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| **2A — Diagnostic coronary angiography for low risk, stable chest pain** |
| **Summary of Intervention** |
| NICE guidelines recommend that where a diagnosis of chest pain cannot, by clinical assessment alone, exclude stable angina, 64-slice (or above) CT coronary angiography should be offered as first-line. Invasive coronary angiography should only be offered to patients with significant findings on CT coronary angiogram or with inconclusive further imaging.**This guidance applies to adults aged 19 years and over.** |
| **Number of interventions in 18/19** |
| **26,629** |
| **Proposal** |
| When results of non-invasive functional imaging are inconclusive and patients are assessed as having low risk, stable cardiac pain, invasive coronary angiography (cardiac catheterisation) should be offered only as third-line investigation. Patients who have chest pain that is not an Acute Coronary Syndrome (ACS), but there is concern that it is due to an ischemic cause (stable angina) should, in the first instance, be offered a CT Coronary angiography (64 slice or above). This is based on:— Clinical assessment indicating typical or atypical angina; or— Clinical assessment indicates non-anginal chest pain but the 12‑lead resting ECG shows ST‑T changes or Q waves.Significant coronary artery disease (CAD) found during CT coronary angiography is ≥ 70% diameter stenosis of at least one major epicardial artery segment or ≥ 50% diameter stenosis in the left main coronary artery.If the CT coronary angiography is inconclusive, non-invasive functional imaging for myocardial ischemia should be considered in the following forms:— Stress echocardiography; **or**— First-pass contrast-enhanced magnetic resonance (MR) stress perfusion; **or**— MR imaging for stress-induced wall motion abnormalities; **or**— Fractional flow reserve CT (FFR-CT); **or**— Myocardial perfusion scintigraphy with single photon emission computed tomography (MPS with SPECT).Invasive coronary angiography should only be offered as third-line investigation when the results of non-invasive functional imaging are inconclusive. |
| **Rationale for Recommendation** |
| NICE guidelines recommend that where a diagnosis of chest pain cannot, by clinical assessment alone, exclude stable angina, 64-slice (or above) CT coronary angiography should be offered as first line investigation. Cardiac catheterisation and coronary angiography are generally considered to be safe procedures. However, as with all medical procedures, there are some associated risks. The main risks of coronary angiography include:— Haematoma or bruising in groin or arm— Allergy to the contrast— A very small risk including damage to the artery in the arm or leg where the catheter was inserted, heart attack, stroke, kidney damage and, very rarely, death (risk of a serious complication occurring is estimated to be less than 1 in 1,000. People with serious underlying heart problems aremost at risk.) |
| **References** |
| 1. NICE guidance: Chest pain of recent onset: assessment and diagnosis (clinical guideline CG95): https://www.nice.org.uk/guidance/cg952. NICE Resource impact report: <https://www.nice.org.uk/guidance/cg95/> resources/resource-impact-report-pdf-27261217093. NHS advice: https://www.nhs.uk/conditions/coronary-angiography/4. NHS advice: https://www.nhs.uk/conditions/coronary-angiography/risks/5. Guy’s and St. Thomas’ patient information: <https://www.guysandstthomas.nhs.uk/resources/patient-information/cardiovascular/having-a-coronary-angiogram.pdf>6. NICE guidance: HeartFlow FFRCT for estimating fractional flow reserve from coronary CT angiography (Medical technologies guidance MTG32): <https://www.nice.org.uk/guidance/mtg32> |