

Supplementary Table 1. Seventy-Six Summary Questions and Examples of the Original Uncertainties

	Summary Question	Example of Original Uncertainties	Type of Respondents
Diagnosis			
<b>D1</b>	<b>What are the diagnostic criteria of DCM? When should imaging be used in the assessment of DCM?</b>	<p>What are the practical versus theoretical definitions of DCM?</p> <p>What are the evidence-informed clinical tests for the diagnosis of DCM?</p> <p>What is at the moment the gold standard for the diagnosis of DCM?</p> <p>Is it possible to make some diagnostic criteria for DCM?</p> <p>Can DCM be diagnosed with radiographic findings?</p>	<p>Spinal Surgeons: 35</p> <p>Other healthcare professionals: 34</p> <p>People with DCM and their supporters: 14</p>
<b>D2</b>	What are the possible effects of DCM on sufferers? What is their aetiology and how do they impact on quality of life?	<p>What symptom(s) are most disabling?</p> <p>Possible effects on eyesight?</p> <p>What are the signs and symptoms of DCM patients?</p> <p>How painful is DCM?</p> <p>What is/are the most disabling features or symptoms of DCM in a patient's perspective?</p> <p>Does DCM give you a higher chance of seizure disorder and tremors?</p> <p>Is DCM a life-threatening condition?</p>	<p>Spinal Surgeons: 14</p> <p>Other healthcare professionals: 15</p> <p>People with DCM and their supporters: 20</p>
<b>D3</b>	<b>What are the main signs and symptoms that a patient with DCM presents with? What are the frequency, sensitivity, specificity and positive predictive value of symptoms and signs (clinical assessments) for DCM?</b>	<p>What are the main symptoms that patients present with?</p> <p>Most common symptom?</p> <p>At what point would Babinski or ankle clonus be present?</p> <p>What symptom(s) are most reflective of DCM?</p> <p>What is the prevalence of each commonly reported symptom; which symptom is most sensitive and specific?</p> <p>What physical exam has the highest specificity and sensitivity in detecting early DCM?</p> <p>What the signs and symptoms of DCM with the greatest sensitivity and specificity?</p>	<p>Spinal Surgeons: 22</p> <p>Other healthcare professionals: 24</p> <p>People with DCM and their supporters: 5</p>
<b>D4</b>	<b>What is the role of dynamic imaging and novel, unconventional or advanced techniques in the assessment of DCM?</b>	<p>Is dynamic cervical MRI a mandatory tool in diagnosing cervical myelopathy?</p> <p>Are dynamic MRI scans valuable?</p> <p>Is MRI tractography useful in diagnosis of CSM?</p> <p>What is the role of DTI in imaging DCM?</p>	<p>Spinal Surgeons: 39</p> <p>Other healthcare professionals: 6</p> <p>People with DCM and their supporters: 2</p>

		Can “functional” MRI help as a diagnostic tool in DCM examination?	
D5	What is the role of electrophysiology in the assessment and diagnosis of DCM?	<p>What is the role of electrophysiology in diagnosing DCM? Does EMG/neurophysiology make the diagnosis more accurate?</p> <p>Quantitative assessment of myelopathy patients using motor evoked potentials or other measures other than neurological examination and MRI.</p> <p>Is there any early neurophysiology finding that precedes MRI and clinical symptoms that can be done in high risk patients?</p>	<p>Spinal Surgeons: 23</p> <p>Other healthcare professionals: 7</p> <p>People with DCM and their supporters: 1</p>
D6	What is the relationship between clinical and imaging findings of DCM? Can findings on imaging help to grade the severity of myelopathy?	<p>What imaging modalities or findings are most predictive or correlative with significant disability?</p> <p>Why are some patients very symptomatic with mild compression, but others asymptomatic with severe compression?</p> <p>Is there a clear correlation of spinal canal diameter or MR-myelopathy rating to function?</p> <p>What is the relation between image findings (X rays, MRI, CT) and clinical symptoms and clinical presentation?</p>	<p>Spinal Surgeons: 15</p> <p>Other healthcare professionals: 7</p> <p>People with DCM and their supporters: 2</p>
D7	<b>Can CSF or serum biomarkers be identified to support early diagnosis of DCM, and/or predict treatment outcomes?</b>	<p>Bio markers for early diagnosis?</p> <p>Could we get any clues about DCM from analysing the CSF?</p> <p>Is it possible to find a serum biomarker that predicts the prognosis of DCM?</p> <p>What is the role of biomarkers in the diagnosis and follow-up of patients with DCM?</p>	<p>Spinal Surgeons: 11</p> <p>Other healthcare professionals: 1</p> <p>People with DCM and their supporters: 1</p>
D8	<b>What clinical and/or imaging features are predictive of neurologic deterioration in patients with DCM? Are there certain features that indicate irreversibility of the disease?</b>	<p>What factors influence DCM progression?</p> <p>What factors can be used to predict progression in early DCM?</p> <p>What lifestyle factors are associated with poorer DCM prognosis or disease progression?</p> <p>What biomarkers indicate than an individual is prone to deterioration and therefore requires early surgery?</p> <p>Are there radiologic predictors to symptomatic progression?</p> <p>Are there environmental, genetic or other factors that may</p>	<p>Spinal Surgeons: 50</p> <p>Other healthcare professionals: 23</p> <p>People with DCM and their supporters: 4</p>

		influence disease progression?	
D9	What is the average time to diagnosis? What are the barriers to obtaining a diagnosis of DCM? Can these be modified to improve timely diagnosis and management?	<p>What is the average time from initial symptoms to diagnosis?</p> <p>How often is DCM misdiagnosed?</p> <p>Why do doctors seem to be so quick to dismiss patients' symptoms?</p> <p>How can we diagnose DCM sooner? What is the referral pathway for suspected DCM?</p> <p>How can we improve healthcare pathways?</p> <p>What are the earliest features of DCM and are the majority of primary care healthcare workers well aware of these?</p>	<p>Spinal Surgeons: 38</p> <p>Other healthcare professionals: 29</p> <p>People with DCM and their supporters: 55</p>
D10	<b>What strategies can be used to increase awareness and understanding of DCM amongst healthcare professionals and the general public? Can these strategies help improve timely diagnosis and management of DCM?</b>	<p>Why are so many GPs and physiotherapists unaware of myelopathy?</p> <p>How do we educate primary care physicians/allied health to detect DCM early?</p> <p>What will the medical schools do to educate current medical doctors and future medical doctors as well therapists about DCM/diagnosis?</p> <p>What is being done to raise awareness of the seriousness of the condition?</p> <p>Does a deeper knowledge of myelopathy (diagnosis and treatment) among patients, caregivers and GPs affect the outcomes?</p>	<p>Spinal Surgeons: 21</p> <p>Other healthcare professionals: 14</p> <p>People with DCM and their supporters: 52</p>
D11	What are the common differentials or mimics of DCM? What is the appropriate work-up to distinguish between DCM and common differentials?	<p>Are there any signs on various imaging modalities which can accurately distinguish DCM from other neurological diseases, including ALS, MS, or sarcoidosis and so on?</p> <p>How can we distinguish between different kinds of myelopathy?</p>	<p>Spinal Surgeons: 11</p> <p>Other healthcare professionals: 3</p> <p>People with DCM and their supporters: 7</p>

