

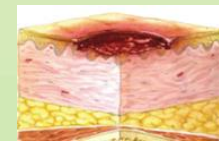
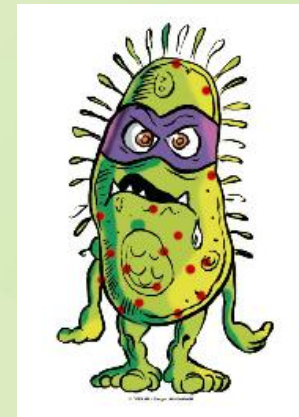
Implementing Day 0 Mobilisation for Total Hip (THR) and Total Knee (TKR) Replacements at Toowoomba Hospital

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*Acknowledgements: Ciaran Fitzgerald,
Rebecca Flemming, Georgina Masters, Craig Smith, Laura
Hayes & Ryan Mcvey*

Why is early discharge important?

- Hospital stay carries 5.5% risk of an adverse drug reaction, 17.6% risk of infection and 3.1% risk of an ulcer
 - Increases by 0.5%, 1.6%, 0.5% respectively per extra night
 - *(Hauk K & Zhao X, 2011)*
- Cost of an orthopaedic ward bed per night ~ \$1300-1500
 - *(DDHHS 2015/2016 costing data)*



ERAS

ORTHOPAEDICS



ANZJSurg.com

Enhanced Recovery After Surgery in elective hip and knee arthroplasty reduces length of hospital stay

(Stowers MDJ et al, 2016)

Rapid Mobilization Decreases Length-of-Stay in Joint Replacement Patients

(Tayrose G et al, 2013)

Enhanced recovery programmes can reduce length of stay after total knee replacement without sacrificing functional outcome at one year

(Maempel JF, 2015)

Process

1. PLAN

- Benchmarking
- Literature Review
- Consultation with stakeholders
- Planned evaluation and data collection
- Developed workplace instruction and protocol

