Government of **Western Australia**
South Metropolitan Health Service

How can acute geriatric medicine streamline and tailor care for an elderly population?

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Geriatrician

Rapid Access Treatment Unit (RATU)

Fremantle Hospital

I would like to acknowledge the traditional custodians of the lands on which we meet.

I would like to pay my respect to Elders past, present and emerging.


Fremantle
Hospital
Main Entrance
Day Admissions
Centre


hospital

RATU team


RATU

What is RATU and what do we do?

- 2 x 30 bed acute geriatric wards in Fremantle Hospital

What

- Patients with acute presentations often with geriatric's syndromes from ED, Acute Medical Unit (AMU)
- Direct referrals from Virtual Emergency Medicine (VEM)/Consider Home over Inpatient Care Every time (CHOICE): 8.30am - 4pm

Not

- Patients needing timely specialty input
- Medically unwell – no high dependency unit level care at Fremantle Hospital and Health Service
- Bariatric patients

What we do well

- Early consultant review for direct admissions (generally within 1 hour of arrival)
- Reduced bed moves
- High level of patient satisfaction with direct admission process
- Provide acute geriatric care alongside a multidisciplinary team approach to completing a comprehensive geriatric assessment and collaborate closely with discharge to assess model of care

Not ideal

- Needing prolonged rehabilitation or inpatient stay, but we can refer on

Aims of RATU

- To alleviate some of the bed pressures on Fiona Stanley Hospital
- To direct suitable geriatric patients who do not need tertiary level care to the most suitable destination for them
- RAMP avoidance for our elderly patients
- Avoid the usual pathways for our geriatric patients when suitable (i.e. ED, AMU)
  - Patients admitted from the community or from ED to Fremantle Hospital where possible
- Liaison with community teams

We now provide the acute geriatric medicine inpatient care across Fiona Stanley and Fremantle Hospitals

Importance of streamlining geriatric care

- Older patients are often more complex and spend longer on average in ED – factors contributing include non-specific presentations, more diagnostic tests, presence of frailty and cognitive impairment[1]
- Spending one night in ED increases mortality rate for elderly patients – higher inpatient mortality (1.39 OR), higher risk of adverse events, increased length of stay (LOS) by 24 hours[2]
- Multiple bed moves are associated with a higher risk of delirium and adverse events and this correlates with the number of bed moves[3]
- Increased LOS in ED also increases the risk of hospital acquired pressure injuries[4] – 24 hours in ED increases risk with odds ratio 1.8
- Evidence strongly supports streamlining geriatric care and reducing length of stay in ED where possible
- Acute geriatric wards have strong evidence versus general wards[5] for the care of elderly patients and direct admission is also supported in this population where possible[6]

1 Impact of emergency department length of stay on anxiety and comfort in older people; Considine et al. International Emergency Nursing 2021

2 Roussel M, Teissandier D, Yordanov Y, Balen F, Noizet M, Tazarourte K, Bloom B, Catoire P, Berard L, Cachanado M, Simon T, Laribi S, Freund Y; FHU IMPEC-IRU SFMU Collaborators; FHU IMPEC−IRU SFMU Collaborators. Overnight Stay in the Emergency Department and Mortality in Older Patients. JAMA Intern Med. 2023 Dec

3 Effects of frequent PATient moves on patient outcomes in a large tertiary Hospital (the PATH study): a prospective cohort study; Webster et al ; Australian Health review 2016

4 Prolonged stay in the emergency department is an independent risk factor for hospital-acquired pressure ulcer; Dongkwan Han et al International Wound Journal 2019

5 Comprehensive geriatric assessment for older adults admitted to hospital: meta-analysis of randomised controlled trials; BMC geriatrics 2011

6 The effect of direct admission to acute geriatric units compared to admission after an emergency department visit on length of stay, postacute care transfers and ED return visits D. Nauori BMC geriatrics 2022

