prevalence of masked blood pressure and its importance in pregnancy is less well studied; currently, we do not recommend following this diagnosis in the absence of high characteristics (as one, unexplained chronic kidney disease [CKD], left ventricular hypertrophy, or retinopathy recognized early in pregnancy). Although ISSHP has al previously released a statement documenting severe preeclampsia, we agree with the position of the American College of Obstetricians and Gynecologists (ACOG) and others that preeclampsia may become a major threat to mother and baby at any stage, and that classification to mild or severe illness can be less wrong or misleading for doctors with experience. ACOG has eliminated the diagnosis of severe preeclampsia and instead discusses preeclampsia with or without severe characteristics, a reasonable clinical approach. Part 2. What does diagnosis of gestational hypertension disorders mean in pregnancy? HypertensionDefined as systolic BP ≥140 and/or diastolic BP ≥90 mm Hg.BP should be repeated to confirm true hypertension. If BP is severe (systolic BP ≥160 and/or diastolic BP ≥110 mm Hg), then BP must be approved within 15 minutes; Use a liquid crystal sphygmomanometer. If this is not available, use a valid and calibrated auto device appropriately. NotesMercury sphygmomanometry is no longer available. The best alternative may be a liquid crystal sphygmomanometer,6 but this is not yet widely available. The correct cuff size is important, using a large cuff if it is around the middle upper arm >33 cm.Anroid devices are commonly used to measure blood pressure, but may be incorrect and require regular calibration. A smaller study found that 50% of anroid devices had at least 1 BP reading >10 mmHg compared to the same error in only 10% of mercury devices.7 The use of an automated device is preferable to using an anroid device if the automated device is shown to be reliable in both pregnancy and preeclampsia specifically 8,9; Some devices may be accurate for women with chronic hypertension or pregnancy in pregnancy but not for women with preeclampsia.10 A list of home BP monitors is generally valid, not specific for pregnancy, is available abnormal proteinuria formation in pregnancy? Proteinuria should be initially evaluated by automatic deepstics If available, deepstic urine will be visually accurate. If positive (≥1+, 30 mg per deciol), then protein urine point/creatinine (PCr) ratio should be done. The PCr ≥ 30 mg/mMol (0.3 mg/mg) is abnormal. A negative deep stick test can usually be accepted, and further PCr testing is not required at the time. Proteinuria is not required to diagnose preeclampsia. Massive proteinuria (>5 grams per 24 hours) is associated with more severe neonatal outcomes. NotesThe gold standard for diagnosing abnormal proteinuria in pregnancy is a 24-hour urinary protein ≥300 mg per day although this is more a time-honored value than one with high scientific proof11; Ideally, 24-hour creatinine excretion will also be used to assess the adequacy of collection as without this, daily urinary protein excretion is estimated to often be incorrect.12In action, The 24-hour urine protein measurement is further replaced with point urine protein/creatinine ratio, the value of ≥30 mg per milligram (=0.26 mg per milligram, usually rounded to 0.3 mg/mg) represents a significant proteinuria of 13–15; This eliminates the problems inherent in doing 24-hour urine sets and speeding up the decision-making process. Twenty-four-hour urine collection for proteinuria has still been shown to confirm nephrotic syndrome that has implications for thromboprophylaxis. Dipstick testing is not complete, and a small number of protein cases may be missed by a negative deepsty test; PCr urine is 1 g per liter, which is <30 mg/mmol= also = occasionally = gives = a = false-negative = result = for abnormal = 24-hour = proteinuria,= but = in= such cases,= the= total protein = excretion = is = usually=>>lt;/30> 2+.15,17e On-the-go discussion about the importance of absolute proteinization quantitativeization <400 mg/d.14at= present,= there= is = insufficient = data = to = recommend = using = urinary= urinary= albumin/creatinine= ratio,= but = this = may = change = when = more = research = becomes = available,13,16 = such = as = the = results = diagnostic = accuracy = in preeclampsia = using = proteinuria = assessment = (rctn8) 2607486).When= neither= 24 = hour = nor = pcr = measures = of = proteinuria = are = available,= dipstick = testing = provides = reasonable = assessment = of = true = proteinuria,= particularly = when values = are=>exists. Some think that the degree of proteinuria provides a little more risk elderly (except in nephrotic syndrome), and that it should not be included in preeclampsia severity considerations.15,18–20 Others have shown that massive proteinuria (>5 grams per 24 hours) is associated with more severe infant outcomes and earlier delivery, and Point PCr >900 mg/mMol (or >500 mg/mMol if age >35 years) is associated with worse maternal results.21,22 For this reason, some units may choose to continue measuring proteinuria although it is not recommended to decide to provide based on proteinuria grade. If proteinuria is detected but subsequent deepstic tests turn negative, then further quantitativeization tests are appropriate to see if real proteinuria persists. In recent years, It is known as a real entity. It is unclear exactly how many pregnancies will be affected by this condition, which is defined as a new onset of proteinuria in pregnancy without other obvious features of preeclampsia or primary kidney disease. Women with gestational proteinuria have a blood level of birth growth factor that is moderate between normal pregnancies and preeclampsia, and this led to the fact that these women have an early form of preeclampsia.23 The recommended approach to managing these women is to consider 3 possible outcomes. No preeclampsia characteristics develop during pregnancy and proteinuria disappears after childbirth; Proteinuria turns out to be the first feature of preeclampsia, defined when B.P. subsequently rises or other features of preeclampsia develop; It is therefore recommended to monitor these women more than usual for the remainder of their pregnancy and also to evaluate proteinuria in the 3 months after delivery. Chronic HypertensionChronic hypertension refers to high blood pressure predating pregnancy or recognized <20 weeks gestation. In practice, this is often diagnosed for the first time in the first or early second quarter of booking hits. Ideally, this office or blood pressure clinic should be approved with 24-hour abpm or home BP monitoring, or at least, after repeated measurements during hours on the same visit or on 2 consecutive antennaal visits although this recent approach may not always eliminate coat white blood pressure detection. Most cases are necessary due to blood pressure. Secondary causes are unusual. High blood pressure white coat refers to high office/clinic (≥140/90 mm Hg)

blood pressure but normal blood pressure measured at home or at work (lt;135/85 mm Hg); So in practice we rely more on bp of the first quarter to define normal or high BP. Up to 1 in 4 patients with high clinic or office hypertension have white coat blood pressure. This diagnosis can be avoided in large part by having a clinic or blood pressure office registered by a nurse, rather than a doctor, preferably using frequent blood pressure reading .25 We recommend that all women either home monitor blood pressure or 24 hours of ABPM before a diagnosis of genuine essential blood pressure is accepted. Normal amounts have been determined for 24-hour ABPM in pregnancy26; Before 22 weeks, BP values should be as follows: 24 hours on average 126/76 mm Hg; Awake average BP 132/79 mm Hg; Sleep averaged BP 114/66 mm Hg. These amounts are slightly lower than the amounts used as thresholds for detecting high blood pressure in non-prognostric women. Most home-based BP automated devices are accurate in pregnancy, but ≈25% are different from standard sphygmomanometry devices27; All women should check their home blood pressure device (against calibrated sphygmomanometer or automatic device credited for use in pregnancy and preeclampsia) before using that device. In the absence of severe blood pressure (≥160/110 mm Hg), we suggest relying on average blood pressure over several days instead of acting on reading only for women monitoring bp home values. Most cases of chronic hypertension are due to essential blood pressure, which is usually associated with a family history of high blood pressure and often with overweight or obesity. Secondary causes of hypertension are less common; In the age group of women who become pregnant, the cause is usually an underlying primary renal parenchymal disorder (such as reflux nephropathy or glomerulonephritis) and, less commonly, hyperplastic fibromuscular renal arteries or primary hyperaldosteroneism. ISSHP does not recommend routine testing for any secondary cause of high blood pressure in the absence of clinical clues to these conditions. ISSHP recommends that all women with chronic hypertension in pregnancy have the following tests, which are performed at the first diagnosis. This is a basic reference should superimposed suspicions later in preeclampsia pregnancy (which complicates up to 25% of this pregnancy). Total blood count (hemoglobin and platelet count). Liver enzymes (aspartate aminotransferase, alanine aminotransferase, and lactate dihydrogenase) and performance tests (international normal ratio, serum bilirubin, and serum albumin). Serum creatinine, electrolytes, and uric acid (serum uric acid is not a diagnostic criterion for preeclampsia, but increased levels of modified uric acid in pregnancy are associated with worse maternal and fetal outcomes of 28-30, and should prompt a detailed assessment of fetal development, even in women with gestational hypertension. Urine and microscope, as well as PCr or albumin: creatinine ratio. Renal ultrasound if serum creatinine or any of the urine tests are abnormal. HypertensionTransient transient pregnancy blood pressure is de nou blood pressure that develops in any pregnancy that settles without treatment during pregnancy. NotesTransient gestational blood pressure is not a benign disorder; It is associated with ≈ 20% of preeclampsia and a higher 20% chance of developing gestational hypertension. So such women should receive additional monitoring during their pregnancy, which is ideally including household LB measurements. Gestational hypertension (gestational hypertension) is de nou continuous blood pressure that develops in pregnancy or after 20 weeks in the absence of preeclampsia characteristics. NotesGestational hypertension is not a uniform benign condition. The risk of complications is related to the gestational age in which it develops. Gestational hypertension is important for 2 reasons:Preeclampsia may develop in 25% of these women, and Higher rates being offered early31; To date, no test has reliably predicted which women with gestational hypertension will later develop preeclampsia.32 Gestational hypertension, such as preeclampsia, is also associated with long-term cardiovascular disease.33–3 6 preeclampsia preeclampsia pregnancy blood pressure combined with ≥1 of the following conditions start new in pregnancy or after 20 weeks: proteinuria other maternal organ dysfunction, including: AKI (creatinine ≥90umol/L; 1 mg/dL) liver involvement (high transaminases, e.g., alanine aminotransferase or aspartate aminotransferase >40 IU/L) with or without right upper quadrant or epigastric abdominal pain Neurological complications (examples including eclampsia, modified mental state, blindness, stroke, clonosis, severe headache, and persistent visual sctomata) hematological complications (thrombocytopenia–platelet counting <150 μL/000 , intra vascular coagulation disse (hemulosis) uterine dysfunction (such as fetal growth restriction, abnormal umbilical artery [UA] analysis of doppler wave form , or stillbirth)NotesHyper-reflexia occurs in many women with preeclampsia and postpartum resolves. However, this is a non-profile finding that is often otherwise as good as young women and is heavily interpreted by the Observer. Therefore, ISSHP no longer recommends such this in diagnostic criteria. Headaches in pregnancy are multify factors. However, in the presence of high blood pressure, the new headache should be considered part of preeclampsia until proven otherwise; it is a clinically safe approach. Proteinuria is not required for diagnosis of preeclampsia, but in ≈75% of cases.19 When resources are available, all asymptomatic women with de-nou hypertension and without deepstic proteinuria should have the following laboratory studies conducted to assess maternal organ dysfunction. Without these, it would be impossible to put aside preeclampsia. In some countries, this approach will necessite referral of patients (some of whom will have preeclampsia) from smaller units where laboratory facilities are not available the same day. Local decision-making strategies will be necessary in these areas. Hemoglobin, platelet counting (and if reduced, coagulation tests) keratin livver enzymes serum uric