

Canadian Spinal Cord Injury Best Practice (Can-SCIP) Guideline

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Acknowledgement

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Can-SCIP Adaptation & Development Cycle



Appraisal of Guidelines for REsearch & Evaluation II (AGREE) Instrument Domains



AGREE II Survey

- Each eligible CPG was **evaluated by 2-4 appraisers** individually
- Each item is answered using a **7-point Likert scale** with anchors ranging from “Strongly Disagree” to “Strongly Agree”
- Each CPG received a scaled **standardized score ranging from 1-100** (100 representing a strong score)

* **SCOPE AND PURPOSE:** The health question(s) covered by the guideline is (are) specifically described.

A detailed description of the health questions covered by the guideline should be provided, particularly for the key recommendations, although they need not be phrased as questions.

For example, the guideline should include: target population; intervention(s) or exposure(s); comparisons (if appropriate); outcome(s); and health care setting or context.

When providing comments, consider the following:

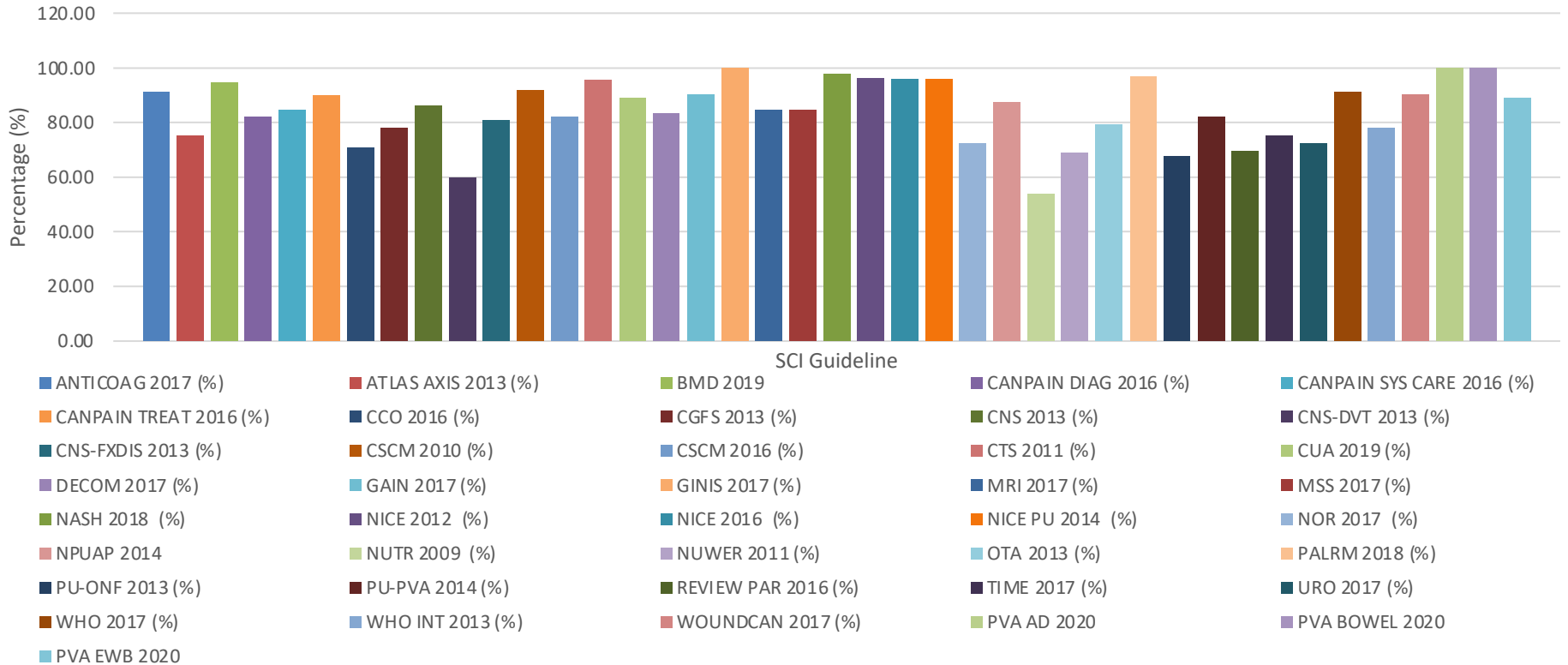
- Is the item well written? Are the descriptions clear and concise?
- Is the item content easy to find in the guideline?
- Is there enough information provided in the question(s) for anyone to initiate the development of a guideline on this topic or to understand the patients/populations and contexts profiled in the guideline?