D12	Can clinical assessments be used or developed to identify early signs and symptoms of DCM or individuals at risk of DCM?	The role of objective measurement tools (gait velocity, step length, gait smoothness) in the detection of DCM. Can we define a standard set of screening questions/signs that are required to establish the diagnosis of DCM? What is a minimal effective algorithm that can successfully triage patients for MRI scans in order to ensure early diagnosis? How can family doctors better screen for DCM clinically?	Spinal Surgeons: 14 Other healthcare professionals: 8 People with DCM and their supporters: 5
D13	When should a referral to spinal surgery or other specialists be made?	What stage is referral urgent? When is it appropriate to refer to spine surgery? When is the preferred time for referral of patient with suspected diagnosis of DCM?	Spinal Surgeons: 3 Other healthcare professionals: 8 People with DCM and their supporters: 1
D14	Can features of DCM distinguish the length of time affected? Are there specific early or late features of DCM?	What are the earliest manifestations of DCM? What are the earliest signs? What are the earliest symptoms? What are the first symptoms that appear in a patient with myelopathy?	Spinal Surgeons: 16 Other healthcare professionals: 6 People with DCM and their supporters: 7
<b>D15</b>	<b>What is the natural history of DCM? What is the relationship between DCM and asymptomatic spinal cord compression or canal stenosis? What factors influence the natural history of the disease?</b>	What is the natural history of DCM without surgical intervention? Is it reversible? What is the natural history of cases with spinal cord compression without clinical myelopathy? How long is the neurological plateau after an exacerbation of DCM? What is the rate of deterioration of patients with DCM?	Spinal Surgeons: 44 Other healthcare professionals: 15 People with DCM and their supporters: 11
D16	Is it possible to use imaging and/or other patient factors to calculate the risk of catastrophic acute cervical spinal cord injury in patients with spinal cord compression but no myelopathy?	What is the risk of clinical deterioration after minor trauma in patients with DCM? Which clinical and imaging factors signal the patient is more likely to sustain a SCI?	Spinal Surgeons: 3 Other healthcare professionals: 2 People with DCM and their supporters: 0

D17	<b>What are the factors that predict the development of myelopathy in patients with evidence of spinal cord compression and no symptoms?</b>	<p>Are there any clinical or radiological biomarkers that may predict which patients with cervical spondylosis may progress to DCM?</p> <p>Is the presence of hyperintensity signal in the spinal cord of an asymptomatic patient predictive of future developing of DCM?</p> <p>In a patient with cervical stenosis and no symptoms or signs of DCM, are there subtle features that can predict future deterioration or onset of DCM?</p> <p>What are risk factors that increase the risk of development of symptomatic DCM in nonmyelopathic degenerative cervical cord compression cases?</p>	<p>Spinal Surgeons: 14  Other healthcare professionals: 3  People with DCM and their supporters: 1</p>
D18	What is the prevalence and impact of instability or deformity on the onset or progression of DCM?	<p>How does the cervical alignment influence the progression of myelopathy?</p> <p>Does DCM alone cause sagittal imbalance or flexion curvature in cervical area?</p> <p>Is spinal imbalance a cause or a symptom of DCM?</p>	<p>Spinal Surgeons: 13  Other healthcare professionals: 1  People with DCM and their supporters: 2</p>
D19	Is there a genetic basis to the development and/or progression of DCM?	<p>Which genetic traits predispose to DCM?</p> <p>Given the potential role of genetic factors, can we identify genetic factors more likely to contribute to DCM progression?</p> <p>What are the genetic determinants that predispose patients to developing DCM? What are the genetic determinants that result in early development and/or rapid progression of DCM?</p>	<p>Spinal Surgeons: 27  Other healthcare professionals: 12  People with DCM and their supporters: 11</p>
D20	<b>What are the risk factors for the development or progression of DCM, including but not limited to, lifestyle, diet, exercise, posture, occupation, history of trauma and co-existent disease? Does their modification have a role in prevention or treatment?</b>	<p>What activities or occupations contribute to the development of DCM? What role does sleep position, choice of pillow or mattress play in the development of DCM?</p> <p>When is congenital stenosis a problem? How can we confirm that it is the symptom generator?</p> <p>Do all people with Klippel-Feil have DCM?</p> <p>To what extent do work injuries precipitate symptomatic degenerative cervical myelopathy?</p> <p>What are the risk factors for development of DCM?</p> <p>Are there any modifiable risk factors for DCM?</p> <p>Are patients with Ehlers Danlos syndrome more susceptible</p>	<p>Spinal Surgeons: 59  Other healthcare professionals: 42  People with DCM and their supporters: 27</p>

		to DCM?	
D21	What is the incidence and prevalence of DCM, and its subtypes? What is the likely incidence and prevalence of DCM in the future?	How common is myelo-radiculopathy? What is the prevalence? What is the incidence of DCM?	Spinal Surgeons: 2 Other healthcare professionals: 2 People with DCM and their supporters: 3
D22	<b>What is the pathophysiology of DCM? What are the mechanisms of neurologic injury and the molecular and anatomical consequences?</b>	What is the aetiology? Why does DCM cause neurological impairment? What are the exact structures and neural pathways that are affected? What spinal cord pathological changes underlie motor and sensory deficits in CSM? What causes DCM?	Spinal Surgeons: 12 Other healthcare professionals: 6 People with DCM and their supporters: 3
Treatment			
T1	<b>What is the efficacy and safety of non-operative treatment in the management of DCM compared with surgical treatment? Can non-operative treatment avoid the need for surgery long-term? When can a “watch and wait” approach be adopted?</b>	When is conservative treatment in patients with DCM an option? To what extent can non-operative treatment improve or slow progression of DCM? Is conservative treatment acceptable in early stages? Is it acceptable in late stages? Which treatment modalities are safe? Traction? What factors predict a patient that should be treated non-operatively (medically)? What are patient perceptions about operative and non-operative treatment?	Spinal Surgeons: 66 Other healthcare professionals: 27 People with DCM and their supporters: 23

T2	What is the optimal content, structure and duration of non-operative treatment? Which non-operative techniques are most effective and whom should they be delivered by?	<p>What are the best exercise regimes for prevention and management of DCM?          What role does exercise have in the management of DCM?          What is the most impactful self-management tool?          What nonsurgical methods are most effective at symptom reduction?          What type of rehabilitation/physiotherapy is most effective for management of DCM?          What influence does chiropractic treatment have on DCM?          Does early intervention with spinal manual therapy help?</p>	<p>Spinal Surgeons: 35          Other healthcare professionals: 57          People with DCM and their supporters: 27</p>
T3	<b>What is the role of surgery in the management of non-myelopathic patients with imaging evidence of cord compression? Is this decision impacted by signal change on T2-weighted MRI images or the presence of neck pain?</b>	<p>Is there any benefit of surgically treating patients with cord compression but no/mild signs/symptoms of myelopathy?          Is surgery warranted in (neurological) asymptomatic stenosis and neck pain?          Is there a place for prophylactic decompressive surgery in severe cervical canal compression without DCM?          Do we need to treat all patients with altered spinal cord signal even if they are asymptomatic?          Which patients end up needing intervention for their cervical stenosis and which patients can we monitor in clinic through serial exams?</p>	<p>Spinal Surgeons: 27          Other healthcare professionals: 7          People with DCM and their supporters: 1</p>
T4	What is the efficacy of surgical interventions for DCM? What is the impact of surgery on functional impairment, disability, pain and quality of life in patients with DCM? What are the most common residual symptoms following surgical decompression?	<p>Does surgical treatment restore function or stop the progression of disease?          What symptom relief can you expect after decompressive surgery for cervical myelopathy?          What are reasonable expectations for restoration of normal gait in patients with DCM following surgical decompression?          How effective is surgery in pain reduction?          How effective is surgery on symptoms and quality of life?          How many deteriorate following surgery?</p>	<p>Spinal Surgeons: 38          Other healthcare professionals: 8          People with DCM and their supporters: 10</p>
T5	What is the optimal surgical approach? What clinical and imaging factors can help a surgeon decide what approach to use?	<p>What is the best surgical option for DCM?          Is there a preferred surgical approach: anterior vs. posterior, laminoplasty vs. laminectomy +/- stabilization?          Can we deliver clear guidelines for anterior vs. posterior vs. combined/360?          What is the ideal operation? Are there objective predictors</p>	<p>Spinal Surgeons: 42          Other healthcare professionals: 4          People with DCM and their supporters: 1</p>

