

BACKGROUND



The role of Emergency Department (ED) Care Coordination interdisciplinary services is to minimise hospital use by facilitating timely access to an integrated system of community-based services. ^{3, 5}

"integrated social and medical services can be 10 times more effective than waiting for families to visits health services" ⁶

At Monash Health, and many health networks, presentations related to homelessness and mental health issues are common reasons for ED attendance. ¹

This is reflective of social changes and predicted to continue whereby the current workforce need to rethink how to optimise efficiency, utilisation and skills to provide best and safe care. ¹

OBJECTIVE

Enhance the patient experience and standardise care across sites



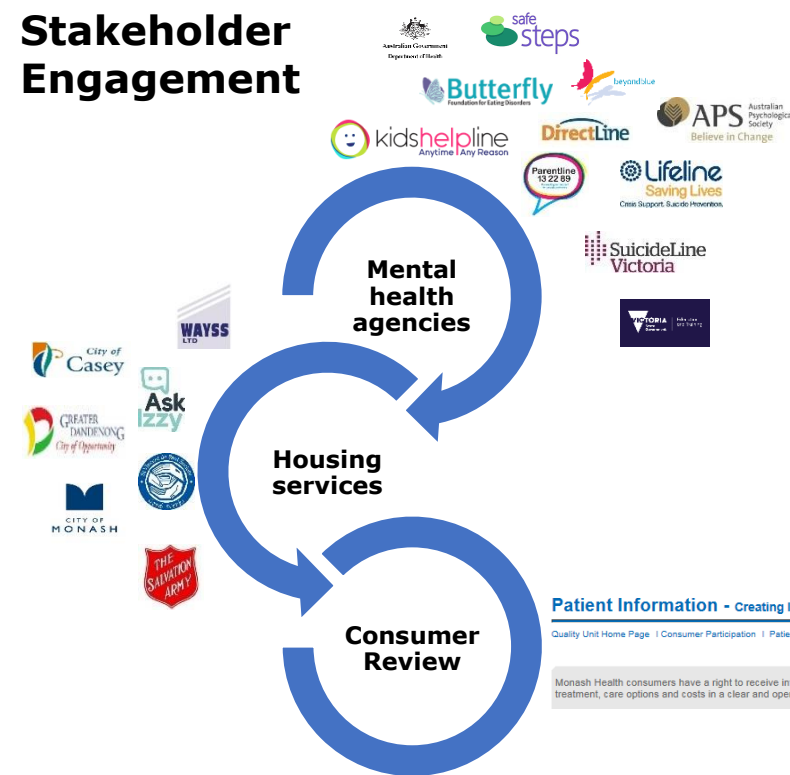
"a positive patient experience with healthcare leads to improved clinical outcomes" ⁴



"key step in timely discharge to involve patient and carer" ²

METHODOLOGY

Stakeholder Engagement



RESULTS

Four new pamphlets



- | Mental Health | Homelessness |
|--|--|
| <input type="checkbox"/> Better Access | <input type="checkbox"/> Emergency Support |
| <input type="checkbox"/> Supports | <input type="checkbox"/> Support Services |

- | Patients | Care Coordinators | Teamwork |
|---|--|---|
| <ul style="list-style-type: none"> Improved access to comprehensive, clear and concise information | <ul style="list-style-type: none"> Consistent and timely care standardised across three EDs | <ul style="list-style-type: none"> Care Coordination role clearly defined across three EDs and acute Allied Health |

CONCLUSION



Informed patient care
Improved efficiency
Standardised care

References
¹ Australian Health Workforce Advisory Committee (2003), Emergency Care Forum: Proceedings of the Forum Held to Share Ideas and Identify Common Themes Relating to Planning, Training and Supporting the Emergency Care Workforce, AHWAC Occasional Paper 2003, Sydney.
² Department of Health. Achieving Timely Simple Discharge from Hospital. A Toolkit for the Multidisciplinary Team. London: The Stationery Office, 2004.
³ Department of Human Services. Guidelines for the Victorian Emergency Department Care Coordination Program. Melbourne: State Government of Victoria, 2008.
⁴ Doyle C, Lennox L, Bell D. A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. BMJ Open 2013;3.
⁵ Moss, J. E., Houghton, L. M., Flower, C. L., Moss, D. L., Nielsen, D. A. and Taylor, D. M. (2002), A multidisciplinary Care Coordination Team improves emergency department discharge planning practice. Medical Journal of Australia, 177: 427-439.
⁶ Suhrcke, Marc, de Paz Nieves, R, Cookson, Richard and Rocco, L (2013) *The economics of the social determinants of health and health inequalities: a resource book*. World Health Organisation (WHO), Geneva.