hemolysis, high liver enzymes, low platelets: combining all or some hemolysis, high liver enzymes and thrombocytopenia are often referred to as HELLP syndrome. For physicians familiar with the management of preeclampsia, this constellation of abnormalities represents a more serious part of the spectrum of the disorder. However, it is still considered part of preeclampsia and not a separate disorder. ISSHP endorses this approach to alleviate confusion among those less familiar with the multi-system complications that may occur in preeclampsia. In other words, women with HELLP syndrome characteristics should be considered to Preeclampsia so that all other features of preeclampsia will be followed and addressed. Controversy remains over whether fetal growth restrictions on new pregnancy blood pressure have begun, with no other maternal characteristics of preeclampsia, to define preeclampsia. The authors' view was that this should be applied given that preeclampsia is more of a primary edging disorder than itself. Although it is likely that preeclampsia can exist in some cases without apparent blood pressure, ISSHP recommends maintaining new onset hypertension in diagnosis now. Preeclampsia Superimposed on Chronic HypertensionAbout 25% of women with chronic hypertension will develop superimposed preeclampsia. These rates may be higher in women with underlying kidney disease. This diagnosis is made when a woman with chronic essential blood pressure develops any of the ultra-preeclampsia-compatible maternal organ dysfunction. Increasing blood pressure per second is not enough to detect supereclampsia, as such increases are difficult to distinguish from the usual increase in blood pressure after pregnancy for 20 weeks. In the absence of pre-existing proteinuria, a new onset proteinuria is sufficient in regulating an increase in BP to detect ultra-prescribed preeclampsia. In women with proteinuria kidney disease, increased proteinuria in pregnancy is not enough to diagnose ultra-prescribed preeclampsia. Diagnostic biomarkers (especially PlGF) may contribute to diagnosis and prognosis in the future, but they have not yet been recommended for this diagnosis. Fetal growth restriction may be part of chronic blood pressure per second and cannot be used as a diagnostic measure for the aforementioned preeclampsia. Part 3. Predicting and preventing preeclampsia predicts the development of first or second trimester preeclampsia or a series of tests can significantly predict the development of all cases of preeclampsia; however, a combination of maternal risk factors, BP, PlGF, and uterine artery dopplers can select women who may specifically benefit from 150 mg in de aspirin to prevent prematurely but Preeclampsia is not term.37 ISSHP supports first-trimester screening for preeclampsia when this can be integrated into the local health system although the cost effectiveness of this approach remains in place. ISSHP recommends that women with strong clinical risk factors created for preeclampsia (asie, previous preeclampsia, chronic hypertension, pre-pregnancy diabetes, maternal body mass index >30 kg/m2, anti-syndrome Phospholipids, and receiving auxiliary reproduction) are treated, ideally before 16 weeks but certainly before 20 weeks, with 75 to 162 mg in de-aspirin, as in randomized controlled trials case The study was conducted. Maternal characteristics and history provide strong clues that women are more at risk of developing preeclampsia than others,38 especially: pre-preeclampsia chronic high blood pressure multi pregnancy diabetes prenatal diabetes Mellitus Maternal Body Mass Index >30 Assisted reproductive therapy syndrome/SLE may help to narrow down risk profiles for more preeclampsia using a combination of these risk factors, screening of uterine artery doppler, and plasma PlGF. This is an issue for the future. NotesMany has explored clinical, ultrasound, and laboratory parameters during early pregnancy as a tool to predict who will later develop preeclampsia. Studies of uterine artery doppler are among these. Measurement of angiogenesis factors (e.g. soluble endoglein, PlGF, sFlt-1, and sFLt-1/PlGF ratio).39 number of others, such as plasma pregnancy-related plasma A plasma protein, Justin protein 13, homocysteine, dimethyl largin Asymmetric acid, uric acid and leptin, urinary albumin, or calcium .40–44 are maternal characteristics that are strongly associated with the possibility of increased preeclampsia include those listed above, as well as underlying kidney disease or multiple pregnancies. Other factors that are less associated with preeclampsia include: but not limited to advanced maternal age.38 Families have a history of preeclampsia.45,46Short duration of sex (5 years with increased risk of preeclampsia<6 months)= before= the = pregnancy.47,48primiparity =although=preeclampsia=may=occur=in= subsequent= pregnancies= even = in= the absence = of = preeclampsia = in = the = the = first).primipaternity—both= changed= paternity49= and = an= interpregnancy = interval=>.50CKD.Diseases of connective tissue. Thrombolysis has no clear association with near-term preeclampsia, but leiden V factor may be a risk factor for the rarer case of early onset preeclampsia, especially when associated with severe fetal development restriction.51One Large systematic review showed that parity, history of preeclampsia, race, chronic hypertension and method Imagination had an area under the curve of 0.76 to predict premature preeclampsia and discrimination can be improved by specialized experiments.52 The size of the difference in the area under the curve was widely different between the comparison of the model in this study, from −0.005 to 0.24 in favor of specialized models. Improving discrimination for models that predicted any late preeclampsia and preeclampsia was more modest than those that predicted premature preeclampsia. O'Gorman et al53 found that the detection rates for pre-term and term preeclampsia were inferior using National Institute for Health and Care Excellence (NICE) or ACOG clinical criteria alone to first trimester screening using a multivariable approach (that included maternal risk factors, BP, maternal plasma pregnancy-associated plasma protein A and PlGF, and uterine artery Doppler). With a positive screen rate of 10%, 370 women should be screened, and 37 are identified as at high risk of preeclampsia treated with 150 mg in de-aspirin to prevent 1 case of premature preeclampsia. The important thing is that the vast majority (≈80%) </6>of women display positive clinically strong riskFor preeclampsia. In the ASPRE study (aspirin versus placebo in high-risk pregnancies for premature preeclampsia), 37 ≈27 000 women were screened, 6 percent developed in final analysis and 48 (≈0.2 percent) of premature preeclampsia developed. This type of screening added a predictor benefit for premature preeclampsia above clinical predictors, but the cost effectiveness of the approach remains unclear. Screening should also be done clinically in the same way aspre, although uterine artery doppler (pace index) is not a difficult way to learn. An important finding in the ASPRE37 trial confirmed that aspirin at a dose of 150 mg per night did not confiscate any greater risk for pregnant women (or their babies) than placebo. Randomized controlled law trials are needed in and rejecting the tests and should include a result of lack of coparimary inferiority from neonatal disease due to the actual risk of previous childbirth in these women. Tests to rule out preeclampsiaNo tests should normally be used as a rule test at this stage although plgf testing may prove useful in selected groups in future studies. Such trials should not be used normally in clinical practice until further clinical studies are conducted. NotesIn May 2016, the NICE group published NICE Diagnostics guidance (DG23; (recommends the safety of Elecsys for the sFlt-1/PlGF ratio, or the Triage PlGF test, with a standardized clinical assessment to help rule out proteinuria preeclampsia or preeclampsia requiring childbirth Within the next 7 days (for the sFlt-1/PlGF ratio) or 14 days (for PlGF triage) in women with suspected preeclampsia between 20 and 6+34 weeks of pregnancy will be used. This recommendation was primarily based on 2 multi-center studies of women with a broad definition of suspected preeclampsia in pregnancy <34+6 weeks. Prognosis study (prediction of short-term outcome in pregnant women with suspected preeclampsia study)54 showed that sFlt1/PlGF <38 ratio can significantly develop preeclampsia for the next 7 days in women with A wide range of inclusion criteria do not rule out; this finding may support any clinical advantage in centers already established for regular antenatal follow-up but may become used in remote or low-income and middle-income (LMIC) regions once further research is conducted. Pelican study (plasma plasental growth factor [PlGF] in diagnosis of preeclampsia women requiring childbirth within 14 days)55 showed that the value of PlGF triage ≤100 pg/mL or sentel) The fifth concentration of PlGF for gestational age gave high sensitivity with good accuracy to identify women most likely to develop preeclampsia requiring childbirth within 14 days of testing, when presented with suspected preeclampsia before pregnancy of 35 weeks. PlGF, alone or in combination with sFlt-1, was not recommended to rule on preeclampsia. Predicting the preeclampsia period established there are recent studies aimed at predicting Results for women when they are initially present with early preeclampsia characteristics. Measurement of angiogenesis factors may play a role in this field in the future, but it is still in the research phase.56A Clinical prediction model, PIERS model (integrated preeclampsia estimation of risk), can lead to the possibility of a severe adverse outcome of compound mother using the following variables collected from 0 to 48 hours after admission with preeclampsia. 57,58 Prediction: Gestational age chest pain or respiration oxygen saturated platelet counts serum creatinine aspartate aminotransferase action, pulse oximetry is rarely used and default to oxygen saturation 97% in the risk model when oximetry is not available (. ISSHP recommends this as a useful adjunct to the initial assessment of women with preeclampsia. NotesThe PREP Collaborative Network (Predict of Complications in Early-Onset Preeclampsia) published prognostic models that assist predicting the overall risk of women with established preeclampsia to experience a complication of logistic regression (PREP-L) and for predicting the time to adverse maternal outcome using a survival model (PREP-S). Pregnancy, medical history, systolic blood pressure, deep tendon reflex, urinary protein creatinine ratio, platelets, serum alanine amino transaminase, urea, creatinine, oxygen saturation, and antihylamide therapy or MgSO4. The PREP-L model includes high cases except deep tendon reflexes, serum transaminaminase alanine and creatinine (found in . Prevention of low-dose aspirin (preferably 150 mg per d) started before 16 weeks of pregnancy for women at increased risk of preeclampsia, especially if any of the following conditions exist: previous pre-existing pre-existing pre-existing medical conditions (including chronic hypertension) Underlying kidney disease, or diabetes before pregnancy mellitus) multiple pregnancy antibody syndrome, obesity assists reproductive pregnancy in the event of low calcium intake (<600 mg/d), calcium use of 1.2 to 2.5 grams per day in women at increased risk. Pregnant women should exercise at least 3 days a week for 50 minutes on average using a combination of aerobic exercise, strength, and flexibility training; There are significant adverse effects of exercise in pregnancy. No treatment to date can prevent preeclampsia in all women. In women considered to have an increased risk of preeclampsia based on the clinical factors listed above, both low-dose aspirin and calcium (in regulating low calcium intake) are recommended for the prevention of preeclampsia.62-6 4Aspirin should be given at doses between 100 and 150 mg per day, started preferably before pregnancy 16 weeks, possibly taken at night, and continued until delivery; ≈ 70 women needed to Treatment to prevent 1 case of preeclampsia, especially severe preeclampsia. The implementation of this practice is associated with improved results65; It is possible that the onset of aspirin after 16 weeks of pregnancy may also benefit from,66 but we recommend starting earlier. Recent analysis questioned: (1) whether aspirin requirements started before 16 weeks or still benefit if started later, (2) great effect (ranging from 50% to only 10% risk reduction), and (2) magnitude of effect (ranging from 50% to only 10% risk reduction), and (2) 3) What is the most beneficial dosage, at least 100 mg is seemingly required.67–69 ASPRE study has shown that using 150 mg of aspirin at night in women seems to have a high risk for preocclusone Early lapesia based on screening with maternal factors, and doppler and maternal bridgeGF reduced the incidence of premature preeclampsia from 4.3% to 1.6% in the aspirin group.37 Enoxaparin has no advantage Preventive higher than low doses of aspirin have even