



# QUALITY INITIATIVES

Entries in the 21st Annual  
ACHS Quality Improvement Awards 2018



Quality Initiatives – Entries in the 21st Annual ACHS Quality Improvement Awards 2018.

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## INTRODUCTION

### The 21st Annual ACHS Quality Improvement Awards 2018

The annual ACHS Quality Improvement (QI) Awards were introduced in 1997 to acknowledge and encourage outstanding quality improvement activities, programs or strategies that have been implemented in healthcare organisations.

In 2018, the 21st Annual ACHS QI Awards were open to submissions from all domestic ACHS and international ACHSI member organisations following the ACHS NSQHS (National Safety and Quality Health Service) Standards Program, EQuIP6 (Evaluation and Quality Improvement Program), EQuIPNational, EQuIPNational Corporate Health Services, EQuIPNational Day Procedure Centres, EQuIP6, EQuIP6 Day Procedure Centres, EQuIP6 Oral Health Services, EQuIP6 Haemodialysis, EQuIP6 Healthcare Support Services, and the ACHS Clinical Indicator Program.

This year 130 submissions were received of which is a record for the ACHS Quality Improvement Awards 21 year history.

Judging was conducted externally with separate panels of three judges for each of the QI Awards categories:

**Clinical Excellence and Patient Safety:**

This category recognises innovation and demonstrated quality improvement in the delivery of safe, effective patient care.

**Non-Clinical Service Delivery:** This category acknowledges a demonstrated outcome of improvement and innovation in patient and/or consumer services and organisation-wide practice including services provided by community and allied health organisations.

**Healthcare Measurement:** This category recognises organisations that have *measured* an aspect of clinical management and/or outcome of care,

taken appropriate action in response to that measurement, and demonstrated improved patient care and organisational performance upon further measurement. Healthcare measurement can include data collected from the ACHS Clinical Indicator program or other methods of monitoring patient care processes or outcomes. Both quantitative and qualitative data can be used, however this category must describe the initial measurement, the analysis of that measurement, the action(s) implemented, and the improved measurement(s).

Each judging panel consisted of an ACHS Councillor, an ACHS surveyor and a representative from an ACHS member organisation.

Submissions were required to meet specific criteria that were weighted equally:

- Judges assessed all eligible submissions on the five (5) ACHS principles of: consumer focus, effective leadership, continuous improvement, evidence of outcomes and best practice;
- Judges assessed additional criteria: improvement in patient safety and care, measured outcomes, applicability in other settings, innovation in patient care and/or processes and relevance to the QI Awards category;
- The submission MUST relate to a period of up to no more than two (2) years prior to the year of entry.



## WINNER SUBMISSIONS BY CATEGORY

### The 21st Annual ACHS Quality Improvement Awards 2018

#### CLINICAL EXCELLENCE AND PATIENT SAFETY

##### Melbourne Health, VIC

Sepsis Working Group

'Think sepsis. Act fast.' Implementation of a hospital-wide clinical pathway for management of sepsis.

*Kelly Sykes, Karin Thursky, Tristan Vasquez, Dominic Gasparini, Robert McCubbin, Thao Nguyen*  
Full Submission page 6

##### Hunter New England Local Health District (HNELHD), NSW

NSW Health, HNELHD Mental Health Services, NSW Ambulance Service and NSW Police

Police Ambulance Early Access To Mental Health Assessment VIA Tele health-  
(PAEAMHATH)

*Jay Jones, Elizabeth Newton, Leanne Gow, Anthony Townsend, David Horseman, Leanne Johnson*  
Full Submission page 14

#### NON-CLINICAL SERVICE DELIVERY

##### Marie Stopes Australia

Improving the patient experience

*Annette Penney, Jacqueline O'Brien*  
Full Submission page 29

#### HEALTHCARE MEASUREMENT

##### South Western Sydney Local Health District, NSW

Liverpool Cancer Therapy Centre, Centre for Oncology Education and Research Translation (CONCERT),  
Psycho-oncology Research Group

PROMPT-Care: eHealth facilitating timely person-centred care to every cancer patient

*Afaf Girgis, Geoff Delaney, Ivana Durcinoska, Anthony Arnold, Nasreen Kaadan,  
Andrew Miller, Kenneth Masters, Stephen Della-Fiorentina*  
Full Submission page 43

Each winning submission in the ACHS QI Awards receives a Certificate of Acknowledgement, a QI Awards trophy, and a cash prize provided by ACHS.

ACHS publishes submissions from all participating organisations to share and encourage exceptional quality improvement strategies amongst the ACHS member organisations.

The extended version of this document will be published on the ACHS website ([www.achs.org.au](http://www.achs.org.au)).



## HIGHLY COMMENDED SUBMISSIONS BY CATEGORY

### The 21st Annual ACHS Quality Improvement Awards 2018

#### CLINICAL EXCELLENCE AND PATIENT SAFETY

### Royal Perth Bentley Group, WA

SAFE Department

The SAFE Afterhours For Everyone 'SAFE' Initiative

*Tim Bowles, Lesley Bennett, Deepan Krishnasivam, Katherine Birkett, Iolanta Clarke,  
Kelly-Ann Hahn, Robert Wilson, Ian Atherton*

Summary Abstract page 17

### Westmead Hospital, NSW

Ophthalmology Department & Emergency Department

Fundus Photography in the ED: Saving Lives Sight & Time

*Dr Hamish Dunn, Julia Costello, Dr Kai Zong Teo, Alison Pryke, Lakni Weerasinghe,  
Prof Peter McCluskey, Clin A/Prof Andrew White, A/Prof Clare Fraser*

Summary Abstract page 19

### Royal Brisbane and Women's Hospital, Metro North Hospital and Health Service, QLD

Quality, Innovation, and Patient Safety Service; and Surgical and Perioperative Services

Safety Partnerships in Action : Zero Hospital Acquired Pressure Injuries

*Catherine Ryan, Lisa Mitchell, Faileen James, Duane Watson*

Summary Abstract page 21

#### NON-CLINICAL SERVICE DELIVERY

### Royal Perth Hospital, WA

Wellbeing/Pastoral Care/Postgraduate Medical Education

I worry about the ones trying to go it alone: An interdisciplinary project to improve the wellbeing of Junior Doctors and the culture in which they serve

*Richard Read, Michael Hertz, Lucy Kilshaw, Roger Lai*

Summary Abstract page 36

### Hunter New England Local Health District, NSW

Hunter New England Population Health

Healthy food in childcare: an online solution

*Sze Lin Yoong, Alice Grady, Luke Wolfenden, John Wiggers, Meghan Finch, Karen Gillham*

Summary Abstract page 37

## NON-CLINICAL SERVICE DELIVERY – INTERNATIONAL

### Hong Kong Baptist Hospital

Environmental and Occupational Safety & Health Committee

Joyful @healthy workplace program at Hong Kong Baptist Hospital

*Clara SUEN Yuk-ha*  
Summary Abstract page 39

## HEALTHCARE MEASUREMENT

### Macquarie Hospital, NSW

Macquarie Hospital / Cottage / Bridgeview

Macquarie Hospital Clinical Formulation Tool - Using the UK-FIM/FAM to create a heat map of strengths and needs to inform rehabilitation and transition planning

*Tertia van Antwerpen*  
Summary Abstract page 56

### St Vincent's Hospital Sydney, NSW

Rehabilitation Consultation Service, Department of Rehabilitation

Why wait? A Proactive Rehabilitation Screening Service (PReSS)

*Jane Wu, Olivia Misa, Christine Shiner, Steven Faux*  
Summary Abstract page 57



# CLINICAL EXCELLENCE AND PATIENT SAFETY

## WINNER

### Melbourne Health, VIC

Sepsis Working Group

'Think sepsis. Act fast.' Implementation of a hospital-wide clinical pathway for management of sepsis.

*Kelly Sykes, Karin Thursky, Tristan Vasquez, Dominic Gasparini, Robert McCubbin, Thao Nguyen*

#### AIM

The aim of this project was to translate evidence-based clinical guidelines for sepsis identification and management into practice and in doing so achieve the following: decrease sepsis related mortality, ICU admissions, and length of stay, improve time to first dose antibiotic therapy, improve bundle compliance, reduce last line antibiotic therapy, and increase services utilising a standardised sepsis pathway.

