

Distance, Delays & Deterioration

improving surgical care in regional Queensland.

QASM Seminar
18/10/19
The Townsville Hospital

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Queensland
Government

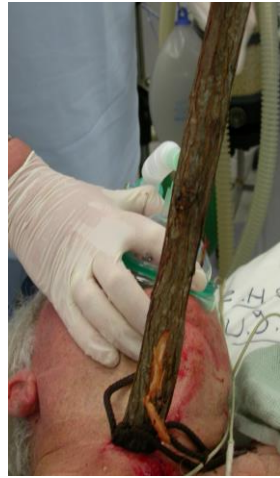


Best Care Delivery for RR&R Surgical Patients Requiring Interfacility Transport or Retrieval



Presentation Outline

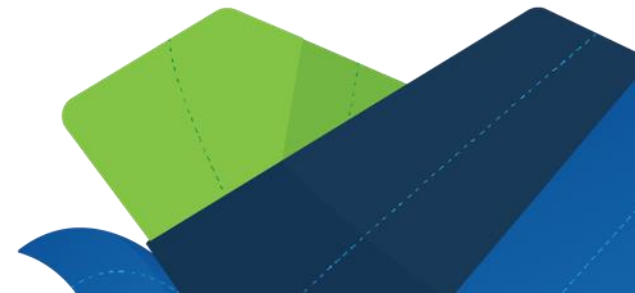
- Patient Retrieval/Transport Journey
- Retrieval System in Queensland
- Summary; Providing Best Care for Surgical IFT



Patient Presentation

- Facility capability
- Medical Review
- Initial Management
- Recognition of badness

How can we augment
this for RRR patients?



- Minimum level of medical seniority (RMO/locums/relieving)
- Robust education and training; Rural Generalist Programme
- Recognition of the deteriorating patient initiatives
- Vital Signs Scoring Systems; CEWT/Q-ADDS/Q-MEWT
- Clinical Pathways (culture)
- Rapid/reliable pathology/imaging
- Standardise access to clinical support
 - On line resources
 - Phone a friend
 - Peer support
 - Senior support
- Telehealth models of care (Doctor Proof)



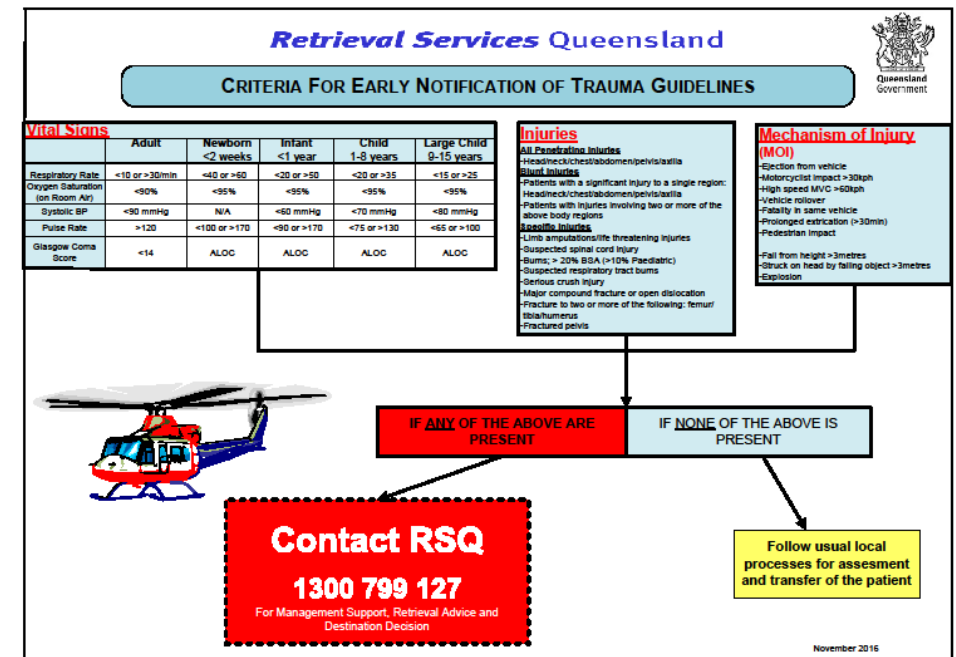
Referral Process



- Recognition of the need to refer
- Telephone receiving hospital
- Discuss with Registrar
- Advice given
- Patient accepted at larger facility
- Bed availability
- Transport arranged

How can we augment
this for RRR patients?

