**Supplementary material A: search strategy**

**MEDLINE**

**Concept 1: Intervention - inspiratory muscle training**

Breathing Exercises [MeSH] OR Respiratory Therapy [MesH] OR Breathing exercis\* [tiab] OR IMT [tiab] OR RMT [tiab] OR Respiratory Therap\* [tiab] OR Inhalation Therap\* [tiab] OR resistive breathing[tiab] OR threshold load\*[tiab] OR threshold device\*[tiab] OR normocapnic [tiab] OR hyperpn\*[tiab] OR ((inspiratory muscle\*[tiab] OR respiratory muscle\*[tiab] OR expiratory muscle\*[tiab] OR (ventilat\* [tiab] AND muscle [tiab])) AND (endurance[tiab] OR train\* [tiab] OR exercis\* [tiab] OR resist\*[tiab] OR strength\*[tiab]))

AND

**Concept 2: Patient/Population: neuromuscular diseases**

Muscular Diseases[Mesh] OR Neuromuscular Diseases[Mesh] OR Lysosomal Storage Diseases, Nervous System[Mesh] OR Glycogen Storage Disease[Mesh] OR neuromuscular manifestations[Mesh] OR Mitochondrial Diseases[Mesh] OR Mitochondrial Myopathies[Mesh] OR ((“Fasciculation-Cramp” [tiab] OR “Cramp-Fasciculation” [tiab] OR Muscular [tiab] OR Muscle\* [tiab] OR Lysosomal Enzym\* [tiab] OR “Lysosomal Storage” [tiab] OR “Glycogen Storage” [tiab] OR Neuromuscular [tiab] OR Motor Neuron\* [tiab]) AND (Syndrom\* [tiab] OR Disease\* [tiab] OR Disorder\* [tiab])) OR Myoton\*[tiab] OR Myopath\*[tiab] OR Myositi\*[tiab] OR Dystroph\*[tiab] OR Myasthen\* [tiab] OR paramyoton\* [tiab] OR Neuropath\*[tiab] OR Polyneuropath\*[tiab] OR Lateral Scleros\* [tiab] OR Muscular Atroph\*[tiab] OR “Anterior Horn Cell” [tiab] OR “Guillain Barre” [tiab] OR “Lambert Eaton”[tiab] OR “miller fisher”[tiab] OR Channelopath\*[tiab] OR “periodic paralysis”[tiab] OR Pompe[tiab] OR LOPD [tiab] OR Duchenne[tiab] OR Becker[tiab] OR “Limb girdle”[tiab] OR Facioscapulo\* [tiab] OR “facio-scapulo” [tiab] OR “Congenital fiber-type disproportion” [tiab] OR multiminicore[tiab] OR “multi-minicore”[tiab] OR “central core” [tiab] OR nemaline[tiab] OR myotubular[tiab] OR centronuclear[tiab] OR myofibrillar[tiab] OR “inclusion body”[tiab] OR Brody[tiab] OR Polio\*[tiab] OR Postpolio\*[tiab] OR post-polio\* [tiab] OR “Heine-Medin disease”[tiab] OR Mitochondr\* [tiab] OR “Charcot Marie Tooth”[tiab] OR “Emery Dreifuss”[tiab] OR “Acid Maltase”[tiab] OR McArdle\*[tiab] OR Dermatomyos\*[tiab] OR Polymyos\*[tiab] OR “Amyotonia Congenita” [tiab] OR Polyradiculoneuropath\*[tiab] OR Respiratory Chain Deficienc\*[tiab] OR Oxidative Phosphorylation Deficienc\*[tiab] OR GAA Deficienc\*[tiab] OR Glucosidase Deficienc\*[tiab] OR Glycogenosis[tiab] OR Phosphorylase Deficienc\*[tiab] OR carnitine [tiab] OR dehydrogenase deficienc\*[tiab] OR Steinert\*[tiab] OR Ricker[tiab] OR Dejerine[tiab] OR Eulenburg[tiab] OR Ullrich[tiab] OR “walker-warburg”[tiab] OR Arthrogryposis[tiab] OR “rigid spine”[tiab] OR HMSN[tiab] OR PROMM[tiab] OR PYGM[tiab] OR FSH[tiab] OR CFTDM[tiab] OR CMT[tiab] OR IBM[tiab] OR SMA[tiab] OR LGMD[tiab]

**Embase**

**Concept 1: Intervention - inspiratory muscle training**

(breathing exercise/ OR exp respiratory care/) OR (Breathing exercis\* OR IMT OR RMT OR Respiratory Therap\* OR Inhalation Therap\* OR resistive breathing OR threshold load\* OR threshold device\* OR normocapnic OR hyperpn\*).ti,ab,kw. OR ((inspiratory muscle\* OR respiratory muscle\* OR expiratory muscle\* OR ventilation muscle\* OR ventilatory muscle\* OR ventilator muscle\*) AND (endurance OR train\* OR exercis\* OR resist\* OR strength\*)).ti,ab,kw.