been shown in high-risk women for preeclampsia .70 calcium at a dose of at least 1 gram per d to reduce the likelihood of preeclampsia in women with low calcium intake. Cap trials (calcium and preeclampsia)71 more data will be reported to examine the preventive benefits of calcium supplementation in women who have calcium mamle (post-pregnancy and early replacement of pregnancy 500 mg per d) compared to women who do not mamme. This may change future recommendations. Exercise using an ACOG program guideline (or aerobic exercise for 50 minutes, 3× per week) in 1 randomized controlled trial of 765 women has been associated with lower gestational blood pressure and preeclampsia, as well as lower weight gain and macrosomia .72 vitamin C and E supply is not recommended and may actually be associated with Worse pregnancy outcomes are associated.73 Monitoring and management for high blood pressure disorders from feedtal pregnancy biometrics (bipartial diameter with head, abdominal round, and stool length calculated to produce fetal weight estimation), evaluation of amniotic fluid volume, and analysis of fetal double waveform should be performed at the first diagnosis of preeclampsia. In approved preeclampsia or where serial evaluation of fetal growth restriction from fetal development is recommended, amniotic fluid volume and UA doppler from 24 weeks gestation to birth are not evaluated with fetal growth of more than 2 weekly intervals. Advice should always be sought about ultrasound testing from maternal fetal medicine specialists for previous pregnancy cases. Further ultrasound measurements are required if there is high or absent UA resistance or reverse diastic current finish; In these cases, a specialized opinion should be searched. Prenatal corticosteroids for fetal lung maturation should be given between 0+24 and 0+34 weeks of pregnancy, but may be given up to 0+38 weeks in elective delivery cases by cesarean section; Multiple steroid courses are not recommended. MgSO4 for Fetal Neuroprotective قبل از 32 هفته در حاملگی ها تجویز شود. NotesPreeclampsia است، حداقل در بخشی از، یک بیماری از اختلال در عملکرد مکان / مکان و جنین به طور بالقوه در برابر اثرات نارسایی رحمی آسیب پذیر است، به خصوص محدودیت رشد جنین و سقط جنین است. علاوه بر برنامه ایده آل سونوگرافی دوستیابی سه ماهه اول و اسکن ناهنجاری میان دوره ای، بیومتری جنین، ارزیابی حجم مایع آمنیوتیک، و تجزیه و تحلیل شکل موج دوپلر جنین باید در اولین تشخیص پره اکلامپسی انجام شود. برنامه اسکن ایده آل پس از آن با حضور (یا عدم وجود) محدودیت رشد جنین در ارزیابی اولیه و بارداری در تشخیص تعیین می شود. ACOG و کالج سلطنتی زنان و زایمان (توافق دارند که خطر ابتلا به بیماری پریناتال و مرگ و میر افزایش می یابد هنگامی که وزن جنین تخمین زده شده و یا دور شکمی <10th centile.acog= considers= amniotic= fluid= an= important= diagnostic= and= prognostic= parameter= in= fetuses= with= intrauterine= growth= restriction,= whereas= the= royal= college= of= obstetricians= and= gynecologists= notes= that= amniotic= fluid= assessment= has= minimal= value= in= diagnosing= growth= restriction.= both= guidelines= agree= that= ua= doppler= is= not= a= reliable= screening= technique= for= fetal= growth= restriction= but= is= a= useful= assessment= tool= once= fetal= growth= restriction= is= diagnosed.the= society= of= obstetricians= and= gynecologists= of= canada74= uses= an= estimated= fetal= weight=></10th> <10th centile= for= diagnosis= of= small= for= gestational= age= and= suggests= that= ua= and= uterine= artery= doppler= studies= in= combination= with= ultrasound= of= the= placental= morphology= are= useful= to= establish= a= more= refined= diagnosis= of= fetal= growth= restriction.in= confirmed= preeclampsia,= where= the= maternal= condition= allows= for= continuation= of= pregnancy,= serial= evaluation= of= fetal= growth,= amniotic= fluid= volume,= and= ua= doppler= are= recommended= from= 26= weeks'= gestation= until= birth.the= fetal= biometry= should= be= assessed= no= more= frequently= than= every= 2= weeks.criteria= for= the= diagnosis= of= fetal= growth= restriction= include= an= estimated= fetal= weight=></10th> <10th centile= on= ultrasound= based= on= accurate= dating.= in= particular,= an= estimated= fetal= weight=></10th> ، (95 صدک <third centile= and= abnormal= ua= doppler= significantly= increase= the= risk= of= adverse= perinatal= outcome.once= fetal= growth= restriction= is= diagnosed,= assessment= of= fetal= growth= is= recommended= at= 2= weekly= intervals.= in= نظارت سونوگرافی باید به فواصل هفتگی و یا بیشتر در صورت لزوم توسط متخصص بالینی مدیریت افزایش یافته addition ,= amniotic= fluid= volume= and= ua= doppler= assessment= should= be= performed.if= the= ua= doppler= demonstrates= increased= resistance= (pulsatility= index=> دوپلر, و ارزیابی حجم مایع آمنیوتیک توصیه UA قبل از بارداری 34 هفته وجود دارد, نظارت بر کاردیوتوکوگراف روزانه, دو بار در هفته UA است. اگر جریان پایان دیاستولیک غایب در Be. These women should be discussed with them</third> lt;/third> Team advisor on a daily basis. If there is a reverse diastolytic end flow in UA before pregnancy of 30 weeks, hospital admissions are recommended with daily cardiotocograph supervision, 3×1 week UA doppler, and amniotic fluid volume assessment; Comment from an embryonic medicine specialist may seek to determine the viability of the fetus and guide further management. In cases of diastic absentee flow, delivery should be considered up to 34 weeks after pregnancy. Previous delivery may be shown in cases of poor interval growth or deterioration of sonographic variables (Doppler, amniotic fluid). In reverse cases of diastatic end flow, childbirth should not be taken into being considered after 30 weeks of pregnancy. Previous childbirth may be shown with the decline of sonographic variables. Prenatal corticosteroids for fetal lung maturation should be considered between 0+24 and 0+34 weeks of pregnancy, but may be given a caesarean section for up to 0+38 weeks in elective delivery cases. Steroids should be prescribed on time. Numerous steroid courses are not recommended. Decisions on optimal birth timing should be taken individually and may require the involvement of an experienced obstetrician or fetal medicine, especially in the limitation of severe and premature fetal growth. MgSO4 should be prescribed for fetal neural protection if delivery is scheduled for 32 weeks before pregnancy. Delivery mode requires discussion on an individual basis, but cesarean sections are likely when absent or reverse flowing ua doppler diaspolitical end waveforms, or in very premature pregnancies. If induction of labor in women with UA doppler is considered abnormal, a continuous cardiotocograph should be performed with low threshold for cesarean delivery after contractions begin. Arterial and venous ph of the umbilical cord should be recorded for all infants limited to fetal development. Histopathological examination of placenta is strongly recommended in all cases where fetal growth restriction is diagnosed as prenatal or at birth to understand underlying causes and help management in subsequent pregnancy.75Section 4. Management principles for pregnancy blood pressure disorders essential blood pressure essential for maintaining blood pressure in the range of 110 to 140/80 to 85 mm Hg.Acceptable primary blood pressure including lebtalula, xperiaolol, methyl Bippa, Nifedipine, Dilettiasam; prazozine and hydralazine are commonly used as second or third line agents.76Home BP monitoring helps visitor clinics if available; ≈ 3/4 home-made 3/4 devices are accurate, 27 so we recommend checking the accuracy of the device against sphygmomanometer for each woman. The key risks of chronic essential blood pressure are this: fetal development restriction of preeclampsia is incredibly accelerated maternal blood pressure therefore, monitoring preeclampsia using urine per visit along with clinical evaluation and blood tests (Hb, platelet count, liver Uric acid, and creatinine) at 28 and 34 weeks as minimal. Evaluation of fetal bioavailability with ultrasound from pregnancy of 26 weeks and then at intervals of 2 to 4 weeks if fetal biometrics is normal and more in the presence of suspected restrictions on fetal growth (see above). Signs for childbirth are similar to signs of preeclampsia (see below); if such a symptom is raised, giving birth at 39 weeks seems desirable .77NotesThe chip test (controlling high blood pressure in the pregnancy study)78 enrolled mostly chronic high blood pressure women; Targeting diastic blood pressure from Hg 85 mm was associated with a reduced likelihood of developing accelerated maternal blood pressure and no adverse evil outcomes for infants compared to targeting higher diastatic blood pressure. So the current evidence supports BIBI's control of these levels. Chronic hypertension is complicated and beyond the scope of this document due to the management of kidney diseases of this group but is discussed elsewhere in detail.79,80 General principles include: Maternal and fetal outcomes are generally worse than the general population even when CKD is mild.81 Maternal blood pressure control is important for pregnancy and the long-term outcome of the mother's kidney. Monitoring preeclampsia is extraordinary and important for adequate fetal development. Primary dialysis with an aggressive dialysis prescription of ≈36 hours per week seems to convey the best outcome for those with progressive kidney disease in pregnancy.82 White Coats have confirmed high blood pressure in place of diagnosis of white blood pressure coats, Pregnant women can be avoided by assessing regular home-managed and antihy high blood pressure levels, at least up to office blood pressure levels of 160/110 mm Hg.There are limited studies on the outcome of these pregnancies, but it seems that up to half of the actual pregnancy blood pressure or preeclampsia24 develop; It is likely that the risk of preeclampsia is twice that of the normal pregnant population although this requires approval. The important messages surrounding high blood pressure in a white coat are as follows: it is reasonable to refrain from antihy high blood pressure treatment in this group. B.P. should continue to be monitored regularly at home. Increased monitoring during pregnancy is needed to detect the emergence of preeclampsia. In areas where home-based B.P. assessments are unavailable, B.P. Maternal should be checked regularly, preferably weekly, by a health worker; this is probably best done by someone other than a doctor to reduce the likelihood of a white coat effect (Fig 1). Gestational hypertension is the key principles of managing gestational blood pressure control to levels of 110 to 140/85 mm Hg, as high. Supervision for the development of preeclampsia. Monitor fetal development, especially if the mother's uric acid is high. Childbirth can be delayed for up to 39+6 weeks provided that blood pressure can be controlled, fetal monitoring is reassuring and has not developed preeclampsia. Figure 1. Clinical application of a regulatory blood pressure monitoring (ABPM) in early pregnancy for diagnosis مدیریت فشار خون بالا کت سفید. فشار خون بالا در صورتی تشخیص داده می شود که یا فشار خون سیستولی یا دیاستولیک (BP) بالا، بیدار یا خواب باشد. GH نشان می دهد فشار خون بارداری; HBPM، خانه نظارت بر فشار خون; and PE, preeclampsia (from reference 83). NotesBy تعریف، فشار خون بارداری یک اختلال خوش خیم نیست چرا که حداقل یک چهارم از این موارد پیشرفت خواهد کرد برای تبدیل شدن به پره اکلامپسی.31 وجود دارد هیچ آزمون خاص و یا مجموعه ای از آزمایش است که اجازه می دهد پیش بینی که زنان مبتلا به فشار خون بارداری پره اکلامپسی در زمان آنها تشخیص داده می شود با توسعه فشار خون بارداری اگر چه خطر بیشترین خطر در میان کسانی که با فشار خون بارداری در <34 weeks.32women= with= gestational= hypertension= require= assessment= in= hospital= if= they= develop= preeclampsia= or= severe= hypertension= ≥160/110= mm= hg.the= optimum= time= for= delivery= remains= uncertain= for= women= with= gestational= hypertension= and= no= features= of= preeclampsia.= a= large= retrospective= study= concluded= an= optimum= time= of= 38= to= 39= weeks ,84= but= this= will= need= to= be= clarified= with= future= randomized= trials.preeclampsiaantenatalisshp= endorses= the= following= key= management= points:regardless= of= the= hypertensive= disorder= of= pregnancy,= bp= requires= urgent= treatment= in= a= monitored= setting= when= ≥160/110= mm= hg;= acceptable= agents= for= this= include= oral= nifedipine= or= intravenous= labetalol= or= hydralazine.regardless= of= the= hypertensive= disorder= of= pregnancy,= we= recommend= that= bps= consistently= at= or=> <160 mm= hg;= some= units= target= 110–140= mm= hg)= to= reduce= the= likelihood= of= developing= severe= maternal= hypertension= and= possibly= other= complications,= such= as= low= platelets= and= elevated= liver= enzymes= with= symptoms.