ANNUAL REPORT 2019

SUPPLEMENTARY REPORT
AUSTRALIAN STATES AND TERRITORIES

ANZHFR
Australian & New Zealand Hip Fracture Registry

ENHANCING OUTCOMES FOR OLDER PEOPLE

ABBRIEVIATIONS

ACT	Australian Capital Territory
CT	Computed Tomography
ED	Emergency Department
Hip fracture data	Data collected by hospitals that is in addition to information recorded in the patient's medical record
MOC	Model of Care
MRI	Magnetic Resonance Imaging
N	Number of hospitals providing definitive management for hip fractures
NZ	New Zealand
NT	Northern Territory
OT	Operating Theatre
QLD	Queensland
SA	South Australia
TAS	Tasmania
Therapy	Provision of allied health services, primarily physiotherapy services
VIC	Victoria
VTE	Venous Thromboembolism
WA	Western Australia

NeuRA
Discover. Conquer. Cure.

NZOA
New Zealand Orthopaedic Association

UNSW SYDNEY

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CO-CHAIRS' FOREWORD

Welcome to the 2019 ANZHFR supplementary report that is designed to facilitate cross-jurisdictional comparison of performance of hip fracture care. This is our second State-based report, which we hope will encourage States to look beyond artificial geographical boundaries and give consideration of where best care is delivered. It comes following a year where we were able to visit all States except Victoria and run a series of Hip Fracture Festivals. These Festivals saw clinicians of all disciplines coming together to celebrate their successes and commitment to working in partnership to solve some of the more challenging issues facing them.

Much of what is delivered and achieved in hip fracture care is a direct reflection of the organisation of service models at a facility level and individual clinical champions driving quality improvement work in their local hospital. However, there is little doubt that quality improvement and service redesign also happen at a District / Network and State level. Capturing the impact of District / Network and State level improvement activity is challenging but this years' report continues to highlight marked variation in performance between States in the delivery of the Australian Commission on Safety and Quality in Health Care's Hip Fracture Care Clinical Care Standard.

The Australian Commission's Clinical Care Standard for Delirium recommends that "a patient presenting to hospital with one or more key risk factors for delirium receives cognitive screening using a validated test." Cognition has an important impact on the hip fracture journey in terms of incident delirium, nutrition, rehabilitation potential and discharge destination, yet in two States, less than 50% of patients are having an objective measure of cognitive function undertaken in advance of surgical intervention. Knowledge of someones' cognitive state at an early stage in their admission can influence a number of important care decisions. The positioning of the patient on the ward in terms of observation; the triggering of assessment of nutritional status; ensuring someone who is cognitively impaired manages and maintains fluid and food intake; and importantly, early involvement of family and carers in advising and providing input into a patient's care.

Time to surgery is one of our most important indicators in hip fracture care and both Western Australia and South Australia remain our top performing States. Both States have undertaken work at State / District / Network level in recent years. SA Health undertook clinical redesign and service reorganisation of hip fracture care in South Australia and involved all Local Health Networks and SA Ambulance Service (https://bit.ly/2YKqTvc). This included limiting the number of centres undertaking hip fracture surgery and permitting direct ambulance transport to Orthogeriatric Fracture Centres. These centres have 7 day a week access to orthopaedic surgeons, geriatricians / physicians (including use of tele-health support) and anaesthetists.

Access to theatres continues to dominate the reasons for delaying surgery beyond 48hrs and this is particularly evident in the lower performing States – Victoria, New South Wales and Queensland. If these States are to elevate their performance to that of South Australia and Western Australia then they will need to address theatre availability. This is something that is often beyond the control of individual clinicians and requires a system level approach. It is important to consider lines of reporting to highlight where issues exist. In some LHDs, time to surgery is a performance indicator reported to the CEO of the Local Health District / Network. Both New South Wales (Leading Better Value Care, Agency for Clinical Innovation) and Victoria (Safer Care Victoria) have State level initiatives in progress that include time to surgery. Future reports will provide evidence on the impact of these initiatives.

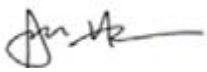
Not surprisingly, Western Australian and South Australia have the shortest acute length of stay. The message appears clear: if you deal with the acute issue in a timely manner, it reduces acute bed occupancy and ultimately reduces cost of care. In the Perth area, there is a local agreement between the acute and rehabilitation hospitals whereby people admitted from home are referred for rehabilitation two days after hip fracture surgery. The results are clear to see in terms of acute bed occupancy with a mean length of stay of five days in the acute hospital in WA as compared to eleven days in New South Wales and Tasmania.

Initiation of treatment to prevent another fracture remains a care gap across Australia. There are multiple reasons as to why initiating treatment for osteoporosis in hospital can be difficult but with the best performing State (SA) only managing to start 46% of patients on effective evidence based treatment, there is clearly more to be done. Some of the improvement activities need to be clinician directed and owned, but there are also challenges in some States with the Commonwealth / State Health agreement and the reluctance of State run facilities to cover the cost of initiating treatment for what is essentially a chronic disease.

We hope this State-based report provides food-for-thought, and an opportunity to reflect on current practice and performance. Knowledge and an understanding of current performance is a crucial part of driving change and improving care.

Professor Jacqui Close
Geriatrician

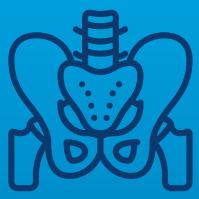
Co-Chair
Australian and New Zealand
Hip Fracture Registry



Professor Ian Harris AM
Orthopaedic Surgeon

Co-Chair
Australian and New Zealand
Hip Fracture Registry

SUMMARY OF FINDINGS



Most hip fracture patients are admitted to hospital from a private residence, ranging from

69% in Queensland to **75%** in Tasmania

68% of hip fracture patients are female

The assessment of a patient's cognition preoperatively varies from

20% of patients in Victoria to **78%** of patient's in Tasmania

The provision of nerve blocks for the management of pain before the patient is transferred to the operating theatre varies from

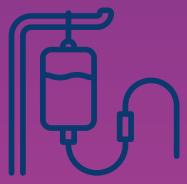
50% in Tasmania to **87%** in Western Australia

The average time to surgery for hip fracture patients varies from

27 hours in South Australia to **44 hours** in both NSW and Victoria

The proportion of patient's receiving a nerve block to manage pain before and/or after surgery varies from

80% in Tasmania to **95%** in Western Australia



The proportion of patient's receiving surgery within 48 hours ranges from

71% of the time in NSW to **90%** in South Australia

In Tasmania **76%** of patients are given the opportunity to mobilise on the day of surgery or the day after surgery, ranging to **96%** in Queensland

11% of hip fracture patients in Victoria and **47%** in South Australia are discharged on active treatment for osteoporosis

