

NICE Support for commissioning metastatic spinal cord compression

February 2014

1 Introduction

Implementing the recommendations from NICE guidance and other NICE-accredited guidance is the best way to support improvements in the quality of care or services, in line with the statements and measures that comprise the NICE quality standards.

This report:

- Highlights the key actions that NHS England and Clinical Commissioning Groups (CCGs) and their partners should take to improve the quality of care for people with metastatic spinal cord compression. Priority actions are outlined in [table 1](#).
- Identifies opportunities for collaboration and integration at a local and regional level.
- Identifies the benefits and potential costs or savings from implementing the changes needed to achieve quality improvement.
- Directs commissioners and service providers to support tools that can help them implement NICE and NICE accredited guidance.

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. The statements draw on existing guidance, which provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement. For more information see [NICE quality standards](#).

NHS England's [CCG outcomes indicator set](#) is part of a systematic approach to promoting quality improvement. The outcomes indicator set provides CCGs and health and wellbeing boards with comparative information on the quality of health

services commissioned by CCGs and the associated health outcomes. The set includes indicators derived from NICE quality standards. By commissioning services in line with the quality standards, commissioners can contribute to improvements in health outcomes.

Commissioners can use the quality standards to improve services by including quality statements and measures in the service specification of the standard contract and establishing key performance indicators as part of tendering. They can also encourage improvements in provider performance by using quality standard measures in association with incentive payments such as [the Commissioning for quality and innovation \(CQUIN\) 2013/14 guidance](#). NICE quality standards provide a baseline against which improvements can be measured and rewarded, enabling commissioners to address gaps in service provision, support best practice and encourage evidence-based treatment and care.

This report on the metastatic spinal cord compression quality standard should be read alongside:

- [Metastatic spinal cord compression](#). NICE quality standard 56 (2014).
- [Metastatic spinal cord compression: diagnosis and management of adults at risk of and with metastatic spinal cord compression](#). NICE clinical guideline 75 (2008).
- [Percutaneous vertebroplasty](#). NICE interventional procedure guidance 12 (2003)

2 Overview of metastatic spinal cord compression

Metastatic spinal cord compression (MSCC) is defined as spinal cord compression by direct pressure from tumour, or as a consequence of vertebral collapse or instability caused by damage to the structural integrity of the vertebral column by malignant infiltration. Spinal cord compression threatens or causes neurological disability. MSCC is a complication of cancer and is often an oncological emergency.

The key investigation for the diagnosis of metastatic spinal cord compression is MRI of the whole spine. Once a diagnosis has been made, the treatment goals include pain relief, restoration of neurological status, prevention of further neurological damage, stabilisation and readjustment to any change in functional ability.

2.1 *Epidemiology of metastatic spinal cord compression*

The true incidence of MSCC in England is unknown because cases are not systematically recorded. However, post-mortem evidence indicates that it is present in 5–10% of people with advanced cancer. Further evidence suggests that the incidence may be up to 80 people per million every year. This equates to approximately 3000 people each year in England.

Adults with breast, lung and/or prostate cancer account for more than 50% of MSCC diagnoses. MSCC can also be caused by other tumours and haematological malignancies. Audit data suggest that 77% of people diagnosed with MSCC have an established diagnosis of cancer, and 23% of people presented with MSCC as the first presentation of malignancy.

The median age at the time of MSCC diagnosis is 65 years. It is likely that the incidence of MSCC will increase in the future with improving cancer treatments resulting in better survival rates and outcomes.

3 Summary of commissioning and resource implications

The cost of meeting the quality standard for metastatic spinal cord compression (MSCC) depends on current local practice and the progress organisations have made in implementing NICE and NICE-accredited guidance.

The organisations responsible for commissioning the various services in the care pathway related to MSCC are clinical commissioning groups (CCGs) and NHS England, through strategic clinical (cancer) networks and elements of specialised commissioning, such as complex spinal surgery. NHS England and CCGs need to work collaboratively to integrate care pathways.

[The National Spinal Task Force](#) recommends that all commissioners of spinal services should ensure that comprehensive spinal networks are established to help with this integration. The people responsible for organising and providing clinical services for people with MSCC face particular challenges because there is no common pathway of entry into the secondary care system. People may present

acutely with MSCC under a variety of different specialists who may not be members of the oncology multidisciplinary team that is responsible for managing the primary disease or its spinal consequences.