1. Strongly Disagree
- 2
- 3
- 4
- 5
- 6
7. Strongly Agree

Comments

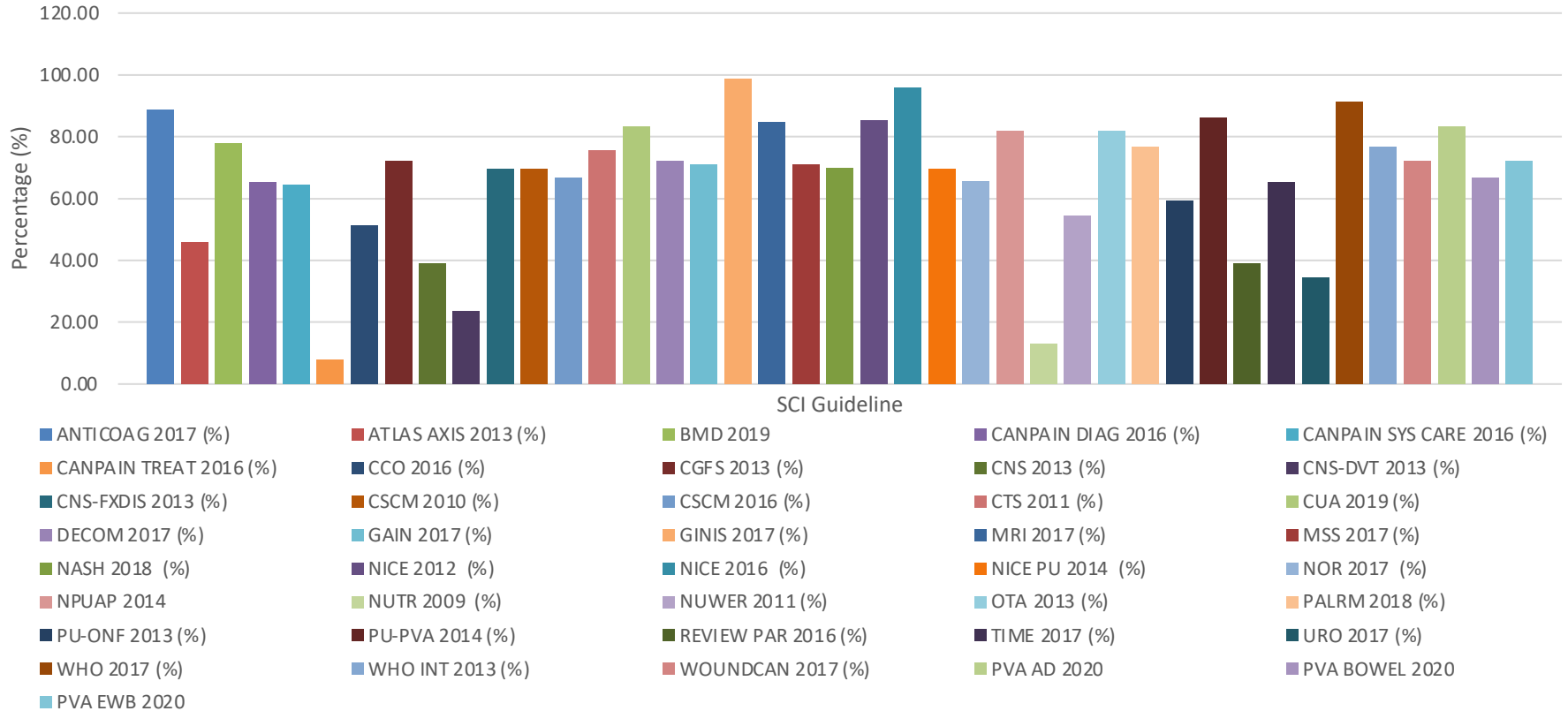
AGREE Standardized Domain Scores

Domain 1 - Scope & Purpose



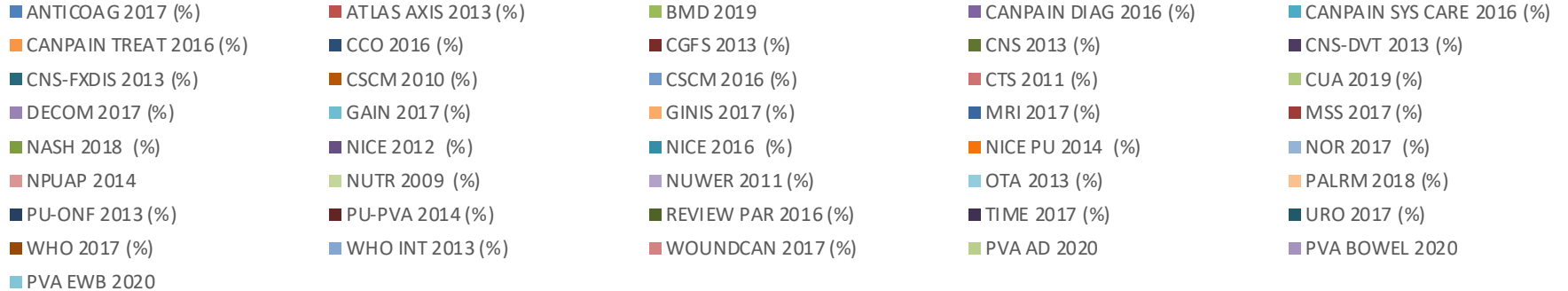