#### SUMMARY ABSTRACT

The 'Think sepsis. Act fast' initiative was launched across the Royal Melbourne Hospital in January 2017. The initiative consisted of the implementation of an evidenced-based clinical pathway, comprehensive communications plan, and multidisciplinary education package. The pathway, previously developed as a cancer pathway by Peter MacCallum Cancer Centre and New South Wales Clinical Excellence Commission, was adapted for a whole of hospital. The clinical pathway is now used across campuses, the Emergency Department, and all 25 wards. In preparation for the implementation of the pathway, a hospital-wide needs assessment was undertaken and found significant practice variance in relation to sepsis recognition and management. The sepsis pathway standardised sepsis recognition and management with an evidence-based six hour care bundle. Importantly, the pathway supports nurse initiation and a multidisciplinary approach to care. Hospital-wide education of all nurses, doctors and pharmacists and strong Executive support facilitated the rapid adoption across the hospital in 7 weeks. The project has led to increased awareness of the importance of sepsis as a life-threatening condition, and has

resulted in significant and sustained improvements in management of sepsis, health care utilisation and patient outcomes. In the first 6 months after implementation, the sepsis pathway was used in more than 700 episodes of care resulting in a significant improvement in clinical and process outcomes for patients with sepsis: 50.4% reduction in mortality, 65.4% reduction in admission to the ICU, 51.9% reduction in time to receive antibiotics and 42.9% decrease in the length of stay in hospital. The Royal Melbourne Hospital is now leading the Better Care Victoria scale up of the 'Think sepsis. Act fast.' initiative to 23 hospitals across 11 other Victorian health services.

#### REPORT

##### APPLICATION OF ACHS PRINCIPLES

##### 1. Consumer Focus

The safety and quality care of the consumer was the primary driver of this project. The sepsis pathway was developed to improve quality of care regardless of the patient's location or time (Appendix 1). The pathway was in response to a needs assessment which identified a potential risk to consumers. Therefore, the aims of the project and key measures of success are centred on improved outcomes for patients. The results from the implementation of this project are evidence of improved consumer outcomes.

Consumer consultation took place throughout the course of the project. Multiple consumers were engaged in design of patient and carer information brochures, shared patient stories, and presented at our World Sepsis Day Forum. Consumers played a key role in the development and implementation of the communications plan. Consumers were consulted in the design of

the 'Think sepsis. Act fast' logo (Appendix 2) and campaign branding which continues to be important in capturing the hearts and minds of clinicians and consumers. Additionally, a consumer representative sat on the antimicrobial stewardship committee which oversaw the project.

In response to the implementation of the sepsis improvement project, one consumer sent the following letter to the Sepsis Working Group:

As you know [Name removed] was recently hospitalised at RMH. He had a blood test on Thursday 6th April with his GP as he continued to be unwell. On [Date] our GP phoned us to ask us to take [Name removed] to ED of RMH as quickly as possible due to a very high white cell blood count. Upon arrival she had emailed the results and [Name removed] was taken straight to a cubicle. Within a few minutes his results were reviewed and his observations taken.

The nurse immediately said he met 4 of the categories to be placed on the sepsis pathway. With this declared bloods were taken immediately. The nurse made two attempts but then asked a senior doctor / consultant to draw the blood and place a cannula in. [Name removed] was then moved to a resus bay where he was handed over to 2 doctors and 3 nurses. All of this happened very quickly and the sepsis pathway seemed to result in a very coordinated and speedy response. Even when admitted to two wards that night and continuing on to the next morning all staff were aware that [Name removed] was on the sepsis pathway and continued to re-assess his status. In ED he very quickly received expert attention, including infectious diseases, surgery and a gastroenterologist. He also had a chest X-ray very quickly in the resus bay. As well as a CT scan organised and done very swiftly. I felt like the sepsis pathway was a call to action, rallying the troops. The result was a highly coordinated response that was time sensitive with all staff communicating clearly,

thoroughly and including us at all times. We felt at every step that [Name removed] was receiving expert and focused care.

In partnership with Better Care Victoria, all health services scaling this initiative are now required to show evidence of consumer partnership.

## 2. Effective Leadership

Strong leadership was an important element and contributor to the success of this project. Clinical and Executive leadership was critical to ensure that all clinical staff and units were committed to the adoption of the standardised pathway.

Appropriate management of sepsis requires a team approach, and therefore we used a multidisciplinary approach to the implementation. The early establishment of a multidisciplinary Sepsis Working Group consisting of nurse unit managers, clinical nurse educators, senior physicians, and pharmacists was essential to ensure oversight of a clear project plan and delivery of project goals and objectives.

The leadership group met regularly to monitor feedback, address barriers, and ensure progression of the pathway. Executives, clinical committees, and other senior level clinical staff across all specialties played key roles in the change management process. Executives and senior staff were involved on pathway rollout days in order to promote awareness and support utilisation of the pathway. Senior clinicians reinforced processes with junior staff and provided direct feedback on cases.

Effective leadership was also demonstrated at the frontline. Throughout the project all patients placed on the pathway or identified as potential missed opportunities were reported to the head of unit and nurse unit manager daily for review. This allowed for real-time follow up with the treating teams and demonstrated accountability and commitment to achieving our goal of improved management of sepsis.

Nurses reported that the pathway was empowering and facilitated effective communication and accountability among the broader team. Clinicians at all levels felt they were able to speak up and advocate for their patients and escalate care when necessary, further adding weight to accountability and leadership. Another layer of leadership extended to a group of emergency department nurses who have formed a Sepsis Special Interest Group and own the process of education, feedback, and reporting. This group has even reached out to other Victorian health services to break down barriers and share learnings.

### 3. Continuous Improvement

Throughout all phases of the project there were ongoing feedback sessions to ensure regular, continuous improvement. Prior to the hospital-wide rollout there was a three month pilot period in three inpatient wards from different Divisions in order to identify potential issues. The pilot was followed by an evaluation period to allow for further improvement prior to the full scale implementation. Throughout each stage, we consulted all specialities and remained vigilant and adaptive, making certain there was acceptance and commitment to the pathway across the hospital. This allowed the Sepsis Working Group to complete Plan-Do-Study-Act (PDSA) cycles, reduce or remove barriers and address needs that would hinder the efficient and appropriate management of septic patients. This process enabled the identified need to upskill nursing staff for cannulation or administer rapid fluid infusions.

The pathway identified gaps in medical and nursing knowledge which we were able to address directly and incorporate into learning modules. Ongoing sepsis training is provided for nursing, medical, and pharmacy staff at orientation as well as regular

refresher courses for nurses. This facilitates the spread of awareness as well as further embedding the pathway into the hospital practice.

Throughout the pilot and implementation period there was a daily audit with direct feedback to nursing and medical staff on cases. There was, and continues to be, continuous performance data collection with regular communication in order to continually improve the quality of care.

The sepsis pathway has also been integrated into the emergency department's (ED) electronic system Symphony™ in order to flag potentially septic patients and initiate treatment faster (Appendix 3). Snap audits continue through the ED Sepsis Special Interest Group in order to monitor performance and assess the need for further improvement. The electronic system implemented in ED has undergone several PDSA cycles to ensure adaptive, continuous improvement. An electronic dashboard developed by Melbourne Health's Business Intelligence team, captures monthly sepsis related data in order to promote continuous monitoring and improvement in each local area (Appendix 4).

### 4. Evidence of Outcomes

The results of the pathway implementation are shown in Table 1. Compared to the baseline cohort, there were significant improvements in the management of sepsis and patient outcomes. In the first 700 patients treated with the sepsis pathway, there was:

- 50.4% reduction in sepsis related mortality (6.7% vs 13.5%)
- 65.4% reduction in sepsis related ICU admissions (8.8% vs 25.4%)
- 51.9% reduction in time antibiotics (58 minutes vs 120.5 minutes)
- 42.9% decrease in hospital LOS (4 days vs 7 days)

Eighty percent of all sepsis patients present in the ED, and the efforts of the ED should be commended in the development of the ED Symphony trigger, electronic order set, and the ongoing audit and feedback by the ED Sepsis Special Interest Group.