= antihypertensive= drugs= should= be= reduced= or= ceased= if= diastolic= bp= falls=></160> <80 mm Hg. Acceptable agents include oral methyldopa , labetalol, oxprenolol, nifedipine, with second or third line agents hydralazine and prazosin. Women with preeclampsia should all be assessed in hospital when first diagnosed; thereafter, some may be managed as outpatients once it is established that their condition is stable and they can be relied on to report problems and monitor their BP. Women with preeclampsia who have proteinuria and severe hypertension, or hypertension with neurological signs or symptoms, should receive MgSO4 for convulsion prophylaxis. Plasma volume expansion is not recommended routinely in women with preeclampsia. Fetal monitoring in preeclampsia should include assessment of fetal biometry, amniotic fluid, and UA Doppler with ultrasound at first diagnosis and thereafter at 2 weekly intervals if the initial assessment was normal and more frequent amniotic fluid and Doppler in the presence of fetal growth restriction. Maternal monitoring in preeclampsia should include BP monitoring, repeated assessments for proteinuria if not already present, clinical assessment including and twice weekly blood mm= hg.= acceptable= agents= include= oral= methyldopa,= labetalol,= oxprenolol,= nifedipine,= with= second= or= third= line= agents= hydralazine= and= prazosin.women= with= preeclampsia= should= all= be= assessed= in= hospital= when= first= diagnosed;= thereafter,= some= may= be= managed= as= outpatients= once= it= is= established= that= their= condition= is= stable= and= they= can= be= relied= on= to= report= problems= and= monitor= their= bp.women= with= preeclampsia= who= have= proteinuria= and= severe= hypertension,= or= hypertension= with= neurological= signs= or= symptoms,= should= receive= mgso4= for= convulsion= prophylaxis.plasma= volume= expansion= is= not= recommended= routinely= in= women= with= preeclampsia.fetal= monitoring= in= preeclampsia= should= include= assessment= of= fetal= biometry,= amniotic= fluid,= and= ua= doppler= with= ultrasound= at= first= diagnosis= and= thereafter= at= 2= weekly= intervals= if= the= initial= assessment= was= normal= and= more= frequent= amniotic= fluid= and= doppler= in= the= presence= of= fetal= growth= restriction.maternal= monitoring= in= preeclampsia= should= include= bp= monitoring ,= repeated= assessments= for= proteinuria= if= not= already= present,= clinical= assessment= including= clonus,= and= twice= weekly= blood=></80 mm Hg. Acceptable agents include oral methyldopa, labetalol, oxprenolol, nifedipine, with second or third line agents hydralazine and prazosin. Women with preeclampsia should all be assessed in hospital when first diagnosed; thereafter, some may be managed as outpatients once it is established that their condition is stable and they can be relied on to report problems and monitor their BP. Women with preeclampsia who have proteinuria and severe hypertension, or hypertension with neurological signs or symptoms, should receive MgSO4 for convulsion prophylaxis. Plasma volume expansion is not recommended routinely in women with preeclampsia. Fetal monitoring in preeclampsia should include assessment of fetal biometry, amniotic fluid, and UA Doppler with ultrasound at first diagnosis and thereafter at 2 weekly intervals if the initial assessment was normal and more frequent amniotic fluid and Doppler in the presence of fetal growth restriction. Maternal monitoring in preeclampsia should include BP monitoring, repeated assessments for proteinuria if not already present, clinical assessment including clonus, and twice weekly blood > 140/90</34> میلی متر Hg میلی متر 85 دیاستولیک فشار خون با هدف هدف وجود دارد Hg (و فشار خون سیستولیک حداقل درمان می شود شود For Hb, platelet counts, liver transaminases, creatinine, and uric acid. Blood test assessments should be performed at least twice a week (and again in response to clinical postformation) in most women with preeclampsia. There should be no attempt to diagnose mild preeclampsia versus severe preeclampsia clinically as all cases may become emergencies, often quickly. Women with preeclampsia should be delivered if they have reached 37 weeks of gestation or they develop any of the following: recurrent episodes of severe hypertension despite maintenance treatment with 3 classes of antihyretic agents; Progressive thrombocytopenia; Progressively abnormal kidney or liver enzyme tests; Pulmonary edema, abnormal neurological characteristics, such as limitless severe headaches, frequent visual sctomata, or seizures; or fetal status are not reassuring. Neither serum uric acid nor proteinuria levels should be used as a sign of childbirth. In low resource settings, all women with preeclampsia should receive MgSO4 to prevent seizures, typically loading doses of 4 grams of IV or 10 grams of IM, followed by 5 grams of IM every 4 hours or injecting 1 gram per hour until delivery and at least 24 hours after delivery. In other centers, women should receive MgSO4 if they have severe blood pressure (≥160/110 mm Hg) and proteinuria, or pre-pulmonary symptoms of eclampsia such as severe headaches, frequent vision sctomatas, or clonos. ISSHP is not advocated for any clinical distinction between mild and severe preeclampsia in routine clinical practice. Instead, all cases of preeclampsia should be treated in the knowledge that this condition can change quickly, and worldwide, it remains a major cause of maternal mortality. The distinction between early and late onset, and mild and severe preeclampsia, may be useful for research purposes.3 However, for clinical purposes, this condition should be regarded as one that is capable of being severe and life-threatening for both mother and baby at any time.85 There are clinical findings that warrant more careful consideration; Examples include persistent or recurring severe headaches, visual sctomata, nausea/vomiting, epigastric pain, oligoria, and severe blood pressure, as well as progressive abnormalities in laboratory tests, such as increased creatinine or liver transaminas or falling platelet counts, or fetal developmental failure or abnormal doppler findings. These women should be followed in a mother's high-dependency facility or intensive care unit capacity for mother and baby. Childbirth should have an effect depending on the gestational age and the condition of the mother and fetus: women with preeclampsia in pregnancy ≥37 weeks should be delivered. Women with preeclampsia onset between 34 and 37 weeks gestation should be managed with a conservative approach of waiting, as follows. Women with preeclampsia in pregnancy <34 weeks should be managed with a conservative (expected) approach in a center with the expertise of maternal and fetal medicine. زایمان لازم است زمانی که 1≤ از با پره اکلامپسی با جنین در حدود زنده ماندن (به طور کلی قبل از بارداری 24 هفته) باید مشاوره داده شود که فسخ بارداری ممکن است مورد نیاز است. توسعه فشار خون شدید با احتمال قابل توجهی بیشتر از CHIPS، تصور می شود نشانگر قائم مقام برای خطر سکته مغزی، و همچنین بازتاب افزایش شدت وضعیت کلی پره اکلامپسی.86 در پیگیری زنان در کارآزمایی Hg نشانه های زیر ظهور: ناتوانی در کنترل فشار خون مادر با وجود استفاده از 3≤ کلاس از آنتی فشار خون در دوس های مناسب اکسی متری پالس مادر 160/110 میلی متر <90% progressive= deterioration= in= liver= function ,= creatinine,= hemolysis,= or= platelet= count= ongoing= neurological= features,= پیامدهای نامطلوب برای هر دو نوزاد همراه بود (به عنوان معنی، وزن کم هنگام تولد، نارسی، مرگ، و بیماری نیاز به مراقبت از واحد نوزادان) و مادر (به عنوان یکی، ترومبوسیتوپنی، آنزیم های غیر طبیعی کبد با علائم، و اقامت طولانی تر در such= as= severe= intractable= headache,= repeated= visual= scotomata,= or= eclampsia= placental= abruption= reversed= end-diastolic= flow= in= the= ua= doppler= velocimetry,= a= nonreassuring= cardiotocograph,= or= stillbirthnotesthe= level= of= bp= itself= is= not= a= reliable= way= to= stratify= immediate= risk= in= preeclampsia= because= some= women= may= develop= serious= organ= dysfunction,= such= as= renal= impairment= or= neurological= complications,= at= relatively= mild= levels= of= hypertension.= hence,= decisions= to= admit= and= monitor= should= be= based= on= having= developed= preeclampsia= regardless= of= the= initial= bp= levels.bp= at= or=> در بیمارستان). باید حفظ شود زمانی که ضد فشار خون برای نشانه های غیر اورژنت در بارداری موسسه BP مدیریت می شدند (از کنترل تنگ کمتر)، فشار خون شدید نیز با عوارض مادری به طور قابل توجهی همراه بود.86 هیچ توافق جهانی در دستورالعمل های عمل بالینی وجود دارد که چه سطح BP میان زنانی که در هدف بالاتر <150 mm= hg= systolic= and= between= 80= and= 100= mm= hg= diastolic.88= the= usa= society= for= maternal-fetal= medicine= decided= not= to= endorse= the= finding= of= the= chips= trial.89= yet,= as= pointed= out= editorially= to= manage= bp= expectantly= at=></150> <160/110 mm Hg but emergently at ≥160/110 mm Hg is logically inconsistent.90 ISSHP endorses an approach that seeks to reduce the likelihood of developing severe maternal hypertension, namely commencing antihypertensives to treat any persistent nonsevere hypertension, well before BPs of 160/110 mm Hg are reached. This recommendation applies to all hypertensive disorders of pregnancy. CHIPS enrolled women with chronic (75%) or gestational (25%) hypertension, but superimposed preeclampsia developed in almost half of women, and they continued to receive the BP treatment to which they were 10= mm= hg= but= emergently= at= ≥160/110= mm= hg= is= logically= inconsistent.90= isshp= endorses= an= approach= that= seeks= to= reduce= the= likelihood= of= developing= severe= maternal= hypertension,= namely= commencing= antihypertensives= to= treat= any= persistent= nonsevere= well= before= bps= of= 160/110= mm= hg= are= reached.= this= recommendation= applies= to= all= hypertensive= disorders= of= pregnancy.= chips= enrolled= women= with= chronic= (75%)= or= gestational= (25%)= hypertension,= but= superimposed= preeclampsia= developed= in= almost= half= of= women,= and= they= continued= to= receive= the= bp= treatment= to= which= they= were=></160/110 mm Hg but emergently at ≥160/110 mm Hg is logically inconsistent.90 ISSHP endorses an approach that seeks to reduce the likelihood of developing severe maternal hypertension, namely commencing antihypertensives to treat any persistent nonsevere hypertension, well before BPs of 160/110 mm Hg are reached. This recommendation applies to all hypertensive disorders of pregnancy. CHIPS enrolled women with chronic (75%) or gestational (25%) hypertension, but superimposed preeclampsia developed in almost half of women, and they continued to receive the BP treatment to which they were > </90%> دستورالعمل کانادا توصیه می کند 130 تا 155/90 تا 105 میلی متر CHIPS با این حال، تمام دستورالعمل ها قبل از انتشار نتایج آزمایشی منتشر شدند.78 دستورالعمل NICE توصیه نگه داشتن در غیاب شرایط همورید،87 و دستورالعمل Hg BP BP For the next 2 weeks before delivery. Target blood pressure for anti-hypertension treatment in the tight control arm of chips is a diastolic blood pressure of 85 mm Hg and systolic blood pressure <160 mm Hg.Each unit should be recommended a protocol (based on national or international recommendations) that documents its recommended bp target and regular audit of related pregnancy outcomes. There is clear evidence that MgSO4 prevents ≈, almost halves the rate; to ≈ 100 women requiring MgSO4 to prevent seizures of 1.91 ISSHP recommends that especially because cost gains are greatest, all precleamptic women in LMICs should receive MgSO4. In highly specialized centers, and in high-paying settings where mgSO4 administration costs higher, selective use is reasonable in women with preeclampsia. In the landmark MAGPIE trial (magnesium phosphate for prevention of eclampsia), women with preeclampsia mgSO4 were given if severe blood pressure and at least +3 proteinuria or slightly lower measurements (+3 proteinuria) of 100.150 mmG and at least +2 proteinuria) were present in the presence of at least 100.150 mm jig and at least +2 proteinuria. 