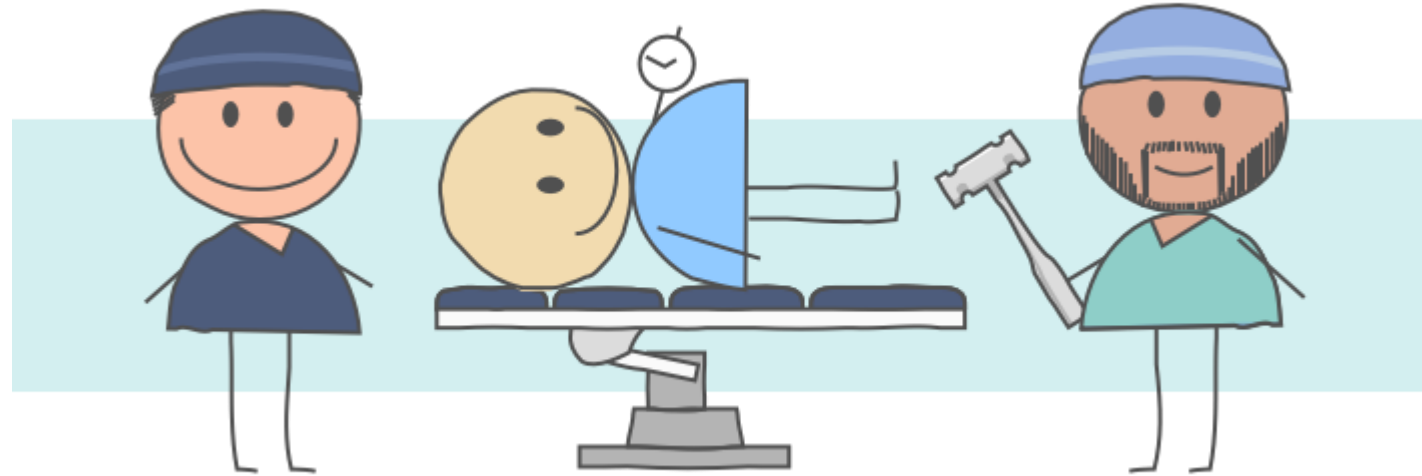


Improving Time to Theatre



Naomi O'Rourke

Clinical Nurse Consultant - Fragility Hip Fractures

Princess Alexandra Hospital, Brisbane

The role of the hip fracture nurse

Improving the management and outcomes of all fragility hip fracture patients

- ▶ First point of contact
- ▶ Collaboration
- ▶ Facilitate care from admission to discharge
- ▶ Education
- ▶ Drive Clinical Care standards
- ▶ Prevention
- ▶ Clinical Audits and ANZHFR
- ▶ Research



Model of Care

- ▶ NOF CNC - Coordinator based model
- ▶ NOF PHO
- ▶ Lower Limb Resident
- ▶ Direct Admission
- ▶ Consultant Geriatrician and Advanced Trainee Registrar
- ▶ Osteoporosis NP
- ▶ Early morning NOF Theatre 6 days a week
- ▶ Weekly MDT Meeting
- ▶ Hip Fracture Outpatient Clinic
- ▶ Telehealth





Clinical Care Standards

The Hip Fracture Care Standard

Relates to the care that patients with a suspected hip fracture should be offered from presentation to hospital through to completion of treatment in hospital.



Timely assessment and treatment of pain and medical conditions.



Surgery within 48 hours of arriving at hospital, if appropriate.



Coordinated orthopaedic and geriatric services.



Patients getting back on their feet within a day if possible.



A care plan outlining ongoing treatment and ways to prevent more fractures.

Effect of Timing of Surgical Intervention on Mortality

A delay in surgery of 2 days or more from admission associated with a 17% increase in 30-day mortality

18 209 Medicare recipients who underwent surgery for hip fracture

McGuire KJ, Bernstein J, Palsky D, Silber JH. *The 2004 Marshall Urist award: delays until surgery after hip fracture increases mortality.*
Clin Orthop Relat Res. 2004 Nov; (428):294-301.