AND

**Concept 2: Patient/Population: neuromuscular diseases**

(exp muscle disease/ OR exp storage disease/ OR exp "disorders of mitochondrial functions"/ OR exp muscle channelopathy/ OR exp muscular dystrophy/ OR exp myotonia/ OR exp poliomyelitis/ OR exp postpoliomyelitis syndrome/ OR exp arthrogryposis/) OR ((Fasciculation-Cramp OR Cramp-Fasciculation OR Muscular OR Muscle\* OR Lysosomal Enzyme\* OR Lysosomal Storage OR Glycogen Storage OR Neuromuscular OR Motor Neuron\*) AND (Syndrom\* OR Disease\* OR Disorder\* )).ti,ab,kw. OR (Myoton\* OR Myopath\* OR Myositi\* OR Dystroph\* OR Myasthen\* OR paramyoton\* OR Neuropath\* OR Polyneuropath\* OR Lateral Scleros\* OR Muscular Atroph\* OR Anterior Horn Cell OR Guillain Barre OR Lambert Eaton OR miller fisher OR Channelopath\* OR periodic paralysis OR Pompe OR LOPD OR Duchenne OR Becker OR Limb girdle OR Facioscapulo\* OR facio-scapulo OR Congenital fiber-type disproportion OR multiminicore OR multi-minicore OR central core OR nemaline OR myotubular OR centronuclear OR myofibrillar OR inclusion body OR Brody OR Polio\* OR Postpolio\* OR post-polio\* OR Heine-Medin disease OR Mitochondr\* OR Charcot Marie Tooth OR Emery Dreifuss OR Acid Maltase OR McArdle\* OR Dermatomyos\* OR Polymyos\* OR Amyotonia Congenita OR Polyradiculoneuropath\* OR Respiratory Chain Deficienc\* OR Oxidative Phosphorylation Deficienc\* OR GAA Deficienc\* OR Glucosidase Deficienc\* OR Glycogenosis OR Phosphorylase Deficienc\* OR carnitine OR dehydrogenase deficienc\* OR Steinert\* OR Ricker OR Dejerine OR Eulenburg OR Ullrich OR walker-warburg OR Arthrogryposis OR rigid spine OR HMSN OR PROMM OR PYGM OR FSH OR CFTDM OR CMT OR IBM OR SMA OR LGMD).ti,ab,kw.

**Cochrane**

**Concept 1: Intervention – inspiratory muscle training**

“Breathing Exercises”[Mesh] OR “Respiratory Therapy”[Mesh] OR (Breathing NEXT exercis\* OR IMT OR RMT OR Respiratory NEXT Therap\* OR Inhalation NEXT Therap\* OR “resistive breathing” OR threshold NEXT load\* OR threshold NEXT device\* OR normocapnic OR hyperpn\*):ti,ab,kw OR ((inspiratory NEXT muscle\* OR respiratory NEXT muscle\* OR expiratory NEXT muscle\* OR ventilation NEXT muscle\* OR ventilator NEXT muscle\* OR ventilatory NEXT muscle\*) AND (endurance OR train\* OR exercis\* OR resist\* OR strength\*)):ti,ab,kw

AND

**Concept 2: Patient/Population: neuromuscular diseases**

"Muscular Diseases"[Mesh]) OR "Neuromuscular Diseases"[Mesh] OR "Lysosomal Storage Diseases, Nervous System"[Mesh] OR "Glycogen Storage Disease"[Mesh] OR “neuromuscular manifestations”[Mesh] OR “Mitochondrial Diseases”[Mesh] OR “Mitochondrial Myopathies”[Mesh] OR ((“Fasciculation-Cramp” OR “Cramp-Fasciculation” OR Muscular OR Muscle\* OR Lysosomal NEXT Enzyme\* OR “Lysosomal Storage” OR “Glycogen Storage” OR Neuromuscular OR Motor NEXT Neuron\*) AND (Syndrom\* OR Disease\* OR Disorder\* )):ti,ab,kw OR (Myoton\* OR Myopath\* OR Myositi\* OR Dystroph\* OR Myasthen\* OR paramyoton\* OR Neuropath\* OR Polyneuropath\* OR Lateral NEXT Scleros\* OR Muscular NEXT Atroph\* OR “Anterior Horn Cell” OR “Guillain Barre” OR “Lambert Eaton” OR “miller fisher” OR Channelopath\* OR “periodic paralysis” OR Pompe OR LOPD OR Duchenne OR Becker OR “Limb girdle” OR Facioscapulo\* OR “facio-scapulo” OR “Congenital fiber-type disproportion” OR multiminicore OR “multi-minicore” OR “central core” OR nemaline OR myotubular OR centronuclear OR myofibrillar OR “inclusion body” OR Brody OR Polio\* OR Postpolio\* OR post-polio\* OR “Heine-Medin disease” OR Mitochondr\* OR “Charcot Marie Tooth” OR “Emery Dreifuss” OR “Acid Maltase” OR McArdle\* OR Dermatomyos\* OR Polymyos\* OR “Amyotonia Congenita” OR Polyradiculoneuropath\* OR Respiratory NEXT Chain NEXT Deficienc\* OR Oxidative NEXT Phosphorylation NEXT Deficienc\* OR GAA NEXT Deficienc\* OR Glucosidase NEXT Deficienc\* OR Glycogenosis OR Phosphorylase NEXT Deficienc\* OR carnitine OR dehydrogenase NEXT deficienc\* OR Steinert\* OR Ricker OR Dejerine OR Eulenburg OR Ullrich OR “walker-warburg” OR Arthrogryposis OR “rigid spine” OR HMSN OR PROMM OR PYGM OR FSH OR CFTDM OR CMT OR IBM OR SMA OR LGMD):ti,ab,kw