- Streamlined and reliable access to inpatient surgical team (eg Burns)
 - Registrar Bypass
 - Consultant clinical advice & advocacy
 - Consultant to Consultant dialogue
 - Enhanced bed sourcing and availability
 - Specific retrieval referral pathways
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- **Standardised System of Referral**
 - Trauma Centre Hotline



Aeromedical Retrieval and Transport

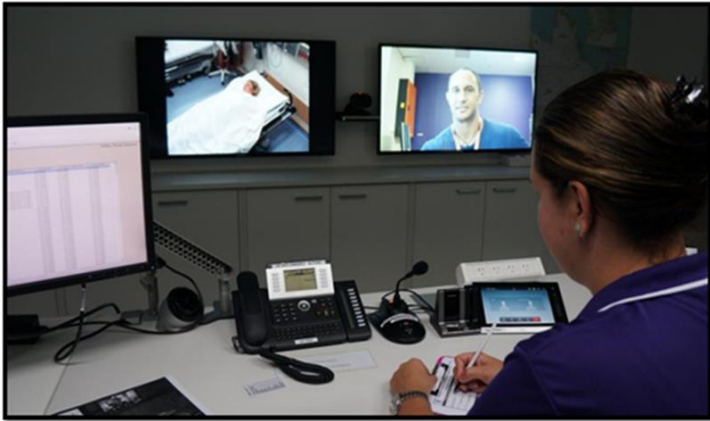
- Single 24/7 point of access for all aeromedical referrals
- Centralised clinical coordination & prioritisation of referrals
- Consultant clinical advice and patient/clinician advocate
- Determination of escort, vehicle and destination facility
- Embedded Telehealth support
- Responsibility and accountability for tasking decisions
- Independent Video Referee



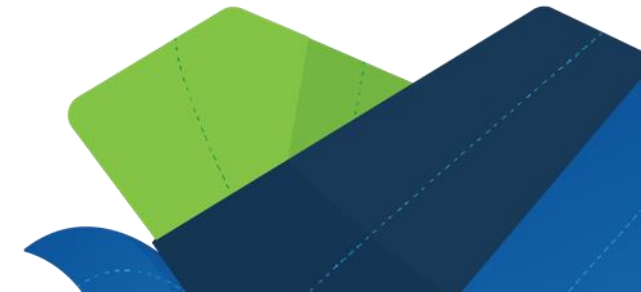
STANDARDISATION

Emergency Telehealth Models

1. *Retrieval Services Queensland (RSQ) Telehealth Support*
2. *Telehealth Emergency Management Support Unit*



- Two separate models.
- Overlap ensuring maximal safety for emergency videoconferencing referrals.
- Bridging capability



RSQ total episodes of care and asset movements FY18/19

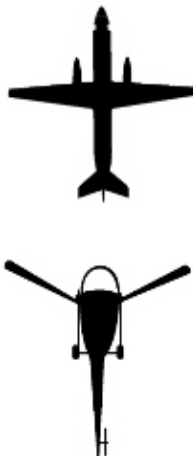
Grand Total RSQ Episodes of care

23,987

Does not include "Entered in error" or "TEMSU"