		to choosing which operation?	
T6	What are the complications associated with DCM surgery and how often do they occur? Can strategies be developed to minimize the occurrence of complications? Are there important clinical, imaging and surgical predictors of complications following surgery for DCM?	What are the complications of surgical management of DCM? Are post-surgical dysphagia or dysphonia transient or permanent? And how are these possible problems evaluated and treated? How can we reduce post op complications? What are the most common complications of decompressive surgery?	Spinal Surgeons: 10 Other healthcare professionals: 8 People with DCM and their supporters: 4
T7	What is the aetiology of C5 palsy? Are there any strategies that can prevent its occurrence?	What is the true etiology of "C5 palsy"? Incidence of C5 palsy postoperatively? How to prevent C5 palsy? Does prophylactic C5 foraminotomy prevent C5 palsy following posterior cervical decompression for DCM?	Spinal Surgeons: 9 Other healthcare professionals: 0 People with DCM and their supporters: 0
T8	<b>Are there clinical and imaging factors that can help a surgeon select who should undergo surgical decompression in the setting of DCM? At what stage of the disease is surgery the preferred management strategy?</b>	What are the clear indications for surgical intervention? What are the contraindications for surgery? At what stage does it become clear that surgical intervention is the preferred/desired treatment? Which symptoms and/or signs and/or imaging features should trigger surgical treatment? Can we use neurophysiology (SSEP, CMAP) to prognosticate and help in treatment decision analysis? What are the key imaging (MRI) findings (canal stenosis, cord signal changes) that predict the need for surgical treatment of DCM?	Spinal Surgeons: 49 Other healthcare professionals: 13 People with DCM and their supporters: 4
T9	What is the efficacy and safety of anterior versus posterior surgery in patients with DCM? Are there any baseline patient or imaging characteristics that	Anterior or posterior surgical approach: which has a better outcome? Is there a preferred surgical approach: anterior vs. posterior? What factors, and their relative importance, predict whether	Spinal Surgeons: 54 Other healthcare professionals: 1 People with DCM and their supporters: 2



	should guide decision making?	<p>a patient with DCM is best treated through an anterior or posterior surgical approach?</p> <p>Are there any long term surgical outcome differences between anterior vs. posterior surgeries for moderate to severe symptomatic DCM?</p> <p>Anterior vs posterior treatment in multilevel DCM?</p>	
<b>T10</b>	<b>What is the preferred management strategy for patients with mild DCM? What is the most cost-effective management strategy in this cohort of patients? Are there clinical and imaging features that predict who should undergo surgical decompression and/or when?</b>	<p>When should patients with mild symptoms and signs of DCM (that are seen in the initial assessment) be referred for a surgical consultation?</p> <p>Are there clear indications for surgery in oligosymptomatic DCM patients?</p> <p>Is early surgery for mild myelopathy of potential clinical benefit?</p> <p>When does an individual with mild myelopathy need an operation?</p> <p>Cost analysis for early operations versus late operations in patients with newly diagnosed symptomatic cervical degenerative myelopathy.</p>	<p>Spinal Surgeons: 27</p> <p>Other healthcare professionals: 3</p> <p>People with DCM and their supporters: 1</p>
<b>T11</b>	<b>What are the most important determinants of functional outcomes, quality of life and patient satisfaction following surgical or non-operative treatment for DCM?</b>	<p>Are there factors which can predict the outcome of surgery? What are the imaging features that predict outcome? Are there specific physical findings that are linked to better or worse outcomes? Are there specific bio markers that predict outcome?</p> <p>What is a predictor for poor surgical outcome?</p> <p>What is the effect of duration of symptoms and degree of neurological deficit on prognosis after surgical management of DCM?</p> <p>Does myelomalacia predict irreversible DCM? Do patients with myelomalacia continue to deteriorate despite adequate decompression in DCM?</p> <p>What factors predict improved patient outcomes with non-surgical management?</p>	<p>Spinal Surgeons: 103</p> <p>Other healthcare professionals: 21</p> <p>People with DCM and their supporters: 8</p>
<b>T12</b>	<b>What is the ideal timing for surgical intervention?</b>	<p>What is the ideal time (or indicators) for intervention?</p> <p>When is the correct time to intervene definitively with surgery?</p> <p>Is there a timeframe beyond which intervention is futile?</p>	<p>Spinal Surgeons: 69</p> <p>Other healthcare professionals: 25</p> <p>People with DCM and their</p>

		When should we consider decompression surgery? At which point of time should DCM be treated?	supporters: 16
T13	What information should be given to patients diagnosed with DCM? What information should be given to patients undergoing surgery for DCM? How should it be delivered?	How can we most accurately advise our patients with DCM of their prognosis/expected outcome after surgery or conservative management? What role does education play in managing DCM symptoms? Do you have a pamphlet? Like Parkinson's, MS & ALS do, outside in the brochure rack? Do people with DCM feel there is sufficient information and support available? What expectations can patients have of post-op recurrence over time? What is the most common barrier to effective communication about DCM with patients? Are there educational materials that we can ask patients with DCM to watch or attend? Life self-management groups?	Spinal Surgeons: 4 Other healthcare professionals: 7 People with DCM and their supporters: 32
T14	Could the provision of standardized treatment algorithms and/or tools to estimate individualized risk and prognosis, support informed decision making and improve outcomes for DCM sufferers?	What is the best treatment? Can there be a more generalized treatment protocol developed and shared worldwide so that patients with DCM are not put through unnecessary and expensive treatments that are not effective for DCM? Is there a superior (most beneficial with regards to time and cost) treatment protocol for DCM? What treatments are available and what are the success rates?	Spinal Surgeons: 23 Other healthcare professionals: 31 People with DCM and their supporters: 22
T15	What strategies can be implemented to increase rates of fusion? What is their impact on outcomes?	In patients with multilevel cases, how could we manage the pseudoarthrosis, especially in osteoporotic patients? What patient factors best predict failure of anterior and posterior arthrodesis?	Spinal Surgeons: 4 Other healthcare professionals: 0 People with DCM and their supporters: 0

T16	What are the indications for intraoperative neurologic monitoring during DCM surgery?	Need for intra-op neuromonitoring? What is the role of IONM in surgery for DCM? How sensitive is multimodal neuromonitoring in cervical myelopathy?	Spinal Surgeons: 7 Other healthcare professionals: 0 People with DCM and their supporters: 0
T17	For multilevel DCM treated anteriorly, does the surgical strategy influence outcomes? Is there a superiority to corpectomy and fusion, or plate fixation over discectomy and fusion alone?	What are the differences in outcome between doing multilevel corpectomy vs. multilevel ACDF in multi-segment DCM? ACCF vs. multilevel ACDF vs. hybrid in multilevel DCM? What is the role of corpectomy? When is an anterior plate needed after multilevel ACDF?	Spinal Surgeons: 8 Other healthcare professionals: 0 People with DCM and their supporters: 0
T18	For DCM treated via a posterior approach, what is the most effective surgical strategy: laminectomy, laminoplasty or laminectomy with instrumented fusion? Are there clinical or imaging factors that can help a surgeon decide which technique to use?	What is more effective: laminoplasty or laminectomy and fusion for DCM? For those patients treated via a posterior approach, what are the factors that predict which patients are best treated with laminoplasty versus laminectomy and posterior instrumented fusion? Are there any real disadvantages of cervical laminectomy over laminoplasty in selected cases? What are the cases when posterior decompression only has better results than posterior decompression + arthrodesis and vice versa? When is fusion necessary after laminectomy?	Spinal Surgeons: 19 Other healthcare professionals: 0 People with DCM and their supporters: 0
T19	Does the use of motion-preserving (e.g. arthroplasty) or motion-reducing (e.g fusion and/or fixation) techniques influence outcomes for patients with DCM as compared to simple decompression alone? In what circumstances are they indicated?	Do multilevel disc replacements work in DCM? Fusion or disc prosthesis? When is disc replacement indicated in the treatment of DCM? Does fusion and decompression lead to better or worse outcome compared to fusion only? Is there a place for cervical disc replacement in patients with DCM? Is fusion better than motion preservation in cervical myelopathy surgery?	Spinal Surgeons: 38 Other healthcare professionals: 4 People with DCM and their supporters: 2