**Table 1: Results of Pathway Implementation**

	Baseline Cohort	Pathway Cohort	P Value
Episodes, n	126	716	
Age, years, median	65.5	66	
Charlson Comorbidity Index, median	4	4	
Sepsis recognised in ED, n (%)	88 (69.8%)	611 (85.3%)	<0.05
Sepsis recognised on ward, n (%)	36 (28.6%)	105 (14.7%)	<0.05
Lactate collected, n (%)	85 (67.5%)	670 (93.6%)	<0.05
2 or more blood cultures collected n, (%)	53 (42.1%)	611 (85.3%)	<0.05
Time to first dose antibiotics, median, minutes	120.5 mins	58 mins	<0.05
Appropriateness of empiric antibiotic (%)	95.2%	97.3%	>0.05
<b>Admission to ICU (%)</b>	<b>25.4%</b>	<b>8.8%</b>	<0.05
<b>Length of stay, median, days</b>	<b>7 days</b>	<b>4 days</b>	<0.05
<b>In-hospital mortality (%)</b>	<b>13.5%</b>	<b>6.7%</b>	<0.05
<b>Services using sepsis pathway (%)</b>	<b>4%</b>	<b>100%</b>	<0.05
Pathway compared to baseline p<0.05 (Chi-square for categorical, and Mann-Whitney for continuous non parametric variables)			

The pathway is used in 100% of all wards across the Royal Melbourne Hospital. This project has led to change in culture where nurses now feel empowered to initiate the care of patients and to ensure that there is compliance with the pathway. Similarly, junior doctors reported that they felt better equipped to manage patients with sepsis. The many testimonials from nurses, doctors and consultants illustrate the strong support and perceived benefits -

**Nurse Educator:** This project saved lives and it will continue to save lives. I'm now confident we're doing the best for our patients and their families.

**Junior Doctor:** I had found that staff had an increased ability to recognise sepsis, identify what needed to be done e.g. cannula, fluids, bloods and would have already begun the management process before a doctor had arrived. It's extremely rewarding to prevent deterioration of patients who had early recognition.

**Nurse:** As a nurse, I am much more aware after this project of sepsis both when I'm with patients but also when educating others. We knew of sepsis, but it wasn't something we really recognised before. Now everyone knows the pathway and it doesn't take convincing to use it. Everyone has heard of sepsis now.

**Nurse:** I find it empowering. It gives me a voice as a nurse. I can say the patient meets criteria for sepsis and you need to review them now. If they delay review I have the evidence I need to escalate and advocate for my patient.

**Consultant:** Nurses find it empowering to have. Junior doctors love that it's straight forward and includes empiric antibiotic guidelines. Consultants like it because patients are getting recognised earlier.

**Health Service Participating in State-wide Rollout:** I had just finished two sessions of sepsis pathway education with ED staff going over the pathway when a patient came in with septic shock. The staff had just finished saying how excited they were about the sepsis project and for the pathway to start. Following the education sessions, staff were well prepared and got stuck in with making sure the six key actions happened fast – oxygen, two sets of blood cultures, lactate, fluids, monitoring observations and antibiotics all within 60 minutes.

**Health Service Participating in State-wide Rollout:** The response to sepsis in a rural setting needs to be considered as a whole,

particularly for more remote health services and patients where access to an ED can be up to two hour drive away. A common sepsis pathway would lead to decreased clinical risk with standardised actions in more remote areas.

The improvements achieved by the sepsis project have been sustained. Time to antibiotics remains below 60 minutes across all wards and ED. Similarly, compliance with the pathway remains between 90-100%. The electronic sepsis dashboard was created to monitor performance, and systemised snap audits continue with feedback to local areas. The electronic trigger within ED continues to be a sustainable identification system for patients with sepsis. We have developed a multi-disciplinary online learning module, deliver face-to-face refreshers, and training at orientation for new clinicians. Sustainability focus groups report that the pathway has been embedded into the culture and practice of RMH. The sepsis team will now work alongside the Electronic Medical Record (EMR) team to adapt the pathway for the EMR implementation in the precinct.

## 5. Striving for Best Practice

The sepsis pathway that was developed and implemented was based on current best practice evidence. An extensive literature review and evaluation of similar pathways was undertaken prior to the development of the pathway. Similar pathways implemented have demonstrated comparable results in reducing mortality, intensive care admissions, and length of stay<sup>1-6</sup>. Furthermore, there was consultation with senior medical staff and nursing staff prior to the development and implementation of the pathway to ensure relevance to our clinical setting.

Education of these best-practice clinical guidelines was provided to all nursing and medical staff, hospital-wide. A collaborative approach was used and engaged senior clinicians across all specialties in order to adapt a pathway that could be utilised across the wards. The project was successful at reducing variance in the management of sepsis in order so that all patients would be receiving the best care every time.

## INNOVATION IN PRACTICE AND PROCESS

This project has demonstrated the successful large scale implementation of a sepsis pathway across all clinical areas of the Royal Melbourne Hospital and Peter MacCallum

Cancer Centre. This project is innovative because it used a multifaceted approach to improving the recognition and management of sepsis. The Sepsis Working Group created a consumer driven comprehensive communications package, standardised education, and developed a hospital-wide policy/procedure which had not previously been done at the health service.

The project developed innovative electronic resources such as a sepsis trigger based on clinical criteria and a pathology order set within the ED. The electronic trigger, developed together with clinical staff, prompts clinicians to answer 'could this be sepsis?' when a patient fulfils sepsis criteria, and also tracks how nurses escalate to senior medical staff. These tools improve detection of sepsis and also allow for real-time auditing and team follow up. Prior to this, there was no way to identify sepsis patients or missed opportunities without using the unreliable and retrospective practice of sepsis coding.

An interactive sepsis dashboard was also developed to drive continuous improvement in performance measures. The dashboard, first of its kind in the precinct for sepsis, updates in real-time and allows clinicians and committees to visualise in an easy-to-understand visual format.

The project also developed an innovative, multidisciplinary e-learning module to support clinical decision making and monitor and drive improvement. The interactive case-based e-learning module was shared with 23 other Victorian hospitals to adopt locally.

Whilst other Australian health services have adopted sepsis pathways, primarily in ED, it is the large scale at which this project implemented that makes it innovative. This project was the first of its kind in Victoria to scale across a large, tertiary health service and a cancer hospital. The project is now being scaled across Victoria as their very first scaling innovation by Better Care Victoria innovation fund.

#### APPLICABILITY TO OTHER SETTINGS

This project has contributed to a positive safety culture. Improvement and performance was transparent, purposeful and led to real benefits for our consumers. Outcomes and lessons learnt from this project are directly translatable to other health services as the initiative was not uniquely reliant on our hospital processes.

The success of the 'Think sepsis. Act fast' project led to its selection for state-wide scaling by the Better Care Victoria innovation fund. The Royal Melbourne Hospital is serving as the champion lead organisation and supporting 23 hospitals (11 health services) to implement the same pathway (Albury-Wodonga and regional partners, Alfred Health, Ballarat Health, Barwon Health, Bendigo Health, Eastern Health, Swan Hill Health, South West Healthcare, Peninsula Health, Western Health, and West Gippsland Healthcare).