Interagency collaboration in the implementation of a rural urgent care clinical review process

Catherine Church, Sarah Finlayson, Carol Reid, Danielle Beekman,
Numurkah District Health Service and University of Melbourne

Aim:

The interagency clinical review process was implemented as part of the Urgent Care Centre (UCC) project which aimed to reduce the pressure on the Regional Emergency Department (ED) by diverting lower complexity cases to rural Urgent Care Centres and Primary Health Services.

Method:

Monthly Meetings

7 Partners -4 Urgent Care Centres,
Ambulance Victoria, Murray PHN, Regional
ED

Chaired by Director of Medical Services

Roster created to outline when partners were
presenting

Videoconferencing available for sites unable
to make meeting in person


Introduction:

The clinical review process is an opportunity for multiple organisations to engage in peer learning, improve staff knowledge and client outcomes.
The aim was to create a meeting where confidential and open discussion occurs without blame and confrontation.

Conclusion:

Prior to the implementation of this clinical review process there had been no formal forum within this space.
It is a powerful tool for multiple organisations to collaborate together to improve communication, identify and work on common issues as a group to improve client outcomes.
Our project has ended but all partners have continued to participate in the clinical review process

Results:

- ✓ **Workforce/workload challenges identified**
 - ✓ **18 Clinical Cases Presented**
 - ✓ **Strengthened partnerships**
 - ✓ **7 Urgent Care Centre Pathways created**
 - ✓ **Identified the need to provide health care via Telehealth**
- 

Acknowledgment:

This work is part of a larger Urgent Care Centre Project funded by Better Care Victoria Innovation Fund 2017/2018. It involved four rural health services in North Central Victoria- Numurkah District Health Service, Cobram District Health, Nathalia District Hospital and Kyabram District Health Service

Background: Improvement work commissioned in October 2017 in response to a prioritised issue: The management of the patient presenting with acute severe behavioural disturbance and aggressive behaviour in the context of suspected illicit substance abuse. Patients may or may not have psychiatric features and the cause of the behavioural disturbance may be unclear and require further investigation.

Previous Performance: No single standardised clinical care pathway for the management of these patients existed. **Expected Performance:** a single standardised clinical care pathway was to be developed, including; measured multidisciplinary team response at key points; process for admission into the ED; use of chemical restraint as per an agreed guideline; intubation and ICU admission as required; extubation and transfer of care.

Outcome: The below Evaluation and Sustainability A3 document was reported to our Clinical Executive Committee in April 2019 and represents the culmination of this project.

Contacts: Lisa Watson, Clinical Lead Occupational Violence and Aggression Lisa.Watson@easternhealth.org.au or Lisa Shaw-Stuart, Program Director Mental Health Lisa.Shaw-Stuart@easternhealth.org.au

Eastern Health Improvement Model Phase 4 – Evaluation and Sustainability

Version August 2017



Program of Work: Management of the Intoxicated Patient with Severe Behavioural Disturbance

Completed By: Lisa Watson, Lisa Shaw-Stuart

Document Date: March 2019

Exec Sponsor: Karen Fox

Project Owner: Lisa Shaw-Stuart

Commissioning	Diagnostic	Solution Design & Implementation	Evaluation
October 2017	Nov 2017	February 2018	April 2019

1. Problem

Previous Performance: 0

New Performance: 1

Statement of achievement: A comprehensive guideline has been developed to inform the management of patients exhibiting acute severe behavioural disturbance from presentation through to discharge, with the primary aim of reducing risk of harm to the patient, staff and others.

2. Solutions Implemented

Solution implemented

Development of new PG 'Management of the patient with Acute Severe Behavioural Disturbance' to address initial acute emergency management including:

- Initial staff response
- Rapid MDT referral, response and assessment
- Physical and chemical restraint
- Extended scope to EH acute sites

Date implemented

Published October 2018

Within above CPG, provide details on a range of IM and IV medication options available including indications, contraindications and doses

Published October 2018

Design and document a standard process for the MDT collaboration, care planning, controlled extubation and ongoing management of this patient group within Intensive Care Services, Consider as an adjunct /attachment to the above new CPG.