T20	Does the correction of deformity associated with DCM, or acquired secondary to intervention, improve outcomes?	<p>What percentage of spinal surgeons rule out instability prior to undertaking fusion procedures in patients with DCM?</p> <p>Deformity correction in DCM. What are the indications and outcomes?</p> <p>When is it necessary to correct cervical deformity?</p> <p>How much cervical lordosis is necessary to potentiate neurological recovery?</p>	<p>Spinal Surgeons: 14</p> <p>Other healthcare professionals: 0</p> <p>People with DCM and their supporters: 0</p>
T21	Should treatment strategies be adapted in the context of advanced age or frailty?	<p>How can we manage elderly patients? (&gt;80 years).</p> <p>Is there a maximum age for surgery?</p> <p>How do we manage DCM patients who are too old to be treated with surgery?</p>	<p>Spinal Surgeons: 11</p> <p>Other healthcare professionals: 0</p> <p>People with DCM and their supporters: 0</p>
T22	What is the role of spinal immobilization (e.g. the use of a cervical collar) before and after surgery for DCM?	<p>Is there any proof that wearing a collar post ACDF reduces risk?</p> <p>What is the utility of a collar after surgery?</p> <p>Is immobilization of any benefit in terms of improving symptoms?</p> <p>Which kind of collar is the best?</p>	<p>Spinal Surgeons: 11</p> <p>Other healthcare professionals: 5</p> <p>People with DCM and their supporters: 6</p>
T23	<p>What is the optimal treatment strategy for myelopathy in the context of multi-level degenerative stenosis on MRI?</p> <p>Are there clinical factors that can help select the level(s) requiring treatment? What extent of decompression is adequate?</p>	<p>How much decompression is necessary via laminoplasty?</p> <p>Are surgeons unnecessarily creating larger canals with no clinical benefit?</p> <p>For patients undergoing laminectomy and instrumentation, what is the recommended lower level of instrumentation? (C7,T1 or T2)</p> <p>Does focal (ACDF) decompression versus wider (corpectomy or posterior laminectomy) decompression have improved outcome?</p> <p>Is there a correlation between extent of decompression and neurologic recovery?</p> <p>How much decompression is enough decompression?</p>	<p>Spinal Surgeons: 19</p> <p>Other healthcare professionals: 1</p> <p>People with DCM and their supporters: 1</p>
T24	Is there a role for minimally invasive techniques in DCM?	<p>What is the role of minimally invasive procedures in DCM?</p>	<p>Spinal Surgeons: 6</p> <p>Other healthcare professionals: 1</p> <p>People with DCM and their supporters: 0</p>

T25	<b>What is the role of rehabilitation following surgery for DCM? Can a structured postoperative rehabilitation improve outcome following surgery for DCM? What are the most effective strategies?</b>	<p>Can physiotherapy improve function after surgical intervention?</p> <p>Does a structured post-surgical rehabilitation plan improve outcomes?</p> <p>What are the most effective physical modalities and exercise programs in the management of DCM after surgical treatment?</p> <p>Which patients benefit from postoperative rehabilitation?</p> <p>What is the optimum rehabilitation programme (frequency and length) for patients with DCM post operatively?</p>	<p>Spinal Surgeons: 13</p> <p>Other healthcare professionals: 10</p> <p>People with DCM and their supporters: 4</p>
T26	<b>What are the most effective therapies for treating pain in patients with DCM?</b>	<p>What are the most effective medication regimes to manage pain?</p> <p>What is the best pharmacological management for chronic pain associated with DCM?</p> <p>What can be done to minimise pain?</p> <p>Are opioids helpful for DCM patients with severe pain?</p> <p>What non-surgical treatment are advised for the treatment of neck pain?</p> <p>How successful is the use of facet joint injections for pain management?</p>	<p>Spinal Surgeons: 12</p> <p>Other healthcare professionals: 12</p> <p>People with DCM and their supporters: 47</p>
T27	<b>What are the most effective therapies for treatment of specific symptoms of DCM and the prevention of associated complications in DCM, including spasticity, imbalance and sensory, bladder or bowel dysfunction?</b>	<p>What are the therapeutic solutions regarding urinary function?</p> <p>Which therapy interventions are more helpful with gait balance?</p> <p>What are best treatments for residual symptoms after a successful decompression? Specifically, I have a few patients with uncontrollable muscle spasms following decompression.</p> <p>How can we improve care of spasticity?</p> <p>Does Botox have a role in improving spasticity after decompressive surgery?</p> <p>Prevention of bedsores, chest infections, spasticity, contractures, muscle wasting and malnutrition.</p>	<p>Spinal Surgeons: 22</p> <p>Other healthcare professionals: 7</p> <p>People with DCM and their supporters: 13</p>

T28	<b>Can novel therapies, including stem-cell, gene, pharmacological and neuroprotective therapies, be identified to improve the health and wellbeing of people living with DCM and slow down disease progression?</b>	<p>What novel treatments are currently in the works for DCM? Are these likely to replace the gold standard treatments? What treatments from the spinal cord injury literature are effective in patients with DCM? What is the future of DCM treatment? Is preventive treatment feasible? Is stem cell therapy ever going to be introduced to counteract the damage done by this type of degeneration? Which spinal cord pathways are preserved, and what is their capacity to restore function? Can electrical stimulation of the spinal cord/brain be used to restore function? What is the role of THC and CBD in the treatment of DCM? Can pharmacological interventions provoke reinnervation if motor function is lost?</p>	<p>Spinal Surgeons: 59 Other healthcare professionals: 15 People with DCM and their supporters: 29</p>
T29	What is the impact of surgical expertise on the management strategies used in DCM, and outcome after surgery? Is it influenced by training specialty or case load for example?	<p>Is DCM more commonly managed by orthopedics or neurosurgery? Is there any discrepancy in the treatment received and the long-term outcomes between the two groups? Patient reported outcomes after surgical treatment by orthopedic versus neurosurgery?</p>	<p>Spinal Surgeons: 3 Other healthcare professionals: 2 People with DCM and their supporters: 0</p>
Long-term management and follow-up			
LT1	What is the impact of surgical and non-operative treatments on long-term function, quality of life, spinal mechanics and life expectancy?	<p>When is the maximum improvement seen in postoperative patients? What are the long-term outcomes? How long after adequate decompression for DCM can recovery or improvements still be observed? What is the 5 year/10-year prognosis after surgical intervention compared to non-operative treatment? What is the long-term impact on quality of life in patients with surgical management versus conservative management? What are the long-term outcomes after decompressive surgery and does early and aggressive physiotherapy improve outcomes? Do DCM patients have a shorter life expectancy?</p>	<p>Spinal Surgeons: 47 Other healthcare professionals: 9 People with DCM and their supporters: 18</p>

LT2	What are the important clinical, imaging and surgical predictors of long-term outcomes?	What factors determine the long-term outcome in DCM? Do long term outcomes differ according to demographics? Which post-operative radiologic findings (canal ratio, optimal sagittal balance) correlate with improved patient outcome measures?	Spinal Surgeons: 7 Other healthcare professionals: 0 People with DCM and their supporters: 0
LT3	<b>What is the optimal follow-up for patients managed conservatively and surgically? What is the appropriate follow-up for patients with DCM or those with spinal cord compression but no myelopathy symptoms? Who should be responsible for following these patients? How often should new imaging be obtained? How should changes in neurologic status be documented or addressed?</b>	Which is the best way to follow patients surgically treated for DCM? How frequently should patients be monitored? What is the appropriate follow-up/surveillance for patients with spinal cord compression but no myelopathy symptoms or mild myelopathy symptoms? How can primary care be involved in this care? Should adjacent disc levels be monitored with MRI after surgical treatment of DCM? How often should the MRI be performed? What are the best time frames to monitor non-operative patients? What are the imaging recommendations for monitoring DCM?	Spinal Surgeons: 58 Other healthcare professionals: 29 People with DCM and their supporters: 26
LT4	<b>How can the severity of DCM be evaluated? What assessment tools can be used to evaluate functional impairment, disability and quality of life in patients with DCM? What instruments, tools or methods can be used or developed to monitor DCM patients for disease progression or improvement either before or after surgical treatment? Is there a role for smart-technology?</b>	What are the best PROMs for assessing DCM? What are the best outcome measures for this population? What is the best method of monitoring a patient's response to treatment? What is the best method to monitor disease progression? What is the most reliable patient reported outcome measure in the management of DCM? What is the best method of assessing the neurological recovery after surgical decompression in DCM? How can we develop an objective measure of severity of myelopathy?	Spinal Surgeons: 36 Other healthcare professionals: 18 People with DCM and their supporters: 9