2. DO

- Pilot implementation

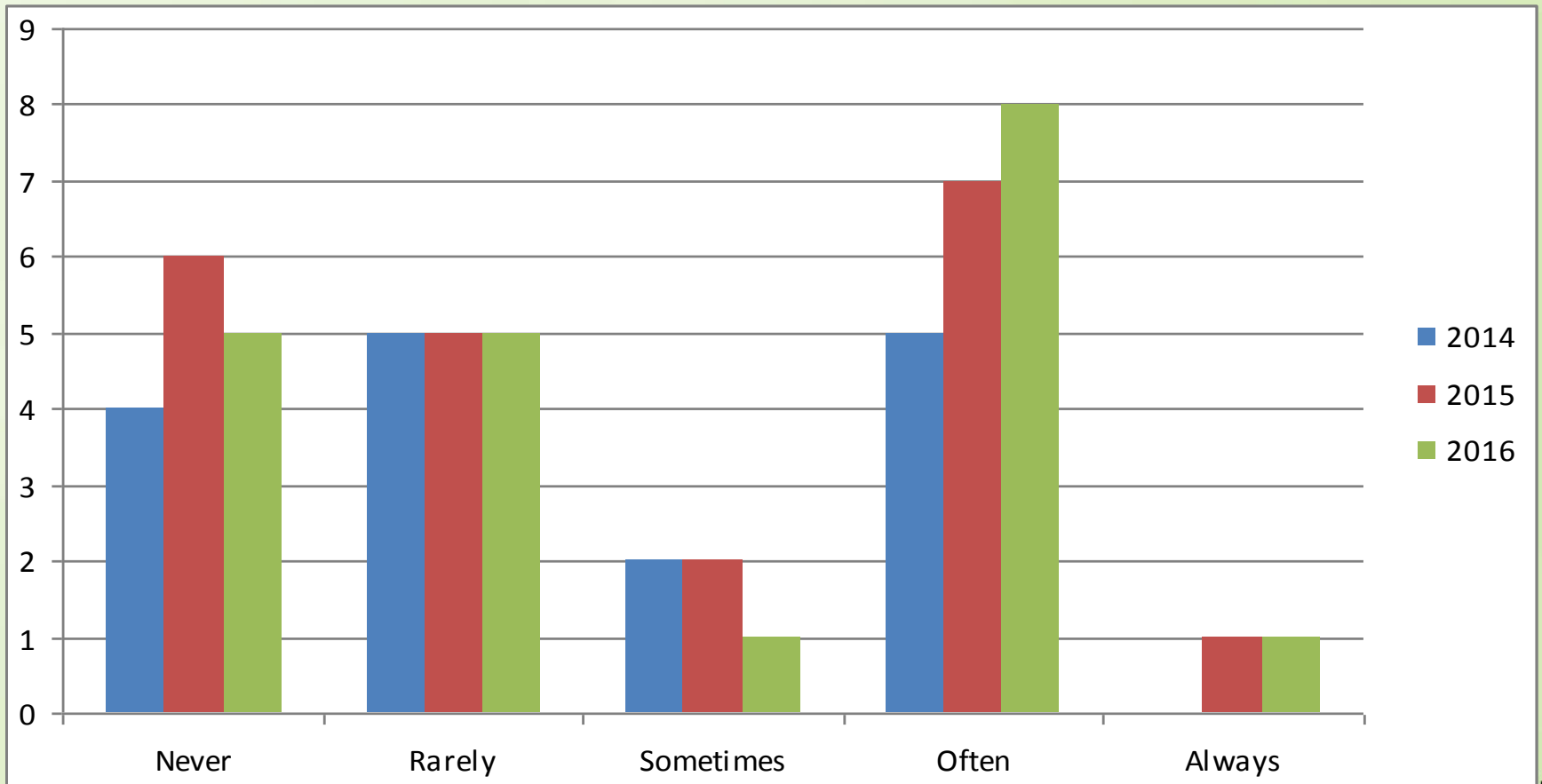
3. CHECK

- Evaluation with working group
- Checked data
- Finalised workplace instruction and protocol