Total Movement Count

20,640



Fixed Wing

12,135

Rotary Wing

5,458



Road

2,951



Boat or Barge

24

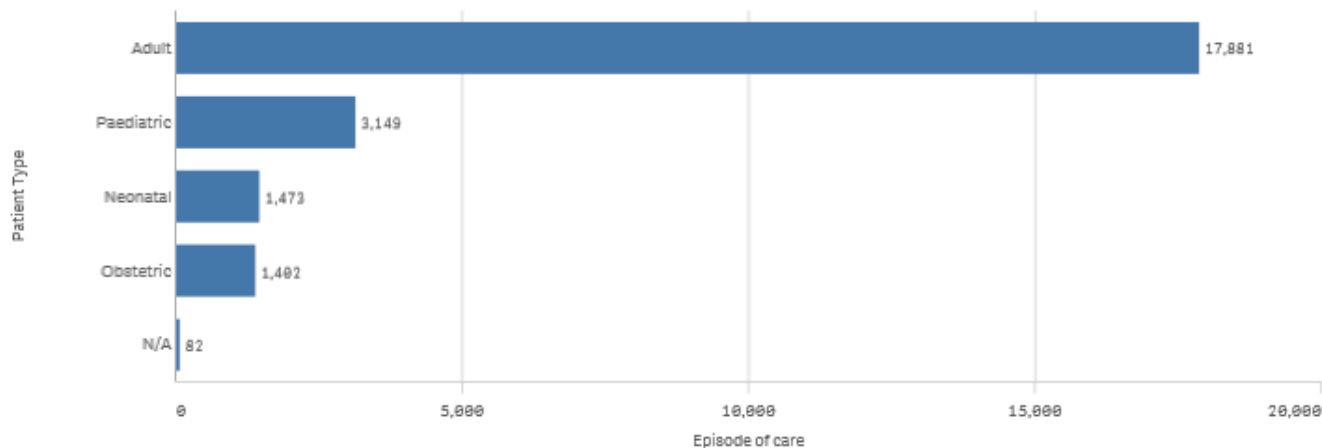
Others count

72

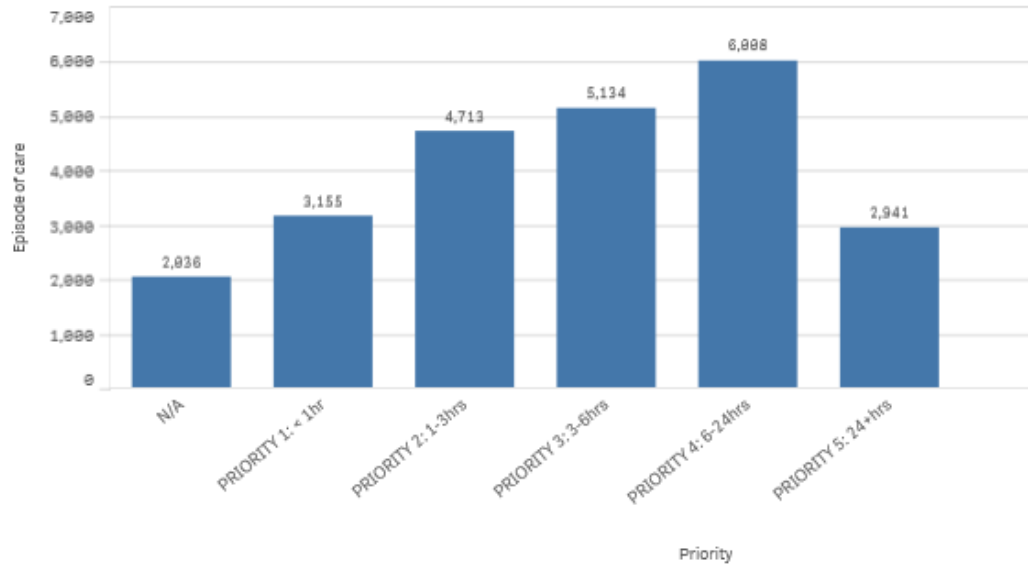
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RSQ Episodes by Patient Type



RSQ Episodes by Priority



2016 Queensland Aeromedical Network

EHN Engine Hours 2015-16 - Total 9,158 Hrs
RFDS Hrs 2015-16 - Total 13,715 Hrs



Mt. Isa
33 Engine Hrs EHN**
844 Hrs RFDS

*Spare Aircraft
**Not part of the Emergency Helicopter Network
***Includes Gold Coast
Curtis Island donated hours not included

Service Provider

LifeFlight (blue circle)
CQ Rescue (green circle)
QG Air (purple circle)
Babcock (pink circle)
Capricorn (white circle)
Royal Flying Doctor Base (white circle)

