The Association for Clinical Biochemistry & Laboratory Medicine

Better Science, Better Testing, Better Care

Summary of NICE Guidelines

Title	Hypertension in pregnancy: diagnosis and management
NICE Reference	NG133
Previous NICE Reference (if applicable)	CG107
Date of Publication	*25th June 2019*
Date of Review/Update by NICE	*17th April 2023*
Date of Summary by Trainee	*31st May 2023*
Summary of Guidance (Max 250 words)	This guideline updates and replaces NICE guideline CG107 (2010) on hypertension in pregnancy. It includes recommendations for diagnosis and management of chronic hypertension, gestational hypertension and pre-eclampsia. Recommendations regarding laboratory investigations: **Assessment of proteinuria in hypertensive disorders of pregnancy** • Use urinary dipstick screening for proteinuria - automated reagent-strip reading device is recommended in secondary care. If positive ≥1+, use albumin:creatinine ratio (ACR) or protein:creatinine ratio (PCR) to quantify proteinuria. • 24-hour urine testing is no longer recommended. • Do not use first morning urine void. • Thresholds for significant proteinuria: - PCR: 30 mg/mmol - ACR: 8 mg/mmol • Repeat confirmatory sample is recommended if there is uncertainty over the diagnosis of pre-eclampsia. **Management of gestational hypertension** • Perform dipstick proteinuria testing – frequency is dependent on setting • Measure full blood count, liver function and renal function weekly. • 2023 update: Offer placental growth factor (PlGF)-based testing once between 20 and 36+6 weeks of pregnancy, if suspicious of pre-eclampsia. **Assessment of pre-eclampsia** • Only repeat dipstick proteinuria testing if clinically indicated. • Measure full blood count, liver function and renal function 2-3 times a week. • Offer hospital admission for surveillance for new and persistent: - creatinine ≥90 µmol/L **or** - ALT >70 IU/L (or 2x ULN) **or** - fall in platelet count (<150,000/µl)

	Postnatal monitoring • Measure platelet count, transaminases and creatinine 48-72 hours postnatal. If outside reference ranges, repeat as clinically indicated until return to normal. • Perform dipstick proteinuria test 6–8 weeks postnatal. If proteinuria ≥1+, offer further review 3 months after birth to assess kidney function.
Impact on Lab (See below)	☐ **Moderate**: This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.
Lab professionals to be made aware *Please select/highlight appropriate choices*	☒ Laboratory Manager ☒ Chemical Pathologist ☒ Clinical Scientist ☒ Biomedical Scientist
Please detail the impact of this guideline (Max 150 words)	**Impact on the laboratory:** • Not all secondary care units currently use automated dipstick analysis to screen for proteinuria, so the recommendations might increase the need for automated reagent-strip reading devices • ACR and PCR testing is the recommended test for detecting and monitoring protein in the urine. 24-hour urine testing for proteinuria should be discouraged with occasional exceptions. An increase in ACR and PCR requests may replace this. • Recommended thresholds of 8 mg/mmol for ACR and 30 mg/mmol for PCR should be adopted and communicated. • Clinical scientists should be aware of the thresholds for creatinine and ALT that may indicate a need for hospital admission. • An increased demand for PlGF-based testing is likely, since the 2023 guideline update offers guidance on use of this test. - NICE DG49 provides further details of the recommended PlGF-based tests in the UK.

Impact on Lab

☐ **None**: This NICE guideline has no impact on the provision of laboratory services

☐ **Moderate**: This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.

☐ **Important:** This NICE guideline is of direct relevance to our pathology service and will have a direct impact on one or more of the services that we currently offer.

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