#### REFERENCES

1. Thursky, K., Lingaratnam, S., Jayarajan, J., Haeusler, G., Teh, B., Tew, M., Venn, G., Tiong, A., Dalziel K., Brown, M.C., Leung, V., Worth, L., Slavin, M. Implementation of a whole of hospital sepsis clinical pathway in a cancer hospital: Impact on sepsis management, outcomes and costs. *BMJ Open Quality* 2018 (In Press)
2. Cardoso, T., Carneiro, A. H., Ribeiro, O. & Costa-Pereira, A., 2010. Reducing Mortality in severe sepsis with the implementation of a core 6-hour bundle: Results from the Portuguese Community-Acquired Sepsis Study. *Critical Care*, Volume 14, pp. 1-11.
3. Castellanos-Ortega, A. et al., 2010. Impact of the Surviving Sepsis Campaign Protocols on Hospital Length of Stay and Mortality in Septic Shock Patients: Results of a Three Year Follow up Quasi-Experimental Study. *Critical Care Medicine*, Volume 38, pp. 1036-1043.
4. Li, Z. et al., 2013. Implementing Surviving Sepsis Campaign Bundles in China: A Prospective Cohort Study. *Chinese Medical Journal*, Issue 126, pp. 1819-1825.
5. Staff, N. a. M., 2017. Focus Group [Interview] (May 2017).
6. Teh, B. et al., 2015. The Road to Reduced Mortality in Sepsis: Implementation of a Hospital-Wide Sepsis Pathway in a Cancer Hospital. *European Society of Clinical Microbiology and Infectious Diseases*, Copenhagen, s.n.

APPENDIX

Appendix 1: Adult Sepsis Pathway – Medical Record Form

THE ROYAL MELBOURNE HOSPITAL  
**ADULT SEPSIS PATHWAY**

SURNAME: \_\_\_\_\_ URN: \_\_\_\_\_  
 GIVEN NAME: \_\_\_\_\_ DOB: \_\_\_\_\_ SEX: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 SUBURB: \_\_\_\_\_ POSTCODE: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

**Does your patient have a known or suspected infection?**

Does your patient have any of the following sepsis risk factors, signs or symptoms?

- History of fevers or rigors
- Neutropenia or recent chemotherapy
- Indwelling medical devices
- Recent surgery or invasive procedure
- Skin: cellulitis, wounds
- Chest: cough, shortness of breath
- Abdomen: pain, peritonism
- Neuro: decreased mental alertness, headache
- Urine: dysuria, frequency

**PLUS**

**Does your patient have ≥2 signs of SEVERE SEPSIS?**

- SBP < 100 mmHg
- Altered mental status
- Lactate > 2 mmol/L

**AND/OR**

**Early warning signs of sepsis: ≥2 SIRS criteria:**

- Temperature < 36°C or > 38°C
- Heart Rate > 90 per minute
- Respiratory Rate > 20 per minute
- WCC < 4 or > 12 x 10<sup>9</sup>/L

SIRS-systemic inflammatory response syndrome

**YES** (from Severe Sepsis) → This patient is at risk of rapid deterioration / septic shock

**YES** (from SIRS) → Patient may have sepsis

**NO** (from SIRS) → Look for other causes:

- Transfusion reaction
- Myocardial infarct
- Haemorrhage
- Ischaemia
- Pulmonary embolism
- Drug reaction

Does your patient have a Goals of Care form and/or Advance Care Plan? Review before proceeding.

**If sepsis most likely then COMMENCE SEPSIS PATHWAY**  
 Notify the Unit Registrar/Consultant  
 Consider MET call or ICU review as required

**Look for other causes:**

- Clinical review
- Repeat observations within 30 minutes and manage accordingly
- Re-evaluate for sepsis

**Six key actions in 60 minutes:**

- Oxygen administration
- Two sets of blood cultures
- Venous blood lactate
- Fluid resuscitation
- Intravenous antibiotics
- Monitoring observations and fluid balance

\*Cancer patients currently undergoing systemic chemotherapy require first antibiotic within 30 minutes

Coding statement (medical officer required to complete):  
 This patient was treated for GENERALISED SEPSIS during this hospital admission:  
 Name \_\_\_\_\_ Designation \_\_\_\_\_ Signature \_\_\_\_\_ Page/ph. \_\_\_\_\_

THE ROYAL MELBOURNE HOSPITAL  
**ADULT SEPSIS PATHWAY**

SURNAME: \_\_\_\_\_ URN: \_\_\_\_\_  
 GIVEN NAME: \_\_\_\_\_ DOB: \_\_\_\_\_ SEX: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 SUBURB: \_\_\_\_\_ POSTCODE: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Recognise**  
 Has a Goals of Care form (OP3A/IP3A) been completed?  Yes  No  Unknown  
 Call a MET if patient meets MET call criteria at any stage

**Signs / Symptoms**

1. Does your patient have two or more SIRS criteria, hypotension or altered mental state? (check boxes as appropriate)

- Temperature < 36°C or > 38°C
- Heart Rate > 90 bpm
- Resp Rate > 20/min Record rate: \_\_\_\_\_
- WCC < 4 or > 12 x 10<sup>9</sup>/L
- Systolic BP < 100mmHg
- Altered mental state

2. Does your patient have clinical signs of hypoperfusion?

- Cool peripheries (hands and feet)
- Decreased or no urine output ( for > 8 hrs)

3. Does your patients also have any of the following risk factors, signs or symptoms of infection?

- Neutropenia or recent chemotherapy
- Recent surgery/invasive procedure
- Skin: cellulitis, wound
- Neuro: decreased mental alertness, headache
- Urine: dysuria, frequency
- Abdomen: pain, peritonism
- Chest: cough, shortness of breath
- Indwelling medical device
- History of fever or rigor

**Notification using ISBAR**  
 ED Triage category \_\_\_\_\_ Triage Time \_\_\_\_\_ OR  
 Ward Doctor: \_\_\_\_\_ Pager \_\_\_\_\_ Time: \_\_\_\_\_ Initials \_\_\_\_\_  
 ISBAR: Identify/Situation/Background/Assessment/Request

**Oxygen administration**  
 Aim SpO<sub>2</sub> ≥ 95% (or 88-92% for COPD & chronic type II respiratory failure)

**Ensure IV access**  
 Large bore peripheral cannula inserted/available for fluid bolus, OR  
 If central venous access device already available: type (if applicable) \_\_\_\_\_

**Blood cultures**  
 Two sets of blood cultures (2 peripheral; or 1 from all lumens of device or port if accessible, plus 1 peripheral) Initials \_\_\_\_\_

**Lactate**  
 Venous blood lactate (collect in blood gas syringe & send to Biochemistry on ice) Initials \_\_\_\_\_  
 Record lactate level \_\_\_\_\_ mmol/L

**Pathology**

- Collect FBC, UEC, CRP, LFTs, coags and blood glucose level
- Consider cross match if patient at risk of anaemia or known recent surgery
- Don't wait for confirmation of lab tests before commencing fluid resuscitation and first dose of antibiotics

**Fluid Resuscitate**  
 If hypotensive (SBP < 100mmHg) or lactate > 2mmol/L

**Fluids must have medical authorisation and be prescribed on the IV Therapy Chart (IP12A)**

- Give RAPID fluid bolus STAT (preferably via rapid infuser)
- 500mL 0.9% sodium chloride or Hartmann's solution

1st bolus required and given  Initials \_\_\_\_\_  
 If no response to initial fluid resuscitation (i.e. no improvement in hypotension)

2nd bolus required and given  Initials \_\_\_\_\_  
 • Caution if signs of pulmonary oedema, history of cardiac dysfunction or elderly patient  
 • Increased fluid volumes may be appropriate when administered in ED or ward 7B

**If blood pressure does not improve after fluid boluses – Call a MET**

THE ROYAL MELBOURNE HOSPITAL  
**ADULT SEPSIS PATHWAY**

SURNAME: \_\_\_\_\_ URN: \_\_\_\_\_  
 GIVEN NAME: \_\_\_\_\_ DOB: \_\_\_\_\_ SEX: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 SUBURB: \_\_\_\_\_ POSTCODE: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

**These antibiotics are recommendations for the first dose only and must be prescribed on the medication chart (IP12) by a medical officer.**