SECTION 1: PATIENT LEVEL AUDIT
AUSTRALIAN STATES

FIGURE S1 PATIENT COUNT BY STATE

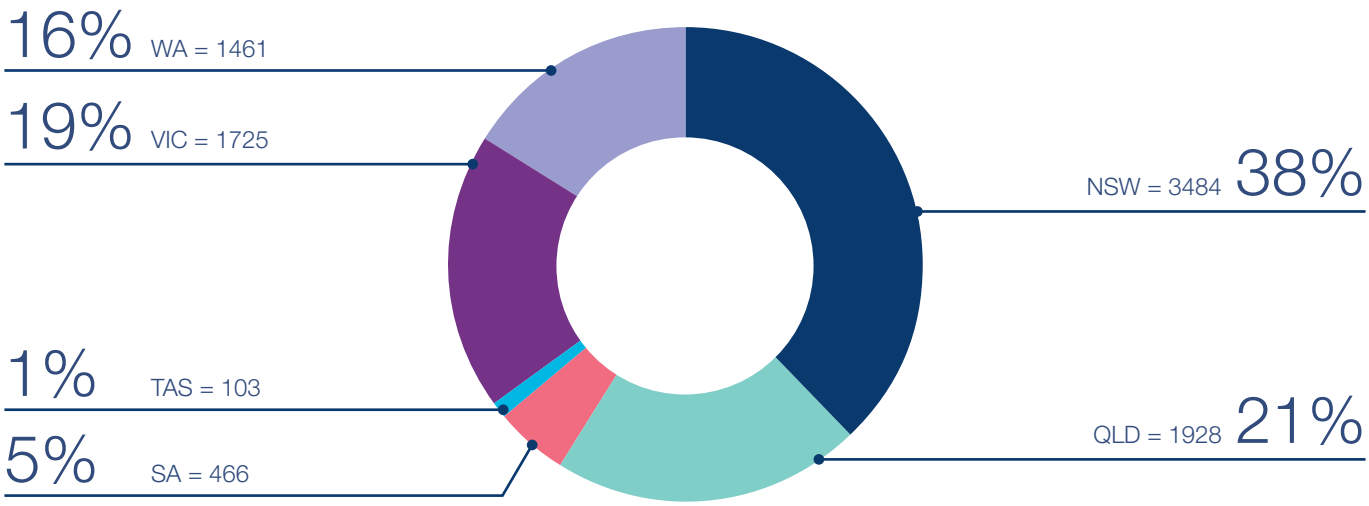


FIGURE S2 SEX BY STATE

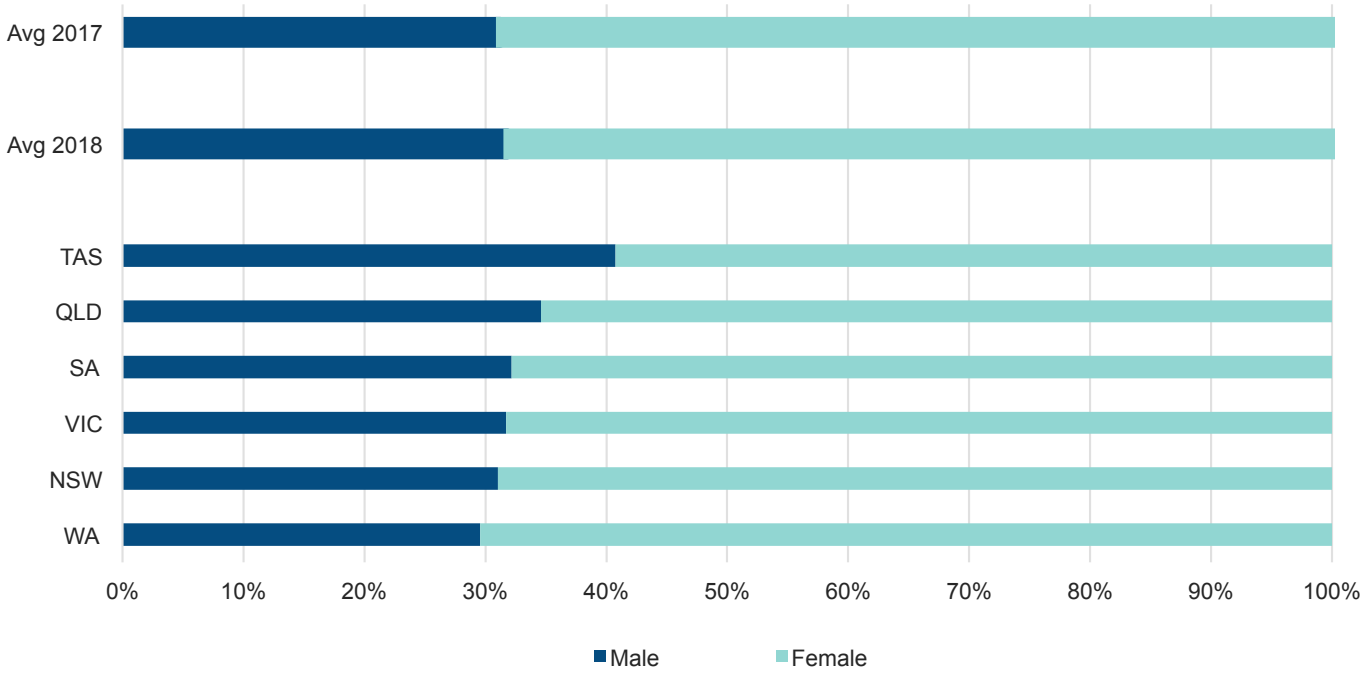


FIGURE S3 USUAL PLACE OF RESIDENCE BY STATE

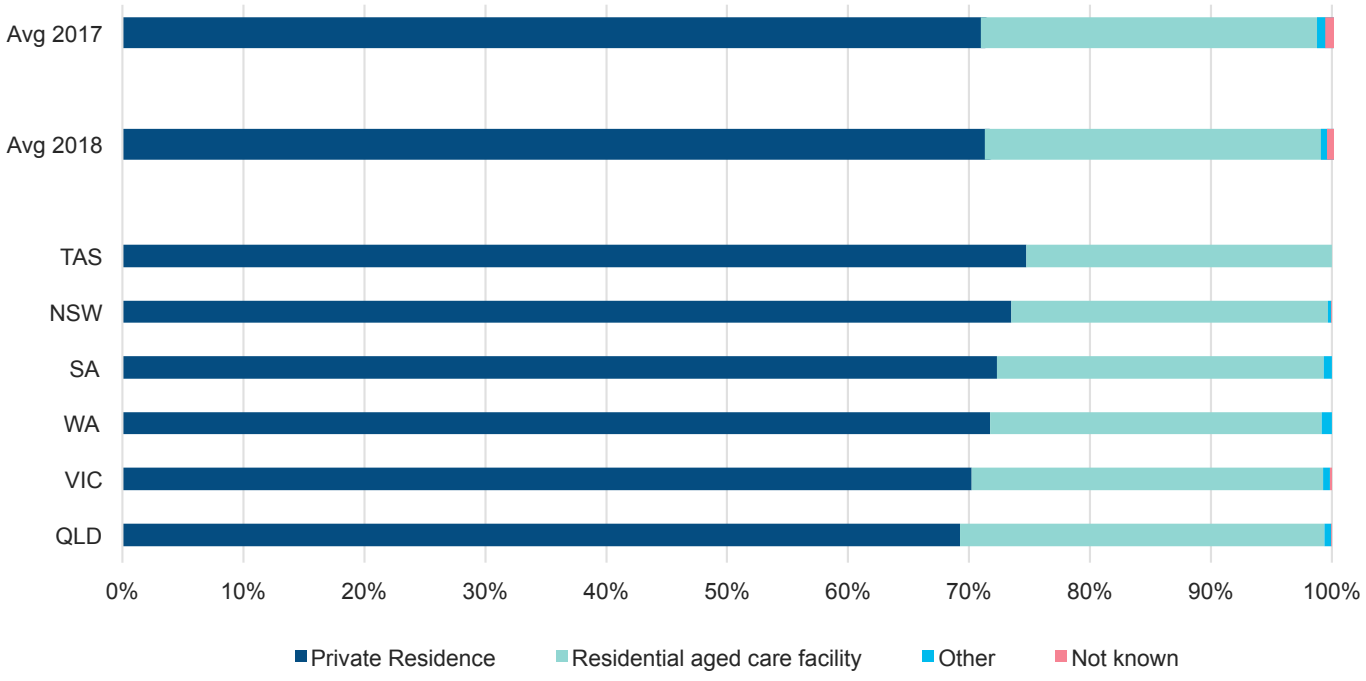


FIGURE S4 PRE-ADMISSION COGNITION BY STATE