Aircraft

AW 139
Bell 412
BK117 / Bell 230
King Air B200
Pilatus PC12



Population (people per km²)

0 - 1.0
1.0 - 10.0
10.0 - 100.0
100.0 or more

Source: Reproduced from ABS population density June 2013

Horn Island
792 Engine Hours EHN

Mackay*
822 Engine Hours EHN

Cairns
1106 Engine Hrs EHN
1,019 Hrs RFDS

Rockhampton
527 Engine Hours EHN
2,010 AH Hrs RFDS
1,250 NT Hrs RFDS

Townsville*
1022 Engine Hrs EHN
1,903 NT Hrs RFDS
1,212 AH Hrs RFDS

Bundaberg
417 Engine Hours EHN
1,846 NT Hrs RFDS

Maroochydore
850 Engine Hours EHN

Brisbane
1254 Engine Hours EHN***
1,772 NT Hrs RFDS
1,098 AH Hrs RFDS

Charleville
761 Hours RFDS

Roma
110 Engine Hours EHN**

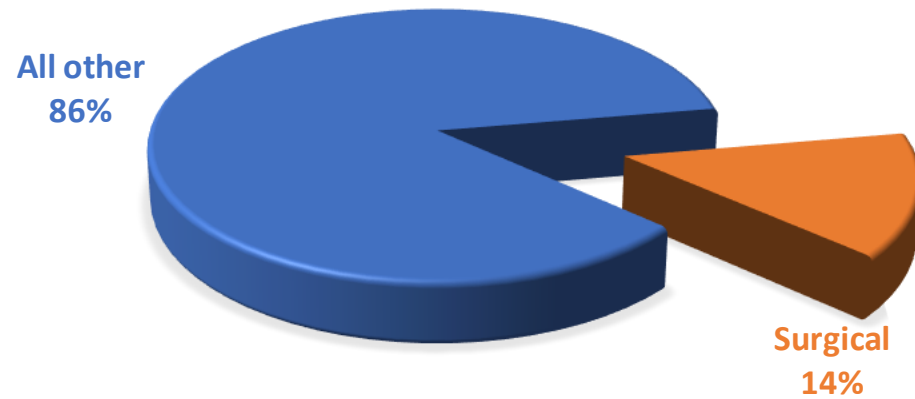
Toowoomba
1080 Engine Hours EHN

Archerfield*
1145 Engine Hours EHN

12 HEMS Bases

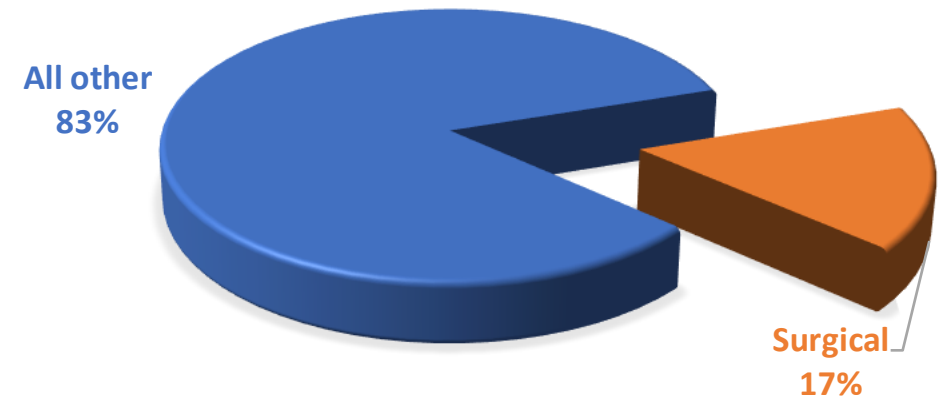
10 FW Bases

ALL RSQ EPISODES OF CARE



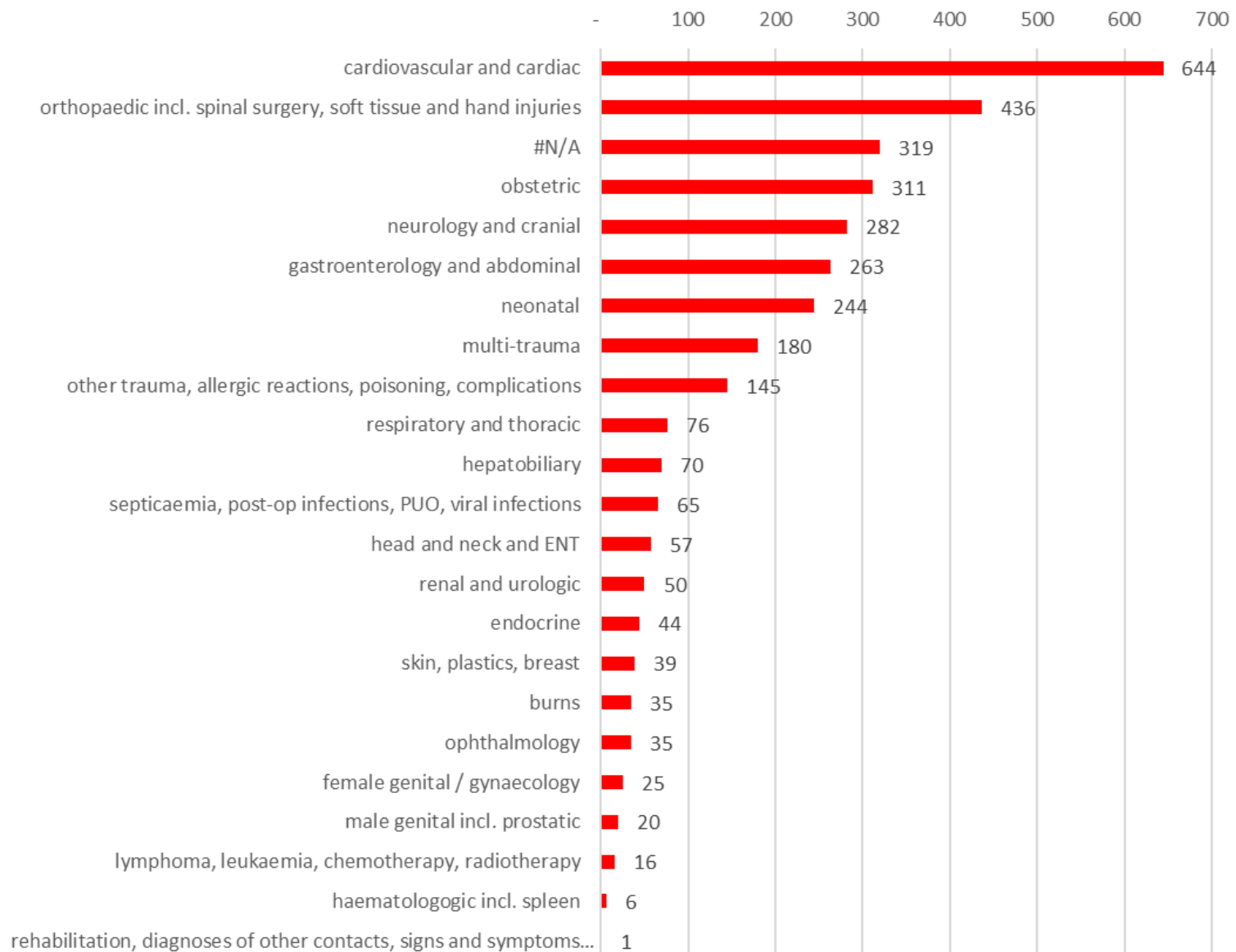
- 26,082 RSQ Episodes of Care were coordinated YTD
- 3,735 (14%) were classified Surgical

RSQ INTER-HOSPITAL TRANSFERS



- 18,991 Inter Hospital Transfers were coordinated YTD
- 3,179 (17%) were classified Surgical