Published October 2018 as ICU specific attachments to above PG

3. Success Measures

Measure	Previous (2017)			Expected	Achieved (2018)		
VHIMS OHS ISR2 incidents 2 ^o to Acute Severe Behavioural Disturbance mediated aggression EH wide (Staff response is timely and effective => reduced harm)	24			0	14 (= 42% reduction in harm)		
VHIMS OHS incidents 2 ^o to (all reported) aggression in our EDs and ICUs (Staff response to aggression is timely and effective)	ISR2 4	ED 48	ICU 1	Desired trend decrease	ISR2 1	ED 47	ICU 0
	ISR3 1558	1452	8	decrease	ISR3 1814	1414	13
	ISR4 24.5%	55	4	Increase	ISR4 37.7%	28	10
CLINICAL INCIDENTS OF AGGRESSION * Code Greys reported in VHIMS * Wilson Security logged Code Greys Overall Reporting Rate	BHH 382	MH 250	AH 129	Desired trend increase	BHH 684	MH 492	AH 146
	1558	1452	246	decrease	1814	1414	223
	24.5%	17.2%	52.4%	Increase	37.7%	34.8%	65.5%
EH Staff Survey on Violence & Aggression - Q: Staff level of knowledge of 'Management of the patient with Acute Severe Behavioural Disturbance' Guideline:	Achieved (2018)						
	EH Wide, 1329 clinicians responded to this question: * of which 41 identified as working in ICU * of which 121 identified as working in ED						
Staff not aware of the guideline	EH wide 35.7%			ICU 36.6%	ED 38.8%		
Staff aware but have not read it	32.5%			34.1%	24.8%		
Staff have read/accessed guideline	32.7%			29.3%	36.4%		

4. Return on Investment Achieved

Financial (i.e. value released such as beds, theatre time, ED cubicles)

Reduction in work cover claims and LTI 2^o staff harm Incurred due to aggression.

	2017	2018
Lost time injuries	29	20
WorkCover claims - standard	14	10
WorkCover claims costs - standard claims only	\$3.56M	\$942.5K

NOTE: Claims costs in 2017 include those associated with two serious incidents

Quality (i.e. no of patients who don't have a fall or infection)

Reduction in VHIMS OHS ISR 2 corresponds with reduction in staff harm

5. Key Learnings

- Comprehensive implementation of this guideline and it's direct impact on the prevention and mitigation of harm is difficult to measure in isolation. As part of a suite of improvement initiatives, an overall reduction in harm to staff and improved reporting rates in VHIMS despite an overall increase in Code Grey incidents is incredibly pleasing.
- Collaboration within the working party allowed for a focus on shared problems and forged greater collegiality between clinical areas and roles, enhancing visibility of the work and improved teamwork at the frontline.
- Annual Aggression Survey provides a useful forum for communicating the existence of these guidelines and will provide an ongoing measure of staff knowledge of relevant guidelines, content, processes, and satisfaction with their application. The 2018 survey provides a useful baseline against which annual comparison can now occur.
- Further implementation of the guideline is required along operational lines in particular those areas at highest risk of exposure to acute severe behavioural disturbance and related aggression.
- Remaining solutions yet to be addressed include developing a standard admission diagnosis and resulting automated referrals/alert to be given future consideration – added to Aggression Management Expert Advisory Committee (EAC) Innovation and Improvement Plan (IIP).

6. Sustainability Plan

Ongoing governance arrangements	Ongoing monitoring	Agreed interventions
Aggression Management EAC	Annual EH Staff Survey on Violence and Aggression	Report on finding/trends from the survey and share with Program Directors – report to be filtered by site and location. Disseminate results via operational lines.
Aggression Management EAC	Routine monitoring and reporting of VHIMS and Wilson Security data	Bi-annual reports in development for sharing with high risk areas for local level discussion and reporting at program level Q&S committees
Aggression Management EAC & OHS Steering Committee	Workcover claims and LTI	Review and reporting of Workcover claims and LTI secondary to staff harm incurred due to aggressive incidents

Paediatric Emergency Department Access to External Diagnostic Imaging

Assoc. Prof David Krieser, Dr Melissa Barnett and Mr Ian Law
Department of Emergency Medicine; Sunshine Hospital

Background

- Medical diagnostic imaging is integral to paediatric emergency medicine, but must be carefully considered given radiation risk, potential need for procedural sedation, financial cost and increased length of stay in emergency departments (EDs).
- Patients are frequently referred to EDs by primary health clinicians having already obtained imaging at external radiology facilities
- Anecdotally, there are barriers to obtaining or visualizing these results, resulting in unnecessary imaging duplication in hospital
- There is a paucity of information regarding the accessibility of external diagnostic imaging, completed prior to patient presentation, to the Emergency Department.

