**Supplementary file**

**Manuscripts excluded by title**

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**Supplementary Table – reasons for exclusion of studies from the review, after reading the manuscripts**

|  |  |
| --- | --- |
| **First author\_Year** | **Reference** |
| **Not longitudinal studies** | |
| Archer\_2017 | Human Brain Mapping. 2017; 38:4546–456 |
| Auriat\_2015 | NeuroImage: Clinical. 2015; 7:771–781 |
| Chaudhary\_2015 | Exp Neurol. 2015; 272:88–96 |
| Chen\_2013 | Front Sys Neurol. 2013; 4:178 |
| Chun\_2016 | Ann Rehabil Med. 2016; 40(1):126-134 |
| Filatova\_2018 | Front Neurosc. 2018; 12:247 |
| Hayward\_2017 | NeuroImage: Clinical. 2017; 13:310–319 |
| Hirai\_2016 | J of Neurosc Met. 2016; 257:204–213 |
| Horn\_2016 | Neural Plasticity. 2016; 1-12 |
| Jin\_2017 | World J Emerg Med. 2017; 8(2):99–105 |
| Kim\_2016 | Neurorehab and Neural Repair. 2017; 31(1):3-24 |
| Koyama\_2018 | J Stroke Cerebrovasc Dis. 2018; 27(4):878-885 |
| Kumar\_2015 | Journal of Stroke. 2016; 18(1):50-59 |
| Lindenberg\_2010 | Neurology. 2010; 74:280–287 |
| Liu\_2010 | Acta Neurol Scand. 2010; 121:315–319 |
| Liu\_2012 | J Neuroimaging. 2012 ;22:255-260 |
| Nelles\_2008 | Am J Neuroradiol. 2008; 29:488 –93 |
| Pannek\_2009 | J Magn Reson Imaging. 2009; 29:529–536 |
| Park\_2013 | NeuroImage: Clinical. 2013; 2:521–533 |
| Puig\_2017 | Neuroradiology. 2017; 59:343–351 |
| Ruber\_2012 | Neurology. 2012; 79:515–522 |

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| --- | --- |
| **First author\_Year** | **Reference** |
| **Lack of correlation between at least one DTI metric in the corticospinal tract collected up to 90 days post-stroke and motor outcomes assessed later than 4 weeks post-stroke** | |
| Bigourdan\_2016 | Stroke. 2016; 47:1053-1059 |
| Byblow\_2015 | Ann Neurol. 2015; 78:848–859 |
| Jang\_2008 | Ann Neurol. 2008; 64:460–465 |
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| Liu\_2018 | Rest Neurol and Neurosc. 2018; 36:173–182 |
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| Rosso\_2011 | Journal of Neuroradiology. 2011; 38:105—112 |
| Snow\_2016 | J Neurosc Meth. 2016; 257:109–120 |
| Sue\_2017 | Neuroscience Letters. 2017; 658:155-160 |
| Takenobu\_2014 | NeuroImage: Clinical. 2014; 4:201–208 |
| Zhu\_2010 | Stroke. 2010; 41(5): 910–915 |
| **Lack of evaluation of motor outcomes at least 4 weeks after stroke** | |
| Fan\_2015 | Rest Neurol Neurosc. 2015; 33: 835–844 |
| Grassel\_2010 | Cerebrovasc Dis. 2010; 30:380–388 |
| Maeshima\_2013 | Neurol Sci. 2013; 34:1765–1770 |
| Schulz\_2012 | Stroke. 2012; 43(8):2248–2251 |
| Yang\_2014 | J Neurol Sci. 2015; 359:219–225 |
|  | |
| **Sample size < 10** | |
| Lotze\_2012 | Neurorehab and Neural Repair. 2012; 26(6):594–603 |
| Mang\_2015 | Clinical Neurophysiology.2015; 126:1959–1971 |
| Marumoto\_2013 | Restorative Neurology and Neuroscience. 2013; 31:387–396 |
| Schaechter\_2009 | Hum Brain Mapp. 2009; 30(11):3461–3474 |
| Stewart\_2017a | Neurorehab and Neural Repair. 2017; 31(7):657–665 |
| Stewart\_2017b | NeuroImage: Clinical. 2017; 14:641–647 |
| Yang\_2015 | PLoS ONE. 2015; 10(5):e0125038 |
| Young\_2016 | Front Hum Neurosc. 2016; 10:457 |
| Yu\_2009 | NeuroImage. 2009; 47:451–458 |
|  | |
| **DTI data collected in the chronic phase after stroke** | |
| Lindenberg\_2012 | Hum Brain Mapp. 2012; 33(5): 1040–1051 |