**Supplementary materials** 

## Online supplementary Table 1. Search of Medline via OVID for stroke rehabilitation controlled trials 2012- 2016

| Line | Search Term  | Records  |
|------|--|----------|
| 1    | exp Stroke/  | 104259   |
| 2    | (((brain or cerebral or cerebrovascular) adj3 (accident* or infarct* or stroke)) or CVA*).mp.                                    | 57908    |
| 3    | ((((brain* or cerebr* or cerebell* or intracran* or intracerebral or vertebrobasilar) and vascular*) or cerebrovascular*) and    | 109053   |
|      | (disease or diseases or accident* or disorder*)).mp.   |          |
| 4    | CVA*.mp.   | 3423     |
| 5    | exp Cerebrovascular Disorders/ or post stroke.mp.  | 314551   |
| 6    | ((brain* or cerebr* or cerebell* or intracran* or intracerebral or vertebrobasilar) and (haemorrhag* or hemorrhag* or            | 219722   |
|      | ischemi* or ischaemi* or infarct* or haematoma* or hematoma* or bleed*)).mp.   |          |
| 7    | plegia.mp. or exp Paralysis/   | 77256    |
| 8    | 1 or 2 or 3 or 4 or 5 or 6 or 7  | 478211   |
| 9    | exp Randomized Controlled Trials as Topic/ or randomised controlled trial.mp.  | 124256   |
| 10   | exp Controlled Clinical Trial/   | 514774   |
| 11   | controlled clinical trial.mp. or exp Controlled Clinical Trial/  | 517914   |
| 12   | (randomised or randomized or randomly or random* or random).mp.  | 1062025  |
| 13   | group*.mp.   | 3162420  |
| 14   | (phase 1 or phase I or phase 2 or Phase II or Phase 3 or Phase III or Phase 4 or Phase IV).mp. [mp=title, abstract, original     | 132404   |
|      | title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare             |          |
|      | disease supplementary concept word, unique identifier]   |          |
| 15   | 9 or 10 or 11 or 12 or 13 or 14  | 3877450  |
| 16   | exp Neurological Rehabilitation/ or exp Rehabilitation/ or rehabilitation.mp. or exp "Physical and Rehabilitation                | 265908   |
|      | Medicine"/   |          |
| 17   | training.mp.   | 322179   |
| 18   | exp Exercise Therapy/  | 37464    |
| 19   | therapy.mp.  | 2025576  |
| 20   | (therapies or therap* or ex* or exercise or training or train*).mp. [mp=title, abstract, original title, name of substance word, | 13713128 |
|      | subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept              |          |
|      | word, unique identifier]   |          |
| 21   | 16 or 17 or 18 or 19 or 20   | 13786389 |

| 22 | drug.mp. or exp Pharmaceutical Preparations/ | 2458120  |
|----|--|----------|
| 23 | drug therapy.mp. or exp Drug Therapy/        | 1194268  |
| 24 | device.mp. or exp "Equipment and Supplies"/  | 1392931  |
| 25 | 22 or 23 or 24                               | 4263296  |
| 26 | 8 and 15 and 21                              | 13786389 |
| 27 | 26 not 25                                    | 53279    |
| 28 | limit 27 to humans                           | 41711    |
| 29 | limit 28 to last 10 years                    | 22916    |
| 30 | limit 28 to last 5 years                     | 13477    |

Note: search was run on 15 August 2016.

## Online supplementary Table 2. Included Cochrane reviews, number of individual trials and sample sizes included in review

| Cochrane Review  | Trials in<br>Cochrane<br>Review | Trials from Cochrane Review included in current review (Number of participants) | Reason for excluding<br>Cochrane trials in current<br>review |
|--|---------------------------------|---|--|
| Barclay-Goddard et al. 2004  | 7                               | 6 (230)   | 1= Unable to source  |
| Force platform feedback for standing balance training after stroke                                 |                                 |   |  |
| Barclay-Goddard et al. 2011 *  | 6                               | 6 (119)   | -  |
| Mental practice for treating upper extremity deficits in individuals with hemiparesis after stroke |                                 |   |  |
| Bernhardt et al. 2009 *  | 1                               | 1 (71)  | -  |
| Very early versus delayed mobilisation after stroke  |                                 |   |  |
| Bowen et al. 2013 *  | 23                              | 20 (561)  | 3= Unable to Source  |
| Cognitive rehabilitation for spatial neglect following   |                                 |   |  |
| stroke   |                                 |   |  |
| Bowen et al. 2011 *  | 6                               | 2 (130)   | 1= <50% stroke   |
| Non-pharmacological interventions for perceptual   |                                 |   | 1= Duplicate   |
| disorders following stroke and other adult-acquired,<br>non- progressive brain injury              |                                 |   | 2= Unable to source  |
| Bradt et al. 2010  | 7                               | 3 (118)   | 3= Not RCT   |
| Music therapy for acquired brain injury  |                                 |   | 1= Not in English  |
| Brady et al. 2012  | 39                              | 26 (1477)   | 3= Not RCT   |
| Speech and language therapy for aphasia following  |                                 |   | 6= Not in English  |
| stroke   |                                 |   | 3= Not full text   |
| Some evidence of effectiveness   |                                 |   | 1= Unable to source  |

