Physiotherapy management of acute stroke

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Aim of session

• Brief review of evidence and recommendations for:
  – Early mobilisation
  – Positioning
  – Other aspects of motor rehabilitation

• What’s coming next?
Sources of evidence to guide practice

- NICE guidance for initial management of acute stroke and TIA (2008)
- Cochrane reviews on physiotherapy after stroke and various aspects of motor rehabilitation
Early mobilisation

- Patients in stroke unit mobilised within 24 hours vs 3-4 days on general wards (Indredavik et al, 1999)
- Patients spent 28% of day sitting out of bed and only 13% engaged in activities based on movement (Bernhardt et al, 2004)
- No studies evaluated mobilisation within 48 hours
- No evidence of harm in trial of early protocol

Patients should be mobilised as soon as possible (when clinical condition permits) on a specialist stroke unit
Positioning

- Body position does not affect oxygen saturation in stroke patients without respiratory complications, whilst sitting in a chair is beneficial to those with respiratory co-morbidities (Tyson & Nightingale, 2004)
- There is no evidence of the effect of positioning on longer term functional outcome

Patients should be helped to sit up as soon as possible (when clinical condition permits)
Physiotherapy intervention

- There is evidence that physiotherapy intervention, using a mix of components from different approaches, is significantly more effective than no treatment or placebo control in the recovery of functional independence following stroke.

- There is insufficient evidence to conclude that any one physiotherapy approach is more effective in promoting recovery of lower limb function or postural control following stroke than any other approach.

(Pollock, Baer, Pomeroy, Langhorne, 2007)
Other specific interventions

- Strengthening interventions increase strength, improve activity, and do not increase spasticity (Ada et al, 2006)
- Repetitive task training resulted in modest improvement in lower limb function, but not upper limb function (French et al, 2007)
- There is insufficient evidence to conclude whether slings and wheelchair attachments prevent subluxation, decrease pain, or increase function in the shoulder after stroke (Ada et al 2005)
Future developments

• AVERT trial of very early mobilisation
• Mental practice
• Robotics and virtual reality