1. Clinically examine the patient for a focus e.g. chest, urinary tract infection  
**FOR SUSPECTED or KNOWN source of infection:**  
**HMO: Go to empiric antibiotic guide based on presumed site of infection (on next page)**  
 Have you checked the patient's allergy status?  Yes  No Initials \_\_\_\_\_  
 Circle the presumed site of infection and antibiotic on the empiric antibiotic guide.  
 Have you completed Guidance M5 approval for administration after the 1st dose?  Yes  No  
 Have antibiotics been administered within 30-60 minutes?  Yes  No

or, 2. For UNKNOWN source of infection

no penicillin allergy:  
 Piperacillin/tazobactam 4.5g IV in 50mL 0.9% sodium chloride over 20 min  
 Non-life threatening penicillin allergy (e.g. rash):  
 Cefepime 2g IV in 10mL of 0.9% sodium chloride over 5 min  
 Life-threatening penicillin allergy:  
 Ciprofloxacin 400 mg IV in 200mL (undiluted) over 60 min (prior to vancomycin)  
**PLUS vancomycin IV (see dosing table below) at 10mg/min**

**Plus consider ADDING if SEVERE SEPSIS (SBP < 100 mmHg or lactate > 2 mmol/L) and unknown source**

**VANCOMYCIN:**

Patient's actual body weight	< 50kg	50 to 69kg	70 to 100kg	> 100kg
Vancomycin loading dose	1g	1.5g	2g	2.5g

Refer to Melbourne Health vancomycin guidelines for ongoing dosing based on CrCl.  
 Vancomycin \_\_\_\_\_ g IV as loading dose  
**GENTAMICIN:** Give STAT dose of gentamicin 5 mg/kg ideal or adjusted body weight up to 480mg  
 If CrCl < 40mL/min gentamicin is not recommended. Discuss with consultant first.  
 Gentamicin \_\_\_\_\_ mg IV in 100mL 0.9% sodium chloride over 30 min

Note: Use MEROPENEM (instead of piperacillin/tazobactam) if unknown focus, severe AND:  
 • patient is known to be colonised with multidrug resistant Gram-negative bacteria OR  
 • already been on broad spectrum IV antibiotics (e.g. piperacillin tazobactam) OR  
 • travelled to area with high rate of multidrug resistant Gram-negative bacteria in last 12 months OR  
 • CNS infection not excluded e.g. unconscious (give 2g for this)  
 Meropenem 1g IV in 20mL of 0.9% sodium chloride over 5 min

Guidance M5 approval is required for administration of antibiotics after the 1st dose

If deteriorating call MET or if NOT improving - request review by ICU CNC (pager 991) and inform treating team  
 Name of contact: \_\_\_\_\_ Time: \_\_\_\_\_

**Monitoring**  
 Has the patient been reviewed by the unit registrar or consultant?  
 Yes Contact: \_\_\_\_\_ Time: \_\_\_\_\_ Page again if no review within 1 hour  
 Monitor vital signs & fluid balance every 30 mins for 2 hours then hourly for 4 hours or more frequently as needed.  
 Keep oxygen saturation ≥ 95% (88-92% if at risk of CO<sub>2</sub> retention)  
 Assess for deterioration which may include one or more of the following:  
 Increasing respiratory rate (fulfilling RAPID review or MET call criteria)  
 SBP < 100 mmHg  
 Decreased or no improvement in consciousness  
 Urine output < 0.5 mL/kg/hour  
 If lactate elevated repeat in 2 hours – if elevated > 2 mmol/L contact ICU CNC

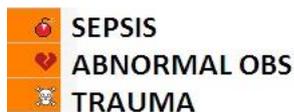
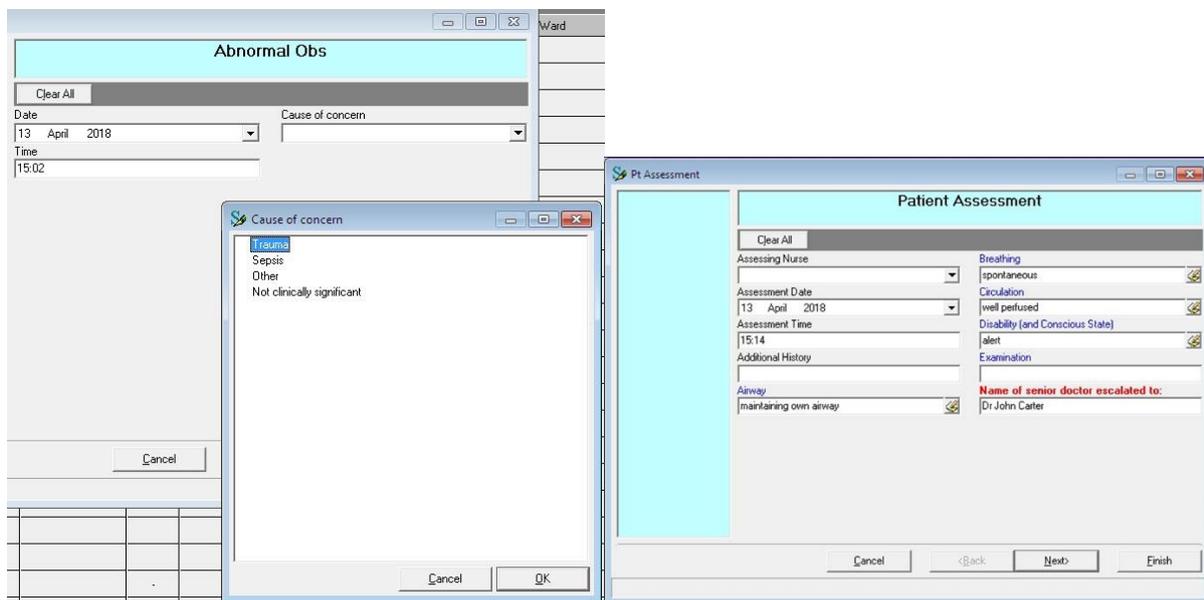
**Investigation**  
 Initiate investigations for source of infection (one or more as indicated):  
 Diagnostic imaging (e.g. CXR)  Sputum for MCS  
 Urine MSU (or CSU) for MCS  Wound swab for MCS  
 Throat swab for respiratory multiplex PCR  Stool for C. difficile testing (if diarrhoea present)

**ALWAYS THINK ABOUT THE NEED FOR EARLY REFERRAL TO VIDS AND/OR SURGICAL TEAMS**

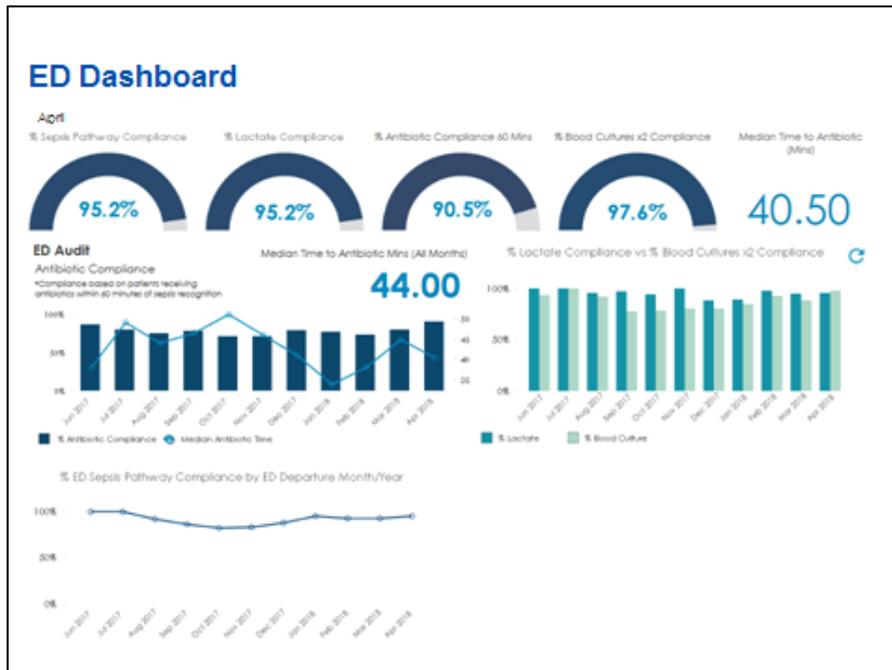
**Appendix 2: Logo Developed in Consultation with Consumers**



**Appendix 3: Electronic Sepsis Trigger**



**Appendix 4: Snapshot of Electronic Sepsis Dashboard**



*\*Developed by Melbourne Health Business Intelligence*

**Appendix 5: Photographs of Implementation**





## CLINICAL EXCELLENCE AND PATIENT SAFETY

### WINNER

## Hunter New England Local Health District (HNELHD), NSW

NSW Health, HNELHD Mental Health Services, NSW Ambulance Service and NSW Police

### Police Ambulance Early Access To Mental Health Assessment VIA Tele health- (PAEAMHATH)

*Jay Jones, Elizabeth Newton, Leanne Gow, Anthony Townsend, David Horseman, Leanne Johnson*

#### AIM

- To provide safe and reliable specialised mental health assessment to mental health patients via frontline Police and paramedics.
- To provide the right care at the right time in the right place.
- Reduce the unnecessary transportation and re-traumatisation of mental health patients to Emergency Departments by Police and Ambulance.
- To keep Emergency Services in the community.