Studies have consistently shown that MSCC is diagnosed late and that the ability to walk after treatment is directly associated with the ability to walk at time of diagnosis. The National Spinal Task Force's 2013 report on [Commissioning spinal services – getting the service back on track](#) states that recovery of mobility is unlikely if paraplegia has become established at the time of diagnosis. Paraplegia will often need 24-hour nursing care either in hospital or in the community setting, which has major resource implications on the NHS.

Early recognition and reporting of symptoms, simple and rapid referral pathways, urgent investigations and prompt treatment are all integral to achieving the best outcomes for people with MSCC and their carers.

Implementing the quality statements is not expected to generate significant extra costs. NHS England and CCGs are advised to refer to the implementation tools supporting the NICE clinical guideline on [metastatic spinal cord compression](#). The [costing report](#) calculates the potential savings achieved from early intervention, preventing late crisis intervention and reducing the need for supportive care.

Table 1 summarises the commissioning and resource implications for commissioners working towards achieving this quality standard. See section 4 for more detail on commissioning and resource implications.

Table 1 Priority commissioning actions and potential resource implications for MSCC

Quality improvement area	Commissioning implications	Resource implications
1: Information about recognising symptoms of MSCC	NHS England and CCGs should work collaboratively to ensure that services are commissioned that provide information about recognising symptoms to adults at high risk of MSCC, and also request evidence of practice by asking providers to demonstrate that suitable information is available to give to patients at high risk of MSCC.	No significant resource impact of providing leaflets. Early intervention may prevent costs relating to the need for supportive care.
2 & 3: Imaging and treatment plans for adults with suspected spinal metastases and suspected MSCC	NHS England and CCGs should work collaboratively to ensure that protocols are in place for adults with suspected MSCC to receive an MRI within either a week or 24 hours (and definitive treatment plans developed if diagnosis is confirmed), as appropriate.	The cost of an MRI scan is assumed to be £140. Depending on diagnosis, there may be some variations in services regionally and this may need to be considered locally.
4 & 5: Coordinating investigations for adults with suspected MSCC, and care for adults with MSCC	NHS England and CCGs should commission services that provide access to an MSCC coordinator, available at all times, who will coordinate diagnostic investigations for adults with suspected MSCC who present with neurological symptoms or signs who are referred from primary or secondary care.	No significant costs anticipated. Where the role is not filled, service models should be revised to ensure that this role is filled. For a typical list of responsibilities for this role, see NICE clinical guideline 75, recommendation 1.1.2.3 .
6: Treatment of MSCC	CCGs and NHS England area teams should request evidence of local arrangements to ensure that adults with MSCC, who present with neurological symptoms or signs, start definitive treatment (if appropriate) within 24 hours of the confirmed diagnosis.	No anticipated costs. As capacity and resources should already be in place, a refocussing of care pathways and changes to the timing of services may be required.

7: Supportive care and rehabilitation	NHS England and CCGs should work collaboratively to ensure that written protocols are in place to ensure that management planning for adults with MSCC starts on admission and includes an assessment of ongoing care and rehabilitation needs.	No anticipated costs. This statement should be achieved by enhancing communication and organisation between services where necessary.
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4 Commissioning and resource implications

This section considers the commissioning implications and potential resource impact of implementing the recommendations to achieve the NICE quality standard for metastatic spinal cord compression (MSCC).

4.1 *Information about recognising symptoms of MSCC*

Quality statement 1: Information about recognising symptoms of MSCC

Adults at high risk of developing MSCC, and their families or carers (as appropriate), are given information that describes the symptoms of MSCC and what to do if they develop symptoms.

It is important that adults at high risk of developing MSCC, and their families or carers (as appropriate), are able to recognise its symptoms, so that they can seek help to ensure prompt diagnosis and treatment, which can lead to improved outcomes.

Adults at high risk of MSCC includes (but is not limited to) adults who have, or who are at high risk of developing, cancer of the lung, breast or prostate, or myeloma. The risk can be determined by identifying the tumour site, grade and stage at presentation. People with cancer may present with the following symptoms of MSCC: progressive pain in the spine, severe unremitting spinal pain, spinal pain aggravated by straining (for example, when passing stools, when coughing or sneezing, or when moving), pain described as 'band like', localised spinal

tenderness, nocturnal spinal pain preventing sleep, and neurological symptoms including radicular pain, limb weakness, difficulty in walking, sensory loss, or bladder or bowel dysfunction.

NHS England and CCGs should ensure that provision of written, accessible information on symptoms of MSCC to all patients with cancer is highlighted to service providers as being important in encouraging early presentation and diagnosis.