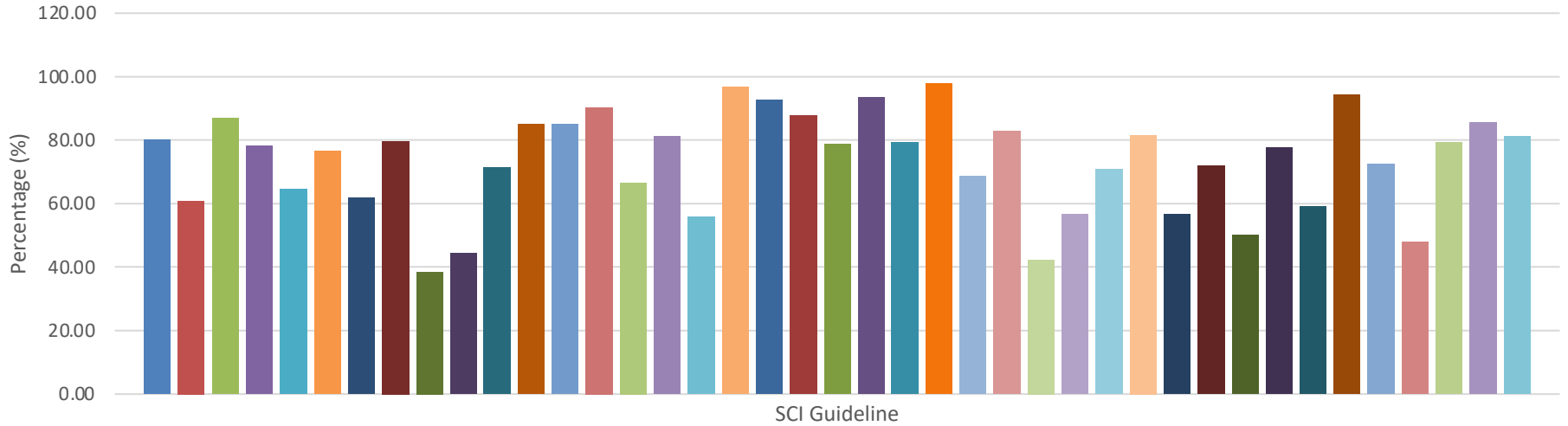
AGREE Standardized Domain Scores

Domain 2 - Stakeholder Involvement



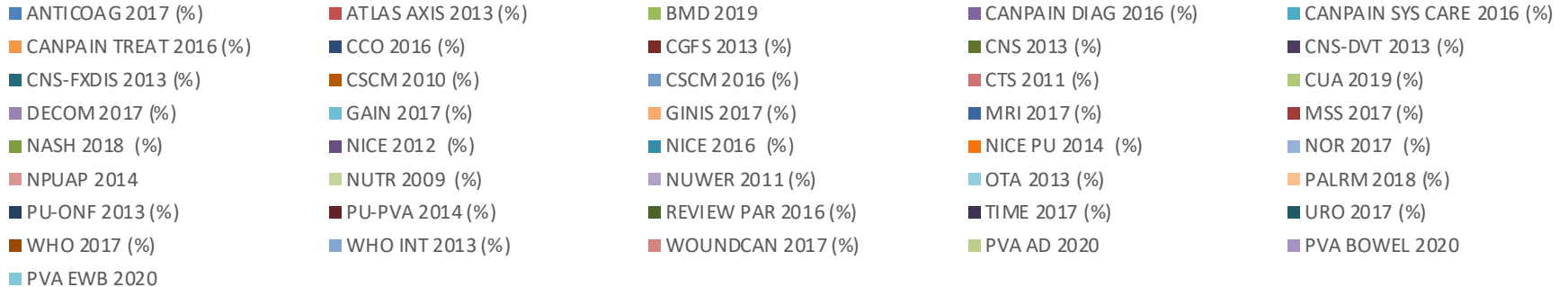
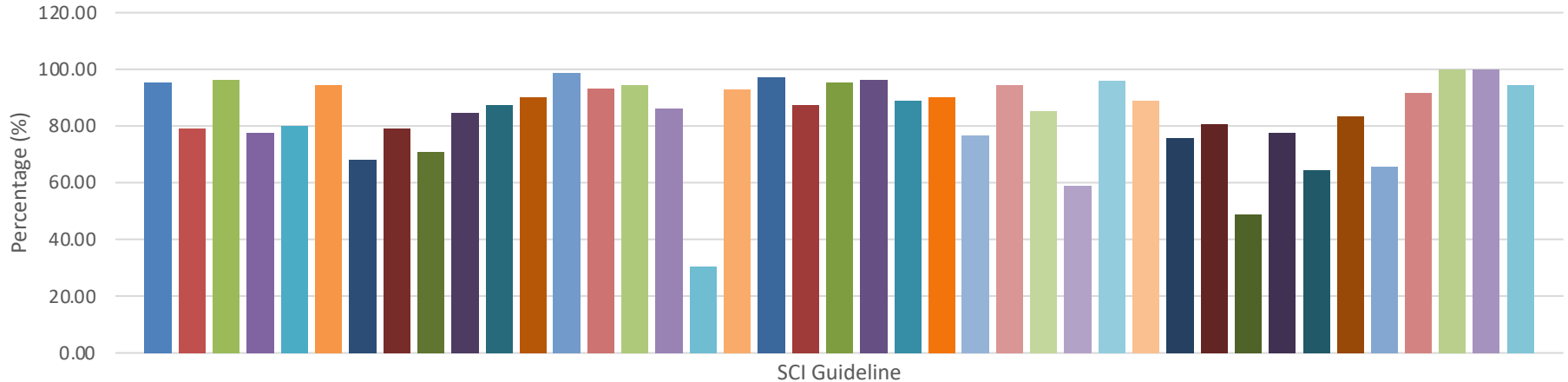
AGREE Standardized Domain Scores