2 Signs or symptoms of impending eclampsia (which was not defined but means headaches, vision symptoms taken, or clonus).92 ISSHP recommends that each unit has a consistent policy on its use of MgSO4 that includes proper monitoring, recognition of the risks of MgSO4 injections, and assessing maternal and fetal outcomes. Dasing regimens used in eclampsia and MAGPIE trials should be used. The duration of MgSO4 use after childbirth remains contentious; A recent study in Latin America found that women who received at least 8 grams of MgSO4 before childbirth had no additional benefit from continuing magnesium for most of the 24 hours after giving birth.93 This approach needs to consider the known incidence of postpartum eclampsia. As such, both approaches are reasonable, but until further studies confirm these findings in other populations, we recommend continuing MgSO4 for 24 hours after delivery. Each unit must develop its own protocols for magnesium after childbirth. At the beginning of labor, blood pressure should be given inside the ward. Treating immediate high blood pressure with oral nifedipine or intravenous labathalol or hydralazine if blood pressure rises ≥160/110 mm Hg.Total flu fluid intake should be limited to 60 to 80 mL/h.NotesReduced gastrointestinal motility may reduce the absorption of antihyretic blood pressure after oral use. Therefore, intravenous antihypression may be needed to control blood pressure, especially if it is severe. Fluid balance should be aimed for euvolemia as at all other times. Preeclamptic women leak capillary 94 but may either have decreased or increased heart output of .95,96 to ensure euvolemia, inconseparable losses should be replaced (30 mL/h) along with predicted urinary losses (0.5–1 mg/h). We recommend using 60–80 mL/h to avoid the risks of pulmonary edema. There is no rationale for a preeclamptic woman's dry run as she is now in danger BP at least 4 to 6 hours a day for at least 3 days after delivery. Preeclampsia may develop de novo within - or early postpartum97; Such cases should be managed as high and rigorous assessments for preserved products should be carried out; these cases often take longer to settle after childbirth. Monitor to general bioavailability and neurological status as per the preview; Eclampsia may occur after childbirth. Repeat Hb, platelets, creatinine, trans-amines the liver the day after delivery and then the second daily to be stable if any of these are abnormally prenatal. The antihythm should start again after childbirth and be lightly tapeed only after 3 to 6 days after delivery unless blood pressure is low (lt;110.70 mm babes) or the woman is symptomatic. Most women can be discharged on day 5 after delivery, especially when they are able to monitor their BP at home. Avoid NSAIDs in women with preeclampsia if possible, especially in regulating AKI, and using alternative pain relief. NotesThere there is controversy over whether NSAIDs are harmful or not in this environment. Certainly, some women suffer from severe hypertension from NSAIDs,98, but other observational studies suggest that the risk is small, if every 99,100 NSAID is an effective painkiller. Until prospective random trials are conducted on this issue, we recommend using alternative housing as a first choice for women who have preeclampsia. Short-term follow-up of women with preeclampsia should be checked within 1 week if it still requires antihypressants in hospital discharge. All women should be examined 3 months after delivery at which time BP, urine, and all laboratory tests should have been normal. Further investigation is needed for persistent abnormalities, including working for secondary causes of persistent severe hypertension or underlying kidney disease with persistent proteinuria. The assessment should also include a clinical review for depression, anxiety, or symptoms of post-traumatic stress disorder.101 Long-term follow-up of women with chronic hypertension, gestational hypertension, or preeclampsia requires lifelong follow-up due to increased cardiovascular risk. Recommend: Recommend women with gestational hypertension or preeclampsia who have increased risks of cardiovascular disease, death, stroke, 33,102,103 diabetes mellitus, venous thromboembolic disease, and CKD compared to women who have normal pregnancies They have had .104 advice to women with preeclampsia that they have almost a 15% risk of preeclampsia again and a further 15% risk for pregnancy blood pressure in the upcoming pregnancy of 105,106 and they should get low-dose aspirin in another pregnancy. Advice to women with gestational hypertension that they have a nearly 4% risk of preeclampsia and a greater 25% risk for gestational hypertension in future pregnancy .105,106 advice to women with gestational hypertension or preeclampsia that they have increased small risks for pregnancy age babies Pregnancy even if preeclampsia does not relapse. Regular follow-up with a GP to monitor blood pressure and periodically measure fasting fats and blood sugar. Adopt a healthy lifestyle by maintaining the ideal weight and regular aerobic exercise. NotesThe long-term risks of preeclampsia, and gestational hypertension, are already well established although some think these risks remain limited to those who have high blood pressure and behave as chronic blood pressure .107It is likely that in the long run these women have somewhat lower metabolic syndrome and higher blood pressure than women who had high blood pressure pregnancies.108 The 109 amounts we use to define normal blood pressure are derived from older and often male populations; on-the-do studies will define a new range of natural BP for young women who did not have preeclampsia, thereby allowing a reassessment of whether a woman who had preeclampsia really has normal blood pressure when following 6 months or more after childbirth.110Even with a lifelong high risk of Cardiovascular disease, young women may have a low 10-year cardiovascular risk score using well-established tools and may be overlooked as high risk accordingly. On-the-do clinical studies may provide more specific information on how best to manage previously preeclamptic women. Section 5. The application of these ISSHP recommendations to the low-resource recommendations of CountriesGeneral recommendations described in this document is ideal for an environment. In some cases, all of these recommendations may not be taken. Health systems in LMICs may have to consider the minimum requirements to reach as many women as possible. It is recommended that there is ongoing review and update of national clinical guidelines and facilities, pre-service training materials, and training materials in service to ensure that all documents reflect these ISSHP recommendations so as to improve outcomes for women and infants. In situations where the documented objectives of this directive are not fully achievable, doctors must work as pragmatically as local resources allow them to work. It is the responsibility of managing doctors to defend the use of effective interventions whether they operate in settings well or under-resourced. The gap between community clinics and referral hospitals is often large, and there are transportation problems. For this reason, patients diagnosed with preeclampsia should be referred to a facility with appropriate care levels as soon as possible and managed as inpatients. The effectiveness of referral systems in many LMIC is less than desirable, and many rural areas are without centers that can provide basic obstetrics and gynecology services. Women diagnosed with preeclampsia in such settings should be advised to move immediately to areas with better health services, especially where they have family members if possible.Communities should put strategies in place for transportation from clinics or primary ones. Referral centres. All health facilities should be regularly reviewed and updated facilities and community health workers refer routes for women with preeclampsia. All women with high blood pressure disorder in pregnancy need to give birth in a facility that provides emergency obstetrics and gynecology care while women with maternal complications need to give birth in a center capable of providing maternal intensive care. Those with survival-level pregnancies need the highest level of available neonatal support. Antihyretic agents for the treatment of moderate and severe hypertension and MgSO4 to prevent or treat eclampsia should be available in community-level clinics and clinics to safely stabilize and refer patients. Women with preeclampsia in LMICs may have a limited understanding of the nature and risks of the disease. A South African study found that a made-up fact sheet (in addition to verbal counseling by a physician) improved patients' understanding and knowledge in a limited way but did not reduce their anxiety.111 A better understanding of the disease would lead to more beneficial and first-rate treatment options for patient care for Madame El Omar from her health. A key issue of MgSO4 supply is rarely in stocks; there are challenges with out-of-stock stocks, challenges with the distribution system, drugs often stuck at the regional level, and then sitting there without reaching health facilities. Priority should be given to the provision of such shares. The 2016 World Health Organization guidelines on routine anesthesia care (recommend several health system interventions to increase the use of anesthesia services and improve the quality of care provided. Recommendations include continuity ofmidwife-led care throughout pregnancy periods, in-birth, and after birth; at least 8 contact with the ANC; Women's case notes are held; promoting health-related behaviors and distributing nutritional supplements; hiring and maintaining health workers in rural and remote areas (where 1 in 20 people do not have access to essential health services); and mobilizing communication to improve communication and support for pregnant women. Prevention of high blood pressure disorders in pregnancy using aspirin - low dose aspirin for women with: one or more main risk factors for preeclampsia (previous preeclampsia, chronic hypertension, gestational diabetes, maternal body mass index >30, CKD, antiphospholipid syndrome) or ≥ 2 minor risk factors (advanced maternal age, family history of preeclampsia, short duration of sex [lt;6 months]= before= the= pregnancy,= primiparity,= primipaternity—both= changed= paternity= and = an= interval=>5</6> The year has been associated with an increased risk of preeclampsia, connective tissue disorders(preferably onset16 weeks gestation, up to 37 weeks, using 100 to 150 mg daily calcium supplement 1200 mg per day if dietary calcium intake in the local population is lowNotesKnowledge use Prevention of aspirin, and calcium where dietary intake is low, is poor in areas and health centers, even among doctors (landscape analysis in Nigeria and Bangladesh—ending eclampsia—population council www.endingeclampsia.org). The main challenge is identifying women at risk of developing preeclampsia to receive aspirin and calcium supplements before 16 weeks. Women in LMIC usually do not seek much care before 20 weeks. So there is a need for community-based messaging and education. There is a need to ensure time and skills of counseling in order for women to take aspirin and calcium:Confirm aspirin and calcium intake and timing as per these international recommendations. Make sure aspirin prevention is included in all national guidelines and protocols. Consider group-based counseling and task change so that lower-level health workers can provide aspirin and calcium in areas where calcium deficiency is known or high prevalence of preeclampsia and for women with high preeclampsia risk factors. Anti-phospholipid syndrome is not typically diagnosed in LMIC or is typically seen as a risk factor; Either way enoxaparin is not widely available. Health managers and facilities should estimate the expected number of pregnancies per year and budgets and prepare aspirin and calcium in time to prevent stocks from going out, resulting in women benefiting from these simple preventive measures. Early diagnosis and DiagnosisAim for BP and proteinuria tests per visit. In many areas (due to frequent stock outs), urine can only be tested for protein if BP is raised and women are present with symptoms such as headaches, visual impairment, and epigastric pain. For proteinuria, the use of deep stick vision test is acceptable according to the manufacturer's specifications. Each ANC unit should have as little as one dedicated sphygmomanometer and a urinary deeps steak for proteinuria diagnosis. Healthcare providers should be trained on how to measure BP properly using the right technique. Laboratory tests to rule out complications of the final organ of preeclampsia are often not available in primary or even secondary level health facilities. Diagnosis should be made first based on BP, symptoms, and proteinuria until transmission to a super facility. NotesClear protocols are required per unit, using ISSHP recommendations for diagnosis and management. Confusion remains high in definitions of hypertension and knowledge gaps remain across providers in both secondary and primary facilities, including when to start antihypression. These ISSHP recommendations should be made public throughout the LMIC as standards are sought. In LMIC settings, home BP monitoring is unlikely. Women should be encouraged to attend for at least 8 ANC visits and more attendance If they were raised warning signs or symptoms of preeclampsia or BP on previous visits. They need to know their BP numbers and understand the importance of knowing what their BP should be, before and after childbirth. This need for on-the-on-on-doing education is raised with the aim of women understanding the importance of having BP. In LMIC settings, deep stick vision is used for proteinuria rather than automatic measurement. Often due to resource constraints, dipstick is only done if BP is raised (<140/90 mm Hg). It is important for local groups to lobby for consistent supply. The gold standard continues to measure 24-hour urine protein in LMIC. Downsizing with the protein/creatinine ratio of spotting urine is rarely available, but efforts should be made to ensure urinary creatinine measurements are available, thereby enabling spot PCr to take place. This should be a priority given the challenges and potentially dangerous time delays inherent in performing 24-hour urine sets. Although it is unlikely to be done at primary healthcare levels, healthcare providers must work to ensure this is available in an extraordinary hospital environment. Women in LMICs are usually referred to super hospitals to receive all tests. However many women do not go into treatment due to transportation-related costs. A symptom-based model (miniPIERS) is available