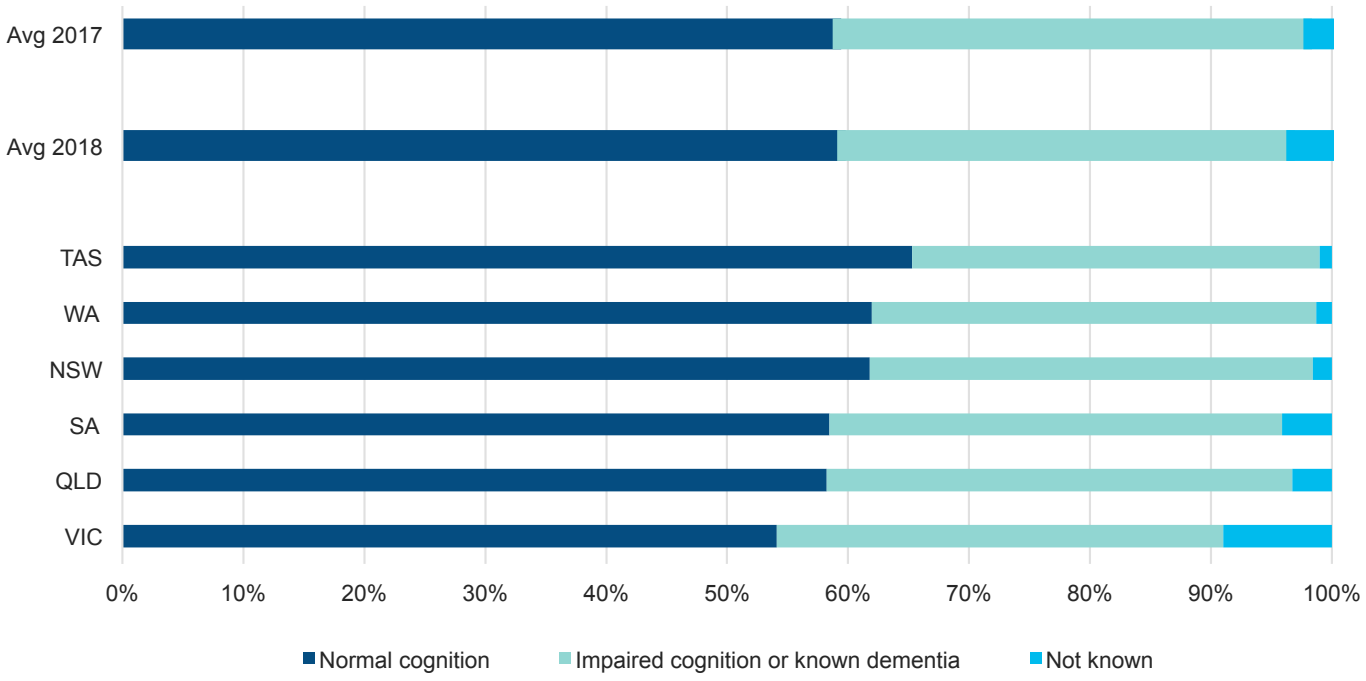


FIGURE S5 PRE-ADMISSION WALKING ABILITY BY STATE

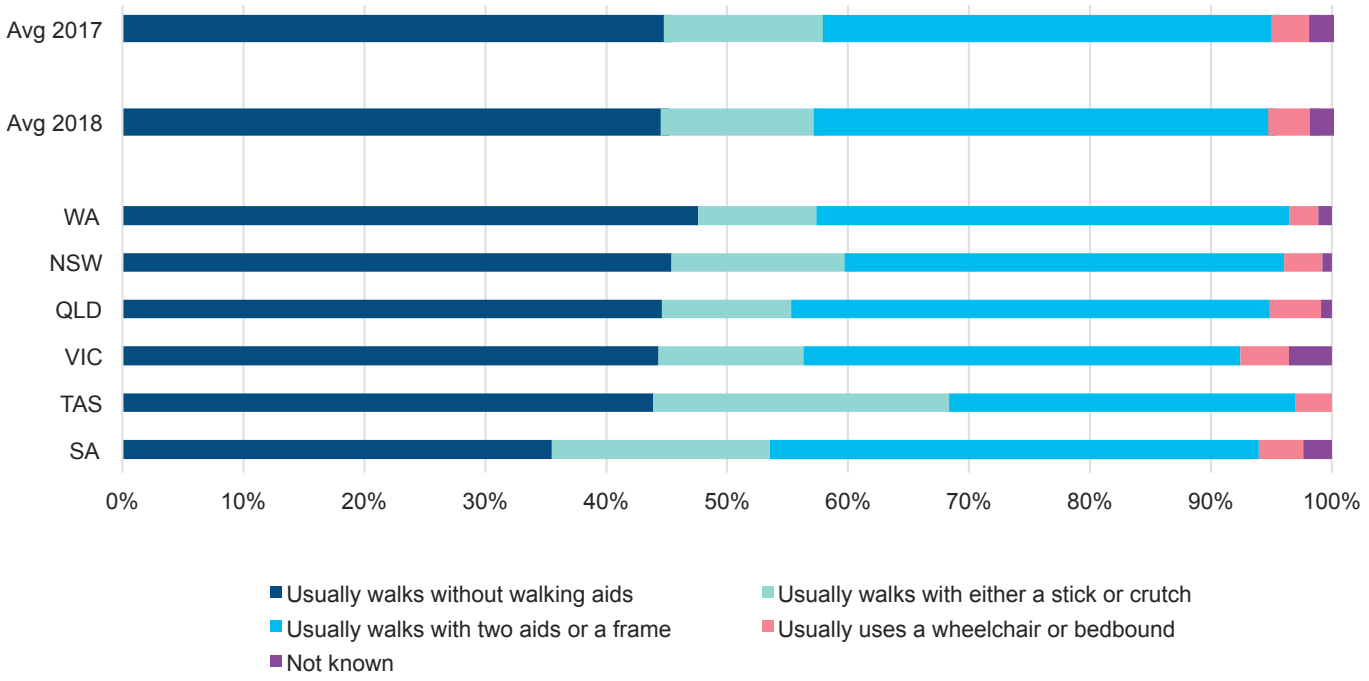


FIGURE S6 PREOPERATIVE COGNITIVE ASSESSMENT BY STATE

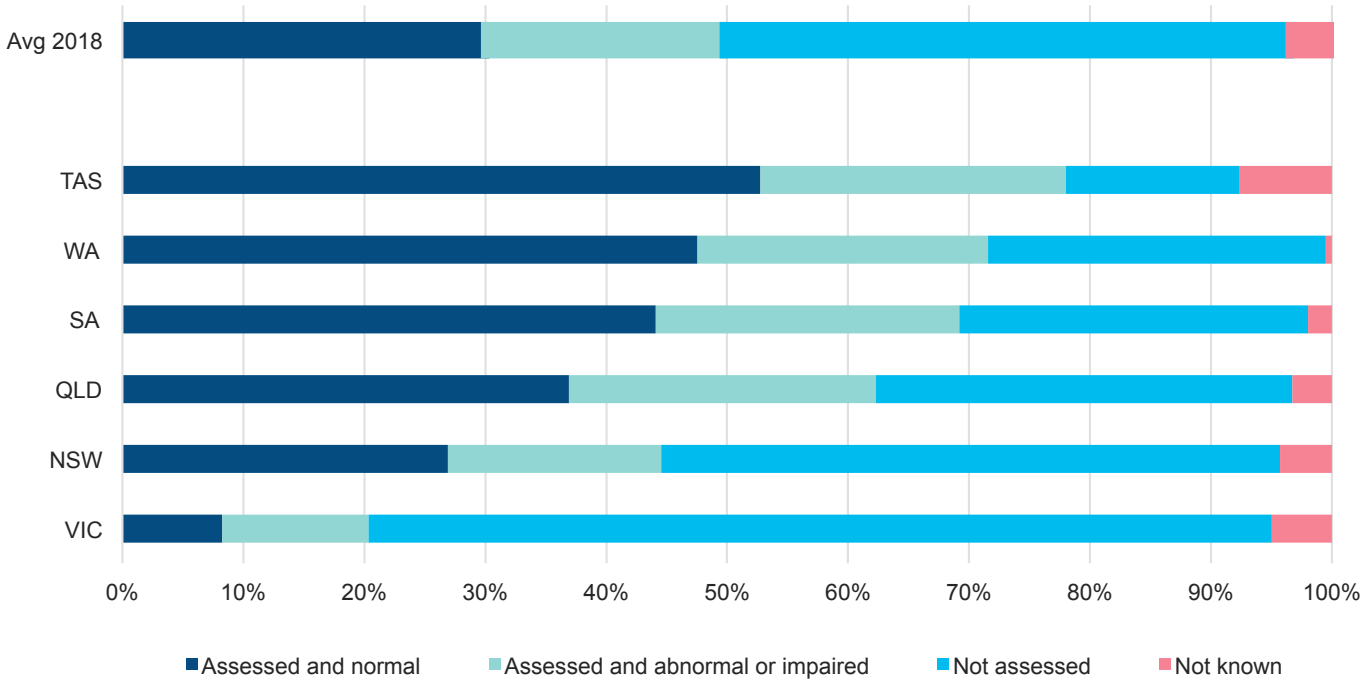


FIGURE S7 NERVE BLOCKS BY STATE

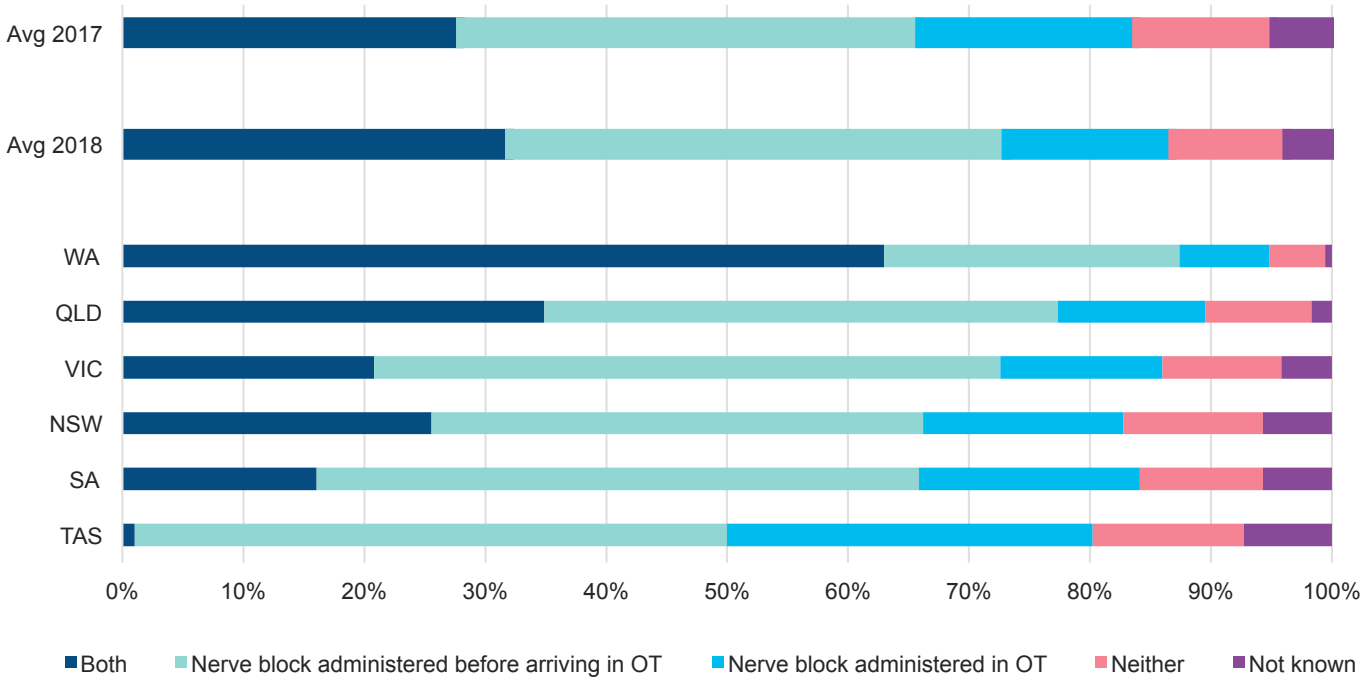


