

## SUPPLEMENTARY DIGITAL MATERIAL 2

Supplementary Text File 2.—Search strategies.

### Pubmed

(((((Virtual Reality[MeSH Terms]) OR (Virtual Reality Exposure Therapy[MeSH Terms]) OR (Robotics[MeSH Terms]) OR (Automation[MeSH Terms]) OR (Exoskeleton Device[MeSH Terms]) OR (Artificial Intelligence[MeSH Terms]) OR (Technology[MeSH Terms]) OR (Smartphone[MeSH Terms]) OR (Computer, Handheld[MeSH Terms]) OR (Computers[MeSH Terms]) OR (Transcranial Direct Current Stimulation[MeSH Terms]) OR (Transcranial Magnetic Stimulation[MeSH Terms]) OR (Video Games[MeSH Terms]) OR (Television[MeSH Terms]) OR (virtual reality[Title/Abstract]) OR (VR[Title/Abstract]) OR (virtual reality exposure therapy[Title/Abstract]) OR (immersive virtual reality[Title/Abstract]) OR (immersive VR[Title/Abstract]) OR (non-immersive virtual reality[Title/Abstract]) OR (non-immersive VR[Title/Abstract]) OR (robot\*[Title/Abstract]) OR (robotic\*[Title/Abstract]) OR (robot-assisted therapy[Title/Abstract]) OR (robot assisted therapy[Title/Abstract]) OR (robot-assisted[Title/Abstract]) OR (robot assisted[Title/Abstract]) OR (automation[Title/Abstract]) OR (orthotic device[Title/Abstract]) OR (orthotic[Title/Abstract]) OR (robot-assisted rehabilitation[Title/Abstract]) OR (robot assisted rehabilitation[Title/Abstract]) OR (exoskeleton\*[Title/Abstract]) OR (exoskeleton device\*[Title/Abstract]) OR (mobile application\*[Title/Abstract]) OR (portable software app\*[Title/Abstract]) OR (portable software application\*[Title/Abstract]) OR (mobile app\*[Title/Abstract]) OR (app\*[Title/Abstract]) OR (transcranial magnetic stimulation[Title/Abstract]) OR (repetitive transcranial magnetic stimulation[Title/Abstract]) OR (transcranial direct current stimulation[Title/Abstract]) OR (transcranial electric stimulation[Title/Abstract]) OR (transcranial electrical stimulation[Title/Abstract]) OR (video game\*[Title/Abstract]) OR (therapy computer assisted[Title/Abstract]) OR (artificial intelligence[Title/Abstract]) OR (serious game\*[Title/Abstract]) OR (computer game\*[Title/Abstract]) OR (TV game\*[Title/Abstract]) OR (television game\*[Title/Abstract]) OR (exergame\*[Title/Abstract])) AND (((((((((((((((((stroke[MeSH Terms]) OR (stroke rehabilitation[MeSH Terms])) OR (stroke[Title/Abstract])) OR (CVA[Title/Abstract])) OR (cva[Title/Abstract])) OR (cerebrovascular accident\*[Title/Abstract])) OR (cerebral vascular accident\*[Title/Abstract])) OR (cerebrovascular arrest\*[Title/Abstract])) OR (cerebrovascular failure\*[Title/Abstract])) OR (cerebrovascular lesion\*[Title/Abstract])) OR (cerebrum vascular accident\*[Title/Abstract])) OR (brain vascular accident\*[Title/Abstract])) OR (brain ischaemic attack\*[Title/Abstract])) OR (brain ischemic attack[Title/Abstract])) OR (ischaemic cerebral attack\*[Title/Abstract])) OR (ischemic cerebral attack\*[Title/Abstract])) OR (brain accident\*[Title/Abstract])) AND (meta-analysis[Filter] OR systematicreview[Filter]))