to identify women at low risk of complications, and this should be examined for use at primary and secondary care levels. Fetal monitoring is performed in some LMICs in extraordinary facilities, first and fore course ultrasound, fetal biometrics, amniotic fluid volume, and fetal doppler studies. The height of the fund may also be measured every 2 weeks. However, recent GUIDELINES from the ANC suggest that the following should not continue due to insufficient evidence:Routine daily movements of embryos counting semphsis-measurement of the height of the antontal although cardiovascular chest recommended before 24 weeks, ultrasound should only be performed where there is capacity; Units should consider the costs and maintenance of ultrasound equipment over the cost of ensuring sphygmomanometers are widely available for BP measurements, which can provide greater recognition than women with preeclampsia. Management of pregnancy blood pressure disorders is used to maintain blood pressure of 110 to 140/85 mm Hg. Typically, methyldopa and nifedipine are commonly used and both are acceptable. Women with preeclampsia should all be assessed in hospital when first diagnosed; After that, some may be managed as props once it has been proven that their situation is stable and they can be relied upon to report problems and monitor their BP. Laboratory tests are not always available at primary or even secondary health facilities; when transitions to a higher level of care are not available, clinical decisions should be made using blood pressure measures, chest height assessments, symptoms, and urinary deepstic testing when available. At the first referral level, anti-hypertension And MgSO4 should be regulated or continued as appropriate, and women should be tried for appropriate referrals to care at an extraordinary level, including those eligible for waiting care and those at high risk or with severe maternal complications. A protocol for the treatment of acute hypertension is described in Figure 2; Others may be developed by individual units as desired. Treatment and prevention of eclampsia is ideally obtained with the intravenous magnesium protocol (Fig 3), which is used in the MAGPIE trial; when this is not possible, the Pritchard regimen (also used in MAGPIE testing) can be used as follows: four grams as an intravenous dose and 5 grams in one hip and another 5 grams in the other. Together, these form a loading dose (14 grams). Afterwards, 5 grams every 4 hours for 24 hours is administered on the replacement hips as a maintenance dose. At gestational age <34 weeks, repeatedly weighing the relative benefits and risks of continuing pregnancy against the progression of maternal diseases, using the birth time recommendations in this document, viz: Frequent episodes of severe blood pressure despite maintenance treatment with 3 classes of antihymetic factors leading abnormal kidney thrombocytopenia or liver enzyme abnormal pulmonary edema test neural characteristics, Like severe untold headaches, frequent visual sctomatas, or non-reassuring seizures, prenatal corticosteroids for fetal lung maturation should be given between 0+24 and 0+34 weeks of pregnancy, but may be given up to 0+38 weeks in elective delivery cases by cesarean section; NotesTask change guidelines for both MgSO4 and antihy high blood pressure treatment should be available per unit so that lower level providers can initiate and visit treatment with loading doses. Task change policies differ on whether lower-level providers can prescribe antihypress to keep blood pressure in the range of 110 to 140/85 mm Hg. Changes in practice should be explored so that women without proteinuria or other evidence of preeclampsia could receive antihy high blood pressure from lower-level providers. Task change policies may only allow the administration of muscular MgSO4. In such cases, a woman should receive and refer to the loading dose of IM 5 mgSO4 per buttock. It is advisable to start treatment with this dosage than to refer without any MgSO4.Clear protocol per unit required, using this ISSHP recommendation. In LMIC, oxprenolol, diltiazem, and prazosin are not readily available and costly; Methyldopa and Nif Deepin are readily available or can be used as a first-line treatment. Regular blood work at 28 and 34 weeks may not happen if a woman is not near a wonderful facility. Ultrasound is also not always available. Most workers use serial box height checks. Ensure that each health center/unit has clear clinical protocols for MgSO4 This is a key education priority. One study found that the use of MgSO4 for the prevention and treatment of eclampsia varies widely and is largely uncoordinated with current international guidelines. There is often poor knowledge of how to monitor mgSO4 toxicity; This is a key area for education; Protocols in Figure 3. Can be used. Figure 2. Manage severe blood pressure with oral nifedipine and intravenous hydralazine. Blood pressure indicates; CTG, cardiotocograph; DBP, Diasolic BP; and SBP, systolic BP. Figure 3. A protocol for the use of magnesium sulfate (MgSO4) for the treatment of eclampsia or prevention. Check the milligram concentration carefully to ensure the following d's match. Different countries may have different strength mg concentrations. Blood pressure indicates; And CTG, cardiotocograph. Chronic hypertension in pregnancy in LMIC, oxprenolol, diltiazem, and prazosin is not readily available and costly; Methyldopa and Nif Deepine are readily available or can be used as a first-line treatment. Where resources are limited and the combination of chronic hypertension and obesity is common, recommended tests may reduce the number of platelets, serum creatinine, urine, and proper urinary protein quantitativeization as a baseline reference.Community-based BP measurements and protein deepstics should be available at the first point of care for women—whether by community-based health workers or at the basic health level of life away from extraordinary facilities/hospitals. Task change policies differ on whether lower-level providers can prescribe antihypress to keep blood pressure in the range of 110 to 140/85 mm Hg. Changes in practice should be investigated so that asymptomatic women with chronic hypertension without evidence of preeclampsia could receive antihy high blood pressure from lower-level providers on an outpatient conditions while. Postnatal care blood pressure should be recorded shortly after birth and if normal again within 6 hours. BP after birth should be controlled as recommendations of isshp. In LMIC, blood tests are usually performed twice a week after birth if it is abnormal before childbirth. All women must have BP registered and discharged defer for at least 24 hours or until natural vital signs and treatment or referrals. Any woman with obstetrics and gynecology and a newborn with complications should remain in the hospital until they are both stable. Who's recommendations include staying at the centre for at least 24 hours. Check within 48 to 72 hours of birth and again at 7 to 14 days and within 6 weeks of delivery. Visiting the house within the first week is recommended for those delivered at a health centre. All women should recall signs of preeclampsia risk after birth, including headaches, visual impairments, nausea, vomiting, epigastric or hypochondritic pain, feelings of weakness, or seizures. NotesDischarge and follow-up should occur in super facilities; Referring to a doctor at the hospital Advise if problems remain high blood pressure or kidney. Each woman must have details/documents to provide to the primary health facility for close follow-up. It is important to advise/provide an education on postpartum contraception and family planning about limiting the next pregnancy gap. Family planning advice should start at the

ANC and be offered to every woman before she leaves the facility and again when advised to return at 6 weeks to secure babies and family planning advice. Any family planning procedure that a woman wants to receive is acceptable if it is based on comprehensive advice (and available in a specific country environment). In many LMIC, women go home within 6 to 24 hours of birth. This should be discouraged after a pre-camp pregnancy. Even in crowded units with heavy pressure on postnatal beds, women with preeclampsia should not be discharged early. This is an important opportunity at the time of discharge to strengthen the importance of primary ANC in subsequent pregnancy due to frequent preeclampsia risks. What do other guidelines say? ISSHP acknowledges the expertise and hard approach that has been taken in the development of several key guidelines including:NICE 20108SOMANZ (Australian and New Zealand Obstetrics and Gynecology Medical Association) 201 2014113ACOG 2013114 Key areas in which these guidelines vary are as follows: the need for proteinuria in the diagnosis of preeclampsia (NICE). The level at which the usual anti-blood pressure treatment is compulsory and BP aims afterwards (although all were released before chips test results were available). When MgSO4 should be prescribed. Other guidelines include the 201111 World Health Organization Guidelines and integrated pregnancy and delivery management 2017.116, and other management recommendations of each of these guidelines are fully justified, although an ISSHP goal is to see a unified set of flexible and regular guidelines updated around the world to reduce confusion around the diagnosis and management of women with high blood pressure in pregnancy. What matters is that isshp recommends that each unit have a specific policy on management guidelines that are to be followed so that there is uniform practice within each unit. In addition, each unit must work to record and assess its maternal and fetal outcomes to ensure that their policies and guidelines remain appropriate at all times. ProcessThe guide is the first author of the initial draft document and seeks more input from all authors; The relevant literature was included until April 2017 with an emphasis on more recent publications; the document was revised after the ASPRE court published in August 2017. Bmw It circulated by email to all members in March 2017 and 8 subsequent releases were released after email discussions to reach consensus among the group. The document was then sent to all ISSHP council members for further comment, and those who responded were listed in the following acknowledgments. The final version was concluded on December 28, 2017, and was then amended until March 1, 2018, after the reviewers' comments. AcknowledgmentsWe thanks Professor Peter von Dodlessen and the following International Association for the Study of Hypertension in Pregnancy (ISSHP) assisted council members and their opinions on these recommendations: Professor Nelson Sass, Brazil; Professor Marijke Fosse, Netherlands; Dr. Sebastian I lance, Chile; Professor Antin Staff, Norway; Professor Marcus Mohopet, Switzerland; Professor Lucy Chappelle, UK; Professor Thomas Easterling, USA Professor Janos Rigo, Hungary; Dr Helena Strevens, Sweden.S.A. Carumanchi received patents on biomarkers maintained by Harvard hospitals and is a consultant to Thermofischer Scientific, Roche, and Agagmin LLC. The authors no longer report any conflicts. FootnotesReferences1. Gillon TE, Pels A, von Dadelszen P, MacDonell K, Magee LA. Gestational Hypertension Disorders: A Systematic Review of International Clinical Practice Guidelines. PLoS One. 2014; 9:e113715. doi: 10.1371/journal.pone.0113715.CrossrefMedlineGoogle Scholar2. Tranquilli AL, Dekker G, Magee L, Roberts J, Sibai BM, Steyn W, Zeeman GG, Brown MA. Classification, diagnosis and management of gestational hypertension disorders: revised statement from isshp. pregnancy hypertension . 2014; 4:97–104. doi: 10.1016/j.preghy.2014.02.001.CrossrefMedlineGoogle Scholar3. Tranquilli AL, Brown MA, Zeeman GG, Dekker G, Sibai BM. Definition of severe and early preeclampsia. Statements by the International Association for the Study of Hypertension in Pregnancy (ISSHP). pregnancy hypertension . 2013; 3:44–47. doi: 10.1016/j.preghy.2012.11.001.CrossrefMedlineGoogle Scholar4. Redman CWG, Jacobson S-L, Russell R. Hypertension in pregnancy., Powrie R, Greene M, Camann W. In: de Swiet's Medical Disorders in Obstetric Practice. 5th ed. Oxford, UK: Blackwell Publishing; 2010:153–181.Google Scholar5. Lee-Ann Hawkins T, Brown MA, Mangos GJ, Davis GK. Transient gestational hypertension: Not always a benign event. pregnancy hypertension . 2012; 2:22–27. doi: 10.1016/j.preghy.2011.09.001.CrossrefMedlineGoogle Scholar6. Davis GK, Roberts LM, Mangos GJ, Brown MA. Comparison of automatic asclectric hybrid and sphigmomanometer with mercury figmomanometry in high-pressure and neurotensic pregnant women: parallel validation studies. J Hypertens. 2015; 33:499–505. doi: 10.1097/HJH.0000000000000420.CrossrefMedlineGoogle Scholar7. Waugh JJ, Gupta M, Rushbrook J, Halligan A, Shennan AH. Hidden errors of anroid sphygmomanometers. Blood Press Monit. 2002; 7:309–312. doi: 10.1097/01.mbp.0000047141.34024.06.CrossrefMedlineGoogle Scholar8. Brown MA, Roberts L, Davis G, Mangos Can we use the Omron T9P automatic blood pressure monitor in pregnancy? Pregnancy with high blood pressure. 