Healthcare professionals likely to be involved in the pathway for adults at risk of MSCC include: primary care teams, GPs, oncologists, hospital doctors and MSCC coordinators. Information may be in the form of, for example, a leaflet, a 'red flag' card or audio/visual materials. It should list the early warning symptoms of MSCC, together with clear advice on what action to take if any symptoms develop.

Information should be developed locally and include provision for both adults at risk of MSCC and healthcare professionals who are likely to be involved in the care pathway. Healthcare professionals should give careful consideration to the timing of giving information, because adults with cancer receive a wide variety of supporting information about the disease. Suitable examples of such information can be found in the box at the bottom of this section.

Commissioners may also wish to consider monitoring that suitable information is given to adults at risk of MSCC by asking providers to [audit](#) evidence of local practice. Because of the wide array of possible routes into the care pathway for MSCC, any audit may have to be carried out retrospectively, after diagnosis.

Written advice, for example leaflets, on the symptoms of MSCC and what to do if a person develops symptoms, may already be available and therefore it is not anticipated to have significant cost impact. Providing patients with information on the signs and symptoms of MSCC is important in encouraging early presentation, which can prevent late crisis intervention and can prevent costs relating to the need for supportive care.

Commissioners and others may wish to refer to NICE's Information for the public about MSCC, and the local patient information template for NICE

clinical guideline 75 on MSCC.

Commissioners and others can use the information card or ['red flag'](#) card for MSCC, produced by The Christie NHS Foundation Trust.

4.2 *Imaging and treatment plans for adults with suspected spinal metastases and suspected MSCC*

Quality statement 2: Imaging and treatment plans for adults with suspected spinal metastases

Adults with spinal pain suggestive of spinal metastases, but with no neurological symptoms or signs, have an MRI of the whole spine and any necessary treatment plan agreed within 1 week of the suspected diagnosis.

Quality statement 3: Imaging and treatment plans for adults with suspected MSCC

Adults with suspected MSCC, who present with neurological symptoms or signs, have an MRI of the whole spine and any necessary treatment plan agreed within 24 hours of the suspected diagnosis.

If spinal metastases are suspected, it is essential that investigation, planning and treatment take place before any loss of neurological function occurs. To reduce the risk of avoidable disability for adults with suspected spinal metastases, it is important that an MRI is performed and that treatment is planned by senior clinical advisers within 1 week of the suspected diagnosis if there are no neurological symptoms or signs, and within 24 hours if people present with neurological symptoms or signs.

NHS England and CCGs should ensure that services are commissioned with adequate availability of MRI scanning, and that written protocols for investigative imaging and referral of suspected MSCC are in place in line with statements 2 and 3.

If there is a confirmed diagnosis of MSCC, treatment plans should be agreed by senior clinical advisers and documented. They must take into account the factors listed in the [quality standard for MSCC](#).

MRI of the whole spine is needed to determine or exclude the presence of spinal metastases. It is believed that MRI scanning is currently happening within the specified timeframes in most of the cases, although there may be some variations in services regionally and should be considered locally.

The cost of an MRI scan is assumed to be £140 (RA01Z Magnetic Resonance Imaging Scan, one area, no contrast, national tariff 2013/14).

Early diagnosis may result in cost savings because of reduced hospital stay and a reduced need for hospital resources. Depending on diagnosis, there may also be savings from a reduced 24-hour nursing care either in hospital or in the community setting.

4.3 *Coordinating investigations for adults with suspected MSCC, and care for adults with MSCC*

Quality statement 4: Coordinating care for adults with suspected MSCC

Adults with suspected MSCC who present with neurological symptoms or signs have their diagnostic investigations coordinated by an MSCC coordinator.

Quality statement 5: Coordinating care for adults with MSCC

Adults with MSCC have their ongoing care coordinated by an MSCC coordinator.

When people present with suspected MSCC, it is important that diagnostic investigations are undertaken promptly. The principal role of the MSCC coordinator is to liaise with healthcare professionals and ensure that investigations and treatment are organised. Adults may present with MSCC to a variety of specialists and may

require involvement from a number of specialties including oncology, surgery and radiology.

Providing an MSCC coordinator, available at all times, will therefore help to ensure that the initial management for adults with MSCC is both comprehensive and timely. An MSCC coordinator should be available 24 hours a day, 7 days a week, with a single point of contact, available to liaise with healthcare professionals.