#### SUMMARY ABSTRACT

Statistics show that approximately 60% of people who phone 000 when experiencing a mental health emergency are transported to hospital by Police and Ambulance with only 46% of these resulting in admission to hospital.

A partnership between Police, Ambulance and Mental Health Services, PAEAMHATH (Police & Ambulance Early Access to Mental Health Assessment via Telehealth) allows, for those who choose, a fast and reliable triage by a mental health professional, in one's own home, with the aim of reducing the stress and trauma of an unnecessary trip to hospital.

PAEAMATH is an innovative service, offering a person-centred approach to those in crisis, delivering safe mental health assessment and follow up plans, and allowing emergency services, to devote valuable time to others in the community.

#### REPORT

##### APPLICATION OF ACHS PRINCIPLES

#### 1. Consumer Focus

PAEAMHATH is a consumer led and co-designed project from beginning to end. Designing the project this way has ensured development of a consumer focused service.

Consumers, families and carers were invited to participate in the design of the service through in depth interviewing, survey and feedback workshops. Consumers who had received care or come into contact with NSW Ambulance, NSW Police and NSW mental health services were sought out for this feedback.

All consumers who utilise the service are given a follow up call within seven days to gauge service acceptability.

PAEAMHATH has responded to the voice of consumers by offering them a choice, giving control to those who feel that they have no control. It allows them a chance to speak to a professional, and better understand options open to them.

#### 2. Effective Leadership

PAEAMATH works in new ways to improve relationships with our community partners. In the past, NSW Police, Ambulance NSW and Mental Health Services have had strained working partnerships. While good will exists, operational issues and strategic directives of each organisation may mean that shared service responsibilities often fail. The consequence of which is poor patient experience and a reluctance to share future initiatives. This has not been the case with each partner organisation, with all ensuring continuation of the initial project, and a desire to extend the delivery area.

Few initiatives have been successful in uniting police, ambulance and mental health services in providing a response that ensures the most appropriate care of mental health consumers.

PAEAMHATH has responded to the voice of consumers by offering them a choice, giving control to those who feel that they have no control. It allows them a chance to speak to a professional, and better understand options open to them.

With 24/7 access to a mental health professional, PAEAMHATH has also provided emergency service staff with a better understanding of mental health issues and services, both which can inform future actions.

### 3. Continuous Improvement

Commencing in 2017, PAEAMHATH has grown from a project proposal into a respectful and mutually beneficial partnership with Police, Ambulance and Mental Health Services, informed by consumer experience and choice. In its first year of operation PAEAMHATH assessed 55 people in their homes, with the subsequent outcomes of only 13 people being transported to hospital for further assessment and 38 linked to a community service for follow-up.

PAEAMATH continues to operate within the Port Stephens emergency services catchment area, covering an area approximately 3230km squared and a community of around 78,751 people to deliver services 24/7 to those aged >18 who would be transported to the Calvary Mater hospital, Waratah. Currently embedded in everyday work practice, PAEAMHATH is scalable on a national level due to the telehealth nature of the service. It represents a low cost alternative to time spent transporting people to busy Emergency Departments (ED).

Extending the initiative for rural and remote areas where the importance in remaining on traditional land, being close to family, or where access to emergency vehicles and services is low would have innumerable benefits for all.

PAEAMHATH has a dedicated 1800 number for mental health clinicians to take calls from Police and Ambulance. PAEAMHATH is also set up within Emergency Medical Response

with its own number and service request code.

The Key Performance indicators that have been developed both within Health Services and Police and Ambulance NSW could be easily replicated by other services.

### 4. Evidence of Outcomes

In its first year of operation PAEAMHATH provided a mental health assessment, via telehealth, to 51 people in their homes. Prior to its introduction, this would have resulted in all persons being transported to ED at the Calvary Mater Hospital (up to 70kms away). This forced transport, away from family and community carries the risk of re-traumatisation or injury to self or others.

Once at the ED and subsequent transfer to a Psychiatric Emergency Care Centre a person is subjected to telling their story multiple times through further triage and assessment processes. They may wait hours to be seen only to be sent home, often late at night with minimal transport options. This experience is financially and mentally taxing, particularly on someone who is facing other stressors requiring the initial emergency call.

As the result of the home assessment afforded by PAEAMHATH, only 13 patients were transported for further care, with 12 resulting in hospitalisation.

Feedback from those who have been assessed using PAEAMHATH have reported a 98% satisfaction rate.

In line with the NSW Strategic Plan for Mental Health, PAEAMATH offers an alternative to involuntary transport so that people would be taken to hospital only as a last resort.

Summary results:

- 55 patients accessed service - 42 safe to stay home
- 13 transported cost savings over three services \$178,454.50
- Time saved in travel and at scene or ED:
- ED-168 hr, Police-127.3 hr, Ambulance-96.88, Patient-228hr, Total 620.2 hr
- Patient trauma saving Uncalculatable

### 5. Striving for Best Practice

The Strategic Plan for Mental Health in NSW (2014 – 2024) outlines the need to ensure that the development and evaluation of programs

include the participation of consumers. PAEAMATH epitomises true “co-design”, working with “patients as partners” and supporting people in their own homes.

In line with the NSW eHealth Strategy, PAEAMATH embodies the principles that must underpin all eHealth activities, most notable of these being a Patient Centred Approach and the delivery of integrated care by partners who have demonstrated the Flexibility & Openness to Change.

There are currently no models within Australia or worldwide where co- design has been utilised to build a mental health assessment model that delivers assessment to the patient via emergency services whilst collaborating with mental health services.

#### INNOVATION IN PRACTICE AND PROCESS

While telehealth has been utilised for many years, PAEAMHATH opened up Hunter New England (HNE) Health telehealth to partner with emergency services to utilise the technology. PAEAMHATH take the technology to the patient rather than the patient to the technology.

PAEAMHATH links with existing telehealth services through the Northern Mental Health Emergency Care-Rural Access Program (NMHEC-RAP), which operates 24/7. NMHEC-RAP delivers mental health assessment into the emergency departments of hospitals across Northern NSW.

The Strategic Plan for Mental Health in NSW (2014 – 2024) outlines the need to ensure that the development and evaluation of programs include the participation of consumers. PAEAMATH epitomises true “co-design”, working with “patients as partners” and supporting people in their own homes.

There are currently no models within Australia or worldwide where co- design has been utilised to build a mental health assessment model that delivers assessment to the patient via emergency services whilst collaborating with mental health services.

In line with the NSW eHealth Strategy, PAEAMATH embodies the principles that must underpin all eHealth activities, most notable of these being a Patient Centred Approach and the delivery of integrated care

by partners who have demonstrated the Flexibility & Openness to Change.

#### APPLICABILITY TO OTHER SETTINGS

PAEAMHATH is invaluable in its ability to suit the setting it is implemented into rather than implemented for a particular setting. PAEAMHATH becomes more valuable in a time saving sense the greater the distance the consumer lives from a declared mental health facility, so in rural and remote regions of Australia PAEAMHATH will provide huge monetary and time saving opportunities for consumers, services and hospitals.

PAEAMHATH is a valuable service in metro regions also as it saves Police and Ambulance valuable emergency response times by releasing them early from mental health call outs where safe to do so.