FIGURE S8 TIME IN THE EMERGENCY DEPARTMENT (ED) BY STATE

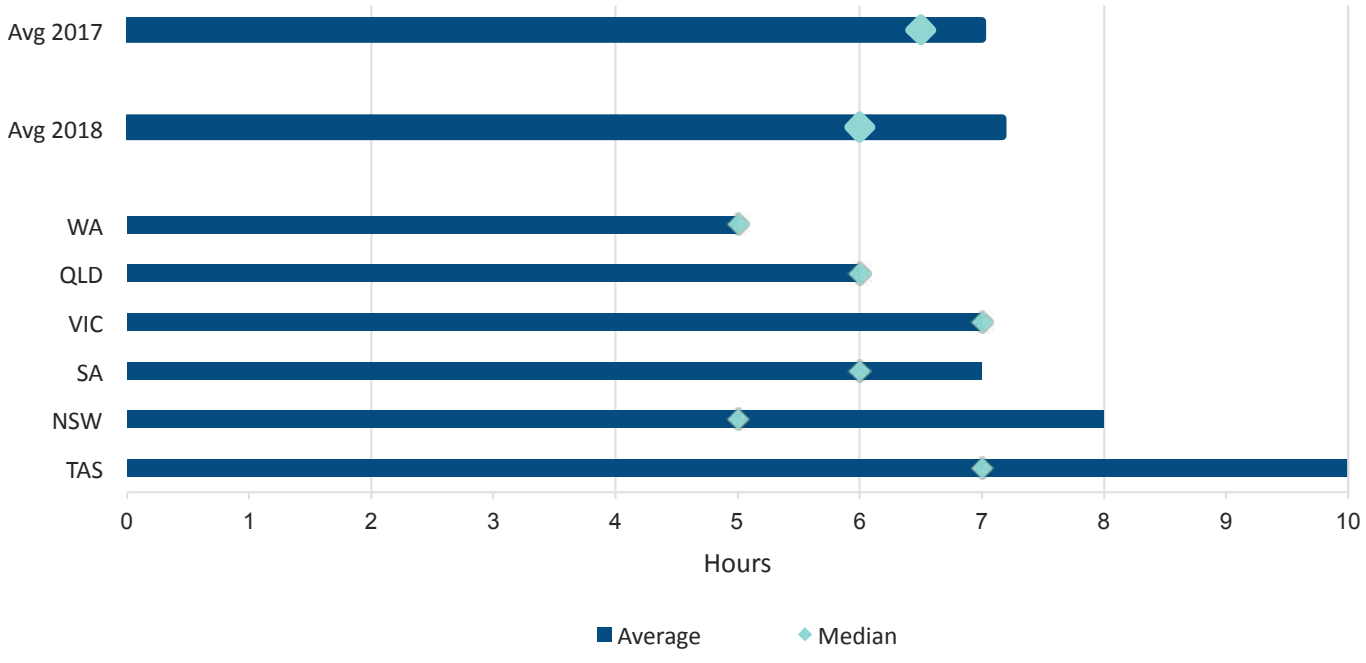


FIGURE S9 AVERAGE TIME TO SURGERY BY STATE

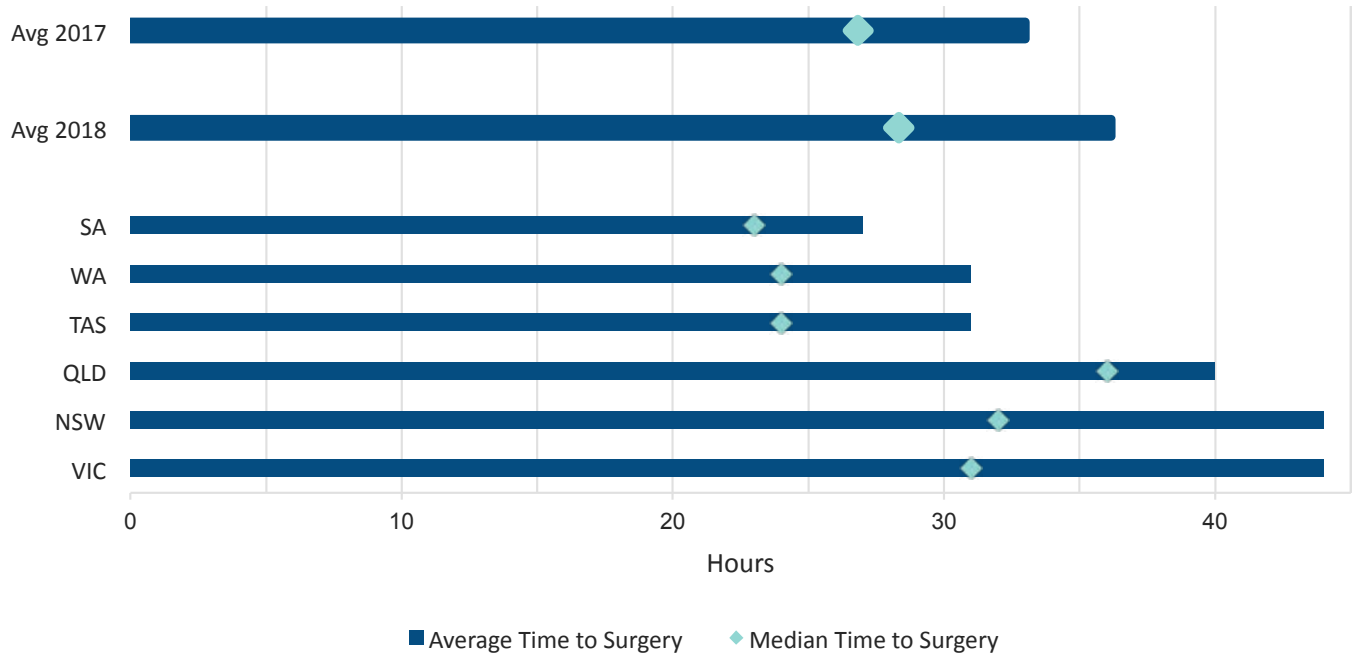


FIGURE S10 SURGERY WITHIN 48 HOURS BY STATE

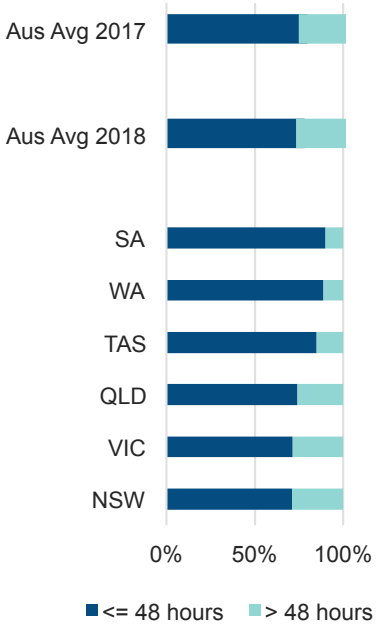


FIGURE S11 REASON FOR SURGICAL DELAY BY STATE

