

Online Supplement 2: Search Strategy

MEDLINE, CINAHL, Scopus, Web of Science, EMBASE, IEEE Digital Library, and the Cochrane Library will be searched for eligible studies, while ACM Digital Library, ProQuest Dissertations, Open Grey, and the National Information Center's Health Services Research Projects in Progress Database will be searched to identify additional grey literature. Searches to these databases will adhere to the general following structure: (gait terms) AND (disease-area terms).

The following search string was developed for EMBASE by an experienced information specialist in consultation with the research team and will be replicated for other included databases. Results reflect a search on November 14th, 2019.

String No.	Query	Results
#1 (Gait terms)	((step* OR stride*) NEAR/2 (speed OR velocit* OR time* OR length* OR width* OR frequenc* OR rate* OR rhythm* OR variabilit* OR symmetr* OR asymmetr* OR count* OR number* OR distance* OR cadence*)):ti,ab) OR (((swing* OR stance* OR 'single support' OR 'double support') NEAR/2 (time* OR duration* OR variabilit* OR symmetr* OR asymmetr*)):ti,ab) OR (((spatiotemporal OR 'spatio-temporal') NEAR/2 (parameter* OR feature* OR characteristic*)):ti,ab) OR (((gait OR walk* OR ambulat*) NEAR/2 (speed OR velocit* OR time* OR cadence* OR pace* OR rhythm* OR volume* OR bout* OR duration* OR distance* OR intensit* OR variabilit* OR asymmetr* OR symmetr* OR parameter* OR feature* OR characteristic* OR assess* OR examin* OR analys* OR batter* OR measure* OR test*)):ti,ab)	112073
#2 (Disease-area terms)	'chronic obstructive lung disease'/exp OR 'Parkinson disease'/exp OR 'parkinsonism'/exp OR 'multiple sclerosis'/exp OR 'demyelinating disease'/exp OR 'hip fracture'/exp OR (((chronic OR lung OR pulmonary OR respirat* OR airway* OR airflow*) NEAR/3 obstruct*) OR copd):ti,ab OR (parkinson* OR 'paralysis agitans'):ti,ab OR (((multipl* OR disseminated OR insular) NEAR/3 scleros*) OR 'chariot disease' OR demyelinat*):ti,ab OR ((hip* OR femur* OR femoral OR trochant* OR pertrochant* OR intertrochant* OR subtrochant* OR intracapsular* OR extracapsular*) NEAR/5 fracture*):ti,ab	635311
#3 (Final)	#1 AND #2 AND (1999:py OR 2000:py OR 2001:py OR 2002:py OR 2003:py OR 2004:py OR 2005:py OR 2006:py OR 2007:py OR 2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py OR 2013:py OR 2014:py OR 2015:py OR 2016:py OR 2017:py OR 2018:py OR 2019:py OR 2020:py)	12307