# CLINICAL EXCELLENCE AND PATIENT SAFETY

## HIGHLY COMMENDED

### Royal Perth Bentley Group, WA

SAFE Department

#### The SAFE Afterhours For Everyone 'SAFE' Initiative

*Tim Bowles, Lesley Bennett, Deepan Krishnasivam,  
Katherine Birkett, Iolanta Clarke, Kelly-Ann Hahn,  
Robert Wilson, Ian Atherton*

### AIM

The 'SAFE' Initiative was implemented in 2016 to improve patient care at Royal Perth Hospital, a 450 bed tertiary healthcare organization in Western Australia. The aim of the initiative was to reduce in-hospital morbidity and mortality and to improve the patient journey for all inpatients to the hospital, which is in keeping with the core principles of the Clinical Excellence and Patient Safety domain of ACHS. This initiative has a strong affiliation with NSQHS Standards 9 (Recognising and Responding to Clinical Deterioration), Standard 6 (Clinical Handover) and Standard 2 (Partnering with Consumers) while working under a strong clinical governance framework under the organizational banner. Its innovation also lies with its unique revolutionary approach to the management of patients, by transforming the after-hours space as a department with accountability and responsibility to senior individuals.

### SUMMARY ABSTRACT

#### Introduction:

Royal Perth Hospital (RPH) is a 450 bedded institution, acting as the tertiary referral centre for a population of around 750,000 Western Australians, as well as being the State Major Trauma Centre. Major medical and surgical specialties, with the exception of cardiothoracic surgery, are provided. In 2015, there was major reconfiguration of tertiary medical services in Western Australia, leading to the establishment of RPH in its current described state.

Out-of-hours in-patient care within Australia, defined as the hours outside of 0800 to 1600

during the traditional working week, is traditionally provided by on-call medical teams, working in silos, supported by on-site junior medical staff. This model can be associated with poor communication both between and within teams, lack of accountability, failure of escalation, and a reactive model of care. International literature reveals that the outcomes of patients admitted to hospital out-of-hours are poorer, resulting in a discrepancy in mortality between in and out of hours admissions.

This story was no different at RPH. At the time, out of hours care was provided by a small number of resident junior doctors, supported by a registrar (who was also responsible for medical admissions), and on call, non - resident specialist teams. However, following reconfiguration significant pressures, shared widely among diverse health care environments, were placed on this system.

#### Objectives:

We aimed to reduce the discrepancy in mortality between in and out of hours admissions, as well as reducing overall in-patient mortality. This would be achieved by introducing a radical restructure of out of hours clinical care to promote team based working and creation of a new clinical service 'Safety after Hours for Everyone' - SAFE.

#### Methods and Results:

We used a resilience engineering approach, firstly to understand the 'story' underlying the events, and secondly to examine why events normally do not occur. We asked curious questions of the junior medical officers (JMOs) to understand their circumstances. Major concerns surfaced; unmanageable workload, little feedback or orientation, working occasional night shifts without education, no social or departmental support when things went wrong.

In comparison, we examined how day time clinical teams worked. Most had a departmental structure, allowing a clear feedback and governance structure. Doctors are allocated for whole training terms, allowing consistent exposure, education, and

the development of a culture of performance. Clinically, the successful teams were aware of who their sickest patients were, and proactively managed them. They had a culture of appropriate delegation and escalation; and maintained closed loop feedback regarding progress.

We also identified a consistent factor where events had gone well overnight. A cadre of senior nurses existed with significant organizational experience and knowledge. Prior to implementation of the 'SAFE' Model these nurses were often working in isolation, without the resource or authority to escalate and coordinate care. However, they provided a resilient backbone, where in the event of circumstances becoming unsafe, could generally understand how to restore safe conditions. Unfortunately, they were not always empowered to take the needed actions.

The 'SAFE' Model of care was then developed to provide a unique, departmental approach to after-hours care (defined as care between 1600 and 0800 Monday to Friday and 24/7 at weekends) to the general medical and surgical wards.

Key innovative characteristics of the 'SAFE' Model that are different to currently known after-hours models were;

1. A medical Head of Department (HOD) to lead a multidisciplinary team of 20 JMOs, five (5) Senior Medical Officers (Registrar Grade), ten (10) nurses and one (1) physiotherapist in a departmental framework, similar to provision of care during the in-hours space.
2. The clinical team is comprised of a senior nurse Clinical Lead, who coordinates, progresses and escalates care, working closely with a registrar. They oversee the workload of the RMOs and adjust resource allocation as needed.
3. Resident Medical Officers (RMO's) are allocated for a full term (10 weeks), and are ward based, ensuring continuity of care and knowledge of patients, as well as providing an opportunity to build relationships with other out of hours staff and the specialty day teams for the areas they cover. This has enhanced communication and optimised professional exposure to a wide variety of clinical settings, with very positive feedback on both the level of supervision and teaching from RMOs who work in the 'SAFE' Team. Feedback from nursing staff has been overwhelmingly positive reporting that they feel much more supported than previously, with the easy availability of medical staff on their wards.
4. The departmental model provides clear lines of governance and accountability, and has facilitated role delineation within the team, particularly important with respect to progressive steps in escalation of care. It also provides a sustainable and stable workforce as the clinical lead and some of the registrar positions are long term career positions. Having permanent positions in these roles, promotes the role of SAFE not only in after-hours care but also commitment to promotion of a safety culture at RPH. The role of the Clinical Lead and the Registrar holds a high standing within the organisation, similar to that of a very senior nurse and doctor in other departments within the hospital. In addition, the (HOD), who takes on an administrative as well as a partial clinical role, allows for visible leadership to both Executive and other departments.
5. Stability and sustainability of the workforce is ensured with permanent staff as described above and JMO positions being part of the hospitals allocated rotation, working a 10 week term. Prior to the 'SAFE' Model, junior medical staff would work 'ad hoc' shifts and work these hours in addition to their day time duties, relatively unsupported and in silos. Now, during their 10 week SAFE term they feel valued and identify as being part of a team with clear leadership, teaching and training opportunities, including focusing on best practice clinical guidelines relevant to management of the deteriorating patient. Working hours have improved compared to the previous model and with the emphasis on patient and staff welfare, feedback from the term is excellent (with very high reported satisfaction with teaching, support, and work-life balance despite the high out of hours commitment) and the term is recognised for training by Postgraduate Medical Council of Western Australia.

As a result of the above, the introduction of the 'SAFE' Model has been associated with;

1. A reduction in hospital Standardised Mortality Ratio (HSMR) from 0.71 to 0.54

- (periods January-June 2015 vs January-March 2018). This is shown in Figures 1 and 2.
2. A reduction in out of hours mortality (defined as admissions from 1800 to 0800) from 0.98 to 0.38 (period from June 2015 to June 2018). This is shown in Figure 3.
  3. A reduction in Cardiac Arrests (January 2015 - March 2018).
  4. Positive attitudes, culture and improvement in patient focus after hours.

This will be discussed in further detail in the Evidence of Outcomes sessions.

### Conclusion(s):

The introduction of the 'SAFE' Model has been associated with improved hospital outcomes. This model has scope to be applied to similar tertiary level hospitals, or modified to fit within most hospital structures. A key component to the success of this model's innovation, is acknowledgement of the importance of after-hours care provision to patients, which is highlighted by the formation of a department of after-hours medicine as part of the 'SAFE' Model.

## Westmead Hospital, NSW

Ophthalmology Department & Emergency Department

### Fundus Photography in the ED: Saving Lives Sight & Time

*Dr Hamish Dunn, Julia Costello, Dr Kai Zong Teo, Alison Pryke, Lakni Weerasinghe, Prof Peter McCluskey, Clin A/Prof Andrew White, A/Prof Clare Fraser*

### AIM

Emergency Departments (ED) around the world are sending patients home with life-threatening and sight-threatening conditions because of limitations in the ability to view the retina[1]. Fundoscopy (looking at the retina) offers a non-invasive glimpse of the central nervous system and vasculature to detect such conditions as raised intracranial pressure, risk of stroke and many other pathophysiological findings[2,3]. Currently doctors in the ED must use the direct ophthalmoscope, an instrument which is largely unchanged since its invention in the 1850s, to view 5 degrees of the retina, however, novel fundus imaging technology using a portable non-mydratic fundus camera (NMC), can obtain a 45 degree photograph of the fundus without the need for dilating drops. The aim of the FOTO-ED project was to assess the feasibility and efficacy of using portable (NMC) fundus

photography in an Australian Emergency Department setting with the core goal to improve the detection and outcomes for neurological and ophthalmic emergency presentations and, optimize the appropriateness of time spent in the ED and number of investigations required for patients.