Major Diagnostic Categories - Surgical Only

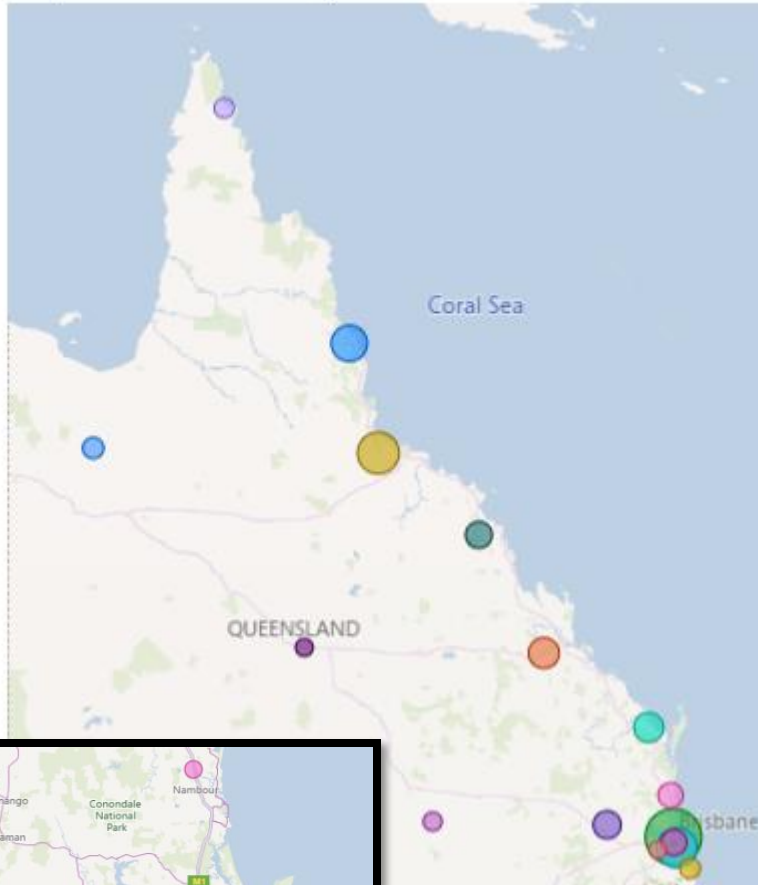


RSQ Surgical IFT Receiving HHS

Surgical by Receiving HHS, Latitude and Longitude

Receiving HHS

- Cairns And Hinterland
- Central Queensland
- Central West
- Children's Health Quee...
- Darling Downs
- Gold Coast
- Mackay
- Metro North
- Metro South
- North West
- Primary Response
- South West
- Sunshine Coast
- Torres and Cape
- Townsville
- West Moreton
- Wide Bay



Receiving HHS	Surgical
Metro North	781
Townsville	492
Metro South	459
Cairns And Hinterland	382
Central Queensland	274
Wide Bay	254
Darling Downs	217
Mackay	192
Children's Health Queensland	176
Sunshine Coast	160
North West	83
Gold Coast	69
Torres and Cape	57
South West	35
Central West	14
West Moreton	8

Data source: Categories as classified in Queensland Hospital Admitted Patients Data Collection

Patient Reception at Receiving Hospital

- Notification of arrival
- Admission Process
- Emergency Department?
- Corridor v remaining rural?
- Straight through to OT/Ward?
- Who reviews the patient?
 - Accepting team v ED



How can we augment
this for RRR patients?

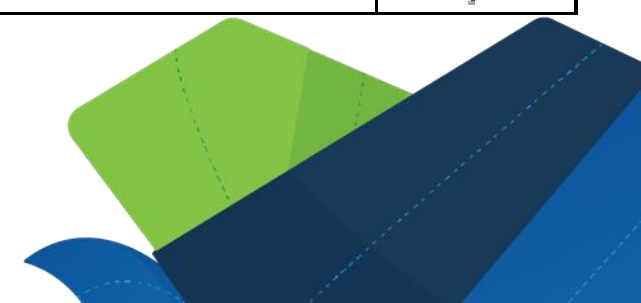


- Direct admission to ward for LD patients
 - Greater oversight & governance of bed availability (PACH)
 - Standardised escalation processes for bed unavailability
 - Reduction in patient Access Block (M&M)
-
- Acceptance of time critical patients irrespective of ICU capability.
-
- Standardised Patient Reception Pathways/Processes
 - Red Blanket/Code Crimson
 - NQ Neurotrauma Protocol
 - # NOF



