Supplementary Table 1. ROBINS-I risk of bias analyses of SCS studies

Study	Confounding	Selection	Classification	Deviations from intended interventions	Missing data	Measurement of outcomes	Selection of reported results
Barolat et al.[19] (1986)	Serious	Serious	Serious	Low	Low	Serious	Moderate
Katz et al.[20] (1991)	Serious	Moderate	Moderate	Low	Moderate	Serious	Moderate
Herman et al.[21] (2002)	Serious	Serious	Moderate	Low	Low	Serious	Low
Carhart et al.[22] (2004)	Moderate	Serious	Moderate	Low	Low	Serious	Low
Jilge et al.[23] (2004)	Moderate	No information	Serious	Low	Low	Serious	Low
Minassian et al.[24] (2004)	Moderate	No information	Serious	Low	Low	Serious	Low
Ganley et al.[25] (2005)	Serious	Serious	Moderate	Moderate	Low	Serious	Low
DiMarco et al.[26] (2006)	Serious	Serious	Moderate	Low	Low	Serious	Low
Huang et al.[27] (2006)	Moderate	Serious	Moderate	Low	Low	Serious	Low
DiMarco et al.[67,68] (2009)	Moderate	Moderate	Moderate	Low	Low	Serious	Low
Harkema et al.[28] (2011)	Moderate	Serious	Moderate	Low	Low	Serious	Moderate
Moshonkina et al.[29] (2012)	Serious	Moderate	Serious	Serious	Low	Serious	Moderate
Hofstoetter et al.[30] (2013)	Moderate	Serious	Moderate	Low	Low	Moderate	Moderate
Angeli et al.[7] (2014)	Moderate	Serious	Moderate	Moderate	Low	Serious	Moderate
Hofstoetter et al.[31] (2014)	Moderate	Serious	Moderate	Low	Low	Moderate	Moderate
Sayenko et al.[32] (2014)	Moderate	Serious	Moderate	Low	Low	Serious	Low
Bedi et al.[33] (2015)	Serious	Serious	Serious	Low	Low	Serious	Moderate
Gerasimenko et al.[34] (2015)	Moderate	Serious	Moderate	Low	Low	Serious	Moderate
Hofstoetter et al.[35] (2015)	Moderate	Serious	Moderate	Low	Low	Moderate	Moderate
Rejc et al.[36] (2015)	Serious	Serious	Moderate	Low	Low	Serious	Low
Bedi et al.[37] (2016)	Serious	Serious	Serious	Low	Low	Serious	Moderate
Lu et al.[38] (2016)	Serious	Moderate	Moderate	Low	Low	Serious	Low
Minassian et al.[39] (2016)	Serious	Moderate	Moderate	Low	Low	Serious	Low
Gad et al.[40] (2017)	Serious	Serious	Moderate	Low	Low	Serious	Low
Grahn et al.[41] (2017)	Moderate	Serious	Moderate	Low	Low	Serious	Moderate
Rejc et al.[42] (2017)	Serious	Serious	Moderate	Low	Low	Serious	Moderate
Rejc et al.[43] (2017)	Serious	Moderate	Moderate	Low	Low	Serious	Low
Angeli et al.[44] (2018)	Serious	Moderate	Moderate	Low	Low	Serious	Moderate
Aslan et al.[45] (2018)	Serious	Moderate	Serious	Low	Low	Serious	Low
DiMarco et al.[46] (2018)	Serious	Serious	Moderate	Low	Low	Serious	Low
Formento et al.[47] (2018)	Serious	Moderate	Moderate	Serious	Moderate	Serious	Low
Freyvert et al.[69] (2018)	Serious	Serious	Serious	Moderate	Low	Moderate	Low
Gad et al.[70] (2018)	Moderate	Moderate	Moderate	Moderate	Low	Serious	Low
Gill et al.[48] (2018)	Moderate	Serious	Moderate	Moderate	Low	Serious	Low
Harkema et al.[71] (2018)	Serious	Serious	Serious	Low	Low	Serious	Low
Harkema et al.[72] (2018)	Moderate	Moderate	Moderate	Low	Low	Serious	Low
Herrity et al.[49] (2018)	Serious	Serious	Moderate	Low	Low	Serious	Low
Inanici et al.[73] (2018)	Serious	Serious	Moderate	Low	Low	Serious	Low
Niu et al.[74] (2018)	Moderate	Moderate	Moderate	Low	Low	Serious	Low