LT5	<b>What is the incidence of adjacent segment degeneration following surgery for the treatment of DCM? Are there strategies that can be implemented to reduce the incidence of adjacent segment degeneration?</b>	What is the incidence of repeat surgery because of ASD? Are patients treated for DCM at a higher risk for recurrence of myelopathy secondary to adjacent segment degeneration with stenosis?	Spinal Surgeons: 8 Other healthcare professionals: 3 People with DCM and their supporters: 0
LT6	What is the incidence of residual spinal cord compression or damage in patients treated surgically for DCM? How should this be managed?	How many patients still have MRI evidence of persistent cord compression following surgery (particularly relevant in the population of patients with established myelopathy who are unlikely to improve significantly postop). Is there a population who are not adequately decompressed? (which may be contributing to their poor outcome).	Spinal Surgeons: 0 Other healthcare professionals: 1 People with DCM and their supporters: 0
LT7	What is the risk and rate of disease progression in patients treated for DCM? What is the rate of reoperation?	How can we minimise the risk of recurrence? (Neuroprotection) Risk of recurrence with different types of treatment? How many need secondary spinal procedures at other levels? Can symptoms return or aggravate after successful operative treatment?	Spinal Surgeons: 17 Other healthcare professionals: 4 People with DCM and their supporters: 7
LT8	<b>What lifestyle modifications (such as physical activity or exercise) are required or should be recommended to patients with DCM to support recovery, avoid deterioration and improve quality of life?</b>	What job changes should be advised to patients with DCM? Is there any diet that helps with DCM? When should activity restrictions be placed on the patient? Are there lifestyle factors than can accelerate/slow down the progression of DCM? Is there a chance for return to sport after cervical myelopathy surgery? Which activities of daily living should be restricted? What kind of sport is possible?	Spinal Surgeons: 35 Other healthcare professionals: 24 People with DCM and their supporters: 29
LT9	What aids or assistive technology is available, or can be developed, to help patients with DCM with their activities of daily living?	What level of equipment is needed to improve quality of life? What are the most useful mobility aids? What assistive technology is being developed to support sufferers?	Spinal Surgeons: 10 Other healthcare professionals: 2 People with DCM and their supporters: 7



LT10	What is the impact of DCM on mental health? How can patients be best supported from this perspective?	How does cognitive behavioral therapy help patients cope with their condition? Is there a link between DCM and depression rates? What are the long-term implications on mental health in patients with DCM?	Spinal Surgeons: 16 Other healthcare professionals: 6 People with DCM and their supporters: 12
LT11	What is the impact of DCM, and its specific complications, on long-term quality of life?	How has your DCM affected your lifestyle? What activities have you had to limit or give up entirely? Has it affected your ability to make a living? What are common functional limitations associated with DCM? Which function or physical ability is the most important to preserve in DCM patients when looking at quality of life? What is the effect on ADLs? How do we optimize quality of life? Which of the lasting impairments matter most to people who are affected?	Spinal Surgeons: 32 Other healthcare professionals: 9 People with DCM and their supporters: 15
LT12	What resources, support and treatments are available in the community to support patients living with DCM?	What types of long-term care resources are most beneficial to patients and their family and caregivers? (individualized education/ programs, community-based programs, etc) Why is there no standardised aftercare and support for the patient considering this is such a life altering and disabling condition? Is there an online support group for DCM sufferers? What are the best disability aids to make life easier - aids for the home. What type of care can I be offered?	Spinal Surgeons: 8 Other healthcare professionals: 11 People with DCM and their supporters: 26
LT13	What is the rate and risk of falls in patients with DCM? What measures can be implemented to prevent falls?	Should all patients be offered falls prevention interventions? Does regular physiotherapy reduce falls? Frequency of falls following surgical decompression?	Spinal Surgeons: 2 Other healthcare professionals: 7 People with DCM and their supporters: 2
LT14	<b>What is the socio-economic impact of DCM? (The financial impact of living with DCM to the sufferer, their supporters and society as a whole)</b>	How often does the disability caused by DCM result in loss of work? What are the health economic implications of DCM? What is the health economic impact of surgical management of DCM? What's the cost per QALY gained?	Spinal Surgeons: 13 Other healthcare professionals: 4 People with DCM and their supporters: 2

		What are the costs of rehabilitation in relation to DCM?	
<b>LT15</b>	<b>What treatments should be implemented following surgery and continued in the long-term? Is there a role for extended rehabilitation and exercise programs? What should be its frequency, content and duration, and whom should it be coordinated by?</b>	<p>What treatments are recommended after surgery for DCM?</p> <p>How well are physiotherapists trained to deal with post-surgery issues?</p> <p>What is the role of exercise programs in long term?</p> <p>What physiotherapy and GP management is required?</p> <p>What is the long term effect of rehabilitation? Clinical prediction rule for physical therapy?</p> <p>What is the best way to regain strength after surgery?</p>	<p>Spinal Surgeons: 19</p> <p>Other healthcare professionals: 12</p> <p>People with DCM and their supporters: 15</p>
O1	What are the national or regional variations in DCM care and management? What are implications of resource scarcity on access to treatment and outcomes?	<p>Does patient location determine positive or negative outcomes as not all health boards have immediate access to the correct care path?</p> <p>In countries where MRI is not available, what is the most effective way for primary care doctors and specialists to screen and manage DCM?</p> <p>What is the most effective, practical, and applicable way of monitoring and follow up for patients with DCM who live in resource limited countries/ developing countries?</p>	<p>Spinal Surgeons: 3</p> <p>Other healthcare professionals: 4</p> <p>People with DCM and their supporters: 2</p>
O2	What is the impact of DCM on the carers and supporters of those living with and helping people with DCM?	<p>What strategies are available to reduce burnout for caregivers?</p> <p>What are the greatest challenges faced by caregivers for those with DCM?</p>	<p>Spinal Surgeons: 4</p> <p>Other healthcare professionals: 2</p> <p>People with DCM and their supporters: 1</p>
O3	How can we promote interdisciplinary research in DCM?	How to promote inter-disciplinary research for DCM?	<p>Spinal Surgeons: 1</p> <p>Other healthcare professionals: 0</p> <p>People with DCM and their supporters: 0</p>
O4	Is DCM related to any other disease or disease processes? What is their individual impact and can their optimisation improve the health and well-being of people with DCM?	<p>Is there a relation between DCM and other neurodegenerative disorders like Parkinson's disease?</p> <p>What other comorbidities are common?</p> <p>What co-existing diseases are typically present and at what rate?</p>	<p>Spinal Surgeons: 8</p> <p>Other healthcare professionals: 1</p> <p>People with DCM and their supporters: 3</p>