41% increase in the 30-day mortality rate and a 32% increase in the 1-yr mortality rate after delayed surgery for a patient with a hip fracture

Meta-analysis

Shiga T, Wajima Z, Ohe Y. *Is operative delay associated with increased mortality of hip fracture patients? Systematic review, meta-analysis, and meta-regression.*
Can J Anaesth. 2008; 55(3):146-154

Patients who had surgery < 36 h of admission experienced shorter hospital LOSs, fewer pressure ulcers, and greater likelihood to return to independent living

Prospective study (850 patients)

Al-Ani AN, Samuelsson B, Tidermark J, et al. *Early operation on patients with a hip fracture improved the ability to return to independent living: a prospective study of 850 patients.*
JBJS (Am) 2008;90(7):1436-1442

Surgery within 48 h of admission decrease minor and major complication rates

Lefavre KA, Macadam SA, Davidson DJ, Gandhi R, Chan H, Broekhuyse HM. *Length of stay, mortality, morbidity and delay to surgery in hip fractures.*
JBJS Br. 2009 Jul; 91(7):922-7.

Early operative intervention does improve outcomes, including morbidity (especially infections), pressure sores, pain, and length of stay.

Timing to theatre

- **Timely admission**
- Correct imaging
- Gaps in medical history/ further investigations
- **Prompt assessment by Geriatrician and Anaesthetist**
- Identify and treat correctable comorbidities immediately
- Anaemia
- Anticoagulation
- Volume depletion
- Electrolyte imbalance
- Uncontrolled diabetes
- Uncontrolled heart failure
- Correctable cardiac arrhythmia or ischaemia
- Acute chest infection
- Exacerbation of chronic chest conditions

Timing to theatre

- Dedicated planned theatre time
- Avoid prolonged fasting
- Consultant led
- Experienced theatre staff and appropriate equipment
- Early Morning NOF Checklist
- Communication
- Interpreter service
- Education to ward staff
- Local database with auditing of delays
- Quarterly executive meetings



EARLY MORNING NOF THEATRE CHECKLIST			
MONDAY – FRIDAY			
Orthopaedic Treating team plan for EMNOF confirmed <i>Dr Smith</i>	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	PATIENT STICKER	
Anaesthetic review completed	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Ortho-Geri or Medical review completed	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
NOF PHO *22007 has confirmed implants and Primary Surgeon	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Planned surgical procedure / Prosthesis <i>Right DAA Corail THR</i>	
Consent completed	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Pre-Book CARPS for 06:35hrs	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Interpreter Required NESB language spoken	Y <input type="checkbox"/> N <input type="checkbox"/>	Must state: <i>"EMNOF Patient"</i>	
ARP Completed	Y <input checked="" type="checkbox"/>	NOK Contact: <i>Dianne</i>	Available for theatre checklist from 0600hrs Y <input type="checkbox"/>
Required for all Dementia patients	N/A <input type="checkbox"/>	Ph: <i>3176 3811</i>	
Pre-operative Checklist on IEMR and wash to be completed before 0600hrs	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
All 6am-8am medications given before 0600hrs	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
ECG Performed	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Repeat Bloods completed before 4am Y <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Bloods - Coags, G&H, FBC, U&E	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
IDC in situ and MSU sent	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Chest x-ray	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Does patient have a Pacemaker?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Inform Radiographer on pager 7077 for all IM Nails, DHS/CHS, cannulated screws or Anterior approach THR/Hemiarthroplasty	
NIMBUS Mattress	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Identify Patient, URN, Prosthesis and date EMNOF Y <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	
MSQ Score documented: <i>B/10</i>			
OUT OF HOURS BOOKING FOR EMNOF		IN HOURS BOOKING FOR EMNOF	
Emergency Booking form completed by the Orthopaedic Reg	Y <input type="checkbox"/> N <input type="checkbox"/>	Booking form faxed to Elective bookings on 5170 before 4pm	Y <input type="checkbox"/> N <input type="checkbox"/>
	Y <input type="checkbox"/> N <input type="checkbox"/>	Call Bookings on 7255 to confirm patient is on the EMNOF list	Y <input type="checkbox"/> N <input type="checkbox"/>
Smith & Nephew - Helen Williams	0400 656 130		
Biomet - Cameron Monroe	0419 184965		
Zimmer - Sarah Way	0400876573		
Depuy/Synthes - Ben Handcock	0417566291		
Throplasty Stryker - Nick Edwards	0417 416 914		
If surgical plans are changed – Please cancel CARPS, notify list covering and the appropriate Implant Representative.			