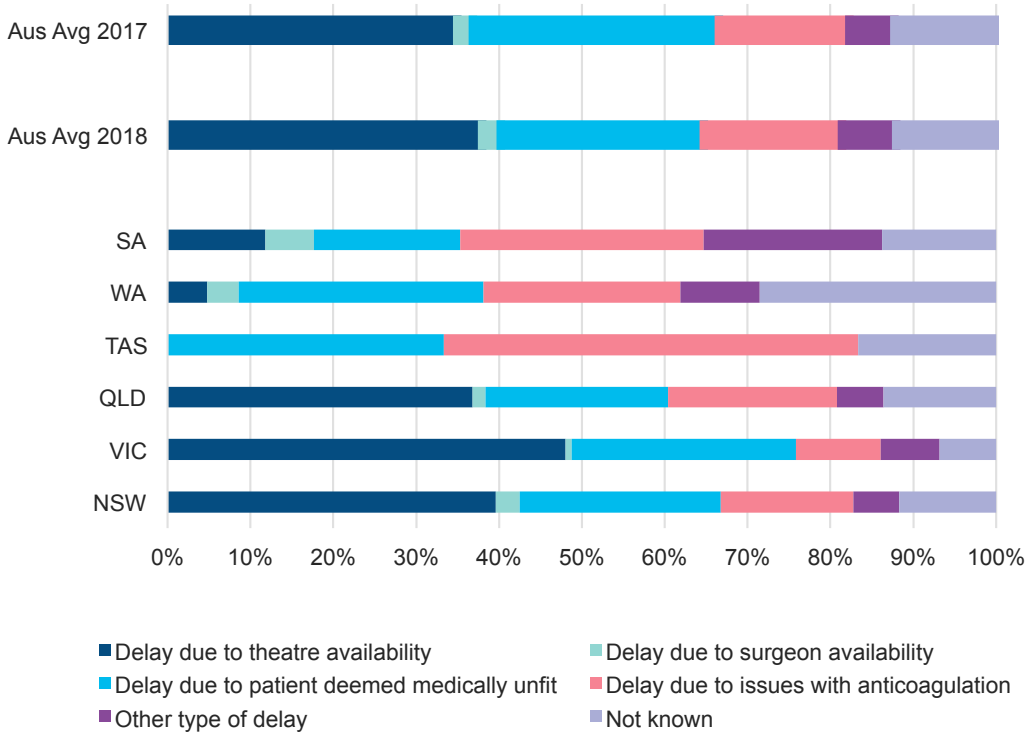


FIGURE S12 MOBILISATION BY STATE

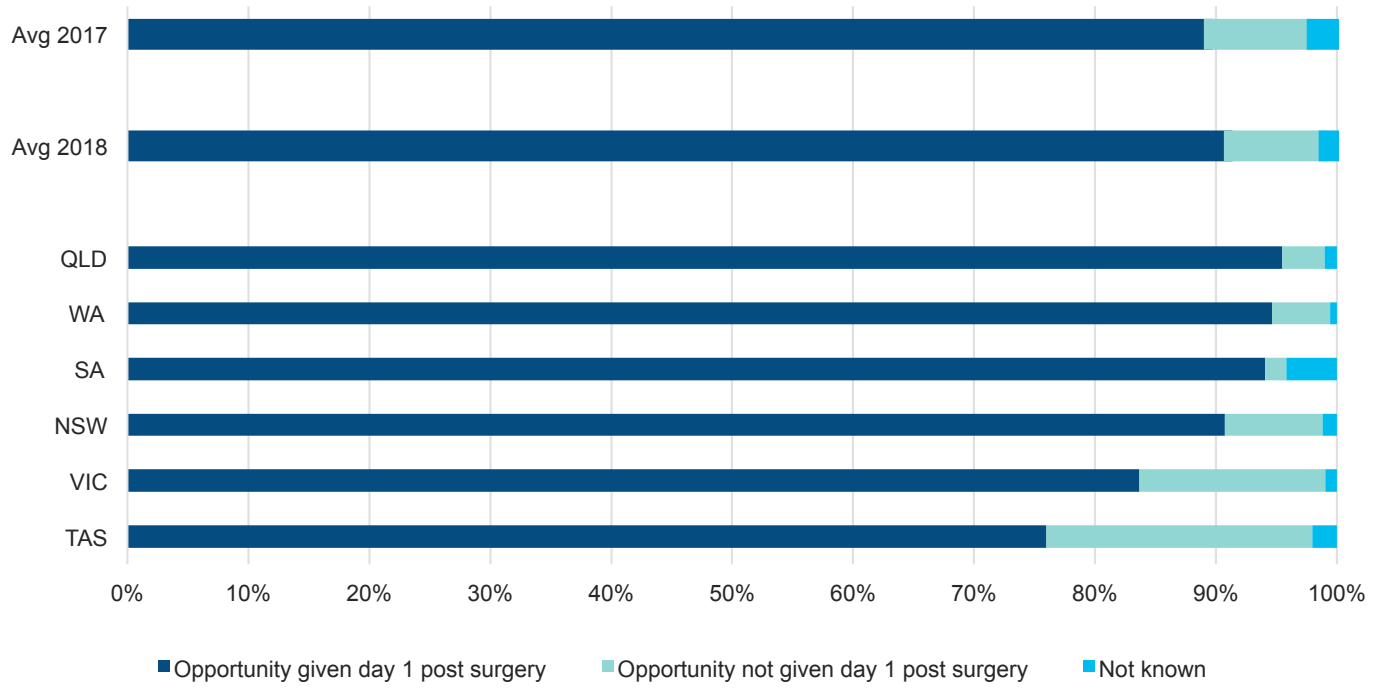


FIGURE S13 ACUTE LENGTH OF STAY BY STATE

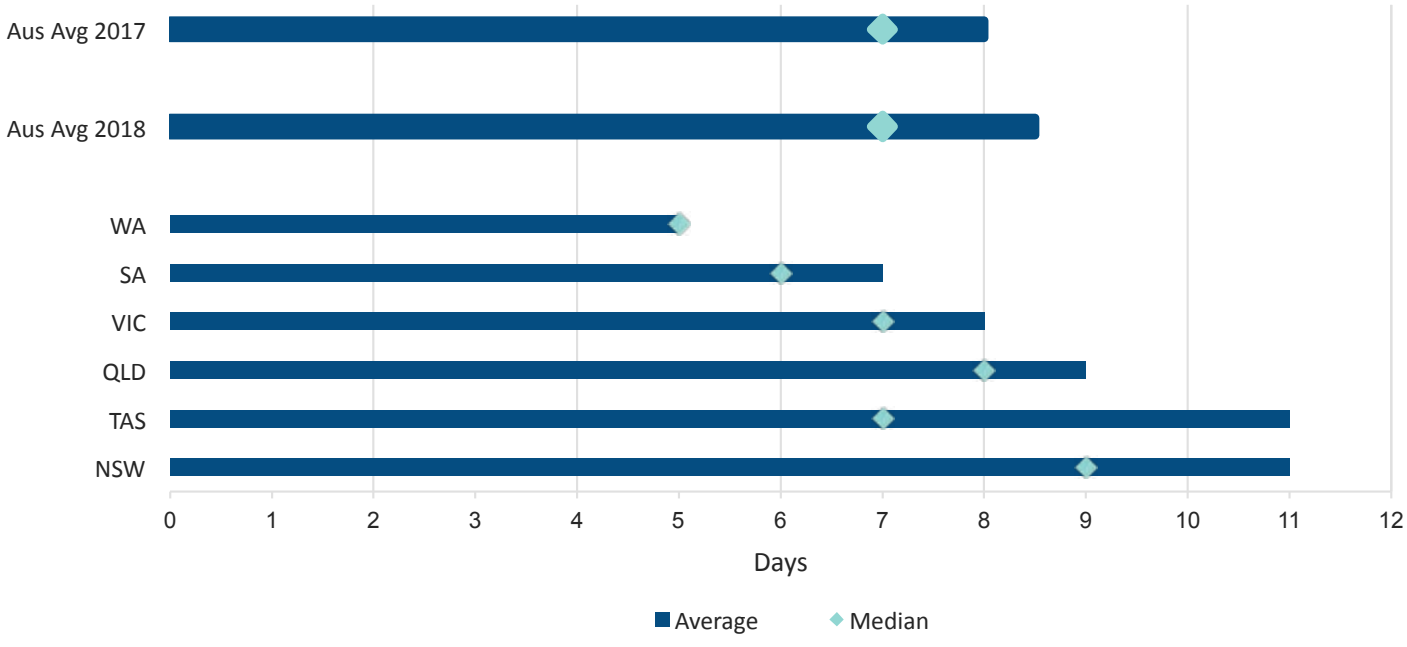


FIGURE S14 BONE MEDICATION ON DISCHARGE BY STATE

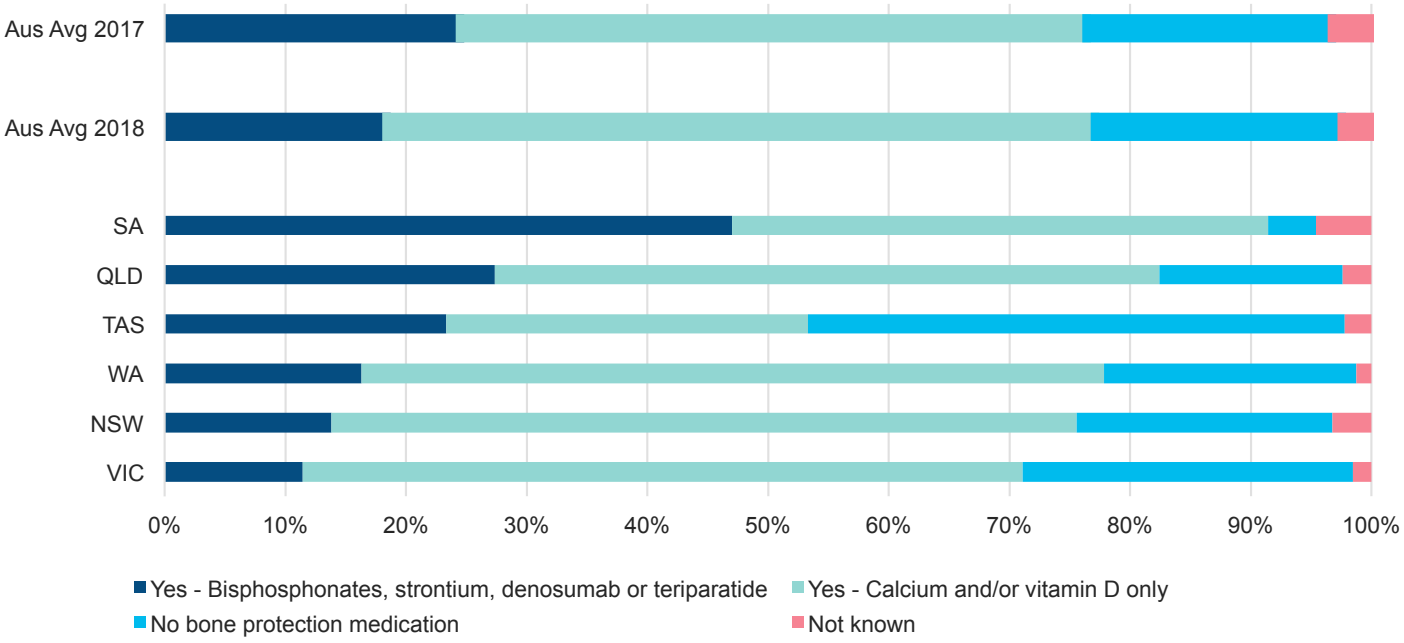
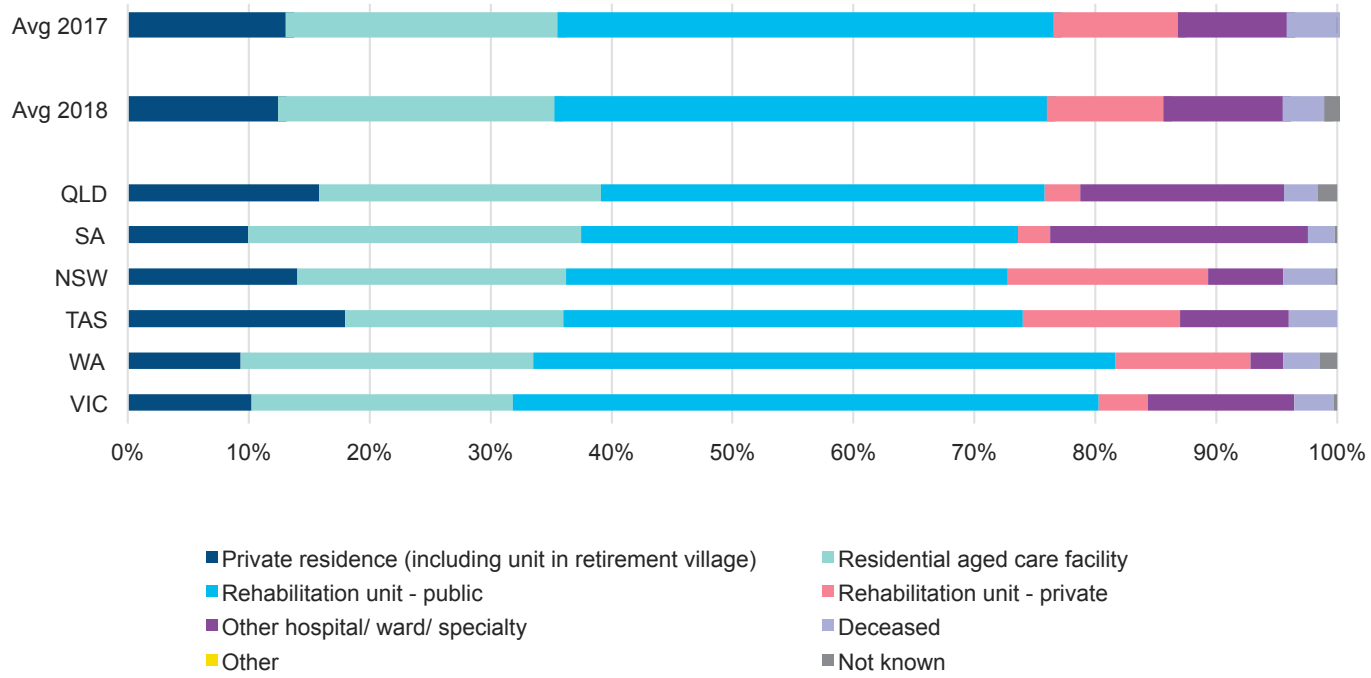