Domain 3 - Rigour of Development



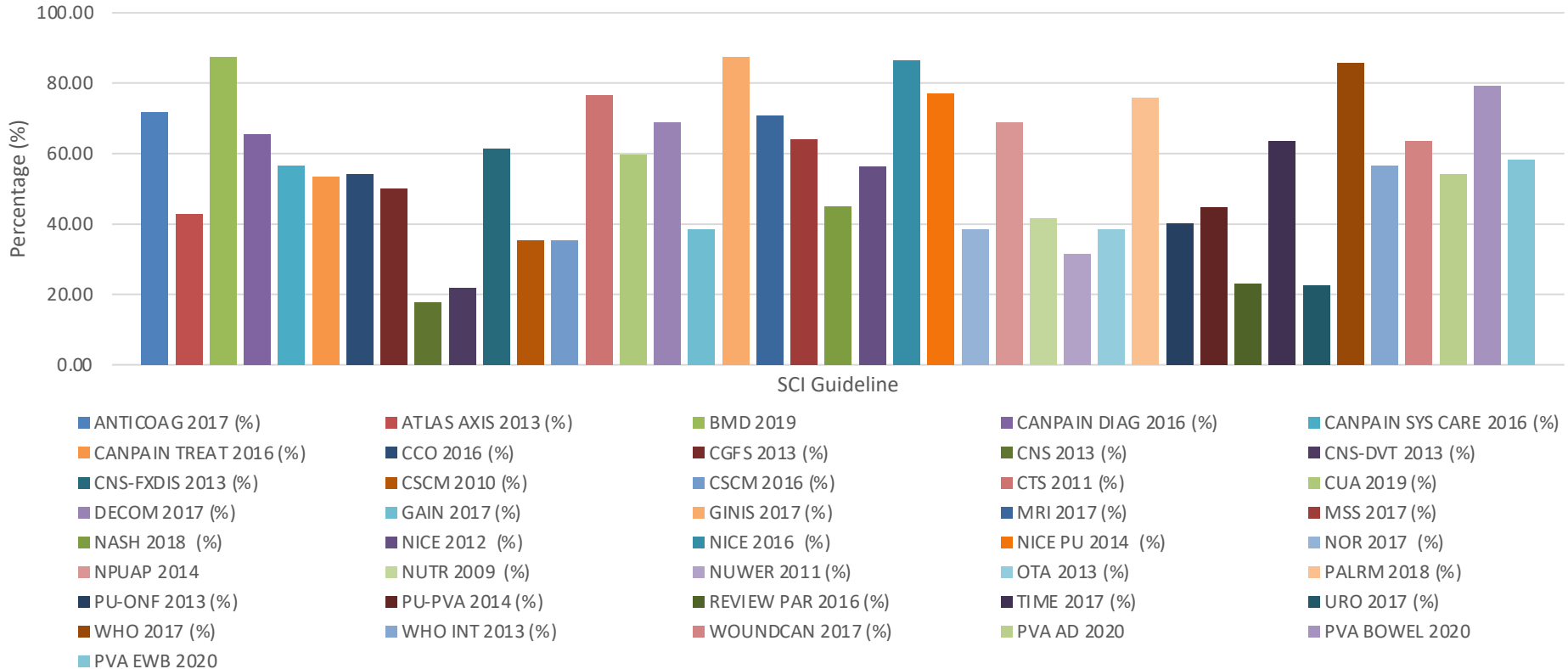
AGREE Standardized Domain Scores

Domain 4 - Clarity of Presentation



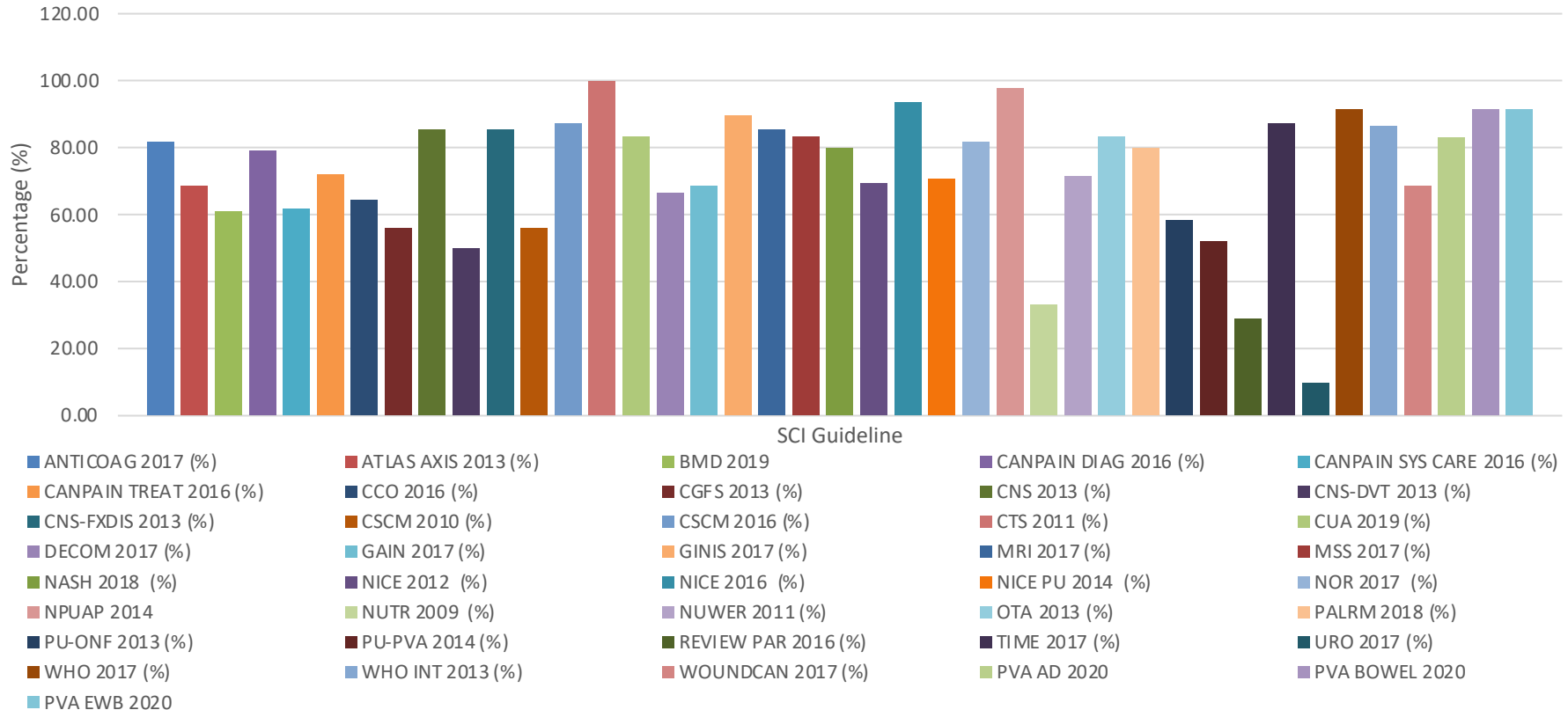
AGREE Standardized Domain Scores

Domain 5 - Applicability



AGREE Standardized Domain Scores

Domain 6 - Editorial Independence



Can-SCIP Recommendation Matrix

- A recommendations matrix was created to facilitate a comparison of the similar or overlapping recommendations across all included CPGs
- Evidence statements provided by SCIRE were divided into twenty-four domains relevant to SCI care and treatment

		COMPONENTS OF THE OPTIMAL TRAUMATIC SCI SYSTEM																											
		Acute Medical Stabilization (First week)																											
		LEVEL OF EVIDENCE																								DECISIONS			
	Reference	MSS 2017	DECOM 2017	CNS-VERT 2013	CNS-SUB 2013	CNS-OS 2013	CNS-COMB 2013	CNS-AXIS 2013	CNS-ATLAS 2013	CNS-ATOC 2013	CNS-OCON 2013	CNS-PHARMA 2013	CNS-FXDIS 2013	REVIEW PAR 2016	NUWE 2011												Keep as is	Keep with modifications	Do not keep (repetitive, unnecessary)
D.1	24-Hour High-Dose Methylprednisolone Sodium Succinate																												
D.1.1	We suggest not offering a 24-hour infusion of high-dose MPSS to adult patients who present after 8 hours with acute SCI. (MSS 2017, 1, p. 204S)	B																									XS		
D.1.2	We suggest a 24-hour infusion of high-dose MPSS be offered to adult patients within 8 hours of acute SCI as a treatment option. (MSS 2017, 2, p. 206S)	B																										XS	

Can-SCIP Consensus Meeting

- The key activities undertaken by the expert panel members at the consensus meeting were to:
 - Draft or refine recommendations
 - Specify for each recommendation:
 - The part of the care continuum the recommendation
 - The NLI and AIS
 - Whether the recommendation applies to an individual with a specific cord syndrome
 - Whether the recommendation applies to a person with an upper/lower motor neuron bowel or bladder
 - Identify potential toolkits/resources to assist with implementation

Voting Process

- Can-SCIP Expert Panel voted on all recommendations using Survey Monkey®
- The Expert Panel selected whether the recommendation was:
 - Included as is
 - Included with modification
 - Not included