O5	What is the perspective of DCM from the people with DCM; its symptoms and disability, and the prospect and experience of treatment? What are the factors that influence this?	What are the treatment priorities of persons with DCM? What are patients' perceptions at the time of diagnosis and subsequently? What do people who have DCM say about what helps them the most? What are the reasons according to patients of ineffective therapy for mild, moderate and severe DCM?	Spinal Surgeons: 5 Other healthcare professionals: 5 People with DCM and their supporters: 1
O6	What is the incidence of coexistent stenosis at other levels of the spine? When should it be investigated and how should it be managed?	How common is simultaneous lumbar spinal stenosis and DCM? Should they be treated in the same surgery? When a patient has DCM, what are the chances that they will also have degenerative disease in the lumbar spine? Does presence of concomitant degenerative Lumbar canal stenosis affect the course?	Spinal Surgeons: 10 Other healthcare professionals: 0 People with DCM and their supporters: 0
O7	People with DCM can report a transient deterioration in their symptoms. What is the aetiology of this? Does it represent disease progression? How should it be monitored and/or managed?	Why does myelopathy flare up? Why can you have several days/weeks without pain followed by days/weeks with pain?	Spinal Surgeons: 0 Other healthcare professionals: 0 People with DCM and their supporters: 4
O8	What changes occur in the spinal cord following decompressive surgery?	How does the spinal cord neurophysiology change following treatment for CSM? Repair processes of the spinal cord after surgery?	Spinal Surgeons: 5 Other healthcare professionals: 1 People with DCM and their supporters: 0
O9	What is the optimal strategy for management of weight gain in people with DCM?	Need meal plans to manage weight while still getting nutrients because of low exercise tolerance. I've gained almost 100 lbs since fusion. 60 lbs as a side effect of gabapentin. (10 lbs each time I was put on it for nerve pain caused by injuries.)	Spinal Surgeons: 0 Other healthcare professionals: 0 People with DCM and their supporters: 2
O10	What are the barriers for accessing social/welfare support for people with DCM, and how can these be overcome?	Social support team or organization. Occupation hazards-compensation for post-retirement onset of disease	Spinal Surgeons: 1 Other healthcare professionals: 0 People with DCM and their supporters: 0



Supplementary Table 2. A Summary of the Systematic Reviews and Clinical Practice Guidelines Identified for Each Summary Question

	Why is there uncertainty?	Systematic reviews that need updating or extending?	Evidence from other reliable sources?
D1	No formal diagnostic criteria published for DCM. No systematic reviews or clinical practice guidelines were identified.	None	Amenta et al (2014): scoping review that summarized how many studies defined DCM in their article and what clinical characteristics were used to make the diagnosis.
D2	Primary studies have evaluated the most common signs and symptoms in DCM patients. However, no systematic reviews, scoping reviews or clinical practice guidelines were identified.	None	N/A
D3	Primary studies have evaluated the sensitivity and specificity of signs and symptoms in DCM patients. However, only a single systematic review was located that evaluated the utility of the Hoffmann sign. No other systematic reviews, scoping reviews or clinical practice guidelines were identified.	Fogarty et al (2018). A Systematic Review of the Utility of the Hoffmann Sign for the Diagnosis of Degenerative Cervical Myelopathy.	N/A
D4	Two systematic reviews were identified that explored the utility of advanced imaging modalities in the workup of various neurological conditions and degenerative cervical myelopathy. Furthermore, systematic reviews were located that discussed the role of diffusion tensor imaging in the management of patients with degenerative cervical myelopathy. No clinical practice guidelines were identified.	Martin et al (2015). Translating state-of-the-art spinal cord MRI techniques to clinical use: A systematic review of clinical studies utilizing DTI, MT, MWF, MRS, and fMRI. Ellingson et al (2015). Advances in MR imaging for cervical spondylotic myelopathy. Guan et al (2015). Diffusion tensor imaging studies of cervical spondylotic myelopathy: a systematic review and meta-analysis Kolcun et al (2017). The role of dynamic	N/A

		magnetic resonance imaging in cervical spondylotic myelopathy.	
D5, D7, D8, D9, D10, D13, D14, D18, D21	No systematic reviews, scoping reviews or guidelines were identified.	None	N/A
D6	Current systematic reviews are limited with respect to imaging features and modalities assessed. No clinical practice guidelines were identified.	Rindler et al (2017). Spinal Diffusion Tensor Imaging in Evaluation of Preoperative and Postoperative Severity of Cervical Spondylotic Myelopathy: Systematic Review of Literature. Wei et al (2019). Does three-grade classification of T2-weighted increased signal intensity reflect the severity of myelopathy and surgical outcomes in patients with cervical compressive myelopathy? A systematic review and meta-analysis.	N/A
D11	No systematic reviews, scoping reviews or clinical practice guidelines were identified.	N/A	Kim et al (2013). Differential diagnosis for cervical spondylotic myelopathy: literature review.
D12	A systematic review was identified that evaluated the diagnostic accuracy of clinical tests used to screen patients with degenerative cervical myelopathy. No clinical practice guidelines were identified.	Cook et al (2011). Clinical tests for screening and diagnosis of cervical spine myelopathy: a systematic review	N/A
D15	Multiple systematic reviews were identified that addressed the natural history of degenerative cervical myelopathy. The level of evidence on this topic, however, is rated as low to moderate.	Matz et al (2009). The natural history of cervical spondylotic myelopathy. Karadimas et al (2013). Pathophysiology and natural history of cervical spondylotic myelopathy. Wilson et al (2013). Frequency, timing, and predictors of neurological dysfunction in the nonmyelopathic patient with cervical spinal cord compression,	Fehlings MG et al (2017). A Clinical Practice Guideline for the Management of Patients With Degenerative Cervical Myelopathy: Recommendations for Patients With Mild, Moderate, and Severe Disease and Nonmyelopathic Patients With Evidence of Cord Compression.

		canal stenosis, and/or ossification of the posterior longitudinal ligament. Tetreault et al (2017). The Natural History of Degenerative Cervical Myelopathy and the Rate of Hospitalization Following Spinal Cord Injury: An Updated Systematic Review.	
D16	No systematic reviews, scoping reviews or guidelines were identified that specifically calculated the risk of spinal cord injury using patient and/or imaging factors.	None	N/A
D17	A systematic review was identified that evaluated the frequency of myelopathy progression and important predictors of myelopathy development in nonmyelopathic patients with cervical spinal cord compression or canal stenosis. The level of evidence on this topic, however, is rated as insufficient to moderate. No clinical practice guidelines were identified.	Wilson et al (2013). Frequency, timing, and predictors of neurological dysfunction in the nonmyelopathic patient with cervical spinal cord compression, canal stenosis, and/or ossification of the posterior longitudinal ligament.	N/A
D19	Two systematic reviews were identified that assessed the relationship between various genes and the development of degenerative cervical myelopathy. The level of evidence on this topic, however, is rated as low. No systematic reviews, scoping reviews or clinical practice guidelines were identified that explored the association between genetics and disease progression.	Wilson JR et al (2013). Genetics and heritability of cervical spondylotic myelopathy and ossification of the posterior longitudinal ligament: results of a systematic review. Pope et al (2020). Genetics of degenerative cervical myelopathy: a systematic review and meta-analysis of candidate gene studies.	N/A
D20	A systematic review was identified that evaluated important risk factors for the development of cervical spondylotic myelopathy. The level of evidence on this topic, however, is rated as very low. No clinical practice guidelines were identified.	Singh et al (2012). Risk factors for development of cervical spondylotic myelopathy: results of a systematic review.	N/A