2011; 30:188–193. doi: 10.3109/10641955.2010.507854.CrossrefMedlineGoogle Scholar9. dabl educational trust. Blood Pressure Monitor - Validation, articles and reviews.Devices recommended by the manufacturer. . Accessed April 30, 2018.Google Scholar10. Nouwen E, Snijder M, van Montfrans G, Wolf H. Validation of the Omron M7 and Microlife 3BTO-A blood pressure measuring devices in preeclampsia. Pregnancy with high blood pressure. 2012; 31:131–139. doi: 10.3109/10641955.2010.544799.CrossrefMedlineGoogle Scholar11. Lindheimer MD, Kanter D. Interpreting abnormal proteinuria in pregnancy: the need for a more pathophysiological approach. Obstet Gynecol. 2010; 115(2pt 1):365–375. doi: 10.1097/AOG.0b013e3181cb9644.CrossrefMedlineGoogle Scholar12. Côté AM, Firoz T, Mattman A, Lam EM, von Dadelszen P, Magee LA. 24-hour urine set: gold standard or historical practice? Am J Obstet Gynecol. 2008; 199:625.e1–625.e6. doi: 10.1016/j.ajog.2008.06.009.CrossrefGoogle Scholar13. Côté AM, Brown MA, Lam E, von Dadelszen P, Firoz T, Liston RM, Magee LA. Diagnostic Accuracy of Urinary Spot Protein: Creatinine Ratio for Proteinuria in Pregnant Women with Hypertension: A Systematic Review. BMJ. 2008; 336:1003–1006. doi: 10.1136/bmj.39532.543947.BE.CrossrefMedlineGoogle Scholar14. Saudan PJ, Brown MA, Farrell T, Shaw L. Improved methods of assessing proteinuria in hypertensive pregnancy. Br J Obstet Gynaecol. 1997; 104:1159–1164.CrossrefMedlineGoogle Scholar15. Cade TJ, Gilbert SA, Polyakov A, Hotchin A. Accuracy of protein to keratinine ratio of urinary spot in proteinuria confirmation in preeclampsia. Aust N Z J Obstet Gynaecol. 2012; 52:179–182. doi: 10.1111/j.1479-828X.2011.01409.x.CrossrefMedlineGoogle Scholar16. Morris RK, Riley RD, Doug M, Deeks JJ, Kilby MD. Diagnostic accuracy of spot urinary protein and albumin to creatinine ratio for diagnosis of significant proteinuria or adverse pregnancy outcome in patients with suspected preeclampsia: systematic review and meta-analysis. BMJ. 2012; 345:e4342. CrossrefMedlineGoogle Scholar17. Phelan LK, Brown MA, Davis GK, Mangos G. Prospective study of the effect of automatic deep stick urine on diagnosis of preeclampsia. Pregnancy with high blood pressure. 2004; 23:135–142. doi: 10.1081/PRG-120028289. CrossrefMedlineGoogle Scholar18. Brown MA. Preeclampsia: Proteinuria is important in other preeclampsia? Nat Rev Nephrol. 2012; 8:563–565. doi: 10.1038/nrneph.2012.190.CrossrefMedlineGoogle Scholar19. Homer CS, Brown MA, Mangos G, Davis GK. Non-protein preeclampsia: a new risk index in women with gestational hypertension. J Hypertens. 2008; 26:295–302. doi: 10.1097/HJH.0b013e3282f1a953.CrossrefMedlineGoogle Scholar20. Payne B, Magee LA, Côté AM, et al.; PIERS Study Group (Appendix). PIERS proteinuria: Relationship with adverse outcome of mother and perinatal. J Obstet Gynaecol Can. 33:588–597. doi: 10.1016/S1701-2163(16)34907-6.CrossrefMedlineGoogle Scholar21. Chan P, Brown M, Simpson JM, Davis G. Proteinuria in pre-eclampsia: how much matters? BJOG. 2005; 112:280–285. doi: 10.1111/j.1471-0528.2004.00395.x.CrossrefMedlineGoogle Scholar22. Mateus J, Newman R, Sibai BM, Li Q, Barton JR, Combs CA, Guzman E, Boggess KA, Gyamfi C, von Dadelszen P, Woelkers D. Massive urinary protein excretion associated with greater neonatal risk in preeclampsia. AJP Rep. 2017; 7:e49–e58. doi: 10.1055/s-0037-1601866. CrossrefMedlineGoogle Scholar23. Holston AM, کیان C, Yu KF, اپستاین FH, Karumanchi SA, لوین RJ. گردش عوامل رگ زایی در پروتئینوری بارداری بدون فشار خون بالا. Am J Obstet Gynecol. 2009; 200:392.e1–392.10. doi: 10.1016/j.ajog.2008.10.033.CrossrefGoogle Scholar24. Brown MA, Mangos G, Davis G, Homer C. تاریخچه طبیعی فشار خون کت سفید در دوران بارداری. BJOG. 2005; 112:601–606. doi: 10.1111/j.1471-0528.2004.00516.x.CrossrefMedlineGoogle Scholar25. Brown MA, Buddle ML, Martin A. آیا فشار خون مقاوم واقعا مقاوم است؟ Am J Hypertens. 2001; 14:1263–1269.CrossrefMedlineGoogle Scholar26. Brown MA, Robinson A, Bowyer L, Buddle ML, Martin A, Hargood JL, Cario GM. Ambulatory blood pressure monitoring in pregnancy: what is normal? Am J Obstet Gynecol. 1998; 178:836–842.CrossrefMedlineGoogle Scholar27. Tremonti C, Beddoe J, Brown MA. 14–8:9 ;2017 . فشار خون حاملگی. پایایی دستگاه های نظارت بر فشار خون در خانه در بارداری. doi: 10.1016/j.preghy.2017.01.002.CrossrefMedlineGoogle Scholar28. Livingston JR, Payne B, Brown MA, Roberts JM, Côté AM, Magee LA, von Dadelszen P, PIERS Study Group. اسید اوریک به عنوان پیش بینی کننده پیامدهای نامطلوب مادر و پریناتال در زنان بستری در بیمارستان مبتلا به پره اکلامپسی. J Obstet Gynaecol Can. 2014; 36:870–877. doi: 10.1016/S1701-2163(15)30435-7.CrossrefMedlineGoogle Scholar29. Hawkins TL, Roberts JM, Mangos GJ, Davis GK, Roberts LM, Brown MA. اسید اوریک پلاسما نشانگر نتیجه ضعیف در بارداری فشار خون بالا باقی می ماند: یک مطالعه همگروهی گذشته نگر. BJOG. 2012; 119:484–492. doi: 10.1111/j.1471-0528.2011.03232.x.CrossrefMedlineGoogle Scholar30. Martin AC, Brown MA. آیا اسید اوریک می تواند نقش بیماری زا در پیش اکلامپسی داشته باشد؟ Nat Rev Nephrol. 2010; 6:744–748. doi: 10.1038/nrneph.2010.125.CrossrefMedlineGoogle Scholar31. Saudan P, Brown MA, Buddle ML, Jones M. آیا فشار خون بارداری به پیش اکلامپسی تبدیل می شود؟ Br J Obstet Gynaecol. 1998; 105:1177–1184.CrossrefMedlineGoogle Scholar32. Davis GK, Mackenzie C, Brown MA, Homer CS, Holt J, McHugh L, Mangos G. Predicting transformation from gestational hypertension to preeclampsia in clinical practice: a possible role for 24 hour ambulatory blood pressure monitoring. 87–26:77 ;2007 .بارداری با فشار خون بالا. doi: 10.1080/10641950601147952.CrossrefMedlineGoogle Scholar33. Theilen LH, Fraser A, Hollingshaus MS, Schliep KC, Varner MW, Smith KR, Esplin MS. All-cause and cause-specific mortality after hypertensive disease of pregnancy. Obstet Gynecol. 2016; doi: 10.1097/AOG.0000000000001534.CrossrefMedlineGoogle Scholar34. Wikström AK, Haglund B, Olovsson M, Lindeberg SN. The risk of ischemic heart disease of the mother after pregnancy hypertension. BJOG. 2005; 112:1486–1491. doi: 10.1111/j.1471-0528.2005.00733.x.CrossrefMedlineGoogle Scholar35. Wilson BJ, Watson MS, Prescott GJ, Sunderland S, Campbell DM, Hannaford P, Smith WC. Hypertension diseases from pregnancy and the risk of high blood pressure and stroke in later life: results from cohort study. BMJ. 2003; 326:845. doi: 10.1136/bmj.326.7394.845.CrossrefMedlineGoogle Scholar36. Lykke JA, Langhoff-Roos J, Sibai BM, Funai EF, Triche EW, Paidas MJ. Pregnancy disorders have high blood pressure and cardiovascular complications and type 2 diabetes in the mother. Hypertension. 2009; 53:944–951. doi: 10.1161/HYPERTENSIONAHA.109.130765.LinkGoogle Scholar37. Rolnik DL, Wright D, Poon LC, et al.. Aspirin versus placebo in pregnancies is at high risk for premature preeclampsia. N Engl J Med. 2017; 377:2400. doi: 10.1056/NEJMc1713798.CrossrefMedlineGoogle Scholar38. Bartsch E, Medcalf KE, Park AL, Ray JG; High risk of preeclampsia identification group. Clinical risk factors for preeclampsia determined in early pregnancy: systematic review and meta-analysis of large cohort studies. BMJ. 2016; 353:i1753. doi: 10.1136/bmj.i1753.CrossrefMedlineGoogle Scholar39. Levine RJ, Maynard SE, Kian C, Lim KH, England LJ, Yu KF, Schisterman EF, Thadhani R, Sachs BP, Epstein FH, Sibai BM, Sukhatme VP, Karumanchi SA. Circulation of angiogenesis factors and preeclampsia risk. N Engl J Med. 2004; 350:672–683. doi: 10.1056/NEJMoa031884.CrossrefMedlineGoogle Scholar40. Baweja S, Kent A, Masterson R, Roberts S, McMahon LP. Prediction of preeclampsia in early pregnancy with point urinary albumin estimation: creatinine ratio using high performance liquid chromatography. BJOG. 2011; 118:1126–1132. doi: 10.1111/j.1471-0528.2011.02960.x.CrossrefMedlineGoogle Scholar41. Kleinrouweler CE, Wiegerinck MM, Ris-Stalpers C, Bossuyt PM, van der Post JA, von Dadelszen P, Mol BW, Pajkrt E; EBM CONNECT Collaboration. Accuracy of circulating plasenthal growth factor, vascular endothelial growth factor, Tyrosine kinase 1 of FMS solution and soluble endogloin in prediction of preeclampsia: a systematic review and meta-analysis. BJOG. 2012; 119:778–787. doi: 10.1111/j.1471-0528.2012.03311.x.CrossrefMedlineGoogle Scholar42. Di Lorenzo G, Ceccarello M, Cecotti V, Ronfani L, Monasta L, Vecchi Brumatti L, Montico M, D'Ottavio G. First trimester pigf mother serum, free β-hCG, PAPP-A, PP-13, uterine artery doppler and maternal history for predicting preeclampsia. Pairs. 2012; 33:495–501. doi: 10.1016/j.placenta.2012.03.003.CrossrefMedlineGoogle Scholar43. Myatt L, Clifton RG, Roberts JM, et al.; Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Maternal-Fetal Medicine Units (MFMU) Network. Prediction of first trimester of preeclampsia in low-level women 1242–119:1234 ;2012 .جینکول. doi: 10.1097/AOG.0b013e3182571669.CrossrefMedlineGoogle Scholar44. Masoura S, Kalogiannidis IA, Gitas G, Goutsioulis A, Koiou E, Athanasiadis A, Vavatsi N. Biomarkers in pre-eclampsia: a novel approach to early detection of the disease. J Obstet Gynaecol. 2012; 32:609–616. doi: 10.3109/01443615.2012.709290.CrossrefMedlineGoogle Scholar45. North RA, McCowan LM, Dekker GA, Poston L, Chan EH, Stewart AW, Black MA, Taylor RS, Walker JJ, Baker PN, Kenny LC. پیش بینی خطر بالینی برای پیش اکلامپسی در زنان نخست زا: توسعه مدل در همگروهی آینده نگر بین المللی. BMJ. 2011; 342:d1875. CrossrefMedlineGoogle Scholar46. Parra-Cordero M, Rodrigo R, Barja P, Bosco C, Rencoret G, Sepúlveda-Martinez A, Quezada S. Prediction of early and late pre-eclampsia from maternal characteristics, uterine artery Doppler and markers of vasculogenesis during the first trimester of pregnancy. سونوگرافی Obstet Gynecol. 2013: 41:538–544. doi: 10.1002/uog.12264.CrossrefMedlineGoogle Scholar47. Kho EM, McCowan LM, North RA, Roberts CT, Chan E, Black MA, Taylor RS, Dekker GA; کنسرسیوم اسکوپ. طول مدت رابطه جنسی و اثر آن بر پره اکلامپسی و کوچک برای نتیجه پریناتال سن بارداری. J Reprod Immunol. 2009; 82:66–73. doi: 10.1016/j.jri.2009.04.011.CrossrefMedlineGoogle Scholar48. Verwoerd GR, Hall DR, Grové D, Maritz JS, Odendaal HJ. نخست زایمان و مدت زمان قرار گرفتن در معرض آنتیژن های اسپرم به عنوان عوامل خطر ابتلا به پره اکلامپسی. Int J Gynaecol Obstet. 2002; 78:121–126.CrossrefMedlineGoogle Scholar49. Saftlas AF, Levine RJ, Klebanoff MA, Martz KL, Ewell MG, Morris CD, Sibai BM. Abortion, changed paternity, and risk of preeclampsia in nulliparous women. Am J Epidemiol. 2003; 157:1108–1114.CrossrefMedlineGoogle Scholar50. Skjaerven R, Wilcox AJ, Lie RT. فاصله بین بارداری ها و خطر پره اکلامپسی. N Engl J Med. 2002; 346:33–38. doi: 10.1056/NEJMoa011379.CrossrefMedlineGoogle Scholar51. Lykke JA, Bare LA, Olsen J, Lagier R, Arellano AR, Tong C, Paidas MJ, Langhoff-Roos J. Thrombophilias and adverse pregnancy outcomes: results from the Danish National Birth Cohort.J Thromb Haemost. 2012; 10:1320–1325. doi: 10.1111/j.1538-7836.2012.04773.x.CrossrefMedlineGoogle Scholar52. Al-Rubaie Z, Askie LM, Ray JG, Hudson HM, Lord SJ. عملکرد مدل های پیش بینی ریسک برای پیش اکلامپسی با استفاده از ویژگی های معمول جمع آوری شده مادر و مقایسه با مدل هایی که شامل آزمون های تخصصی و یا قوانین تصمیم دستورالعمل بالینی است: یک بررسی سیستماتیک. BJOG. 2016; 123:1441–1452. doi: 10.1111/1471-0528.14029.CrossrefMedlineGoogle Scholar53. O'Gorman N, Wright D, Poon LC, et al.. غربالگری چند مرکزی برای پیش اکلامپسی توسط عوامل مادری و نشانگرهای زیستی در بارداری 11 تا 13 هفته: مقایسه با دستورالعمل های NICE و توصیه های ACOG. سونوگرافی Obstet Gynecol. 2017; 49:756–760. doi: 10.1002/uog.17455.CrossrefMedlineGoogle Scholar54. Zeisler H, Llurba E, Chantraine F, Vatish M, Staff AC, Sennström M, Olovsson M, SP, Stepan H, Allegranza D, Dilba P, Schoedl M, Hund M, Verlohren S. Predictive value of the sFlt-1:PlGF ratio in women with suspected preeclampsia. N Engl J Med. 2016; 374:13–22. doi: 10.1056/NEJMoa1414838.CrossrefMedlineGoogle Scholar55. Chappell LC, Duckworth S, Seed PT, Griffin M, Myers J, Mackillop L, Simpson N, Waugh J, Anumba D, Kenny LC, Redman CW, Shennan AH. دقت تشخیصی عامل رشد تولد در زنان مبتلا به پره اکلامپسی مشکوک: یک مطالعه چند مرکزه آینده نگر. گردش. 2013; 2121:128–2131. doi: 10.1161/CIRCULATIONAHA.113.003215.LinkGoogle Scholar56. Rana S, Powe CE, Salahuddin S, Verlohren S, Perschel FH, Levine RJ, Lim KH, Wenger JB, Thadhani R, Karumanchi SA. عوامل رگ زایی و خطر پیامدهای نامطلوب در زنان مبتلا به پره اکلامپسی مشکوک. گردش. 2012; 911:125–919. doi: 10.1161/CIRCULATIONAHA.111.054361.LinkGoogle Scholar57. von Dadelszen P, Payne B, Li J, et al.; PIERS گروه مطالعه. پیش بینی پیامدهای نامطلوب مادر در پیش اکلامپسی: توسعه و اعتبارسنجی مدل fullPIERS. 227–377:219 ;2011 . لانست. doi: 10.1016/S0140-6736(10)61351-7.CrossrefMedlineGoogle Scholar58. Payne B, Hodgson S, Hutcheon JA, Joseph KS, Li J, Lee T, Magee LA, Qu Z, von Dadelszen P; PIERS گروه مطالعه. عملکرد مدل fullPIERS در پیش بینی پیامدهای نامطلوب مادر در پره اکلامپسی با استفاده از داده های بیمار از گروه همگروهی مجتمع پیش اکلامپسی RiSk در پذیرش جمع آوری شد. BJOG. 2013; 120:113–118. doi: 10.1111/j.1471-0528.2012.03496.x.CrossrefMedlineGoogle Scholar59. Thangaratinam S, Allotey J, Marlin N, Dodds J, Cheong-See F, von Dadelszen P, Ganzevoort W, Akkermans J, Kerry S, Mol BW, Moons KG, Riley RD, Khan KS; PREP Collaborative Network. توسعه و اعتبارسنجی چند ملیتی خارجی مدل های پیش آگهی (PREP): پیش بینی عوارض در پیش اکلامپسی زودرس. BMC Med. 2017; 15:68. doi: 10.1186/s12916-017-0827-3. CrossrefMedlineGoogle Scholar60. Berghella V, Saccone G. ورزش در بارداری! Am J Obstet Gynecol. 