CAN-SCIP Guideline - Recommendations

2. Pre-Hospital & Emergency

2 / 22 9%

Extrication & Transportation of Patients With Acute Traumatic Cervical Spine Injuries

1. When there is an immediate threat to a person's life and rapid extrication is needed, make all efforts to limit spinal movement without delaying treatment.^a

Expeditious and careful transport of patients with acute cervical spine or spinal cord injuries is recommended from the site of injury by the most appropriate mode of transportation available to the nearest capable definitive care medical facility.^b

^a(NICE 2016, p.8; Level B)

^b(CNS-TRANSPORT 2013, p.35; Level C)

Yes, no modification

No

Yes, with modification



External Review Process

- The Can-SCIP Guideline was externally reviewed by recognized international experts in SCI who did not participate in the Can-SCIP Guideline development process



Dr. David Gater



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Dr. Ingebjørg Irgens

Can-SCIP Domain Prioritization

- Identify which domains and sub-domains should be prioritized for implementation
- Expert panel members were asked to consider where there is a **significant gap between current care and best practices**
- The voting process took place in two rounds.
 - **Round 1:** Which topics from the Can-SCIP guideline should be prioritized for implementation?
 - **Round 2:** From the “included” topics, which sub-topics should be prioritized for implementation?

Can-SCIP Domain Prioritization

Can-SCIP Priority Topics Voting Round 1

Can-SCIP Guidelines Topics: Please rank each topic in order of implementation priorities (1 being very important).

Section 1- Components of Ideal SCI Care System

- ☰ ▾ Pre-hospital and Emergency
- ☰ ▾ Early Acute Care
- ☰ ▾ Education and Support of People with SCI and their Families across the Continuum
- ☰ ▾ Cross Continuum Education of Clinicians and Staff Working with People with SCI
- ☰ ▾ Specialized Inpatient Rehabilitation
- ☰ ▾ Community-Based Rehabilitation
- ☰ ▾ Vocational Rehabilitation
- ☰ ▾ Comprehensive Health and Wellness

Section 2- Management of SCI Complications

- ☰ ▾ VTE Prophylaxis
- ☰ ▾ Diagnostic Imaging
- ☰ ▾ Respiratory
- ☰ ▾ Cardiometabolic
- ☰ ▾ Autonomic Dysreflexia
- ☰ ▾ Sexual Health and Relationships
- ☰ ▾ Fertility
- ☰ ▾ Bladder
- ☰ ▾ Upper Limb
- ☰ ▾ Mobility and Walking
- ☰ ▾ Wheeled Mobility
- ☰ ▾ Skin Integrity
- ☰ ▾ Emotional Wellbeing
- ☰ ▾ Neuropathic Pain
- ☰ ▾ Bone Health
- ☰ ▾ Activity-Based Therapy
- ☰ ▾ Bowel

Can-SCIP Domain Prioritization Results Round 1

Section 1: Components of the Ideal SCI Care System

Early Acute Care



Specialized Inpatient Rehabilitation



Community-Based Rehabilitation



Education & Support of Persons with SCI



Cross-Continuum Education of Clinicians



Section 2: Management of SCI Complications

Bladder



Bowel



Skin Integrity



Neuropathic Pain



Respiratory



Can-SCIP Sub-Domain Prioritization

Can-SCIP Priority Sub-Topic Voting Round 2

Thank you for your feedback in the first round of voting. This second round of voting will focus on which sub-topic areas should be prioritized in implementation based on gap in practice and feasibility. The questionnaire will involve a "Rank-order" type of question. Each participant is asked to rank each sub-topics in order of implementation priorities (1 being very important).

Thank you once again for your contribution and support.

CanSCIP Guidelines Topics: Please rank each sub-topic in order of implementation priorities (1 being very important).

Respiratory

☰	⇅	Lung Volume Recruitment
☰	⇅	Abdominal Binder and Abdominal Muscle Simulation
☰	⇅	Pharmacological Agents for Respiratory Function
☰	⇅	Respiratory Muscle Training
☰	⇅	Home Mechanical Ventilation

Bladder Function

☰	⇅	History
☰	⇅	Physical
☰	⇅	Voiding Diary
☰	⇅	Urodynamics
☰	⇅	Urinary Tract Infection
☰	⇅	Bladder Management
☰	⇅	Catheters
☰	⇅	Non-Pharmacological Therapies to Enhance Bladder Function
☰	⇅	Pharmacological Therapy to Enhance Bladder Function
☰	⇅	Intravesical Botulinum Toxin Injections
☰	⇅	Routine Urinary Tract Surveillance
☰	⇅	Urology Consultation
☰	⇅	Post-Void Residual
☰	⇅	Stones & Hydronephrosis
☰	⇅	Cancer Screening