What RATU can offer at Fremantle

- Full multidisciplinary team (MDT) approach including clinical psychology and neuropsychology where there is an urgent inpatient need
- Quick access to all imaging modalities (Xray, computed tomography, magnetic resonance imagining, ultrasound) except nuclear medicine Mon – Fri 8am – 5pm
- Timely access to Echo (Tuesdays and Thursdays), Holter monitors
- Pathology – Monday to Friday 8am – 5pm and weekend mornings
- Consult service from neurology (twice per week), orthopaedics, urology, infectious disease and palliative care
- Limited afterhours access to any of the above!
- We *aim* to discharge patients within 5 days and liaise very closely with CHOICE and Rehabilitation in the Home (RITH)
- We do manage longer stay patients without rehabilitation goals
- We offer direct admission via CHOICE, RITH and Virtual Emergency Medicine where feasible

COMPREHENSIVE GERIATRIC ASSESSMENT PROFORMA

Source of history - patient/family/carer/other:

Active medical issues:

Patient's main concerns and expectations:

Past medical and surgical history:

Medications/administration/adherence:

Allergies:

Medication review/rationalisation:

Cognition:

- Pre existing diagnosis or previous formal cognitive assessments
- Cognitive concerns prior to admission
- Delirium?

Sleep:

- Sleep-wake pattern
- Daytime drowsiness

Nutrition:

- Appetite
- Weight loss
- Swallow/Oral health
- MST score
- Current weight/BMI

Social/environmental:

- Residence – home/RACF
- Home – SSH/DSH
- Modifications?
- Living arrangement
- Main social supports
- Social engagement/hobbies
- Alcohol/smoking/drugs

Mobility/balance:

- Use of mobility aids
- No. of falls in last 12 months
- Bone health

Function:

- pADLs – Toileting, showering, dressing, feeding
- dADLS – Cooking, cleaning, shopping, medication, driving, finances
- ACAT, Formal services
- Clinical Frailty Scale

Mood:

- GDS/PHQ-9 if indicated based on screening questions

Continence:

- Bladder
- Bowel

Vision/Hearing:

Advance care planning:

- AHD/EPA/EPG/Will
- Goals of care

Examination:

- Observations/4AT
- Skin/MSK
- Cardiorespiratory
- Gastrointestinal
- Neurological

Investigations:

Problem list:

Management:

Inclusion Criteria (not limited to the following)

- Aged care patients (> 65 years or > 45 years if aboriginal)
- Infections (excluding septic shock): cellulitis, pneumonia, urinary tract infections etc.
- Falls and postural instability
- Cognitive syndromes/ delirium (excluding patients with behavioral issues requiring locked unit)
- Heart failure in which patient is hemodynamically stable
- Functional decline (clinical frailty score > 4)
- Fractures (Collies, pelvic pubic rami, stable spinal, humerus for conservative management)
- Parkinson’s disease and Parkinson’s syndromes
- Other Geriatric Syndromes (discuss with RATU Geriatrician)

Exclusion Criteria

- Pre-operative or immediately post-operative patients
- Bariatric patients (> 230kg or shoulder width > 60cm or pelvic width > 55cm)
- Septic shock / hemodynamically unstable patients requiring tertiary level care with close proximity to an ICU, coronary care unit, or high dependency unit
- Requiring telemetry
- Adult deterioration detection system (ADDS) score > 3
- Requiring non-invasive ventilation (unless patient can self-manage their own Continuous Positive Airway Pressure (CPAP) machine)
- Fractures: Lower limb, unstable pelvic, spinal precautions in place
- Complex disposition planning (list for Fremantle General Geriatrics if required)

Virtual Emergency Medicine to RATU

Potential Benefits to the patient:

- Streamline patient care
- Reduce the risk of delirium
- Reduce risk of hospital acquired complications
- Reduce the number of bed moves

Potential System Benefits:

- Reduce RAMPing
- Reduce ED bed-blockage for admissions
- Reduce acute medical unit bed pressures