RSQ Statewide Retrievals (Total) 2018/19

		Average Indicative coordination and retrieval times (hrs)			
		Response time (avg hrs)	From call start to bed conf (avg hrs)	From call start to landing at destination (avg hrs)	Episode volume
Inter Hospital Transfer	PRIORITY 1: < 1hr	0.7	1.0	5.6	2,658
	PRIORITY 2: 1-3hrs	1.5	1.0	5.2	4,523
	PRIORITY 3: 3-6hrs	3.4	1.7	8.1	4,854
	PRIORITY 4: 6-24hrs	20.3	14.0	24.7	5,478
	PRIORITY 5: 24+hrs	46.5	38.5	50.2	744
	PRIORITY 6	1.6	1.0	21.0	220
Step-down		45.0	33.4	48.9	1,801



RSQ Statewide Retrievals (Surgical) 2018/19

		Average Indicative coordination and retrieval times (hrs)			
		Response time (avg hrs)	From call start to bed conf (avg hrs)	From call start to landing at destination (avg hrs)	Episode volume
Inter Hospital Transfer	PRIORITY 1: < 1hr	0.6	0.9	3.7	603
	PRIORITY 2: 1-3hrs	1.2	0.7	5.5	733
	PRIORITY 3: 3-6hrs	2.3	1.0	5.8	587
	PRIORITY 4: 6-24hrs	13.3	8.9	17.2	479
	PRIORITY 5: 24+hrs	50.1	40.9	55.4	110
	PRIORITY 6	0.3	0.7	2.6	12
Step-down		53.2	41.5	57.9	470

RSQ Top 10 Receiving Hospitals (All) 2018/19

		Average Indicative coordination and retrieval times (hrs)			
		Response time (avg hrs)	From call start to bed conf (avg hrs)	From call start to landing at destination (avg hrs)	Episode volume
Inter Hospital Transfer	Royal Brisbane & Women's Hospital	13.2	10.1	17.2	2,388
	The Townsville Hospital	11.8	9.6	15.8	2,306
	Cairns Base Hospital	6.0	4.4	9.6	1,940
	Toowoomba Hospital	4.5	2.1	8.5	1,720
	Princess Alexandra Hospital	10.5	10.5	13.8	1,122
	Rockhampton Hospital	6.6	4.2	13.5	1,028
	Mount Isa Hospital	3.4	3.2	7.3	855
	Queensland Children's Hospital	3.9	2.6	8.4	702
	The Prince Charles Hospital	35.0	30.7	39.6	699
	Mackay Base Hospital	4.2	3.0	7.0	605

RSQ Top 10 Receiving Hospitals (Surgical) 18/19

		Average Indicative coordination and retrieval times (hrs)			
		Response time (avg hrs)	From call start to bed conf (avg hrs)	From call start to landing at destination (avg hrs)	Episode volume
Inter Hospital Transfer	Royal Brisbane & Women's Hospital	7.0	5.1	10.9	537
	The Townsville Hospital	4.9	3.1	9.0	409
	Princess Alexandra Hospital	3.1	3.0	6.1	262
	Cairns Base Hospital	7.4	9.3	9.7	229
	Toowoomba Hospital	1.8	0.9	4.9	144
	Rockhampton Hospital	5.3	3.7	8.2	129
	Sunshine Coast University Hospital	3.8	3.4	6.6	125
	The Prince Charles Hospital	8.0	6.2	12.2	119
	Mackay Base Hospital	7.0	6.7	9.4	88
	Queensland Children's Hospital	2.8	1.6	5.9	81

Summary; Best Care Delivery R3 IFT

- Early recognition of sick patient & need for higher level of care
- Early notification and streamlined access to a surgeon
- Consultant level dialogue and decision making; *Registrar Bypass*
- Early notification to RSQ: tailored response
- Optimise clinician and patient support (Telehealth)
- Optimise bed management & availability
- Minimise retrieval/transport time
- Delineated patient reception pathways





THANK YOU