PRESS RELEASE

New NICE guideline aims to improve treatment of people with acute coronary syndromes

A new guideline published today by the National Institute for Health and Clinical Excellence (NICE) aims to prevent unnecessary deaths in people who suffer an ‘acute coronary syndrome’ (ACS). ACS encompasses a range of conditions from unstable angina to myocardial infarction (heart attacks). Jointly developed with the National Clinical Guidelines Centre for Acute and Chronic Conditions, the guideline covers the early management of unstable angina and a type of heart attack known as a non-ST elevation myocardial infarction (or ‘NSTEMI’) from arrival in hospital to discharge.

When the National Service Framework (NSF) for Coronary Heart Disease was published in 2000 it was estimated that every year in England 1.4 million people had angina, 300,000 had heart attacks, and more than 110,000 died as a result of heart problems. Although much has improved since then, with deaths from heart attacks and other cardiovascular causes declining, over 40,000 patients with NSTEMI acute coronary syndromes were admitted to hospital in England and Wales in 2009. And with worrying increases in the incidence of key risk factors - obesity, diabetes, and the tendency for people to take less exercise - the management of these conditions remains a high priority.

As its starting point, the guideline recommends that as soon as a diagnosis of unstable angina or NSTEMI has been made, and aspirin and other drugs that prevent blood clotting have been offered, patients should be formally assessed for their individual risk of future adverse cardiovascular events, such as further heart attacks, using an established risk scoring system that predicts 6-month mortality, such as the GRACE score. The guideline then recommends treatments that are tailored
according to whether the patient is at high, intermediate or low risk of future adverse cardiovascular events, balancing the benefit of treatment against any risk of associated adverse events (particularly bleeding) in the light of this assessment. Other recommendations in the guideline include:

- Offer coronary angiography (also called cardiac catheterisation, this test involves passing a special dye into the coronary arteries through a catheter to show up narrowed areas on an X-ray) with follow-on percutaneous coronary intervention, or ‘PCI’ (a procedure that stretches and holds open the narrowed part of the artery, usually with the insertion of a metal ‘stent’) within 96 hours of first admission to hospital to patients who have an intermediate or higher risk of adverse cardiovascular events (predicted 6-month mortality above 3.0%) if they have no contraindications to angiography. Perform angiography as soon as possible for patients who are clinically unstable or at high ischaemic risk.

- To detect and quantify inducible ischaemia, consider ischaemia testing (such as exercising on a treadmill or use of scanning techniques like echocardiography, nuclear or magnetic resonance imaging, which measure how well the heart is coping when having to increase its performance) before discharge for patients whose condition has been managed conservatively and who have not had coronary angiography.

Importantly, the guideline also emphasises the importance of providing patients with comprehensive information about their diagnosis and arrangements for follow-up. It also recommends that patients are given advice about the provision of cardiac rehabilitation programmes and about how lifestyle changes, such as giving up smoking, being physically active and eating a Mediterranean diet, can help prevent a future cardiovascular event (in line with existing NICE guidance on the secondary prevention of MI).

**Dr Gillian Leng, NICE Deputy Chief Executive, said:** “Over the past 10 years it has become clear that people with unstable angina and NSTEMI have quite widely varying outcomes, and a lot of work has gone into finding out why there is such variation. We now have a much better understanding of what treatments are likely to be of most benefit to which patients. This guideline distils all the research conducted in this area into a single, authoritative source that will enable patients to benefit from
a coherent and consistent approach to the management of their condition and, we hope, significantly reduce the number of preventable deaths as a result.”

Dr Huon Gray, Consultant Cardiologist and clinical advisor to the Guideline Development Group, said: “Over the last 10 years an ever increasing number of drugs and interventional techniques have been shown to reduce deaths in those admitted to hospital with unstable angina and heart attacks. But this has come at a price; the bleeding associated with them can itself cause death and morbidity, and to complicate matters further those at highest risk after their heart attack are often those who also have a high risk of complications. This has made it difficult for clinicians to know what best to advise individual patients regarding their treatment.

He continued: “This guideline has addressed the assessment of risk in great detail and made clear recommendations regarding the place of these drugs, and techniques such as coronary angioplasty and bypass graft surgery, by patient risk category. A formal assessment of risk should be undertaken soon after admission to hospital and this should be used, together with clinical judgment, to help determine the best treatment combinations. We believe that this will assist clinicians and reduce variability in the management of these conditions, and by doing so will save lives. In addition, where time to investigation and treatment has been shown to affect outcome, the guideline recommends the best timing for the patient’s risk category.”

Gavin Maxwell, patient representative on the Guideline Development Group, said: “Because of my own very positive experience as a patient after suffering a heart attack, it came as a considerable surprise to me to discover, when I joined the Guideline Development Group, that the standard of care I enjoyed is not available to everyone. It is for this reason that, as a patient still at risk and still very much within and benefiting from the system, I welcome the publication of this guideline. I particularly welcome the recommendation that all patients who suffer an ACS should be offered a course of cardiac rehabilitation. I hope that this will substantially increase the number of patients benefiting in the longer term, with that benefit reflected beyond the individual into the community as a whole – into the family, the work place, the caring and support services and, ultimately, the NHS itself.”

Ends

Notes to Editors
About the guidance


2. A version of the NICE guideline for patients and the public is available at www.nice.org.uk/CG94publicinfo and a free hard copy can be requested by calling 0845 003 7783.

3. **Background on acute coronary syndromes (ACS), unstable angina and NSTEMI:**
   Acute coronary syndromes (ACS) encompass a range of heart conditions from unstable angina to myocardial infarctions (heart attacks). Unstable angina and NSTEMI are both heart conditions that need treatment and are often a warning of more serious problems in the future.

4. They are usually caused by coronary heart disease where cholesterol-rich deposits, or plaques, form within the walls of coronary arteries (atherosclerosis).

5. This can cause the coronary artery to become progressively narrowed, and blood supply to the heart is affected (ischaemia).

6. NSTEMI (the name comes for the pattern seen on an ECG, which measures the rhythm and electrical activity of the heart) happens when the plaques tear, forming blood clots that block the coronary artery resulting in damage to the heart muscle.

7. Where the blood supply to the heart is blocked, but there is no evidence of actual damage to the heart muscle, the clinical syndrome is described as unstable angina.

8. Unstable angina and NSTEMI are similar in many ways and the early stages of treatment are also similar. Appropriate triage, risk assessment and timely use of acute pharmacological or invasive interventions are critical for the prevention of future adverse cardiovascular events (myocardial infarction, stroke, repeat revascularisation or death).

About NICE

1. The National Institute for Health and Clinical Excellence (NICE) is the independent organisation responsible for providing national guidance on the promotion of good health and the prevention and treatment of ill health.

2. NICE produces guidance in three areas of health:
   - **public health** – guidance on the promotion of good health and the prevention of ill health for those working in the NHS, local authorities and the wider public and voluntary sector
   - **health technologies** – guidance on the use of new and existing medicines, treatments and procedures within the NHS
   - **clinical practice** – guidance on the appropriate treatment and care of people with specific diseases and conditions within the NHS.