

Does mobilisation on the day of hip or knee replacement surgery reduce hospital length of stay?

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Introduction:

- Hip and knee arthroplasty volume has increased dramatically in the past decade increasing pressure on health care service capacity and resources. The challenge for service providers is to continue to provide high quality evidence based care, but to do so as efficiently as possible.
- A key area of cost reduction and increasing capacity is reducing hospital length of stay (LOS). Enhanced Recovery after Surgery (ERAS) programs are multifaceted models of care that improve efficiency and have demonstrated effectiveness in reducing LOS¹. In the orthopaedic setting one aspect of ERAS is commencing mobilisation on the day of surgery (DOS), but the few studies that have isolated its effect on LOS have conflicting results.^{2,3}

Method:

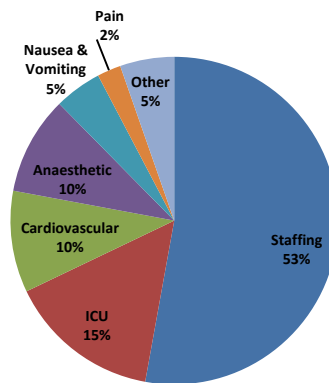
- Medical records of 373 patients who underwent unilateral primary hip or knee arthroplasty at the Mater Hospital Brisbane were audited to determine the LOS of patients who had mobilised successfully with physiotherapists on the DOS.
- Successful mobilisation was defined as a minimum of standing and marching by the bedside for 2 minutes.
- Other outcomes included American Society of Anaesthesiologists' (ASA) score, which assesses overall physical health, age and reason for unsuccessful mobilisation.

Results:

- Patients who successfully mobilised on DOS had significantly shorter LOS compared to those who did not.
- There was no significant difference in age or ASA between mobilising and non-mobilising groups.

	Mobilised DOS (n=74)	Not mobilised DOS (n=299)	p
LOS	4.3±1.8	5.1±1.8	<0.001
Age	69.5±8.4	69±9.9	0.71
ASA	2.3±0.6	2.5±0.63	0.06

- Only 20% of eligible patients were given the opportunity to mobilise on DOS.



Reasons not mobilised

Discussion:

- This audit demonstrated that mobilising patients on the DOS after uncomplicated hip or knee replacement significantly reduced LOS.
- Institutional practice prevented the majority (80%) of patients being given the opportunity to mobilise, with 53% of those patients returning to the ward after physiotherapists' shifts had concluded, and 15% electively managed on DOS in intensive care for other comorbidities.
- Further development of this protocol will focus on multidisciplinary systemic restructuring including physiotherapy staff rostering, operating theatre timing and staff and patient education.

References:

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