Longer-duration hip fracture surgery linked to more risk of post-op delirium



Although almost always temporary, post-operative delirium can be unpleasant and frightening, and has been linked to longer hospital stays and higher risk of death.

Study looked at data for nearly 70,000 people aged 65+ who had hip fracture surgery between 2009 and 2017.



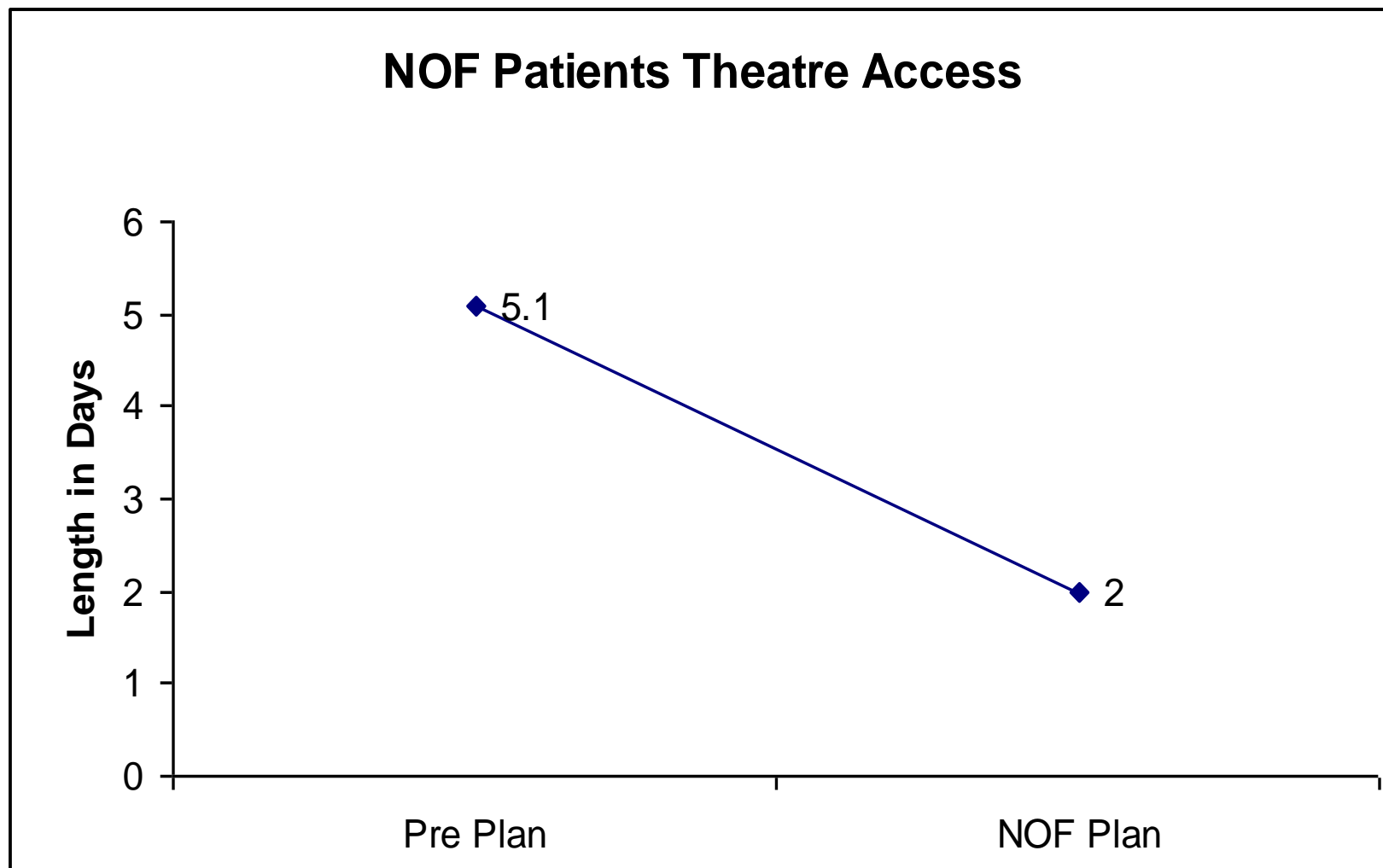
11%
were diagnosed
with post-operative
delirium.