FIGURE S15 DISCHARGE DESTINATION FROM ACUTE CARE BY STATE



SECTION 2: FACILITY LEVEL AUDIT AUSTRALIAN STATES AND TERRITORIES

2.1 NEW SOUTH WALES

TABLE S1: NSW HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019

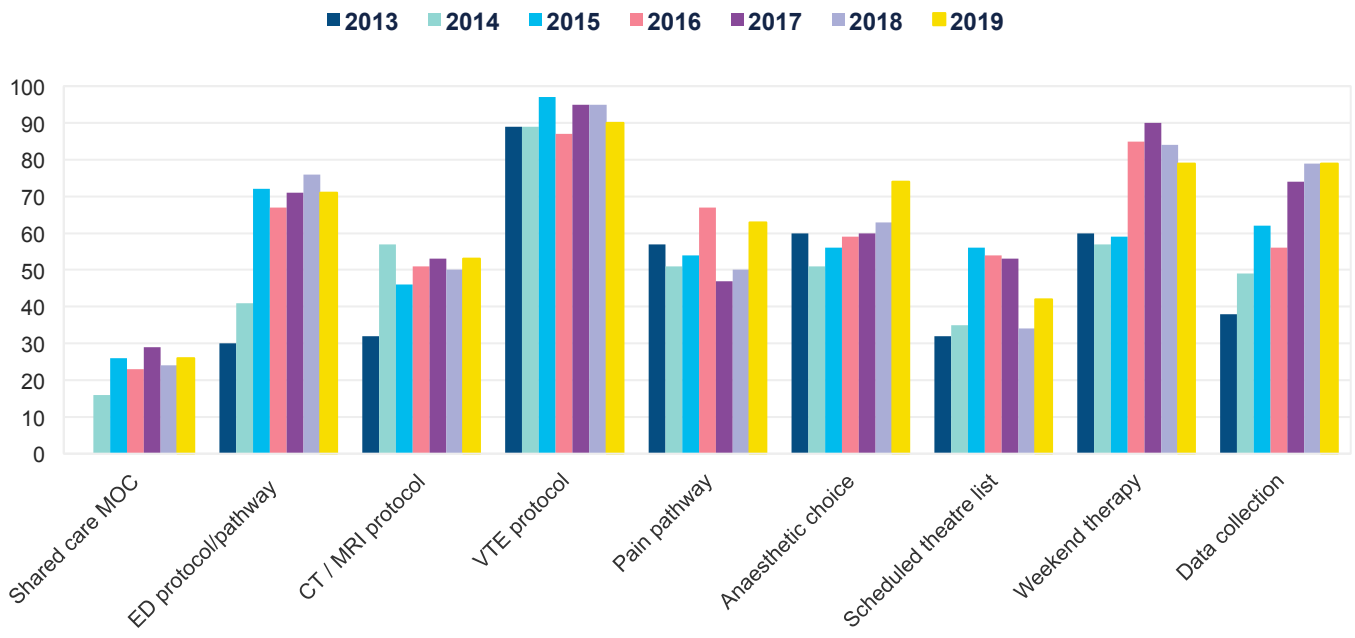
	2013 (n = 37)	2014 (n = 37)	2015 (n = 39)	2016 (n = 39)	2017 (n = 38)	2018 (n = 38)	2019 (n = 38)
Shared care MOC	n/a	16%	26%	23%	29%	24%	26%
ED protocol/pathway*	30%	41%	72%	67%	71%	76%	71%
CT / MRI protocol	32%	57%	46%	51%	53%	50%	53%
VTE protocol	89%	89%	97%	87%	95%	95%	90%
Pain pathway	57%	51%	54%	67%	47%	50%	63%
Anaesthetic choice^	60%	51%	56%	59%	60%	63%	74%
Scheduled theatre list	32%	35%	56%	54%	53%	34%	42%
Weekend therapy	60%	57%	59%	85%	90%	84%	79%
Data collection	38%	49%	62%	56%	74%	79%	79%

n/a = not asked

*protocol/pathway in the ED: 2015 to 2019 includes pathway in ED only and pathway for the whole acute journey

^given choice of anaesthesia: 2014 to 2019 Always or Frequently = Yes

FIGURE S16 NSW HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019



2.2 VICTORIA

TABLE S2: VICTORIAN HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019

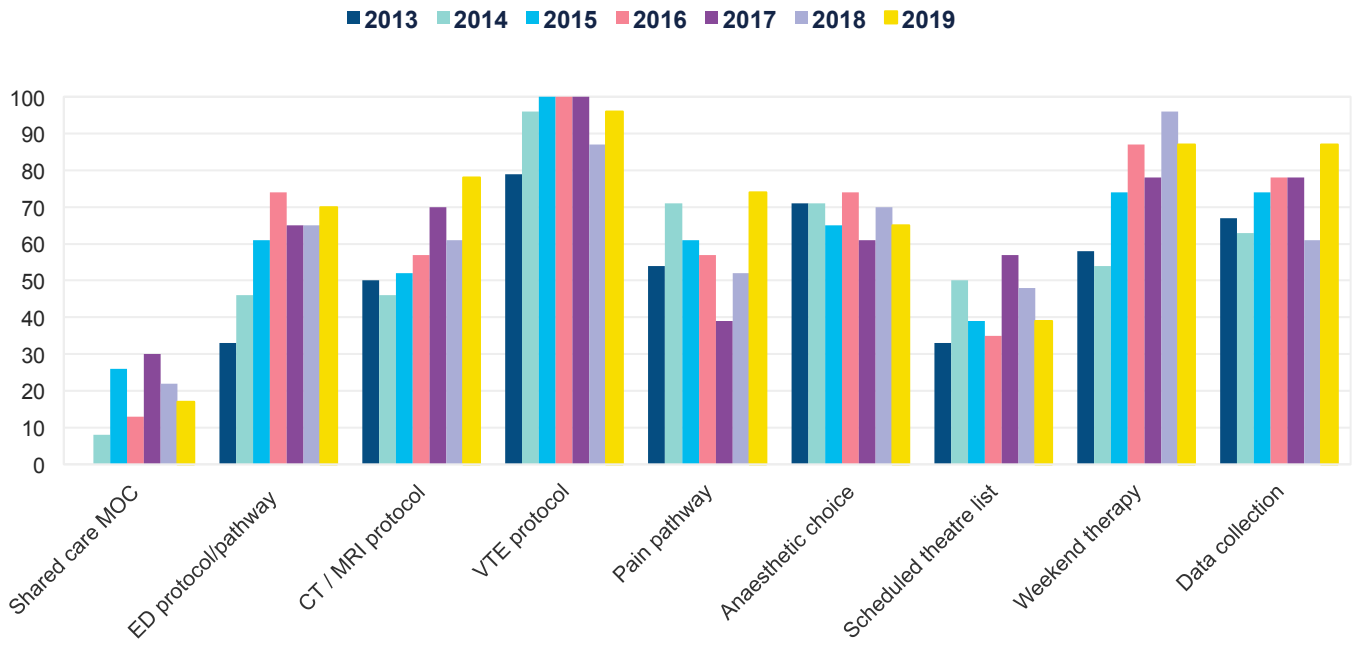
	2013 (n = 24)	2014 (n = 24)	2015 (n = 23)	2016 (n = 23)	2017 (n = 23)	2018 (n = 23)	2019 (n = 23)
Shared care MOC	n/a	8%	26%	13%	30%	22%	17%
ED protocol/pathway*	33%	46%	61%	74%	65%	65%	70%
CT / MRI protocol	50%	46%	52%	57%	70%	61%	78%
VTE protocol	79%	96%	100%	100%	100%	87%	96%
Pain pathway	54%	71%	61%	57%	39%	52%	74%
Anaesthetic choice^	71%	71%	65%	74%	61%	70%	65%
Scheduled theatre list	33%	50%	39%	35%	57%	48%	39%
Weekend therapy	58%	54%	74%	87%	78%	96%	87%
Data collection	67%	63%	74%	78%	78%	61%	87%

n/a = not asked

*protocol/pathway in the ED: 2015 to 2019 includes pathway in ED only and pathway for the whole acute journey