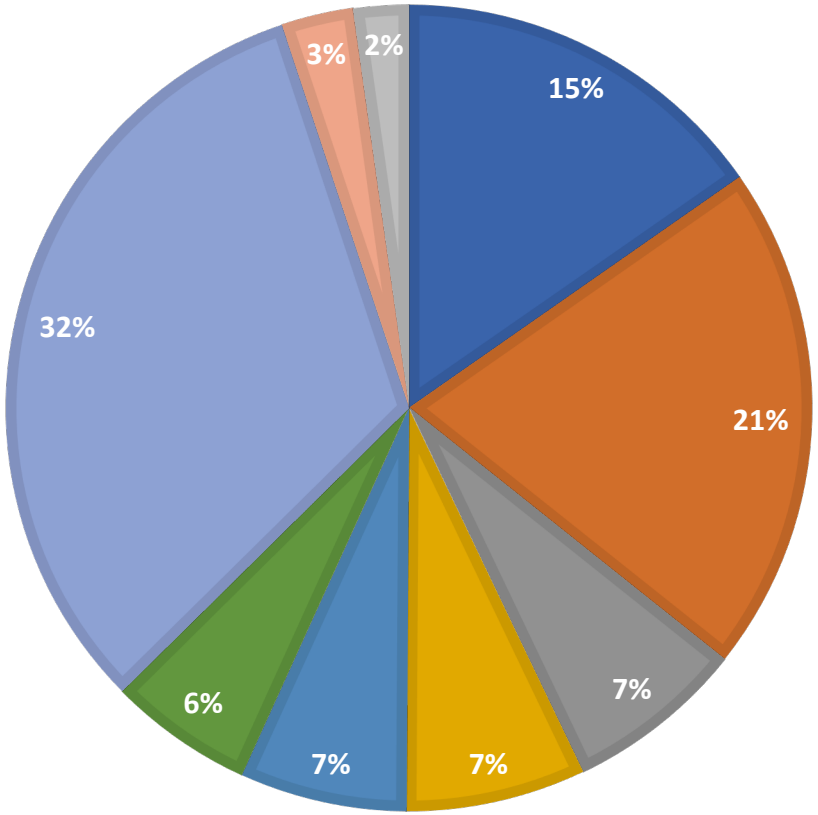
VEM DATA for RATU

- 1st January 2022 – 1st January 2023 → 137 patients in total
- Demographics
- Patient characteristics including presence of delirium, dementia and degree of frailty
- Discharge Destination
- Need for tertiary hospital transfer

Demographics: 137 patients in total

Sex	
Male n=66	Female n=71
Place of Residence	Discharge destination of those from home
Home – 86.8% Transition Care – 1.4% Residential Aged Care Facility – 10.9% Respite – 0.7%	Return to Home (or their RACF) – 78.9% Transfer for Inpatient Rehabilitation – 6.7% Transfer to TCP/ New RACF – 10.1% Other – 4.3%
Diagnosis of Dementia	
51% diagnosis of dementia 49% no diagnosis of dementia	
Presence of delirium on admission	
29% patients had delirium on admission	
Clinical Frailty Scale (CFS)	
Mean CFS 5.7 (Range 2 – 8)	

Diagnoses



- Delirium
- Fall/Functional Decline
- Urinary tract infection
- Back pain
- Pneumonia/Cellulitis
- Other musculoskeletal
- Other
- Cancer progression
- Orthostatic hypotension

Patients requiring tertiary transfer (4.3%)

Presenting Symptom	Reason for transfer	Outcome
Fatigue, functional decline	Acute Kidney Injury	Renal input, Returned for Rehabilitation
Fatigue, Shortness of breath on exertion	Anaemia, gastrointestinal bleed	Gastroscopy, Returned to RACF
Confusion, functional decline	Subdural Haemorrhage	Neurosurgical intervention, Returned for Rehabilitation
Falls and Hip pain, recent negative imaging	Hip prosthesis failure on subsequent imaging	Orthopaedics intervention, Returned for Rehabilitation
Fall, functional decline	Myositis diagnosed	Rheumatology input, Returned for Rehabilitation
Shingles, functional decline	Varicella Zoster myelitis vs Central Nervous System Lymphoma on imaging	Haematology transfer, Returned for rehabilitation

Mortality – 4 Patients (2.9%)

