Managing acute painful sickle cell episodes in hospital

Keywords: Sickle cell disease/Pain/

Pain assessment

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▷ Importance of rapid and adequate analgesia to manage painful sickle cell episodes
▷ Why regular pain assessment and reassessment is vital
▷ Why patients should be assessed for an alternative diagnosis if symptoms are atypical

Sickle cell disease is an inherited abnormality of haemoglobin that results in lifelong anaemia and intermittent episodes of severe pain. The painful episodes occur unpredictably and vary in both severity and frequency; most can be managed at home with rest, fluids and analgesia, but admission to hospital may be required for stronger analgesia. Some individuals have severe pain and attend hospital regularly, several times a year; others may have infrequent pain, only requiring analgesia once or twice a year.

The primary goal in the management of an acute painful episode is to achieve effective and prompt pain control, but patients often report delays in receiving analgesia, inequities between care received in different units and a lack of knowledge among health professionals, and this was reflected in the National Confidential Enquiry into Patient Outcomes and Death report into sickle cell deaths (NCEPOD, 2008).

This NICE guideline provides national guidance for health professionals on the treatment of the acute painful sickle episode in hospital. It covers treatment in different units and a lack of knowledge among health professionals, and this was reflected in the National Confidential Enquiry into Patient Outcomes and Death report into sickle cell deaths (NCEPOD, 2008).

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The NICE guideline provides recommendations on initial assessment, primary analgesia, reassessment of pain, ongoing management and discharge. The key recommendation, and one that lends itself to clinical audit, is that patients with acute sickle pain should be offered analgesia within 30 minutes of presentation to hospital. Nursing staff will need to provide pain assessment (using an age-appropriate tool) and initiation of pain relief. Initial assessment should include blood pressure, oxygen saturations, respiratory rate and sedation score.

Initial analgesia must be suitable for the severity of pain and reflect any analgesia already taken at home. A bolus dose of strong opioid should be given to patients with severe pain, or patients in moderate-severe pain who have already had analgesia at home. Paracetamol, non-steroidal anti-inflammatory drugs (NSAIDS) or weak opioids could be used in patients with moderate pain who did not receive analgesia at home before attending hospital. Route and dose will depend on both local protocols and patients’ individual care plans if available. There is no evidence for a preferred strong opioid, but pethidine should be avoided.

A common source of patient complaints is that the first dose of analgesia is given promptly, but the effectiveness of the dose is not reviewed, and repeated doses are not given in a timely fashion. Nurses caring for these patients should assess the effectiveness of pain relief every 30 minutes until the pain is under satisfactory control, and 2-4 hours thereafter. If pain is not adequately controlled a second bolus dose should be given. Patient-controlled analgesia should be considered if repeated bolus doses are required. Regular paracetamol and NSAIDS and laxatives, anti-emetics and anti-pruritics should be offered as required.

The NCEPOD report pointed out that patients were not adequately monitored for adverse events and alternative diagnoses were not always considered promptly. The NICE guideline recommends that patients should be clinically assessed every 2-4 hours, and this should include pain and sedation scores. Nurses should be aware of other diagnoses, or complications of sickle cell disease if patients describe their symptoms as atypical or if their pain does not respond to standard treatment. Complications include acute stroke, splenic sequestration, infections and acute chest syndrome. The latter is a life-threatening complication that should be considered in patients with respiratory signs and symptoms, fever, chest pain or hypoxia.

Training of nurses who are likely to care for patients with acute sickle pain will be required to implement these standards. This will include, but is not limited to, accident and emergency nurses, day care staff and nurses on acute medical wards, and should focus on the treatment of the acute painful episode, the recognition of complications and attitudes and preconceptions about patients with acute sickle crisis. There are RCN recommendations for nursing competencies in sickle cell diseases, which could be used for training in addition to materials that will accompany the NICE recommendation (RCN, 2011).

The guideline are available from www.nice.org.uk/CG143

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