D22	No systematic reviews, scoping reviews or guidelines were identified.		Karadimas et al (2013). Pathophysiology and natural history of cervical spondylotic myelopathy. Baptiste and Fehlings (2006). Pathophysiology of cervical myelopathy. Karadimas et al (2015). Pathobiology of cervical spondylotic myelopathy.
T1	Systematic reviews were identified that evaluated outcomes following structured nonoperative treatment in patients with degenerative cervical myelopathy. The level of evidence on this topic, however, is rated as low to very low. A clinical practice guideline was identified that outlined the optimal management of patients with mild, moderate and severe myelopathy.	Rhee et al (2013). Nonoperative management of cervical myelopathy: a systematic review. Tetreault et al (2017). Change in Function, Pain, and Quality of Life Following Structured Nonoperative Treatment in Patients With Degenerative Cervical Myelopathy: A Systematic Review. Rhee et al (2017). Nonoperative Versus Operative Management for the Treatment Degenerative Cervical Myelopathy: An Updated Systematic Review.	Fehlings et al (2017). A Clinical Practice Guideline for the Management of Patients With Degenerative Cervical Myelopathy: Recommendations for Patients With Mild, Moderate, and Severe Disease and Nonmyelopathic Patients With Evidence of Cord Compression.
T2	A systematic review was identified that evaluated whether nonoperative treatment outcomes vary depending on treatment type. The level of evidence on this topic, however is rated as very low. There is limited evidence on the efficacy and safety of different nonoperative treatment modalities, the optimal duration of treatment and the role of allied health professionals in the management of degenerative cervical myelopathy. No clinical practice guidelines were identified.	Tetreault et al (2017). Change in Function, Pain, and Quality of Life Following Structured Nonoperative Treatment in Patients With Degenerative Cervical Myelopathy: A Systematic Review.	N/A
T3	No systematic review was identified that	None	Fehlings et al (2017). A Clinical



	summarized the role of surgery in nonmyelopathic patients with evidence of spinal cord compression or canal stenosis. A clinical practice guideline was identified that provided weak recommendations on the optimal management of this patient population.		Practice Guideline for the Management of Patients With Degenerative Cervical Myelopathy: Recommendations for Patients With Mild, Moderate, and Severe Disease and Nonmyelopathic Patients With Evidence of Cord Compression.
T4	No uncertainty. A systematic review with meta-analysis and a clinical practice guideline were identified that evaluated the efficacy of surgical interventions for degenerative cervical myelopathy.	Fehlings et al (2017). Change in functional impairment, disability and quality of life following operative treatment for degenerative cervical myelopathy: a systematic review and meta-analysis.	Fehlings et al (2017). A Clinical Practice Guideline for the Management of Patients With Degenerative Cervical Myelopathy: Recommendations for Patients With Mild, Moderate, and Severe Disease and Nonmyelopathic Patients With Evidence of Cord Compression.
T5, T8, T12, T13, T14, T15, T20, T21, T24, T26, T27, T28, T29	No systematic reviews, scoping reviews or clinical practice guidelines were identified.	None	N/A
T6	Multiple systematic reviews were identified that summarized the rates of various complications following surgery for degenerative cervical myelopathy. Not all surgical complications, however, were included in these reviews. Furthermore, no standardised system for reporting complications has been developed, preventing the accurate assessment of the safety of surgery. No clinical practice guidelines were identified	Li and Dai (2011). A systematic review of complications in cervical spine surgery for ossification of the posterior longitudinal ligament. Tetreault et al (2016). A systematic review of clinical and surgical predictors of complications following surgery for degenerative cervical myelopathy Fehlings et al (2017). Change in functional impairment, disability and quality of life following operative treatment for degenerative cervical myelopathy: a systematic review and meta-analysis.	N/A

		Shriver et al (2017). Dysphagia rates after anterior cervical disketomy and fusion: a systematic review and meta-analysis	
T7	A systematic review was identified that evaluated factors associated with C5 nerve root palsy. Further studies are required to determine the etiology of C5 palsy and develop strategies to prevent its occurrence.	Jack et al (2019). Factors Associated With C5 Palsy Following Cervical Spine Surgery: A Systematic Review.	N/A
T9	No uncertainty. Multiple systematic reviews were identified that summarized the efficacy and safety of anterior versus posterior surgery. Furthermore, a clinical trial is currently underway to assess the efficacy of anterior versus posterior surgery in patients who could be safely treated with either approach.	Liu et al (2011). Anterior versus posterior surgery for multilevel cervical myelopathy, which one is better? A systematic review Huang et al (2016). Anterior corpectomy versus posterior laminoplasty for the treatment of multilevel cervical myelopathy: A meta-analysis Zhu et al (2013). Anterior approach versus posterior approach for the treatment of multilevel cervical spondylotic myelopathy: a systemic review and meta-analysis. Lawrence et al (2013). Anterior versus posterior approach for treatment of cervical spondylotic myelopathy: a systematic review. Liu et al (2014). Anterior decompression and fusion versus posterior laminoplasty for multilevel cervical compressive myelopathy. Liu et al (2014). Anterior corpectomy versus posterior laminoplasty for multilevel cervical myelopathy: a systematic review and meta-analysis. Luo et al (2015). Comparison of anterior approach versus posterior approach for	N/A

		<p>the treatment of multilevel cervical spondylotic myelopathy.</p> <p>Jiang et al (2015). Comparison of Anterior Decompression and Fusion With Posterior Laminoplasty for Multilevel Cervical Compressive Myelopathy: A Systematic Review and Meta-Analysis.</p> <p>Feng et al (2016). Anterior versus posterior approach for the treatment of cervical compressive myelopathy due to ossification of the posterior longitudinal ligament: A systematic review and meta-analysis.</p> <p>Qin et al (2018). Anterior cervical corpectomy and fusion versus posterior laminoplasty for the treatment of oppressive myelopathy owing to cervical ossification of posterior longitudinal ligament: a meta-analysis.</p> <p>Xu et al (2019). Is anterior decompression and fusion superior to laminoplasty for cervical myelopathy due to ossification of posterior longitudinal ligament? A systematic review and meta-analysis.</p> <p>Kim DH et al (2019). The Clinical Implications and Complications of Anterior Versus Posterior Surgery for Multilevel Cervical Ossification of the Posterior Longitudinal Ligament; An Updated Systematic Review and Meta Analysis.</p> <p>Zhang et al (2019). Anterior versus posterior approach for the therapy of multilevel cervical spondylotic myelopathy: a meta-analysis and</p>	
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		<p>systematic review. Chen et al (2019). Anterior decompression and fusion versus laminoplasty for cervical myelopathy due to ossification of posterior longitudinal ligament: A meta-analysis.</p>	
T10	<p>Two systematic reviews were identified that evaluated the efficacy of surgical and nonoperative treatment in patients with degenerative cervical myelopathy; however, these reviews did not differentiate among patients with mild, moderate or severe disease. A clinical practice guideline was identified that provided recommendations for the management of patients with mild degenerative cervical myelopathy. The strength of the recommendations was weak and was based on very low to low level of evidence.</p>	<p>Fehlings MG et al (2017). Change in functional impairment, disability and quality of life following operative treatment for degenerative cervical myelopathy: a systematic review and meta-analysis. Tetreault et al (2017). Change in Function, Pain, and Quality of Life Following Structured Nonoperative Treatment in Patients With Degenerative Cervical Myelopathy: A Systematic Review.</p>	<p>Fehlings et al (2017). A Clinical Practice Guideline for the Management of Patients With Degenerative Cervical Myelopathy: Recommendations for Patients With Mild, Moderate, and Severe Disease and Nonmyelopathic Patients With Evidence of Cord Compression.</p>
T11	<p>Multiple systematic reviews were identified that evaluated important predictors of surgical outcomes, No clinical practice guidelines were identified.</p>	<p>Holly L et al (2009). Clinical prognostic indicators of surgical outcome in cervical spondylotic myelopathy. Yoon ST et al (2013). Predictive factors affecting outcome after cervical laminoplasty. Tetreault et al (2015). Predictors of outcome in patients with degenerative cervical spondylotic myelopathy undergoing surgical treatment: results of a systematic review. Nakashima et al (2017). Prediction of Outcome Following Surgical Treatment of Cervical Myelopathy Based on Features of Ossification of the Posterior Longitudinal Ligament: A Systematic</p>	N/A