- ## 4. ACT
- Roll out with all staff
 - MDT Culture change
 - Staff Education

Benchmarking

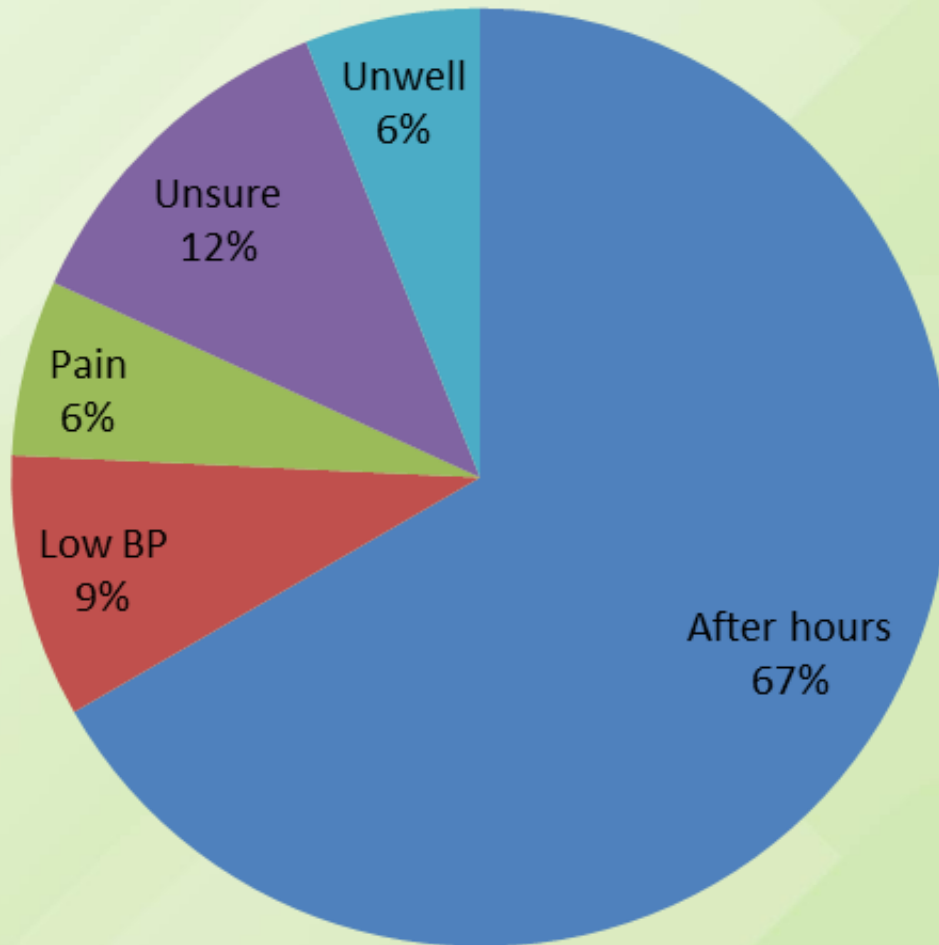
Statewide Day 0 Mobility Rates



Evaluation

- Two retrospective chart audits
 - Pre Day 0 mob September 2015 (n=44)
 - Post Day 0 mob March 2016 (n=53)
 - n=20 mobilised day 0
 - n=33 not mobilised for various reasons
- Basic data analysis performed
- *ERAS implemented at both time points*

Reasons not mobilised



Length of Stay (LOS) Changes

	Pre			Post	
	Audit (n=44)	2015/ 2016	Peer Sites	Mob (n=20)	Not Mob * (n=33)
LOS (days)	4.2	4.8	5.4	3.3	4.4
Diff				- 1.1	+ 0.2

*N.B One outlier removed from analysis in post audit as had a 24 day LOS

Costing Changes



- Those mobilised on Day 0 cost **\$1311** less than the pre audit group
 - (DDHHS 2015/2016 costing data)
- Yearly potential
 - 407 THR/TKRs in total 2015/16
- Assuming a 35% Day 0 mobilisation rate as per audit data

= **\$188 309** / year saving

Future

- Recent systematic review showed an average reduction in LOS of 1.8 days with Day 0 mobilisation in TKR/THR's
 - *(Guerra et al. 2014)*
- Need to consider strategies to mobilise more patients on Day 0
 - *Rostering with flexible start times*
 - *Ongoing staff education*
- Plan to 'check' in again and collect more data

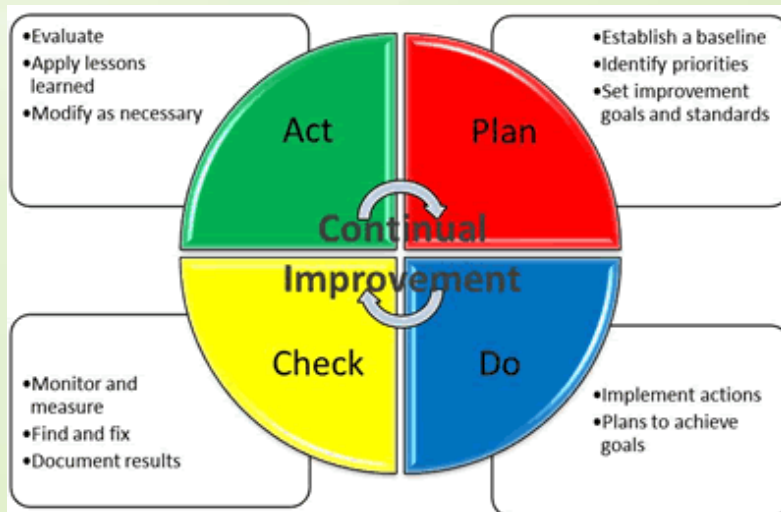
Take home messages

- ‘Reproducibility’
 - Day 0 Mobilisation of select patients at Toowoomba Hospital had a positive impact on LOS, with **nil increase in adverse outcomes**
 - In line with current best evidence
(*Stowers et al, 2016 & Maempel JF 2015*)
- Multi-disciplinary approach and culture change essential to success



Take home messages

- Plan to '*tie the knots*' on quality improvement processes



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