11. Mobilisation
11.1 Early mobilisation and optimum positioning after acute stroke

## Evidence table

**MOBIL 1: Does early mobilisation versus treatment as usual reduce mortality and morbidity in patients with acute stroke?**

<table>
<thead>
<tr>
<th>Reference</th>
<th>Study type</th>
<th>Number of patients</th>
<th>Patient characteristics</th>
<th>Intervention</th>
<th>Comparison</th>
<th>Length of follow-up</th>
<th>Outcome measures</th>
<th>Source of funding</th>
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<tbody>
<tr>
<td>Fang Y, Chen X, Li H et al. A study on additional early physiotherapy after stroke and factors affecting functional recovery. Clinical Rehabilitation. 2003; 17(6):608-617. Ref ID 2578</td>
<td>RCT single-blind single centre China 1+</td>
<td>N=156 (N=128 analysed)</td>
<td>Patients with stroke (admitted within one week of stroke onset) Patient population: mean age 64 yrs, gender M:F 77:51, infarction N=100 and haemorrhagic N=24</td>
<td>Additional early physiotherapy N=50 (assessed at 30 days) Physiotherapy provided by two experienced rehabilitation therapists. Therapy included Bobath techniques and passive movements training in the affected limb and was</td>
<td>Routine therapy N=78 (assessed at 30 days) Patients received no professional or regular physiotherapy during the whole hospitalisation period. Stroke-related symptoms and complication in each group were</td>
<td>6 months</td>
<td>Fugl-Meyer Score Modified Barthel Index</td>
<td>Chinese Foundation for the Ninth Five-year Key Task Project</td>
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</table>
initiated in the first week after stroke onset.
Passive movement training included a series of movements on the joints of completely paretic limbs to prevent contracture and malformation.
Therapy duration was 45 mins, five days a week for four weeks.
N=12 (6 months)

Effect
*Functional outcome
30 days are stroke, there was a statistical difference on the modified Barthel Index when those patients in the additional early physiotherapy (AEP) group were compared with those in routine therapy (mean increase from baseline 22 vs 14; p<0.05), the difference was no longer significant six months after stroke.
At 30 days or six month follow-up, there were no statistical difference between the patients in the AEP group compared with those in routine therapy on the Fugl-Meyer Score (upper or lower limb).

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<tr>
<td><strong>RCT</strong></td>
<td><strong>N=27</strong></td>
<td><strong>Patients with middle cerebral artery infarct (within one week of stroke onset)</strong></td>
<td><strong>Early, intensive therapy (EXP)</strong></td>
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<td>Single-blind single site USA 1+</td>
<td>Included the use of a tilt table and a limb-load monitor, rested exercises with a Kinetron isokentic device and a treadmill.</td>
<td>N=10</td>
<td>Early physical therapy (ECON)</td>
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<td>Inclusion criteria included: aged between 40 and 80 yrs and 0 to 7 days post stroke</td>
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<td>N=8</td>
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<td>Patient population: Mean age 69 yrs, gender F:M 14: 13, mean</td>
<td>Aim was to promote gait relearning through locomotor activities that were adapted to the individual level of motor function</td>
<td>Total number of physical therapy treatments 42.2 sessions of mean 53.6 mns duration</td>
<td>Later</td>
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<td></td>
<td>6 months</td>
<td>Motor performance Balance Functional capacity Laboratory analysis of gait movement</td>
<td>Public sector</td>
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</table>
Fugl-Meyer leg score 12.7, mean Canadian Stroke Scale 5.

recovery
Total number of physical therapy treatments 46.8 sessions of mean 52.2 mins duration
Mean daily physical therapy treatment 1.74 hrs

physical therapy (CON)
N=9
Not as intense and composed of similar techniques as with the other control group
Total number of physical therapy treatments 19.2 sessions of mean 43.1 mins duration
Mean daily physical therapy treatment 0.73 hrs
Effect

*Prognostic scores
The groups were stratified according to whether the patients had a good (Barthel Index $\geq 21$) or poor ($\leq 20$)

*Physiotherapeutic input
In the experimental group (EXP), the physical therapy stated early (mean 8.3 days post stroke) and was ‘intense’ (mean 1.74 hrs in two sessions). This compared with 8.8 days post stroke and 1.79 hrs in two sessions for the early conventional group (ECON) and 13 days post stroke and 0.72 hrs in one session for the conventional group (CON)

*Gait velocity
There were no statistical differences between the groups

*Functional scores (Fungle-Meyer Balance, Fugl-Meyer Arm/Leg, Barthel Ambulation, Berg
There were no statistical difference between the groups

*Gait training
At six weeks, total time dedicated to gait training was correlated with gait velocity ($r_s=0.63$) but total therapy time was not correlated with gait velocity (NS). This effect disappeared at three and six months post stroke.