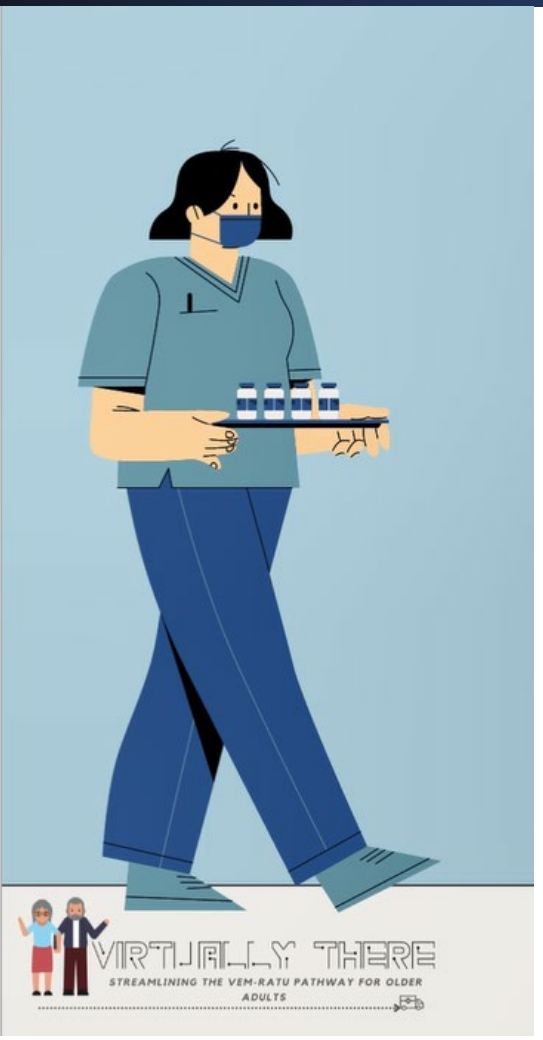
Referral Reason/Diagnosis	Age/Place of residence	Diagnosis/Cause of Death
Fatigue and functional decline	82-year-old, from home	Metastatic Prostate Cancer complicated by stroke during the admission
Functional decline	73-year-old, from home	Known end stage renal failure, further progression
Delirium	86-year-old, from RACF	Large intracranial haemorrahage
Fall, delirium, vertebral fracture	97-year-old, from home	Aspiration Pneumonia

No unexpected deaths, all patients had goals of care in place and a decision to transition to palliative care