| Cochrane Review  | Trials in<br>Cochrane<br>Review | Trials from Cochrane Review included in current review (Number of participants) | Reason for excluding Cochrane trials in current review |
|--|---------------------------------|---|--|
| Coupar et al. 2010 *   | 18                              | 13 (456)  | 5= Not RCT   |
| Simultaneous bilateral training for improving arm  |                                 |   |  |
| function after stroke  |                                 |   |  |
| Insufficient evidence to make conclusions  |                                 |   |  |
| das Nair et al 2007 *  | 2                               | 1 (12)  | 1= <50% stroke   |
| Cognitive rehabilitation for memory deficits following stroke                              |                                 |   |  |
| Doyle et al. 2010 *  | 13                              | 9 (353)   | 4= Not full text                                       |
| Interventions for sensory impairment in the upper limb                                     |                                 |   |  |
| after stroke   |                                 |   |  |
| English et al 2010   | 6                               | 2 (154)   | 1= Not RCT   |
| Circuit class therapy for improving mobility after stroke                                  |                                 |   | 3= Duplicate   |
| Conclusion = 'CCT is safe and effective'   |                                 |   |  |
| French et al. 2007   | 14                              | 11 (482)  | 1= Not RCT   |
| Repetitive task training for improving functional ability                                  |                                 |   | 2= Duplicate   |
| after stroke   |                                 |   | 1  |
| Hoffmann et al. 2007 *   | 1                               | 1 (33)  | -  |
| Occupational therapy for cognitive impairment in stroke                                    |                                 |   |  |
| patients   |                                 |   |  |
| Legg et al. 2006   | 9                               | 7 (1075)  | -  |
| Occupational therapy for patients with problems in activities of daily living after stroke |                                 |   |  |

| Cochrane Review  | Trials in<br>Cochrane<br>Review | Trials from Cochrane Review included in current review (Number of participants) | Reason for excluding<br>Cochrane trials in current<br>review                        |
|--|---------------------------------|---|---|
| Loestcher et al. 2013 * Cognitive rehabilitation for attention deficits following stroke   | 6                               | 4 (146)   | 2= Not in English   |
| McGeough et al. 2009 * Interventions for post-stroke fatigue   | 3                               | 0   | 1= No RCT<br>2= Drug trial  |
| Mehrholz et al. 2011 * Water-based exercises for improving activities of daily living after stroke                                     | 4                               | 2 (38)  | 1= Not in English<br>1= Not full text   |
| Pollock et al. 2007  Physiotherapy treatment approaches for the recovery of postural control and lower limb function following stroke. | 21                              | 6 (403)   | 10= Duplicate 2= Not RCT 1=No full text 2= Unable to source                         |
| Pollock et al. 2011 *  Interventions for visual field defects in patients with stroke.   | 13                              | 5 (125)   | 3= Duplicate 2= <50% stroke 2= Not full text 1= Unable to source                    |
| Saunders et al. 2013 Physical fitness training for stroke patients   | 45                              | 39 (1891)   | 1= Duplicate 1= < 50% stroke 1= Not in English 2= Not full text 1= Unable to source |
| Sellars et al. 2005 * Speech and language therapy for dysarthria due to non- progressive brain damage                                  | 0                               | 0   | -   |

| Cochrane Review  | Trials in | Trials from Cochrane Review        | Reason for excluding       |
|--|-----------|------------------------------------|----------------------------|
|  | Cochrane  | included in current review (Number | Cochrane trials in current |
|  | Review    | of participants)                   | review                     |
| Sirtori et al. 2009                                      | 19        | 17 (604)                           | 1= Not RCT                 |
| Constraint-induced movement therapy for upper            |           |                                    | 1= Unable to source        |
| extremities in stroke patients                           |           |                                    |                            |
| States et al. 2009 *                                     | 9         | 2 (68)                             | 1= Not intervention        |
| Overground physical therapy gait training for chronic    |           |                                    | 6= Duplicate               |
| stroke patients with mobility deficits                   |           |                                    |                            |
| Thieme et al. 2012                                       | 14        | 9 (446)                            | 2= Not full text           |
| Mirror therapy for improving motor function after stroke |           |                                    | 3= Not in English          |
| West et al. 2005 *                                       | 0         | 0                                  | -                          |
| Interventions for apraxia of speech following stroke     |           |                                    |                            |
| West et al. 2008 *                                       | 3         | 2 (52)                             | 1= Duplicate               |
| Interventions for motor apraxia following stroke         |           |                                    |                            |
| Winter et al. 2011                                       | 3         | 0                                  | 1= Duplicate               |
| Hands-on therapy interventions for upper limb motor      |           |                                    | 1= Not in English          |
| dysfunction following stroke                             |           |                                    | 1= Unable to source        |
| TOTALS   | 292       | 194 (9,044)                        |                            |

## Online supplementary Table 3. Location of first author by country

| <u> </u>                 | N. 1 C. 1                           |
|--------------------------|-------------------------------------|
| Country                  | Number of trials included in review |
| Australia                | 11                                  |
| Belgium                  | 3                                   |
| Brazil                   | 1                                   |
| Canada                   | 17                                  |
| China                    | 1                                   |
| Finland                  | 1                                   |
| France                   | 2                                   |
| Germany                  | 15                                  |
| Hong Kong                | 3                                   |
| Ireland                  | 2                                   |
| Israel                   | 2                                   |
| Italy                    | 8                                   |
| Japan                    | 2                                   |
| Korea                    | 3                                   |
| Netherlands              | 10                                  |
| New Zealand              | 2                                   |
| Norway                   | 4                                   |
| Poland                   | 1                                   |
| Portugal                 | 1                                   |
| Saudi Arabia             | 1                                   |
| Singapore                | 1                                   |
| Sweden                   | 3                                   |
| Taiwan                   | 15                                  |
| Turkey                   | 3                                   |
| United Kingdom           | 33                                  |
| United States of America | 49                                  |