Project Aim

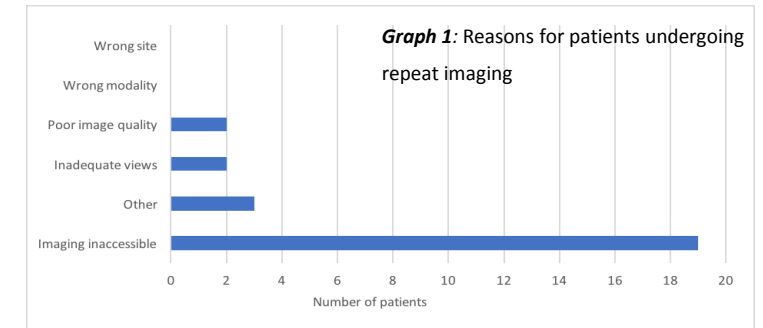
To quantify whether paediatric emergency clinicians are able to access diagnostic imaging, performed outside the hospital setting, prior to ED presentation, to determine whether unnecessary study duplication is occurring.

Methods

- Prospective, convenience sample, pilot study of clinicians managing of 0-18 year olds presenting to Sunshine Hospital ED with imaging completed prior to their presentation, from June 8 2017 to March 31 2018.
- Paediatric ED clinicians were asked to complete a questionnaire for patients who had received DI prior to presentation.

Results

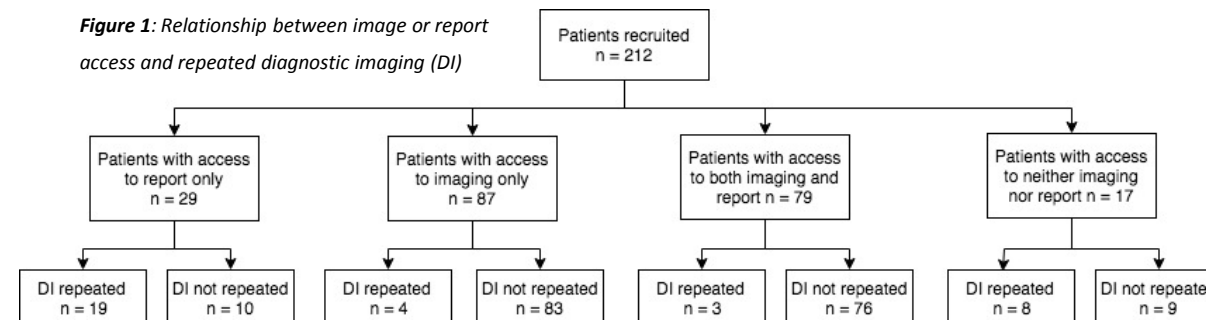
- 212 presentations were captured
- Patients had external imaging completed at 14 different radiology providers
- The most common external imaging modality was x-ray (91%).
- Diagnostic images were available for 77% and a radiology report was available for 51% of patients.
- 8% of patients with prior imaging presented without the report or images.
- 16% of patients with prior imaging underwent repeat imaging in ED
- The majority (79%) were repeated due to inability to access prior studies.
- **The odds of reimaging if prior studies were not accessible was extremely high (OR 28 (95% CI 10 - 86)).**



Conclusions

External medical imaging was not adequately accessible for ED clinicians. A significant proportion of medical imaging is repeated due to inability to access prior studies. Improved integration between public and private information systems may reduce the costs and risks associated with unnecessary test repetition

Figure 1: Relationship between image or report access and repeated diagnostic imaging (DI)



An exploration of the Loddon Mallee Regional need and benefit from Emergency Medical Telehealth Support



In the current climate of ever increasing Emergency Department demand and acuity of presentations, combined with regional deficits in Medical support, acute Telehealth care is key to the provision of equitable quality care across the region.

Dr Diana Badcock, Bendigo Health
Dr Berenika Turchin, Bendigo Health

Aim
 To enhance the quality and safety of emergency care at local centres and reduce unnecessary transfers.

58 Consults provided by a FACEM to 8 Urgent Care Centres and 2 Emergency Departments in October 2015
 ATS CAT1 - 3
 ATS CAT2 - 15
 ATS CAT3 - 25
 ATS CAT4&5 - 15

Results
 12 transfers avoided and treated locally
 6 transfers' care was optimised by providing direct access to the required service
High level of satisfaction expressed by patients and clinicians

Conclusion
 There was a clear need for Emergency Telehealth service in the region, with benefits ranging from reduced unnecessary transfers, to improved local and definitive care.
 This pilot subsequently led to the Out of Hours Urgent Care Emergency Department Project undertaken in 2018 sponsored by the DHHS. This served to demonstrate how the current gap in medical service provision by Urgent Care Centres after hours is in need of Senior Emergency Medicine Telehealth providers.
 Both the study and subsequent investigative work showed that a dedicated clinician is imperative for the service to be delivered in a safe and effective manner.