Can-SCIP Domain Prioritization Results Round 2

Section 1: Components of the Ideal SCI Care System

Early Medical Management



Specialized Inpatient Rehabilitation



Community Care



Information & Support for Patients, Family Members & Caregivers



Training & Education of Clinicians - Pressure Injury



Section 2: Management of SCI Complications

Bladder Management



Assessment of Neurogenic Bowel Dysfunction



Prevention Strategies across the Continuum of Care



Screening for Neuropathic Pain

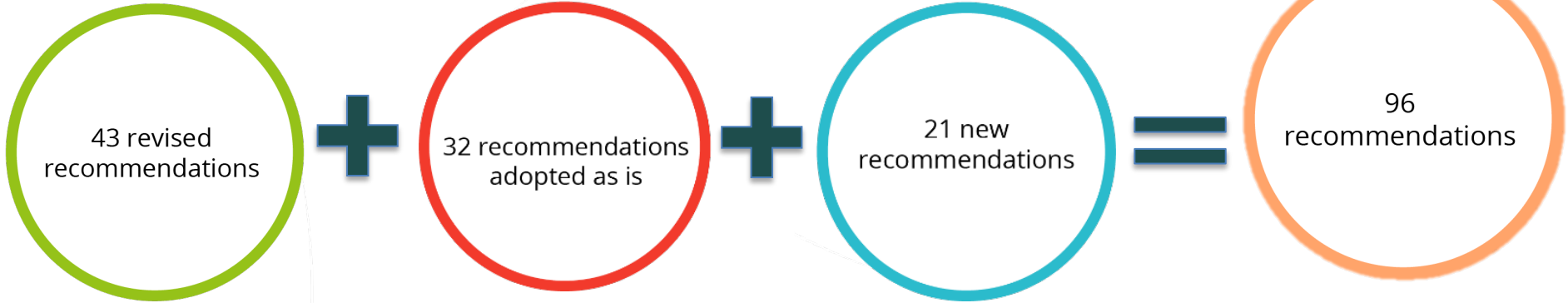


Lung Volume Recruitment

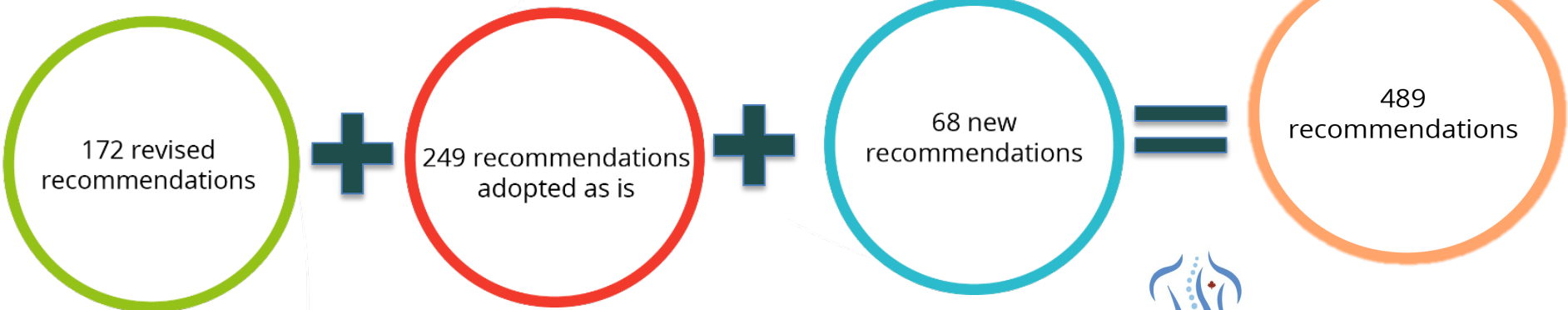


Section 1 & 2 Recommendations Summary

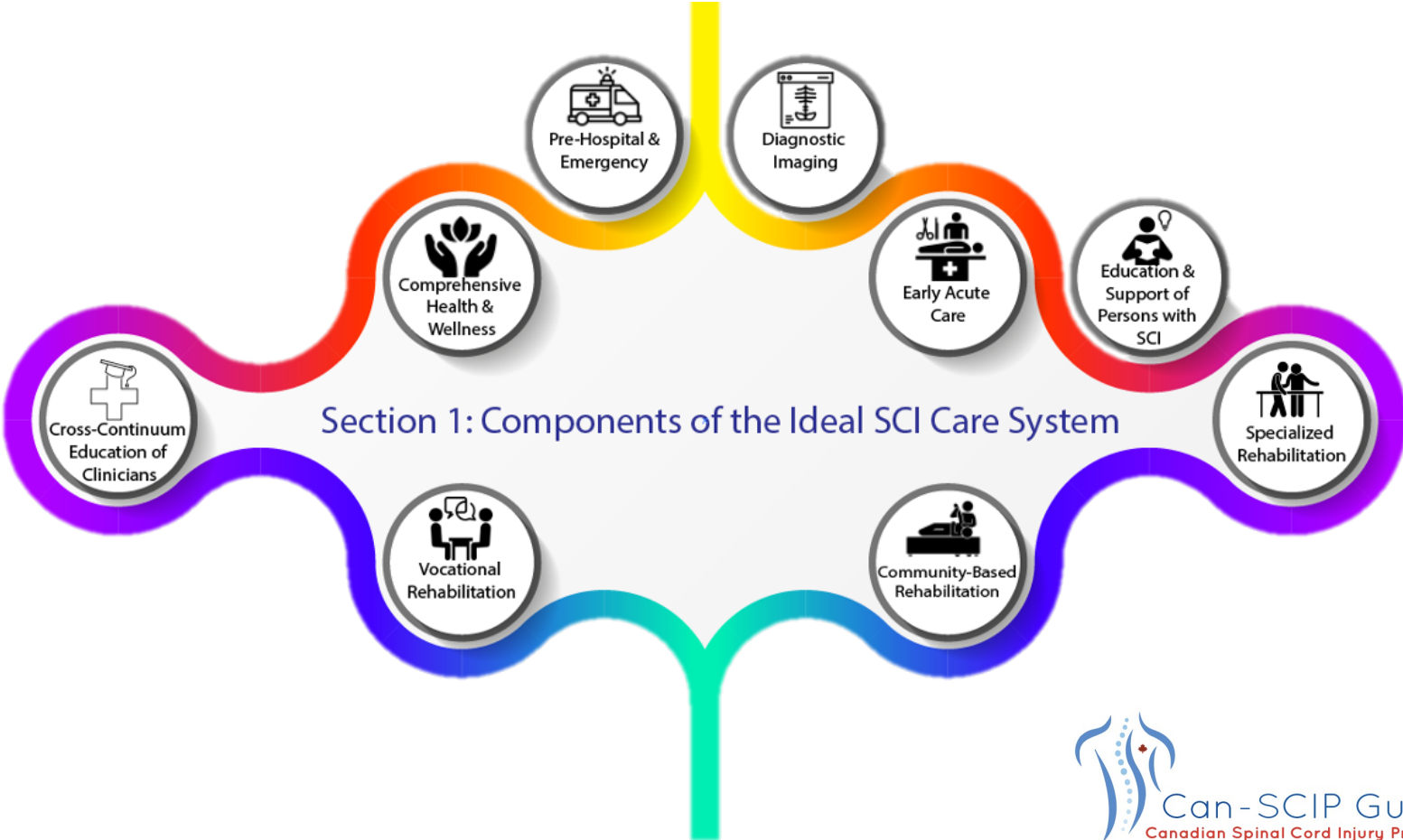
Section 1: Components of the Ideal SCI Care System



Section 2: Management of SCI Complications



Can-SCIP Guideline - Section 1



Can-SCIP Guideline - Section 2



Section 1– Domain Summary

Recommendations for the Components of the Ideal SCI Care System	Total Recommendations	Recommendation Derivation			Level of Evidence		
		Adopted as is	Revised	Newly Derived	Level A	Level B	Level C
PRE-HOSPITAL AND EMERGENCY	39	15	24	0	2	19	18
DIAGNOSTIC IMAGING	18	11	5	2	6	2	10
EARLY ACUTE CARE	9	2	3	4	2	4	3
EDUCATION AND SUPPORT OF PEOPLE WITH SCI AND THEIR FAMILIES ACROSS THE CONTINUUM	6	0	6	0	0	0	6
