

Does standing a patient on the day of surgery following a primary unilateral total hip or knee replacement reduce the length of hospital stay?

Clinical Bottom Line

There is evidence to show that standing a patient on the day of surgery following a primary unilateral total hip or knee replacement does reduce the length of hospital stay, however the evidence is from one randomised controlled trial of 87 subjects & one non randomised comparison study of 130 subjects. The studies identified also utilised an accelerated package of care including pre-operative education, pre-operative discharge planning, an anaesthetic & post-op management approach to ensure minimal post-op bleeding, adequate analgesia, adequate control of nausea, adequate hydration & nutrition. Thus length of stay was reduced when combined with a complete package of pre and post op care & management.

Criteria for Critically Appraised Topic

Population:

Adults aged 18-80 who have received a primary unilateral THR or TKR

Intervention:

Standing or walking the patient on the day of surgery.

Comparison:

Standing or walking the patient on day 1 or 2 after surgery or routine care where this is the case.

Outcomes:

Length of hospital stay, length of hospital care, time to discharge.

Primary Outcomes:

As above.

Secondary outcomes:

Inclusions:

Primary unilateral THR & TKR

Exclusions:

Revision surgery, bilateral surgery, unicompartmental knee replacement, THR or TKR for infection or fractures.

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Search Terms used

Databases Searched:

Cochrane	Pedro	PsychINFO	Medline
Clinical Evidence	Bandolier	NELH	Professional Websites
Clinical Guidelines	NICE	HTA	OT Seeker
Rehab Data	CINAHL	Embase	

Types of study included:

Systematic reviews, randomised controlled trials (RCT), comparison studies

Key words searched:

Total hip replacement	Total knee replacement	Orthopaedic surgery	Length of stay	Time to discharge
Length of hospital care	In patient stay			

Time Frame:

Last 10 years 2000-2010

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Available Evidence

Database Searched (Specific to CAT)	Number of abstracts	Number of Relevant Abstracts
Cochrane		
Pedro		
Medline		
CINAHL		
Embase		
Clinical Evidence		
PyschINFO		
OT Seeker		
Bandolier		
Total		

Results:

There were literally pages of abstracts at least 100 of which 8 articles were identified but only 2 answered the question

Articles assessed:

Isaac et al 2005

130 TKR pts, not randomised, compared 50 pts operated on by 1 surgeon & received accelerated rehab with 80 pts who were operated on by 4 other surgeons & received routine rehab. The accelerated rehab group received pre-op education to assist early discharge, were mobilised on the day of surgery at 4 hours post-op but in addition there were no drains, no use of epidurals, the divided layers of the wound were infiltrated with local anaesthetic & adrenaline

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to reduce post-op pain & bleeding & there was home physiotherapy on discharge. There was also a pre-prescribed analgesic & anti emetic regime to use post-operatively. The accelerated group were discharged at a mean of 3.6.days & the routine care group at 6.6 days.

Larsen et al 2008

RCT 87 pts, stratified randomisation for THR & TKR. Intervention group stood on day of surgery but in addition attended a pre-op group & received an enhanced recovery package looking at adequate analgesia, control of nausea, adequate hydration & nutrition. The control group mobilised on the day after surgery.

The intervention group consisted of 28 THR, 15 TKR & 2 uniKR.

The control group consisted of 28 THR, 12 TKR & 2 uniKR.

The overall mean LOS was 4.9 days for the intervention group & 7.8 for the control group.

Mean LOS for THR intervention group – 4.4 days, control group 7.3 days.

Mean LOS for TKR intervention group – 6.1 days, control group 9.3 days.

For both articles there was no reporting of the min & max LOS for any groups

Implications for practice

Standing a patient on the day of surgery does reduce LOS but needs to be combined with a complete package including pre-operative education & preparation for discharge & a post-operative package of care to include adequate analgesia, control of nausea, control of post-op bleeding, adequate nutrition & hydration & home physiotherapy on discharge.

References

Larsen K Sorenson OG Hansen TB Thomsen PB Soballe K 2008 Accelerated perioperative care and rehabilitation intervention for hip and knee replacement is effective a randomised clinical trial involving 87 patients with 3 months of follow-up. Acta Orthopaedica 79(2) 149-159.

Isaac D Falode T Lui P l'Anson H Dillow K Gill P 2005 Accelerated rehabilitation after total knee replacement. The Knee 12 346-350.

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