Retrospective audit

01/09/21 to 15/06/22

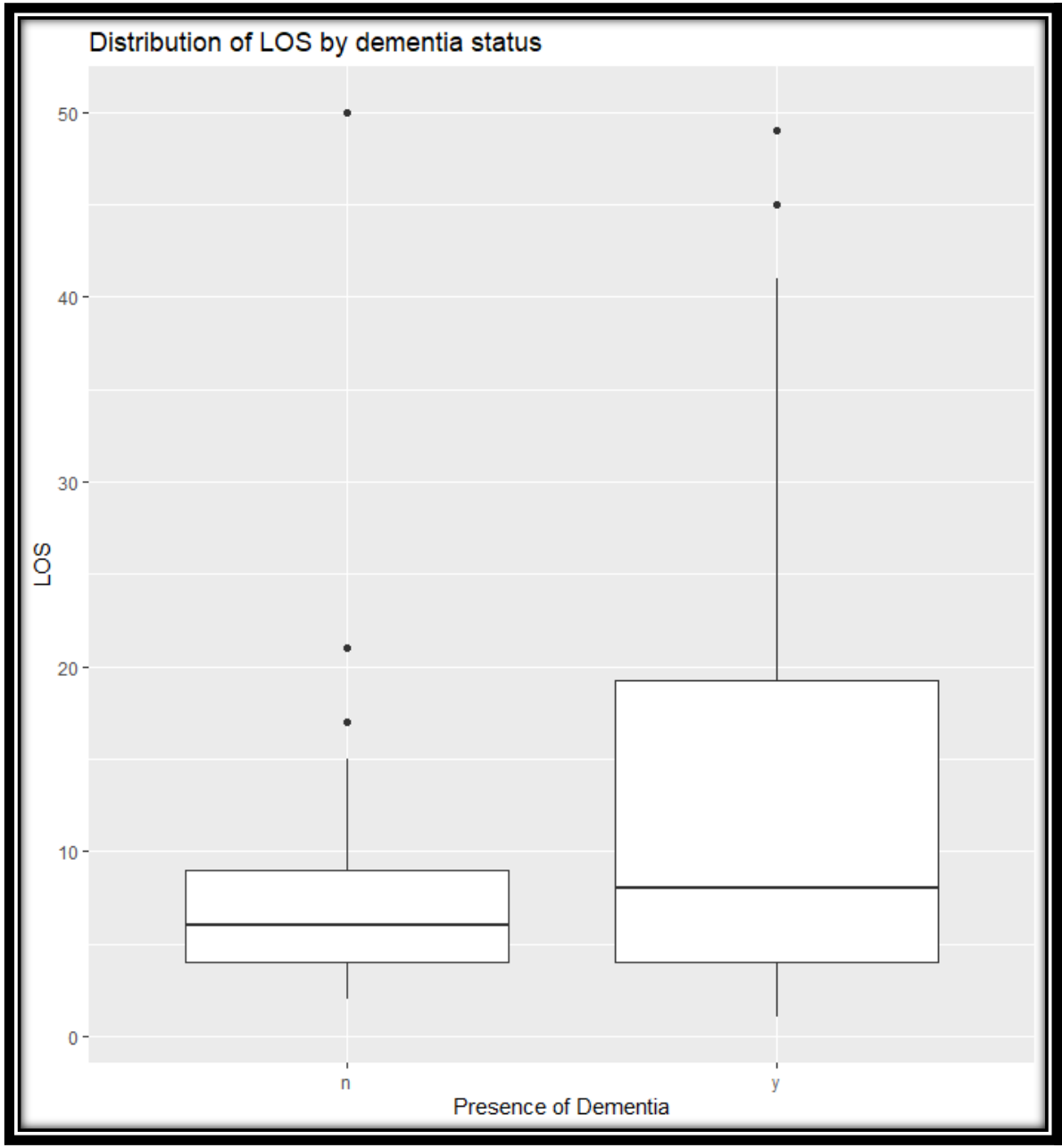
RATU n= 96 VS AMU n= 305

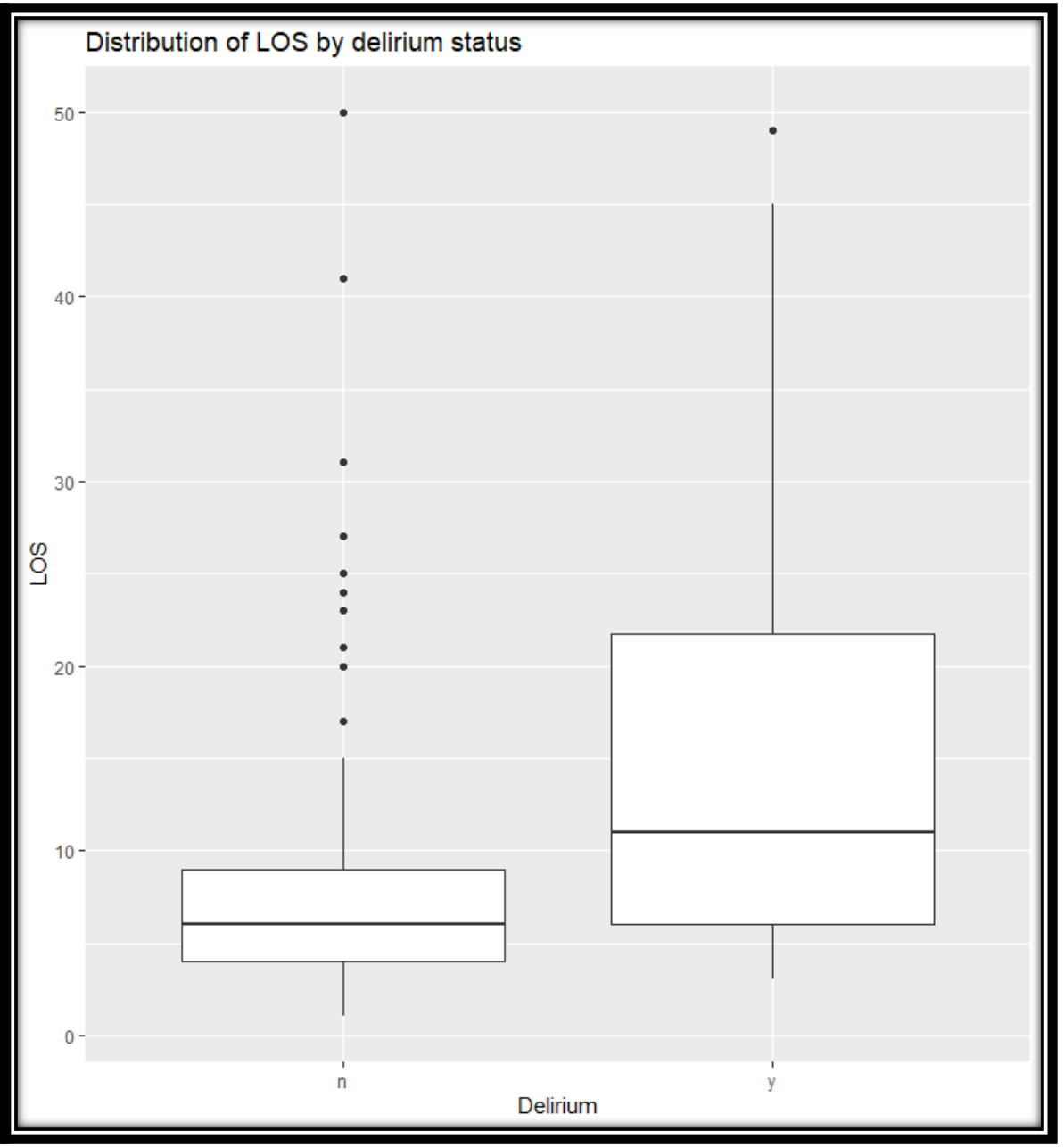


Outcome Measure	RATU (n)	RATU (%)	AMU-Frailty (n)	AMU-Frailty (%)
Hospital acquired conditions	2	2.08	10	3.27
Medical Emergency Team Calls	4 (n=3 patients)	3.13	24 (n=17 patients)	5.56%
Ward Moves	4	4.17%	139	45.5%

Comparing the VEM cohort to the cohort on RATU

	Virtual Emergency Medicine (VEM) Cohort	RATU Cohort
Age	84.3 years	83.83 years
Delirium on admission	29%	17%
Clinical Frailty Scale	5.7	5.2
Diagnosis of dementia	50%	42%
Average length of stay	10.41 days	7.57 days
Discharge to usual residence	78.9%	68%





Length of stay for dementia 8 days vs 6 days; p-value <0.05. Also statistically significant more likely to go to RACF and less likely to go home

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VEM-RATU Patient Satisfaction Survey

A form for patients directly admitted to RATU via VEM pathway, rather than via FSH Emergency Department

1. **Being directly admitted to Fremantle Hospital was better than waiting for assessment in the Fiona Stanley Emergency Department** *(select one response for each question)*

   Strongly disagree ○

   Disagree ○

   Neutral ○

   Agree ○

   Strongly agree ○

2. **I was satisfied with the care I received at Fremantle Hospital during my recent admission**

   Strongly disagree ○

   Disagree ○

   Neutral ○

   Agree ○

   Strongly agree ○

3. **The process of ambulance transfer and admission to Fremantle Hospital was clear and well explained to me**

Strongly disagree ○

Disagree ○

Neutral ○

Agree ○

Strongly agree ○

4. **I am glad I did not have to present to an Emergency Department**

Strongly disagree ○

Disagree ○

Neutral ○

Agree ○

Strongly agree ○

Take Home Messages

- RATU provides the acute geriatric inpatient care across Fiona Stanley and Fremantle Hospitals
- Focuses on providing holistic care to elderly patients presenting with an acute medical issue
- Focus on streamlining care with generally positive outcomes where this can be provided
- Innovation in how care is provided to older, frail patients through direct admissions and collaboration with other services within the South Metropolitan Health Service

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