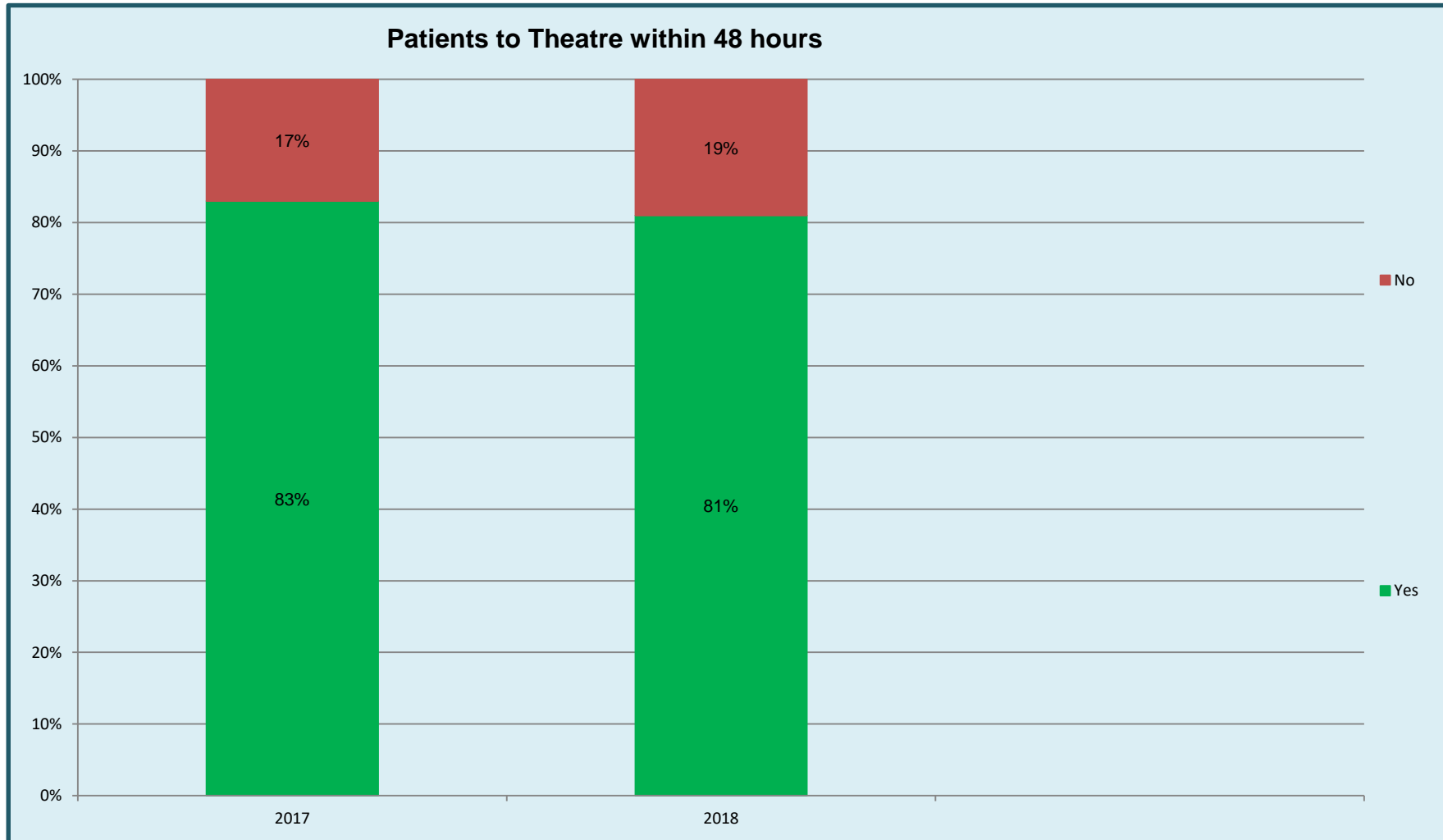
Each
30 minutes
of additional surgery
time increased the
relative risk of post-
operative delirium
by 6%.

Ravi B et al. *JAMA Network Open*. 2019.

Timing to theatre outcomes 2006-2009



Timing to theatre outcomes 2017 - 2018



Thank you

Any questions?