2017; 216:335–337. doi: 10.1016/j.ajog.2017.01.023.CrossrefMedlineGoogle Scholar61. Di Mascio D, Magro-Malosso ER, Saccone G, Marhefka GD, Berghella V. Exercise during pregnancy in normal-weight women and risk of preterm birth: a systematic review and meta-analysis of randomized controlled trials. Am J Obstet Gynecol. 2016; 215:561–571. doi: 10.1016/j.ajog.2016.06.014.CrossrefMedlineGoogle Scholar62. Duley L, Henderson-Smart DJ, Meher S, King JF. عوامل ضد پلاکت برای جلوگیری از پره اکلامپسی و عوارض آن. Cochrane Database Syst Rev. 2007. Art No CD004659. CrossrefGoogle Scholar63. Hofmeyr GJ, Lawrie TA, Atallah ÁN, Duley L. Calcium supplementation during pregnancy for preventing hypertensive disorders and related problems. Cochrane Database Syst Rev. 2010. Art No CD001059. CrossrefGoogle Scholar64. Bujold E, Roberge S, Lacasse Y, Bureau M, Audibert F, Marcoux S, Forest JC, Giguère Y. Prevention of preeclampsia and intrauterine growth restriction with aspirin در اوایل بارداری: یک متا آنالیز. Obstet Gynecol. 2010; 116(2pt 1):402–414. doi: 10.1097/AOG.0b013e3181e9322a.CrossrefMedlineGoogle Scholar65. Lane C, Pirabhahar S, Robins J, Tranter S, Brown M, Katz I. Improving nephrology service delivery: accessing the specialist. 228–45:223 ;2016 . اوست فم پزشک.MedlineGoogle Scholar66. Meher S, Duley L, Hunter K, Askie L. Antiplatelet therapy before or after 16 weeks'; بارداری برای جلوگیری از پره اکلامپسی: یک شرکت کننده فردی متا تجزیه و تحلیل داده ها. Am J Obstet Gynecol. 2017; 216:121.e2–128.e2. doi: 10.1016/j.ajog.2016.10.016.CrossrefGoogle Scholar67. Tong S, Mol BW, Walker SP. Preventing preeclampsia with aspirin: does dose or timing matter? Am J Obstet Gynecol. 2017; 216:95–97. doi: 10.1016/j.ajog.2016.12.003.CrossrefMedlineGoogle Scholar68. Roberge S, Nicolaides K, Demers S, Hyett J, Chaillet N, Bujold E. نقش دوز آسپیرین در پیشگیری از پره اکلامپسی و محدودیت رشد جنین: مرور سیستماتیک و متا آنالیز. Am J Obstet Gynecol. 2017; 216:110.e6–120.e6. doi: 10.1016/j.ajog.2016.09.076.CrossrefGoogle Scholar69. Meher S, Duley L, Hunter K, Askie L. Antiplatelet therapy before or after 16 weeks'; بارداری برای جلوگیری از پره اکلامپسی: یک شرکت کننده فردی متا تجزیه و تحلیل داده ها. Am J Obstet Gynecol. 2017; 216:121.e2–128.e2. CrossrefGoogle Scholar70. Groom K, McCowan L, MacKay L, Said J, Kane S, Walker S, Middeldorp S, Stone P, McLintock C. Enoxaparin for the prevention of preeclampsia and intrauterine growth restriction in women with a prior history (the eppi trial): an open-label international multicentre randomized controlled trial. Am J Obstet Gynecol. 2017; 216(suppl 1):S4. CrossrefGoogle Scholar71. Levine RJ, Hauth JC, Curet LB, Sibai BM, Catalano PM, Morris CD, DerSimonian R, Esterlitz JR, Raymond EG, Bild DE, Clemens JD, Cutler JA. آزمایش کلسیم برای جلوگیری از پره اکلامپسی. N Engl J Med. 1997; 337:69–76. doi: 10.1056/NEJM199707103370201. CrossrefMedlineGoogle Scholar72. Barakat R, Pelaez M, Cordero Y, Perales M, Lopez C, Coteron J, Mottola MF. ورزش در دوران بارداری در برابر فشار خون بالا و ماکروزومی محافظت می کند: کارآزمایی بالینی تصادفی. Am J Obstet Gynecol. 2016; 214:649.e1–649.e8. doi: 10.1016/j.ajog.2015.11.039.CrossrefGoogle Scholar73. Rumbold A DL, Crowther CA, Haslam RR. آنتی اکسیدان ها برای جلوگیری از پره اکلامپسی. Cochrane Database Syst Rev. 2008. Art No CD004227. CrossrefMedlineGoogle Scholar74. Lausman A, McCarthy FP, Walker M, Kingdom J. Screening, diagnosis, and management of intrauterine growth restriction. J Obstet Gynaecol Can. 2012; 34:17–28. doi: 10.1016/S1701-2163(16)35129-5.CrossrefMedlineGoogle Scholar75. Myatt L, Redman CW, Staff AC, Hansson S, Wilson ML, Laivuori H, Poston L, Roberts JM; گلوبال بارداری CoLaboratory. استراتژی استانداردسازی طرح پژوهش پره اکلامپسی. فشارخون. 2014; 63:1293–1301. doi: 10.1161/HYPERTENSIONAHA.113.02664.LinkGoogle Scholar76. Hall DR, Odendaal HJ, Steyn DW, Smith M. Nifedipine or prazosin as a second agent to فشار خون شدید اولیه در بارداری: یک کارآزمایی تصادفی کنترل شده. BJOG. 2000; 107:759–765.CrossrefMedlineGoogle Scholar77. Harper LM, Biggio JR, Anderson S, Tita AT. سن بارداری زایمان در بارداری های پیچیده شده توسط فشار خون مزمن. Obstet Gynecol. 2016; 127:1101–1109. doi: 10.1097/AOG.0000000000001435.CrossrefMedlineGoogle Scholar78. Magee LA, von Dadelszen P, Rey E, et al.. کمتر تنگ در مقابل کنترل تنگ فشار خون بالا در بارداری. N Engl J Med. 2015; 372:407–417. doi: 10.1056/NEJMoa1404595.CrossrefMedlineGoogle Scholar79. Bramham K, Hladunewich MA, Jim B, Maynard SE. Pregnancy and Kidney disease. NephSAP. 2016; 15:109–229.Google Scholar80. Alkhunaizi A, Melamed N, Hladunewich MA. بارداری در بیماری مزمن کلیوی پیشرفته و بیماری کلیوی مرحله پایانی. Curr Opin Nephrol Hypertens. 2015; 24:252–259. doi: 10.1097/MNH.0000000000000019.CrossrefMedlineGoogle Scholar81. Piccoli GB, Attini R, Vasario E, Conijn A, Biolcati M, D'Amico F, Consiglio V, Bontempo S, Todros T. Pregnancy and chronic kidney disease: a challenge in all CKD stages. Clin J Am Soc Nephrol. 2010; 5:844–855. doi: 10.2215/CJN.07911109.CrossrefMedlineGoogle Scholar82. Hladunewich MA, Hou S, Odutayo A, Cornelis T, Pierratos A, Goldstein M, Tennankore K, Keunen J, Hui D, Chan CT. Intensive hemodialysis associates with improved pregnancy outcomes: a Canadian and United States cohort comparison. J Am Soc Nephrol. 2014; 25:1103–1109. doi: 10.1681/ASN.2013080825.CrossrefMedlineGoogle Scholar83. براون MA. آیا نقشی برای نظارت بر فشار خون آبولاتوری در بارداری وجود دارد؟ Clin Exp Pharmacol Physiol. 2014; 41:16–21. doi: 10.1111/1440-1681.12106.CrossrefMedlineGoogle Scholar84. Cruz MO, Gao W, Hibbard JU. زمان مطلوب برای زایمان در زنان مبتلا به فشار خون بارداری چه می باشد؟ Am J Obstet Gynecol. 2012; 207:214.e1–214.e6. doi: 10.1016/j.ajog.2012.06.009.CrossrefGoogle Scholar85. Kenneth L, Hall DR, Gebhardt S, Grové D. Late onset preeclampsia is not an innocuous condition. 270–29:262 ;2010 .بارداری با فشار خون بالا. doi: 10.3109/10641950902777697.CrossrefMedlineGoogle Scholar86. Magee LA, von Dadelszen P, Singer J, et al.; CHIPS Study Group*. 1159–68:1153 ;2016 .فشارخون. آزمایش کنترل شده تصادفی تراشه ها (کنترل فشار خون بالا در مطالعه بارداری): آیا فشار خون شدید فقط یک فشار خون بالا است؟ doi: 10.1161/HYPERTENSIONAHA.116.07862.LinkGoogle Scholar87. Magee LA, Helewa M, Rey E; کمیته راهنمای فشار خون بالا؛ ابتکار آموزش استراتژیک در تحقیقات در علوم بهداشت باروری (STIRRHS) دانش پژوهان. تشخیص، ارزیابی، و مدیریت اختلالات فشار خون بارداری. J Obstet Gynaecol Can. 2008; 30(suppl 3):S1–S2. doi: 10.1016/S1701-2163(16)32776-1.CrossrefMedlineGoogle Scholar88. موسسه ملی سلامت و تعالی بالینی: فشار خون بالا در بارداری: مدیریت اختلالات فشار خون بالا در دوران بارداری. راهنمایی. London, UK: RCOG Press; 2010.Google Scholar89. SMFM Publications Committee. بیانیه SMFM: سود درمان برای فشار خون مزمن خفیف تا متوسط در دوران بارداری همچنان نامشخص است. Am J Obstet Gynecol. 2015; 213:3–4. doi: 10.1016/j.ajog.2015.04.013.CrossrefMedlineGoogle Scholar90. عید پاک TR. پس از کنترل فشار خون بالا در مطالعه بارداری (CHIPS): استراتژی مطلوب برای مدیریت فشار خون بالا در دوران بارداری چیست؟ فشارخون. 2016; 68:36–38. doi: 10.1161/HYPERTENSIONAHA.116.07190.LinkGoogle Scholar91. Duley L, Gülmezoglu AM, Henderson-Smart DJ, Chou D. Magnesium sulphate and other anticonvulsants for women with pre-eclampsia. Cochrane Database Syst Rev. 2010. Art No CD000025. Google Scholar92. Altman D, Carroli G, Duley L, Farrell B, Moodley J, Neilson J, Smith D; Magpie محاکمه همکاری Group.Do زنان مبتلا به پیش اکلامپسی، و نوزادان خود را، از منیزیم فسفات بهره مند شوند؟ The Magpie Trial: a randomised placebo-controlled trial. 1890–359:1877 ;2002 . لانست. doi: 10.1016/S0140-6736(02)08778-0.CrossrefMedlineGoogle Scholar93. Ludmir J, Vigil-De Gracia P. آیا سولفات منیزیم از سود پارتوم استفاده می کند؟ یه محاکمه ی کنترل شده تصادفی. Am J Obstet Gynecol. 2017; 216(suppl 1):S3–S4. CrossrefGoogle Scholar94. Brown MA, Gallery ED. Volume homeostasis in normal pregnancy and pre-eclampsia: physiology and clinical implications. Baillieres Clin Obstet Gynaecol. 1994; 8:287–310.CrossrefMedlineGoogle Scholar95. Dennis AT, Castro JM. 1189–69:1183 ;2014 . بیهوشی. فشار خون بالا و همودینامیک در زنان باردار—یک نظریه واحد برای پیش اکلامپسی ممکن است؟ doi: 10.1111/anae.12832.CrossrefMedlineGoogle Scholar96. Melchiorre K, Sutherland G, Sharma R, Nanni M, Thilaganathan B. Mid-gestational maternal cardiovascular profile in preterm and term pre-eclampsia: a prospective study. BJOG. 2013; 120:496–504. doi: 10.1111/1471-0528.12068.CrossrefMedlineGoogle Scholar97. August P, Malha L. Postpartum hypertension: it ain't over 'tin't over 'til it's over. 1692–132:1690 ;2015 .گردش. doi: 10.1161/CIRCULATIONAHA.115.019510.LinkGoogle Scholar98. Makris A, Thornton C, Hennessy A. Postpartum hypertension and nonsteroidal analgesia. Am J Obstet Gynecol. 2004; 190:577–578. doi: 10.1016/j.ajog.2003.08.030.CrossrefMedlineGoogle Scholar99. Viteri OA, England JA, Lash KA, Villegas MI, Ashimi Balogun OA, Chauhan SP, Sibai BM. Should non-steroidal anti-inflammatory drugs be avoided in puerperal hypertensive women? Am J Obstet Gynecol. 2017; 216(suppl 1):S34–S35. CrossrefMedlineGoogle Scholar100. Wasden SW, Ragsdale ES, Chasen ST, Skupski DW. تاثیر داروهای ضد التهاب غیر استروئیدی بر اختلالات فشار خون بالا بارداری. فشار خون حاملگی . 2015; 4:259–263.CrossrefGoogle Scholar101. Porcel J, Feigal C, Poye L, Postma IR, Zeeman GG, Olowoyeye A, Tsigas E, Wilson M. Hypertensive disorders of pregnancy and risk of screening positive for posttraumatic stress disorder: a cross-sectional study. 260–3:254 ;2013 . فشار خون حاملگی. doi: 10.1016/j.preghy.2013.07.004.CrossrefMedlineGoogle Scholar102. Theilen L, Meeks H, Fraser A, Esplin MS, Smith KR, Varner M. Long-term خطر و امید به زندگی به دنبال بیماری های مکرر فشار خون بارداری. Am J Obstet Gynecol. 2017; 216(suppl 1):S32–S33. CrossrefGoogle Scholar103. Tooher J, Thornton C, Makris A, Ogle R, Korda A, Horvath J, Hennessy A. Hypertension in pregnancy and long-term cardiovascular mortality: a retrospective cohort study. Am J Obstet Gynecol. 2016; 214:722.e1–722.e6. doi: 10.1016/j.ajog.2015.12.047.CrossrefGoogle Scholar104. Bellamy L, Casas JP, Hingorani AD, Williams DJ. پیش اکلامپسی و خطر ابتلا به بیماری های قلبی عروقی و سرطان در زندگی بعدی: بررسی سیستماتیک و متا آنالیز. BMJ. 2007; 335:974. doi: 10.1136/bmj.39335.385301.BE.CrossrefMedlineGoogle Scholar105. van Oostwaard MF, Langenveld J, Schuit E, et al.. عود اختلالات فشار خون بالا در بارداری: یک متاآنالیز داده های بیمار فردی. Am J Obstet Gynecol. 2015; 212:624.e1–624.17. doi: 10.1016/j.ajog.2015.01.009.CrossrefGoogle Scholar106. Brown MA, Mackenzie C, Dunsmuir W, Roberts L, Ikin K, Matthews J, Mangos G, Davis G. آیا می توانیم عود پره اکلامپسی یا فشار خون بارداری را پیش بینی کنیم؟ BJOG. 2007; 114:984–993. doi: 10.1111/j.1471-0528.2007.01376.x.CrossrefMedlineGoogle Scholar107. Breetveld NM, Ghossein-Doha C, van Kuijk S, van Dijk AP, van der Vlugt MJ, Heidema WM, Scholten RR, Spaanderman ME. خطر بیماری های قلبی عروقی تنها در زنان پره فشار خون بالا، که قبلاً پره کلمپتیک بود، بالا می رود. BJOG. 2015; 122:1092–1100. doi: 10.1111/1471-0528.13057.CrossrefMedlineGoogle Scholar108. Spaan J, Peeters L, Spaanderman M, Brown M. Cardiovascular risk management after a hypertensive disorder of pregnancy. ;2012 .فشارخون. 60:1368–1373. doi: 10.1161/HYPERTENSIONAHA.112.198812.LinkGoogle Scholar109. Mangos GJ, Spaan JJ, Pirabhahar S, Brown MA. نشانگرهای خطر بیماری های قلبی عروقی پس از فشار خون بالا در بارداری. J Hypertens. 2012; 30:351–358. doi: 10.1097/HJH.0b013e32834e5ac7.CrossrefMedlineGoogle Scholar110. Davis GK, Roberts L, Mangos G, Henry A, Pettit F, O'Sullivan A, Homer CS, Craig M, Harvey SB, Brown MA. فیزیولوژی پس از زایمان، روانشناسی و مطالعه پیگیری کودکان (P4 Study): 379–6:374 ;2016 . پروتکل مطالعه. فشار خون حاملگی. doi: 10.1016/j.preghy.2016.08.241.CrossrefMedlineGoogle Scholar111. van der Merwe JL, Hall DR, Harvey J. آیا یک برگه اطلاعات بیمار منجر به درک بهتر پیش اکلامپسی می شود؟ به محاکمه ی کنترل شده تصادفی. فشار خون حاملگی . 2011; 1:225–230. doi: 10.1016/j.preghy.2011.06.001.CrossrefMedlineGoogle Scholar112. Lowe SA, Bowyer L, Lust K, McMahon LP, Morton MR, North RA, Paech MJ, Said JM; Society of Obstetric Medicine of Australia and New Zealand. دستورالعمل SOMANZ برای مدیریت اختلالات فشار خون بالا بارداری 2014.Aust N Z J Obstet Gynaecol. 2015; 55:11–16. doi: 10.1111/ajo.12253.CrossrefMedlineGoogle Scholar113. Magee LA, Pels A, Helewa M, Rey E, von Dadelszen P; اختلالات فشار خون کانادایی کارگروه بارداری. تشخیص، ارزیابی، و مدیریت اختلالات فشار خون بارداری: خلاصه اجرایی. جی اوبستت Can. 2014; 36:416–441. doi: 10.1016/S1701-2163(15)30588-0.CrossrefMedlineGoogle Scholar114. ACOG. High blood pressure in pregnancy: executive summary. Obstet Gynecol. 2013; 122:1122–1131. doi: 10.1097/01.AOG.0000437382.03963.88.CrossrefMedlineGoogle Scholar115. World Health Organization (WHO). Recommendations for the prevention and treatment of preeclampsia and eclampsia.2011. Scholar116. World Health Organization, UNICEF, United Nations Population Fund. Management of pregnancy and childbirth complications: a guide to the canes and doctors.2. Integrated management of pregnancy and childbirth. 2017. Researcher