NHS England's [Patient Safety](#) function has produced a [signal report](#) about the harm associated with failure to rapidly diagnose and treat spinal cord compression and poor handling of patients where it is suspected or diagnosed. The MSCC coordinator's responsibilities and the support they should receive are described in NICE clinical guideline 75, [recommendations 1.1.2.3 and 1.1.2.5](#).

An MSCC coordinator may not have a significant incremental cost; this may be accommodated within current establishments with some providers. The coordinator role may be delivered by one or more individuals (Ideally by an allied health professional, for example a nurse or physiotherapist) during normal working hours or by healthcare professionals involved in an existing on-call rota out of hours.

4.4 Treatment of MSCC

Quality statement 6: Treatment of MSCC

Adults with MSCC, who present with neurological symptoms or signs, start definitive treatment (if appropriate) within 24 hours of the confirmed diagnosis.

Delay in treatment of MSCC is associated with loss of motor function and loss of continence, which may be irreversible. Starting definitive treatment as a matter of urgency is important for adults with MSCC because it can help to prevent further neurological deterioration, which may lead to paraplegia, and may also improve quality of life.

NHS England and CCGs should ensure that services are commissioned with adequate capacity to enable healthcare professionals to start treatment for adults

with MSCC, who present with neurological symptoms or signs, within 24 hours of the confirmed diagnosis. This may require commissioners and providers to work together to improve access, according to local need. For more detail of how this can be achieved, see the National Spinal Task Force's 2013 report on [Commissioning spinal services – getting the service back on track](#).

Definitive treatment for MSCC includes surgery and radiotherapy (Department of Health Acute Oncology Measures – The Audit of Timeliness of Definitive Treatment of MSCC, section 11-1E-112y [Manual for cancer services: acute oncology – including metastatic spinal cord compression measures](#) [2011]). For treatments related to painful metastases and prevention of MSCC, see NICE clinical guideline 75, [recommendation 1.5.1](#).

It is anticipated that there will be no significant costs in implementing this quality statement because capacity and resources should already be in place. The main changes would be in the timing of services, and a refocussing of care pathways may be needed to address this. It is estimated there will not be an additional significant cost nationally for changes in the timing of services.

4.5 Supportive care and rehabilitation

Quality statement 7: Supportive care and rehabilitation

Adults with MSCC have a management plan that includes an assessment of ongoing care and rehabilitation needs.

It is important that personalised management planning for adults with MSCC starts on admission because rehabilitation and supportive care are integral to the promotion of independence and quality of life for adults with MSCC. People with MSCC may present in a number of settings, including cancer centres, spinal surgery units, acute hospitals, hospices or palliative care services.

Emphasis should be on an individualised, person-centred management planning process, led by a key worker, which takes into account care related to all existing conditions (including cancer) the person may have. Communication between

secondary, primary, tertiary and voluntary care needs to ensure a seamless transfer between services and continuity of care for patients.

A key worker is defined by the NICE clinical guideline on [MSCC](#) as a person who, with the patient's consent and agreement, takes a key role in coordinating the patient's care and promoting continuity, ensuring the patient knows who to access for information and advice.

NHS England and CCGs should work collaboratively to ensure that service providers train their staff on how to develop management plans including how to undertake an assessment of ongoing care and rehabilitation needs for adults with MSCC, and have protocols in place for starting management planning on admission.

It is anticipated that there will be no significant costs in implementing this quality statement.

5 Other useful resources

5.1 Policy documents

- National Spinal Task Force (2013) [Commissioning spinal services – getting the service back on track](#)
- 2020Health (2012) [Cancer commissioning: making the reforms work for patients](#)
- Department of Health (2011) [Manual for cancer services: acute oncology – including metastatic spinal cord compression measures](#)
- Department of Health (2011) [Commissioning Cancer Services](#).
- Department of Health (2011) [Improving outcomes: a strategy for cancer](#).
- Department of Health (2010) [A guide to practice-based commissioners in developing good cancer care services](#).
- Department of Health (2007) [Cancer Reform Strategy](#).
- NICE Cancer Service Guidance (2004) [Improving outcomes in supportive and palliative care for adults with cancer](#).

5.2 Useful resources

- NHS England (2013) [NHS Standard contract for complex spinal surgery](#)

5.3 NICE implementation support

- [Metastatic spinal cord compression](#). NICE local patient information template (2012)
- [Metastatic spinal cord compression](#). NICE slide set (2012)
- [Metastatic spinal cord compression](#). NICE costing report (2009)
- [Metastatic spinal cord compression](#). NICE audit support (2009)

5.4 NICE pathways

- [Metastatic spinal cord compression](#) (2012)

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