CROSS CONTINUUM EDUCATION OF CLINICIANS AND STAFF WORKING WITH PEOPLE WITH SCI	4	1	2	1	1	2	1
SPECIALIZED INPATIENT REHABILITATION	8	2	2	4	1	0	7
COMMUNITY-BASED REHABILITATION	7	0	0	6	0	0	7
VOCATIONAL REHABILITATION	2	0	0	2	1	0	1
COMPREHENSIVE HEALTH & WELLNESS	3	0	0	3	0	0	3
TOTAL	96	32	43	21	13	27	56

Patsakos, E et al, Development of the Canadian Spinal Cord Injury Best Practice (Can-SCIP) Guidelines: Methods and Overview
JSCM, 2021

Section 2 – Domain Summary

Recommendations for the Management of SCI Complications	Total # of Recommendations	Recommendation Derivation			Level of Evidence		
		Adopted as is	Revised	Newly Derived	Level A	Level B	Level C
ACTIVITY BASED THERAPY	6	1	5	0	2	0	4
AUTONOMIC DYSREFLEXIA (AD)	88	80	0	8	0	10	78
BLADDER	45	17	24	4	9	14	23
BONE HEALTH	10	4	0	6	5	3	2
BOWEL	40	40	0	0	2	22	16
CARDIOMETABOLIC	17	7	8	2	2	2	13
EMOTIONAL WELLBEING	54	44	0	10	5	0	49
MOBILITY AND WALKING	5	1	0	4	1	2	2
NEUROPATHIC PAIN	25	3	21	1	8	2	15
RESPIRATORY	10	0	4	6	0	1	9
SEXUAL HEALTH, RELATIONSHIPS AND FERTILITY	53	3	42	8	4	11	38
SKIN INTEGRITY	97	42	48	7	19	23	55
UPPER LIMB	12	0	1	11	4	5	3
VTE PROPHYLAXIS	8	5	3	0	0	1	7
WHEELED MOBILITY	19	2	16	1	3	4	12
TOTAL	489	249	172	68	64	99	326