		Review. Tetreault et al (2018). Significant Predictors of Outcome Following Surgery for the Treatment of Degenerative Cervical Myelopathy: A Systematic Review of the Literature.	
T16	A systematic review was identified that evaluated the role of intraoperative monitoring in patients undergoing surgery for cervical myelopathy. This review did not rate the quality of evidence of the individual studies or the overall body of evidence. No clinical practice guidelines were identified.	Thirumala et al (2016). Value of intraoperative neurophysiological monitoring to reduce neurological complications in patients undergoing anterior cervical spine procedures for cervical spondylotic myelopathy.	N/A
T17	Multiple systematic reviews were identified that evaluated the efficacy and safety of various anterior surgical techniques in the management of multilevel degenerative cervical myelopathy. No clinical practice guidelines were identified.	Shamji et al (2013). Comparison of anterior surgical options for the treatment of multilevel cervical spondylotic myelopathy: a systematic review Wen et al (2015). Anterior cervical discectomy and fusion versus anterior cervical corpectomy and fusion in the treatment of multilevel cervical spondylotic myelopathy: systematic review and a meta-analysis. Xiao et al (2015). Anterior cervical discectomy versus corpectomy for multilevel cervical spondylotic myelopathy: a meta-analysis. Wang et al (2016). Anterior cervical discectomy and fusion versus anterior cervical corpectomy and fusion in multilevel cervical spondylotic myelopathy: A meta-analysis.	N/A
T18	Multiple systematic reviews were identified that compared surgical outcomes following laminoplasty versus laminectomy with fusion. In contrast, no systematic review	Yoon et al (2013). Outcomes after laminoplasty compared with laminectomy and fusion in patients with cervical myelopathy: a systematic review.	N/A

	<p>was identified that compared outcomes following laminectomy without fusion to laminectomy alone. No clinical practice guidelines were identified.</p>	<p>Lao et al (2013). Laminoplasty versus laminectomy for multi-level cervical spondylotic myelopathy: a systematic review of the literature.</p> <p>Yuan et al (2014). Laminoplasty versus skip laminectomy for the treatment of multilevel cervical spondylotic myelopathy: a systematic review.</p> <p>Lee et al (2015). Laminoplasty versus laminectomy and fusion for multilevel cervical myelopathy: a meta-analysis of clinical and radiological outcomes.</p> <p>Bartels RH et al (2015). Laminoplasty and laminectomy for cervical spondylotic myelopathy: a systematic review.</p> <p>Singhatanadgige et al (2016). Outcomes following Laminoplasty or Laminectomy and Fusion in Patients with Myelopathy Caused by Ossification of the Posterior Longitudinal Ligament: A Systematic Review.</p> <p>Mehdi et al (2016). Comparison of clinical outcomes in decompression and fusion versus decompression only in patients with ossification of the posterior longitudinal ligament: a meta-analysis.</p> <p>Liu et al (2016). Laminoplasty versus laminectomy and fusion for multilevel cervical compressive myelopathy: A meta-analysis.</p> <p>Lee CH et al (2017). Are There Differences in the Progression of Ossification of the Posterior Longitudinal Ligament Following Laminoplasty Versus Fusion?: A Meta-Analysis</p>	
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T19	Multiple systematic reviews were identified that assessed surgical outcomes of motion-preserving versus motion-reducing techniques. No clinical practice guidelines were identified.	<p>Boselie et al (2013). Arthroplasty versus fusion in single-level cervical degenerative disc disease: a Cochrane review. Review and Quantitative Analysis.</p> <p>Joaquim and Riew (2017). Multilevel cervical arthroplasty: current evidence. A systematic review.</p> <p>Katsuura et al (2019). Sagittal Reconstruction and Clinical Outcome Using Traditional ACDF, Versus Stand-alone ACDF Versus TDR: A Systematic</p> <p>Badhiwala et al (2020). Cervical disc arthroplasty versus anterior cervical discectomy and fusion: a meta-analysis of rates of adjacent-level surgery to 7-</p>	N/A

		year follow-up.	
T22	No systematic reviews were identified that evaluated the impact of spinal immobilization before and after spine surgery for degenerative cervical myelopathy. No clinical practice guidelines were identified.	None	Zhu et al (2018). Efficacy, safety, and economics of bracing after spine surgery: a systematic review of the literature.
T23	Multiple systematic reviews were identified that compared the efficacy and safety of various surgical techniques for the treatment of multilevel disease (e.g. anterior decompression and fusion versus laminoplasty; anterior corpectomy versus laminoplasty; laminectomy with fusion versus laminoplasty; anterior versus posterior). No clinical practice guidelines were identified that outlined the optimal treatment strategy for multilevel degenerative myelopathy.	Cunningham et al (2010). Systematic review of cohort studies comparing surgical treatments for cervical spondylotic myelopathy.	N/A
T25	A systematic review was identified that discussed the role of postoperative physiotherapy in degenerative cervical myelopathy. The level of evidence on this topic, however, is insufficient. No other systematic reviews, scoping reviews or clinical practice guidelines were identified.	Badran et al (2018). Is there a role for postoperative physiotherapy in degenerative cervical myelopathy? A systematic review.	N/A
L1	Systematic reviews were identified that assessed the impact of surgical and nonoperative treatments on function and quality of life. These reviews, however, have variable lengths of follow-up. No systematic reviews or clinical practice guidelines were identified that evaluated the impact of surgical and nonoperative treatments on spinal mechanics or life expectancy.	Rhee et al (2013). Nonoperative management of cervical myelopathy: a systematic review. Fehlings et al (2017). Change in Functional Impairment, Disability, and Quality of Life Following Operative Treatment for Degenerative Cervical Myelopathy: A Systematic Review and Meta-Analysis. Tetreault et al (2017). Change in	N/A



		<p>Function, Pain, and Quality of Life Following Structured Nonoperative Treatment in Patients With Degenerative Cervical Myelopathy: A Systematic Review.</p> <p>Rhee et al (2017). Nonoperative Versus Operative Management for the Treatment Degenerative Cervical Myelopathy: An Updated Systematic Review.</p>	
L2	<p>Multiple systematic reviews were identified that evaluated important predictors of surgical outcomes; however, none of these distinguished between short and long-term follow-up. No clinical practice guidelines were identified.</p>	<p>Holly L et al (2009). Clinical prognostic indicators of surgical outcome in cervical spondylotic myelopathy.</p> <p>Yoon ST et al (2013). Predictive factors affecting outcome after cervical laminoplasty.</p> <p>Tetreault et al (2015). Predictors of outcome in patients with degenerative cervical spondylotic myelopathy undergoing surgical treatment: results of a systematic review.</p> <p>Nakashima et al (2017). Prediction of Outcome Following Surgical Treatment of Cervical Myelopathy Based on Features of Ossification of the Posterior Longitudinal Ligament: A Systematic Review.</p> <p>Tetreault et al (2018). Significant Predictors of Outcome Following Surgery for the Treatment of Degenerative Cervical Myelopathy: A Systematic Review of the Literature.</p>	N/A
L3, L6, L7, L8, L9, L10, L11, L12, L13,	<p>No systematic reviews, scoping reviews or clinical practice guidelines were identified.</p>	None	N/A

L14, L15			
L4	A systematic review was identified that summarized the assessment tools used to evaluate patients with cervical spondylotic myelopathy. This review did not rate the quality of evidence of the individual studies or the overall body of evidence. No clinical practice guidelines were identified.	Singh et al (2015). A summary of assessment tools for patients suffering from cervical spondylotic myelopathy: a systematic review on validity, reliability and responsiveness. Wang et al (2019). Is a Reliable Patient-Oriented Outcome Evaluation Tool in Surgically Treated Degenerative Cervical Myelopathy Cases: A Systematic Review and Meta-Analysis.	Kalsi-Ryan S et al (2013). Ancillary outcome measures for assessment of individuals with cervical spondylotic myelopathy.
L5	Multiple systematic reviews were identified that evaluated rates of adjacent segment degeneration following cervical arthroplasty versus anterior decompression and fusion and assessed important predictors of adjacent segment pathology. No clinical practice guidelines were identified.	Lawrence BD et al (2012). Predicting the risk of adjacent segment pathology in the cervical spine: a systematic review. Harrod CC et al (2012). Adjacent segment pathology following cervical motion-sparing procedures or devices compared with fusion surgery: a systematic review. Fourney et al (2012). Treatment of cervical adjacent segment pathology: a systematic review. Luo J et al (2015). Incidence of adjacent segment degeneration in cervical disc arthroplasty versus anterior cervical decompression and fusion meta-analysis of prospective studies. Shriver MF et al (2016). Adjacent segment degeneration and disease following cervical arthroplasty: a systematic review and meta-analysis.	N/A
O1-O10	No systematic reviews, scoping reviews or clinical practice guidelines were identified	None	N/A