(*Continued*)

Supplementary Table 1. ROBINS-I risk of bias analyses of SCS studies (continued)

Study	Confounding	Selection	Classification	Deviations from intended inter-ventions	Missing data	Measurement of outcomes	Selection of reported results
Phillips et al.[50] (2018)	Moderate	Moderate	Moderate	Low	Low	Moderate	Low
Powell et al.[51] (2018)	Serious	Serious	Serious	Serious	Moderate	Serious	Moderate
Rath et al.[52] (2018)	Moderate	Moderate	Moderate	Low	Low	Moderate	Low
Wagner et al.[2] (2018)	Moderate	Moderate	Moderate	Moderate	Low	Serious	Low
Walter et al.[53] (2018)	Moderate	Serious	Moderate	Low	Low	Serious	Low
West et al.[54] (2018)	Serious	Serious	Serious	Low	Low	Serious	Moderate
Calvert et al.[75] (2019)	Moderate	Moderate	Moderate	Moderate	Low	Serious	Low
Cheng et al.[55] (2019)	Serious	Moderate	Moderate	Serious	Low	Serious	Moderate
Darrow et al.[76] (2019)	Serious	Moderate	Moderate	Low	Low	Serious	Low
Knikou et al.[56] (2019)	Moderate	Moderate	Moderate	Low	Low	Moderate	Low
Nightingale et al.[57] (2019)	Serious	Serious	Serious	Low	Low	Moderate	Low
Sayenko et al.[77] (2019)	Moderate	Moderate	Serious	Moderate	Low	Serious	Low
Terson de Paleville et al.[58] (2019)	Moderate	Serious	Serious	Moderate	Low	Serious	Low
Alam et al.[78] (2020)	Serious	Serious	Moderate	Low	Low	Serious	Low
DiMarco et al.[59] (2020)	Moderate	Moderate	Moderate	Low	Low	Serious	Low
Gad et al.[60] (2020)	Serious	Serious	Serious	Low	Low	Serious	Low
Gill et al.[79] (2020)	Serious	Moderate	Moderate	Low	Low	Serious	Low
Gorgey et al.[80] (2020)	Serious	Serious	Serious	Moderate	Moderate	Serious	Moderate
Peña Pino et al.[81] (2020)	Serious	Moderate	Moderate	Low	Low	Serious	Low
Wiesener et al.[61] (2020)	Serious	Serious	Moderate	Low	Low	Serious	Low
Wu et al.[82] (2020)	Moderate	Serious	Serious	Low	Low	Serious	Low
Beck et al.[62] (2021)	Serious	Moderate	Moderate	Moderate	Low	Serious	Moderate
Calvert et al.[63] (2021)	Serious	Moderate	Serious	Low	Low	Serious	Low
DiMarco et al.[83] (2021)	Moderate	Moderate	Moderate	Low	Low	Serious	Low
Estes et al.[84] (2021)	Moderate	Moderate	Moderate	Low	Low	Moderate	Low
Herrity et al.[85] (2021)	Moderate	Serious	Moderate	Serious	Moderate	Serious	Low
Ibáñez et al.[64] (2021)	Serious	Serious	Moderate	Low	Low	Serious	Low
Inanici et al.[86] (2021)	Serious	Serious	Serious	Moderate	Low	Serious	Low
Linde et al.[87] (2021)	Serious	Moderate	Moderate	Low	Low	Serious	Low
Mesbah et al.[65] (2021)	Moderate	Moderate	Moderate	Low	Low	Serious	Low
Squair et al.[66] (2021)	Moderate	Moderate	Moderate	Low	Low	Serious	Low
Smith et al.[88] (2022)	Serious	Moderate	Moderate	Low	Low	Serious	Low

ROBINS-I, Risk of Bias in Non-Randomized Studies of Interventions; SCS, spinal cord stimulation.