## Scopus

( TITLE-ABS ( {virtual reality exposure therapy} ) OR TITLE-ABS-KEY ( robotics ) OR TITLE-ABS-KEY ( automation ) OR TITLE-ABS ( {exoskeleton device} ) OR TITLE-ABS ( {artificial intelligence} ) OR TITLE-ABS-KEY ( technology ) OR TITLE-ABS-KEY ( smartphone ) OR TITLE-ABS ( {computer handheld} ) OR TITLE-ABS-KEY ( computers ) OR TITLE-ABS ( {transcranial direct current stimulation} ) OR TITLE-ABS ( {transcranial magnetic stimulation} ) OR TITLE-ABS ( {repetitive transcranial magnetic stimulation} ) OR TITLE-ABS ( {transcranial electric stimulation} ) OR TITLE-ABS ( {transcranial electrical stimulation} ) OR TITLE-ABS ( {video games} ) OR TITLE-ABS-KEY ( television ) OR TITLE-ABS ( {immersive virtual reality} ) OR TITLE-ABS ( {non-immersive virtual reality} ) OR TITLE-ABS ( {immersive VR} ) OR TITLE-ABS ( {non-immersive VR} ) OR TITLE-ABS ( "robot\*" ) OR TITLE-ABS ( "robotic\*" ) OR TITLE-ABS ( {robot-assisted therapy} ) OR TITLE-ABS ( {robot assisted therapy} ) OR TITLE-ABS ( {robot-assisted} ) OR TITLE-ABS ( {robot assisted} ) OR TITLE-ABS ( "orthotic device\*" ) OR TITLE-ABS ( "orthotic\*" ) OR TITLE-ABS ( "robot-assisted rehabilitation\*" ) OR TITLE-ABS ( "robot assisted rehabilitation\*" ) OR TITLE-ABS ( "exoskeleton\*" ) OR TITLE-ABS ( "mobile application\*" ) OR TITLE-ABS ( "mobile app\*" ) OR TITLE-ABS ( app ) OR TITLE-ABS ( apps ) OR TITLE-ABS ( "portable software application\*" ) OR TITLE-ABS ( "portable software app\*" ) OR TITLE-ABS ( "video game\*" ) OR TITLE-ABS ( {therapy computer assisted} ) OR TITLE-ABS ( "serious game\*" ) OR TITLE-ABS ( "computer game\*" ) OR TITLE-ABS ( "TV game\*" ) OR TITLE-ABS ( "television game\*" ) OR TITLE-ABS ( "exergame\*" ) ) AND ( TITLE-ABS-KEY ( stroke ) OR TITLE-ABS ( cva ) OR TITLE-ABS ( "cerebrovascular accident\*" ) OR TITLE-ABS ( "brain vascular accident\*" ) OR TITLE-ABS ( "brain accident\*" ) OR TITLE-ABS ( "cerebral vascular accident\*" ) OR TITLE-ABS ( "cerebro vascular accident\*" ) OR TITLE-ABS ( {cerebrovascular arrest} ) OR TITLE-ABS ( {cerebrovascular failure} ) OR TITLE-ABS ( "cerebrum vascular accident\*" ) OR TITLE-ABS ( "isch\*mic cerebral attack\*" ) OR TITLE-ABS ( "brain isch\*mic attack\*" ) OR TITLE-ABS ( "isch\*mic stroke" ) OR TITLE-ABS ( {hemorrhagic stroke} ) OR TITLE-ABS ( "isch\*mic attack\*" ) OR TITLE-ABS ( "hemorrhagic attack\*" ) OR TITLE-ABS ( "hemorrhagic cerebral attack\*" ) OR TITLE-ABS ( {brain ischemia} ) OR TITLE-ABS ( "intracranial hemorrhage\*" ) OR TITLE-ABS ( {cerebrovascular stroke} ) OR TITLE-ABS ( {cerebral stroke} ) OR TITLE-ABS ( "brain infarction\*" ) ) AND ( TITLE-ABS-KEY ( meta-analysis ) OR TITLE-ABS-KEY ( "meta analysis" ) )