^given choice of anaesthesia: 2014 to 2019 Always or Frequently = Yes

FIGURE S17 VICTORIAN HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019



2.3 QUEENSLAND

TABLE S3: QUEENSLAND HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019

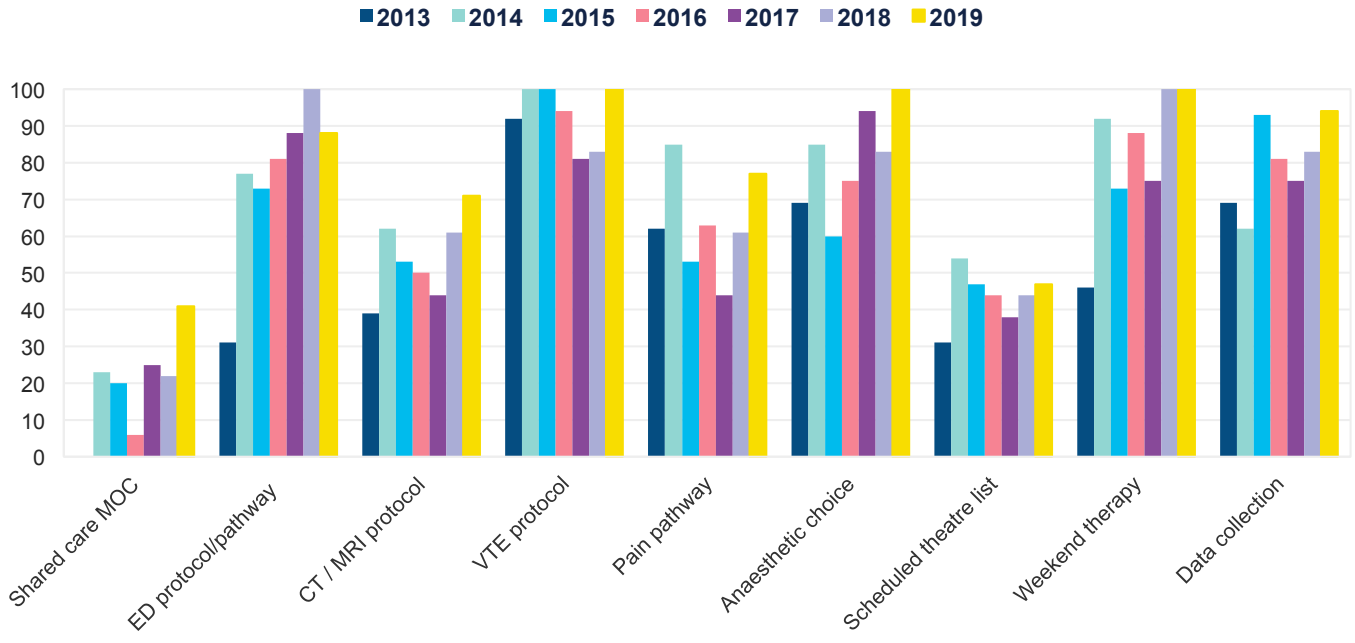
	2013 (n = 13)	2014 (n = 13)	2015 (n = 15)	2016 (n = 16)	2017 (n = 16)	2018 (n = 18)	2019 (n = 17)
Shared care MOC	n/a	23%	20%	6%	25%	22%	41%
ED protocol/pathway*	31%	77%	73%	81%	88%	100%	88%
CT / MRI protocol	39%	62%	53%	50%	44%	61%	71%
VTE protocol	92%	100%	100%	94%	81%	83%	100%
Pain pathway	62%	85%	53%	63%	44%	61%	77%
Anaesthetic choice^	69%	85%	60%	75%	94%	83%	100%
Scheduled theatre list	31%	54%	47%	44%	38%	44%	47%
Weekend therapy	46%	92%	73%	88%	75%	100%	100%
Data collection	69%	62%	93%	81%	75%	83%	94%

n/a = not asked

*protocol/pathway in the ED: 2015 to 2019 includes pathway in ED only and pathway for the whole acute journey

^given choice of anaesthesia: 2014 to 2019 Always or Frequently = Yes

FIGURE S18 QUEENSLAND HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019



2.4 SOUTH AUSTRALIA

TABLE S4: SOUTH AUSTRALIAN HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019

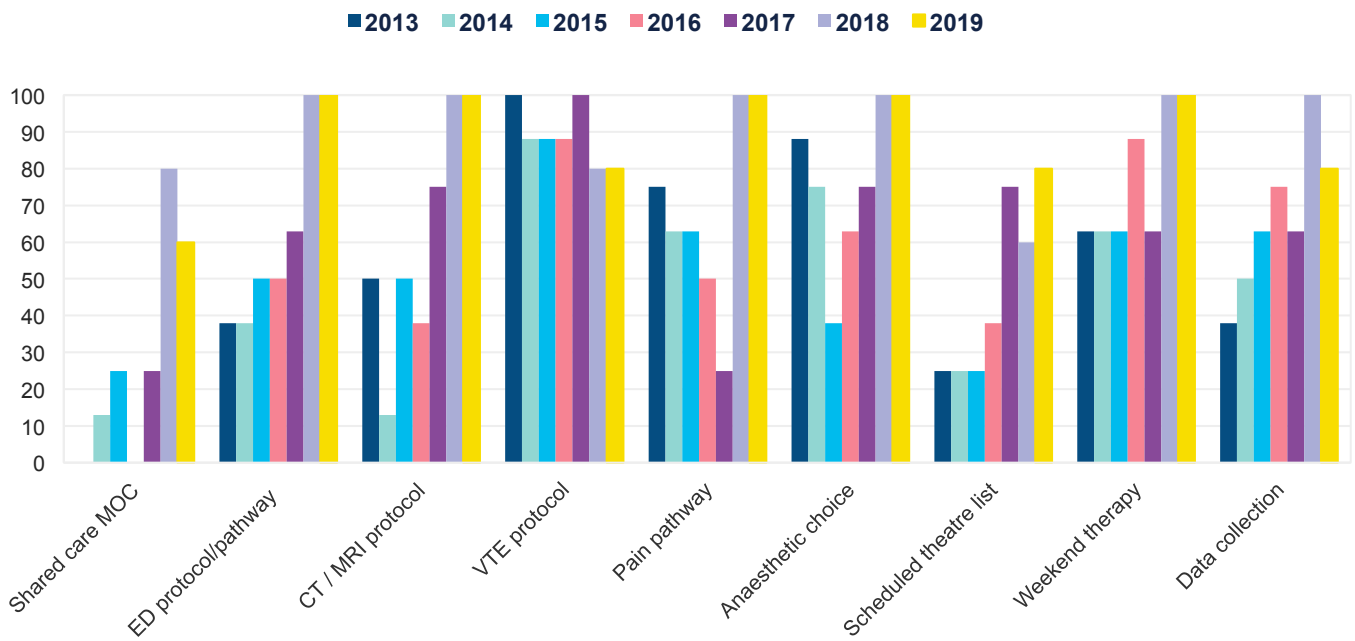
	2013 (n = 8)	2014 (n = 8)	2015 (n = 8)	2016 (n = 8)	2017 (n = 8)	2018 (n = 5)	2019 (n = 5)
Shared care MOC	n/a	13%	25%	0%	25%	80%	60%
ED protocol/pathway*	38%	38%	50%	50%	63%	100%	100%
CT / MRI protocol	50%	13%	50%	38%	75%	100%	100%
VTE protocol	100%	88%	88%	88%	100%	80%	80%
Pain pathway	75%	63%	63%	50%	25%	100%	100%
Anaesthetic choice^	88%	75%	38%	63%	75%	100%	100%
Scheduled theatre list	25%	25%	25%	38%	75%	60%	80%
Weekend therapy	63%	63%	63%	88%	63%	100%	100%
Data collection	38%	50%	63%	75%	63%	100%	80%

n/a = not asked

*protocol/pathway in the ED: 2015 to 2019 includes pathway in ED only and pathway for the whole acute journey

^given choice of anaesthesia: 2014 to 2019 Always or Frequently = Yes

FIGURE S19 SOUTH AUSTRALIAN HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019



2.5 WESTERN AUSTRALIA

TABLE S5: WESTERN AUSTRALIAN HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019

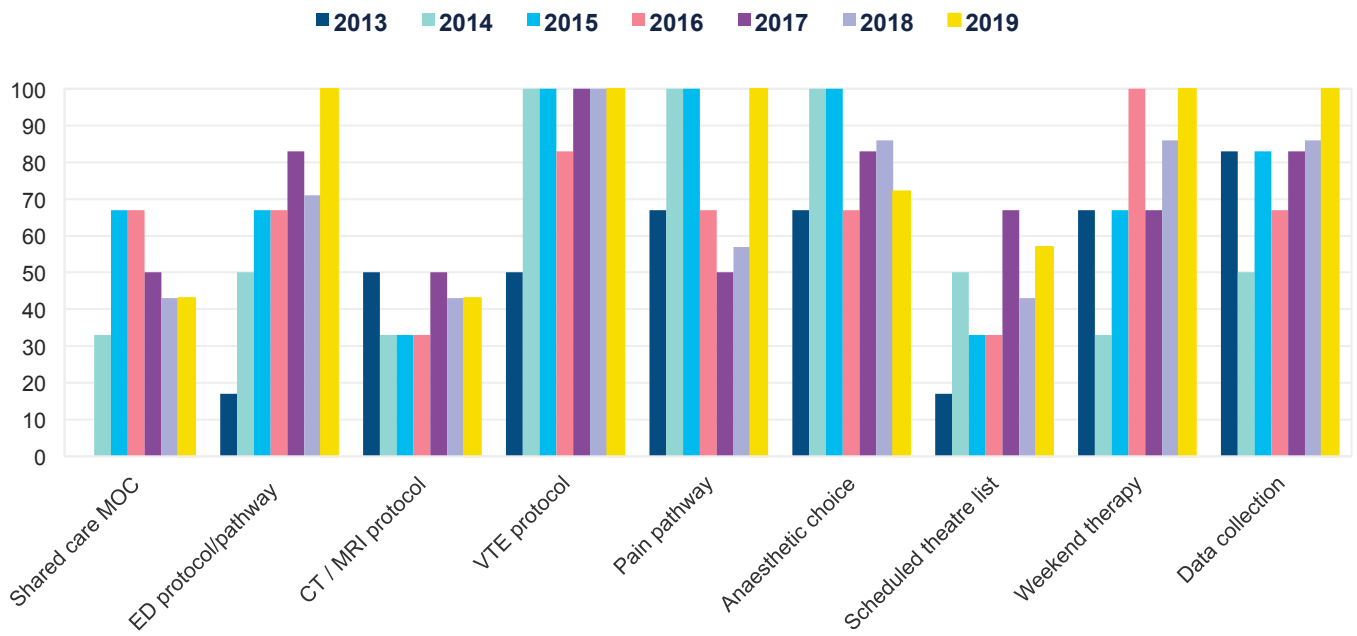
	2013 (n = 6)	2014 (n = 6)	2015 (n = 6)	2016 (n = 6)	2017 (n = 6)	2018 (n = 7)	2019 (n = 7)
Shared care MOC	n/a	33%	67%	67%	50%	43%	43%
ED protocol/pathway*	17%	50%	67%	67%	83%	71%	100%
CT / MRI protocol	50%	33%	33%	33%	50%	43%	43%
VTE protocol	50%	100%	100%	83%	100%	100%	100%
Pain pathway	67%	100%	100%	67%	50%	57%	100%
Anaesthetic choice^	67%	100%	100%	67%	83%	86%	72%
Scheduled theatre list	17%	50%	33%	33%	67%	43%	57%
Weekend therapy	67%	33%	67%	100%	67%	86%	100%
Data collection	83%	50%	83%	67%	83%	86%	100%