"The telehealth system increases the senior medical leadership and experience in our local ED significantly by bringing the Bendigo Duty Consultants into the room with us"
 "We should do telehealth before we take any transfers. We can support and give advice and keep some of these patients treated locally. Those that come can benefit from having access to our skill set earlier."



Wide variation in the management of agitated and aggressive patients by emergency medical services.

Dhanya Nambiar, Natalie Liu, James Pearce, Janet Bray, Karen Smith, Peter Cameron

Department of Epidemiology and Preventive Medicine, Monash University; Alfred Hospital; SA Ambulance Service; Flinders University; Ambulance Victoria.



Background and Aims

- Clinical aggression leads to the deterioration of patient outcomes and negatively affects the safety of emergency medical service (EMS) providers (Bigham *et al* 2014, Prehosp Emerg Care).
- Clinical aggression is typically preceded by acute agitation, and EMS use predetermined guidelines to minimise risk and safely treat and transport patients.

Aim: Describe and compare clinical practice guidelines (CPG) for the management of agitated and aggressive patients in the ten Australian and New Zealand EMS.

Methods

Using publicly available data, we retrieved current (as of December 2018) EMS CPG in Australia and New Zealand for non-trauma undifferentiated agitation. Data extraction included tools to measure agitation and sedation, de-escalation, restraint and sedation.

Guidelines included in this study:

- Ambulance Victoria CPG A0708 Agitated patient v4 2018
 - St John Ambulance Western Australia CPG 2.5 Disturbed and Abnormal Behaviour July 2017
 - South Australia Ambulance Service Intensive Care Paramedic CPG 065 Challenging Behaviours v4.0, Paramedic CPG 027 Behavioural Emergencies v4.1
 - Queensland Ambulance Service CPG Behavioural Disturbances/ Acute behavioural disturbance October 2017, CPP Behavioural Disturbances/ Sedation- acute behavioural disturbance October 2017
 - St John Ambulance New Zealand CPG 5.1 Agitated delirium
 - New South Wales Ambulance CPP A7 Management of acute severe behavioural disturbance
 - St John Ambulance Northern Territory CPG 10-02 Agitated patient, CPP 05 Sedation & procedural sedation
 - Australian Capital Territory Ambulance Service CMG 33 Behavioural and psychiatric emergencies, CMG 37 Management of combative and agitated patients
 - Ambulance Tasmania CPG A708 Agitated patient
 - Wellington Free Ambulance CPG 5.1 Agitated delirium
- *5 & 10 use the same guidelines.



Results

Indicator	n/N
Used a validated tool for assessing agitation (ex Sedation Assessment Tool, Glasgow Coma Scale, Mental Health Assessment)	2/9
Guidelines had detailed descriptions of mild, moderate and severe agitation	3/9
Pharmacological management for mild to moderate agitation	
Benzodiazepines:	6/9
• Midazolam (6/9)	1/9
• Lorazepam (1/9)	3/9
Antipsychotics: Droperidol	1/9
Ketamine	
Pharmacological management for severe agitation	
• Benzodiazepines: Midazolam	5/9
• Ketamine	5/9
• Antipsychotics: Droperidol	1/9
Maximum dose for ketamine :	
IM:	
• 200mg (3/5)	3/5
• 400mg (2/5)	2/5
IV: 1.5mg/kg	5/5
Contraindications for ketamine:	
Hypertension, psychiatric conditions/ psychosis	4/5
Allergy, Cardiac disease	
Noted ketamine-induced emergence reaction	3/5
Provided guidelines on management of ketamine-induced emergence reaction	2/3

Conclusions

Observational studies are needed to establish the impact of these variations on patient outcomes to identify best practice for agitated and aggressive patients.

Funding and disclosure:
 DN is funded by the National Health and Medical Research Council through the Pre-hospital Emergency Care Australia and New Zealand (PEC-ANZ) NHMRC Centre of Research Excellence (#APP1029983) which supplies infrastructure and administrative support.
 PC is funded by a NHMRC Fellowship.
 JB is supported by a Heart Foundation Fellowship.

Further information:
Principal Investigator
 Dr Dhanya Nambiar
dhanya.nambiar@monash.edu