## Embase

('cerebrovascular accident'/exp OR 'cerebrovascular accident' OR 'cva':ti,ab OR 'accident, cerebrovascular':ti,ab OR 'acute cerebrovascular lesion':ti,ab OR 'acute focal cerebral vasculopathy':ti,ab OR 'acute stroke':ti,ab OR 'apoplectic stroke':ti,ab OR 'apoplexia':ti,ab OR 'apoplexy':ti,ab OR 'blood flow disturbance, brain':ti,ab OR 'brain accident':ti,ab OR 'brain attack':ti,ab OR 'brain blood flow disturbance':ti,ab OR 'brain insult':ti,ab OR 'brain insultus':ti,ab OR 'brain ischaemic attack':ti,ab OR 'brain ischemic attack':ti,ab OR 'brain vascular accident':ti,ab OR 'cerebral apoplexia':ti,ab OR 'cerebral insult':ti,ab OR 'cerebral stroke':ti,ab OR 'cerebral vascular accident':ti,ab OR 'cerebral vascular insufficiency':ti,ab OR 'cerebro vascular accident':ti,ab OR 'cerebrovascular accident':ti,ab OR 'cerebrovascular arrest':ti,ab OR 'cerebrovascular failure':ti,ab OR 'cerebrovascular injury':ti,ab OR 'cerebrovascular insufficiency':ti,ab OR 'cerebrovascular insult':ti,ab OR 'cerebrum vascular accident':ti,ab OR 'cryptogenic stroke':ti,ab OR 'ischaemic cerebral attack':ti,ab OR 'ischaemic seizure':ti,ab OR 'ischemic cerebral attack':ti,ab OR 'ischemic seizure':ti,ab OR 'stroke':ti,ab) AND ('virtual reality'/exp OR 'virtual reality' OR 'virtual reality':ti,ab OR 'immersive virtual reality'/exp OR 'immersive virtual reality' OR 'non-immersive virtual reality':ti,ab OR vr:ti,ab OR 'robotics'/exp OR robotics OR 'robot':ti,ab OR 'robotics':ti,ab OR 'robot assisted therapy'/exp OR 'robot assisted therapy' OR 'exoskeleton'/exp OR exoskeleton OR 'exoskeleton':ti,ab OR 'exoskeleton rehabilitation'/exp OR 'exoskeleton rehabilitation' OR 'transcranial magnetic stimulation'/exp OR 'transcranial magnetic stimulation' OR 'magnetic stimulation, transcranial':ti,ab OR 'stimulation, transcranial magnetic':ti,ab OR 'transcranial magnetic stimulation':ti,ab OR 'transcranial direct current stimulation'/exp OR 'transcranial direct current stimulation' OR 'tdcs (transcranial direct current stimulation)':ti,ab OR 'transcranial direct current stimulation':ti,ab OR 'video game'/exp OR 'video game' OR 'tv games':ti,ab OR 'computer game':ti,ab OR 'computergame':ti,ab OR 'television game':ti,ab OR 'video game':ti,ab OR 'video games':ti,ab OR 'videogame':ti,ab OR 'videogames':ti,ab OR 'computer assisted therapy'/exp OR 'computer assisted therapy' OR 'computer assisted therapy':ti,ab OR 'computer-assisted therapy':ti,ab OR 'therapy, computer-assisted':ti,ab OR 'artificial intelligence'/exp OR 'artificial intelligence' OR 'artificial intelligence':ti,ab OR 'machine intelligence':ti,ab OR 'serious game'/exp OR 'serious game' OR 'exergame'/exp OR exergame OR 'smartphone'/exp OR smartphone OR 'smart phone':ti,ab OR 'smartphone':ti,ab OR 'smartphones':ti,ab OR 'mobile application'/exp OR 'mobile application' OR 'mobile app':ti,ab OR 'mobile application':ti,ab OR 'mobile applications':ti,ab OR 'mobile apps':ti,ab OR 'portable software app':ti,ab OR 'portable software application':ti,ab OR 'portable software applications':ti,ab OR 'portable software apps':ti,ab OR 'tablet application':ti,ab) AND ('meta analysis'/exp OR 'analysis, meta' OR 'meta analysis' OR 'meta-analysis' OR 'metaanalysis')

## Cochrane Library

“Virtual Reality” OR “Virtual Reality Exposure Therapy” OR “Robotics” OR “Automation” OR “Exoskeleton Device” OR “Artificial Intelligence” OR “Technology” OR “Smartphone” OR “Computer, Handheld” OR “Computers” OR “Transcranial Direct Current Stimulation” OR “Transcranial Magnetic Stimulation” OR “Video Games” OR “Television” OR “virtual reality” OR “VR” OR “virtual reality exposure therapy” OR “immersive virtual reality” OR “immersive VR” OR “non-immersive virtual reality” OR “non-immersive VR” OR “robot\*” OR “robotic\*” OR “robot-assisted therapy” OR “robot assisted therapy” OR “robot-assisted” OR “robot assisted” OR “automation” OR “orthotic device” OR “orthotic” OR “robot-assisted rehabilitation” OR “robot assisted rehabilitation” OR “exoskeleton\*” OR “exoskeleton device\*” OR “mobile application\*” OR “portable software app\*” OR “portable software application\*” OR “mobile app\*” OR “transcranial magnetic stimulation” OR “repetitive transcranial magnetic stimulation” OR “transcranial direct current stimulation” OR “transcranial electric stimulation” OR “transcranial electrical stimulation” OR “video game\*” OR “therapy computer assisted” OR “artificial intelligence” OR “serious game\*” OR “computer game\*” OR “TV game\*” OR “television game\*” OR “exergame\*” in Title Abstract Keyword AND “stroke” OR “stroke rehabilitation” OR “stroke“ OR “CVA” OR “cva” OR “cerebrovascular accident\*” OR “cerebral vascular accident\*” OR “cerebrovascular arrest\*” OR “cerebrovascular failure\*” OR “cerebrovascular lesion\*” OR “cerebrum vascular accident\*” OR “brain vascular accident\*” OR “brain ischaemic attack\*” OR “brain ischemic attack” OR “ischaemic cerebral attack\*” OR “ischemic cerebral attack\*” OR “brain accident\*” in Title Abstract Keyword - (Word variations have been searched)