n/a = not asked

*protocol/pathway in the ED: 2015 to 2019 includes pathway in ED only and pathway for the whole acute journey

^given choice of anaesthesia: 2014 to 2019 Always or Frequently = Yes

FIGURE S20 WESTERN AUSTRALIAN HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019



2.6 TASMANIA

TABLE S6: TASMANIAN HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019

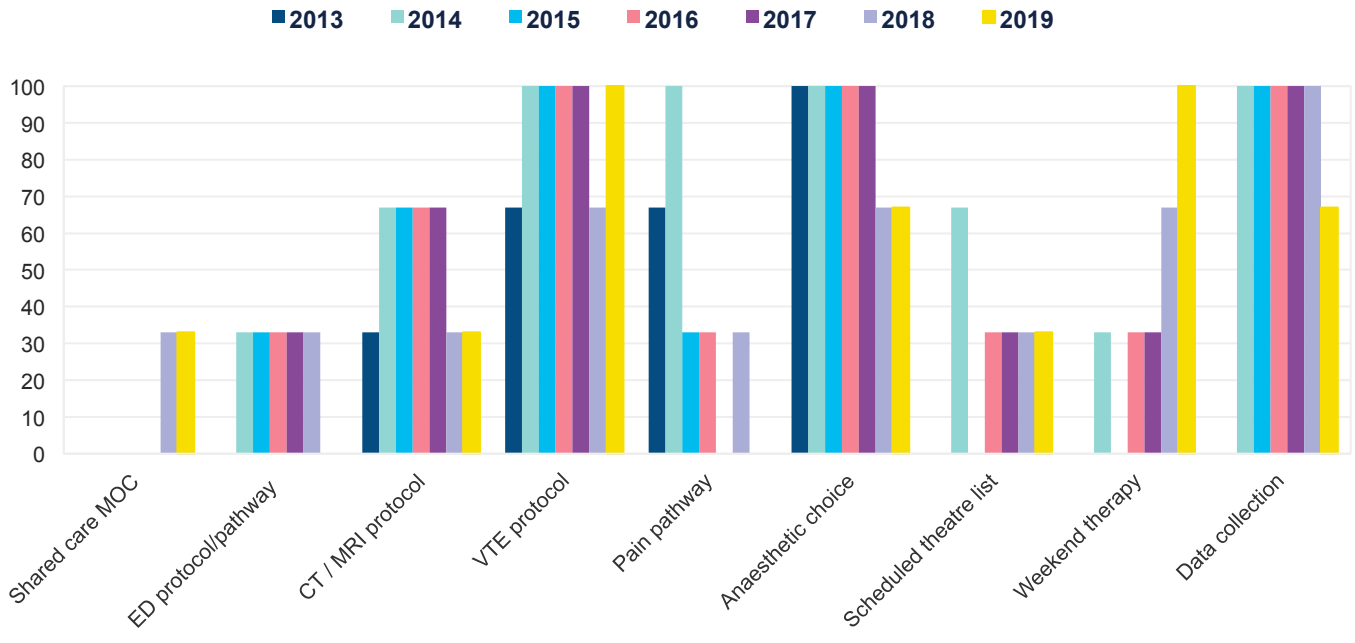
	2013 (n = 3)	2014 (n = 3)	2015 (n = 3)	2016 (n = 3)	2017 (n = 3)	2018 (n = 3)	2019 (n = 3)
Shared care MOC	n/a	0%	0%	0%	0%	33%	33%
ED protocol/pathway*	0%	33%	33%	33%	33%	33%	0%
CT / MRI protocol	33%	67%	67%	67%	67%	33%	33%
VTE protocol	67%	100%	100%	100%	100%	67%	100%
Pain pathway	67%	100%	33%	33%	0%	33%	0%
Anaesthetic choice^	100%	100%	100%	100%	100%	67%	67%
Scheduled theatre list	0%	67%	0%	33%	33%	33%	33%
Weekend therapy	0%	33%	0%	33%	33%	67%	100%
Data collection	0%	100%	100%	100%	100%	100%	67%

n/a = not asked

*protocol/pathway in the ED: 2015 to 2019 includes pathway in ED only and pathway for the whole acute journey

^given choice of anaesthesia: 2014 to 2019 Always or Frequently = Yes

FIGURE S21 TASMANIAN HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019



2.7 NORTHERN TERRITORY (NT) AND AUSTRALIAN CAPITAL TERRITORY (ACT)

TABLE S7: NT AND ACT HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019

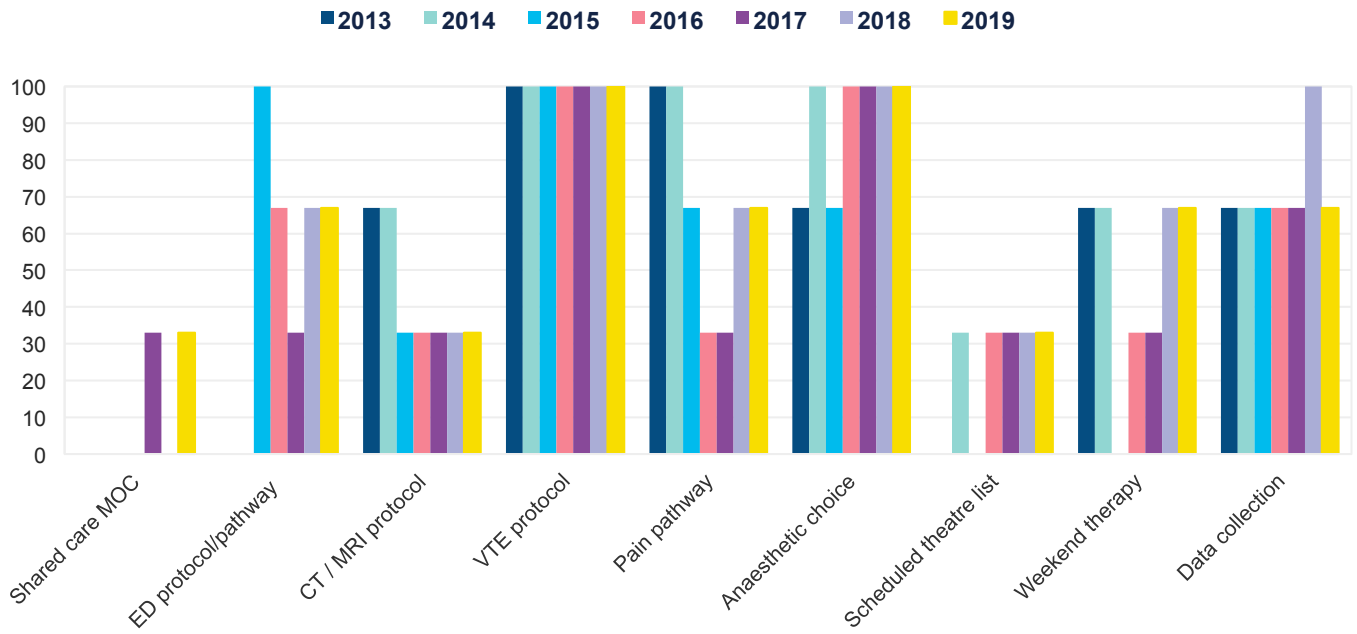
	2013 (n = 3)	2014 (n = 3)	2015 (n = 3)	2016 (n = 3)	2017 (n = 3)	2018 (n = 3)	2019 (n = 3)
Shared care MOC	n/a	0%	0%	0%	33%	0%	33%
ED protocol/pathway*	0%	0%	100%	67%	33%	67%	67%
CT / MRI protocol	67%	67%	33%	33%	33%	33%	33%
VTE protocol	100%	100%	100%	100%	100%	100%	100%
Pain pathway	100%	100%	67%	33%	33%	67%	67%
Anaesthetic choice^	67%	100%	67%	100%	100%	100%	100%
Scheduled theatre list	0%	33%	0%	33%	33%	33%	33%
Weekend therapy	67%	67%	0%	33%	33%	67%	67%
Data collection	67%	67%	67%	67%	67%	100%	67%

n/a = not asked

*protocol/pathway in the ED: 2015 to 2019 includes pathway in ED only and pathway for the whole acute journey

^given choice of anaesthesia: 2014 to 2019 Always or Frequently = Yes

FIGURE S22 NT AND ACT HOSPITALS REPORTED ELEMENTS OF HIP FRACTURE CARE 2013–2019



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