### SUMMARY ABSTRACT

Fundoscopy (viewing the retina) can have significant diagnostic and prognostic power for patients presenting to the ED. By viewing the retina changes can be seen in the optic nerve and retinal blood vessels which can reveal life-threatening and vision-threatening pathology. However, around the world fundoscopy rates in the ED are low as the direct ophthalmoscope is technically challenging and therefore not often used by clinicians[4,5]. By using a hand-held non-mydratic camera (NMC) a digital photograph of a patient's retina can reveal significant information relevant to treatment and management quickly. The photograph can be uploaded and sent quickly for neurological and ophthalmological review using store and forward telemedicine. Missed diagnosis from intracranial pressure causing vision loss is one of the major medico-legal costs in Australia representing significant quality deficit in this country. A groundbreaking study in Atlanta found ED doctors were only examining 14% of patients who needed fundoscopy and were missing 100% of pathology which would change emergency management[4].

The difficulty of using a direct ophthalmoscope increases to near impossible if the pupils are not dilated (mydriasis). ED doctors are often reluctant to augment mydriasis pharmacologically with eye drops for a number of reasons including patient preference[6]. Mydriasis results in light sensitivity and blurred vision which has effects both on comfort and safety, for example, increasing falls risks and affecting ability to drive. Mydriasis also prevents vital assessment of pupillary reactions in neurological populations until resolved often many hours later.

The original FOTO-ED study in Atlanta compared the use of NMC with routine direct ophthalmoscopy in an emergency department setting. At Westmead Hospital the Ophthalmology & Emergency Departments have collaborated on a

research project based on the framework used in Atlanta. Our FOTO-ED project implemented the use of a portable non-mydratic fundus camera (NMC) to take fundus photographs without dilating the pupil of patients presenting to the ED using the inclusion criteria; headache, focal neurology, diastolic blood pressure over 120mmHg or visual changes.

We were supplied a portable NMC in ED and provided collaborative training sessions between Ophthalmology and ED in its use, and a pathway was established to ensure expert interpretation of findings. An intensive 8-week project was used to evaluate the program. The project rollout enlisted a core group of Nurse Practitioners (NP) and doctors along with medical student research assistants. Patients needing fundoscopy were highlighted early in their ED journey. Non-mydratic photography was performed at the patient's bedside, fundus photos were uploaded to the (electronic medical record) eMR and reviewed by the Ophthalmology team within 24 hours.

Following Ethics approval, data was collected during the project from prospectively recruited patients as well as from retrospective analysis of ED presentations. The primary outcomes evaluated were the prevalence of fundus pathology amongst those presenting to ED with any of the four inclusion criteria; headache, focal neurological symptoms, visual disturbance or hypertensive crisis. Two categories of pathology were used; urgent and non-urgent. Urgent pathology was defined as that which should change ED management, investigation or consultation and included pathology such as optic disc oedema, grade III/IV hypertensive retinopathy, optic disc pallor or isolated intraocular haemorrhage, retinal detachments or vasculitis. The second category was defined as non-urgent but vision-threatening and included new presentations and/or pathology relating to chronic ocular conditions which required routine ophthalmic review to avoid long-term vision loss.

Several secondary outcomes were also used to evaluate the effectiveness, necessity and feasibility of the project to assess its ongoing need. These included analysis of the inclusion criteria; the ability of ED physicians to correctly identify pathological vs normal

fundus pictures; ED doctor's perceived clinical utility of fundus photographs; and the practical aspects of time to acquire photographs and photographic quality. The results of this project have been reviewed against international results of the first trial in Atlanta and in collaboration with a concurrent trial in Royal Prince Alfred (RPA) Hospital.

The new protocol implemented during the 8 week pilot roll out of the FOTO-ED project detected otherwise missed pathology in 28.1% of patients and found the fundoscopy rate had a 26-fold improvement. During this period 12 patients were recalled to the hospital for urgent management, detected only by this protocol; including two who required neurosurgical intervention, and one for urgent medical management of vasculitis.

This was the first portable NMC fundus photography program in Australia and demonstrates the value of collaborative fundus imaging for the safety of patients presenting to ED. It has led to a rapid translation of evidence-based best practice at Westmead ED.

## REFERENCES

1. Carta, A., et al., Accuracy of funduscopy to identify true edema versus pseudoedema of the optic disc. *Invest Ophthalmol Vis Sci*, 2012. 53(1): p. 1-6.
2. Sinclair, A.J., et al., Rating papilloedema: an evaluation of the Frisen classification in idiopathic intracranial hypertension. *J Neurol*, 2012. 259(7): p. 1406-12.
3. Fraser-Bell, S., R. Symes, and A. Vaze, Hypertensive eye disease: a review. *Clin Exp Ophthalmol*, 2017. 45(1): p. 45-53.
4. Cheung, C.Y., C. Chen, and T.Y. Wong, Ocular Fundus Photography as a Tool to Study Stroke and Dementia. *Semin Neurol*, 2015. 35(5): p. 481-90.
5. Roberts, E., et al., Funduscopy: a forgotten art? *Postgrad Med J*, 1999. 75(883): p. 282-4.
6. Bruce, B.B., et al., Feasibility of nonmydratic ocular fundus photography in the emergency department: Phase I of the FOTO-ED study. *Acad Emerg Med*, 2011. 18(9): p. 928-33.

## Royal Brisbane and Women's Hospital, Metro North Hospital and Health Service, QLD

Quality, Innovation, and Patient Safety Service; and Surgical and Perioperative Services

### Safety Partnerships in Action: Zero Hospital Acquired Pressure Injuries

*Catherine Ryan, Lisa Mitchell,  
Faileen James, Duane Watson*

#### AIM

The initiative trialed key concepts in Systems Thinking and Human Factors Engineering, using a strong partnership approach to determine the effectiveness of the methodology in two key areas. Firstly, creating and embedding a robust safety culture of multidisciplinary collaboration in clinical practice based on clinical staff and consumer priorities. Secondly, enhancing effective quality improvement in clinical practice as core business. A key principle of the innovation was to understand how the system worked and address causal factors limiting the effectiveness of care.

#### SUMMARY ABSTRACT

To meet 21st Century demands in healthcare, achieving efficiencies and effectiveness at the point of care is crucial to meeting increasing need for services. In order to achieve this vision it is important to inspire and energise staff in clinical areas to drive a continuous improvement culture to increase positive consumer, clinical, and organisational outcomes. The Safety Partnership in Clinical Practice (SPiCP) pilot's overarching objective was to investigate the effectiveness of a systems thinking approach to embed a culture of collaboration and continuous quality improvement at the point of care.

**Background:** Traditional models of change in healthcare often focus on strategic priorities and objectives with a planned approach. The purpose of this trial was to identify an effective emergent model to leverage outcomes at the point of care. The Safety Partnership in Clinical Practice trial was a collaboration between Quality, Innovation, and Patient Safety Service and Surgical and Perioperative Services which included:

- The Guiding team

- 2 members of the Quality Innovation and Patient Safety Service(QIPSS)
- A Consumer Representative
- 7AS Nurse Unit Manager, Orthopaedics and Trauma, Surgical and Perioperative Services
- The wider team instrumental in driving the quality improvement included:
  - nursing, allied health, operational and medical staff.

Identification of systems issues highlighted underlying causes critical for successful and sustainable quality improvement to achieve their vision to become the best Ortho/Trauma service in Queensland.

**Aim:** The pilot trial of the Safety Partnership in Clinical Practice (SPiCP) investigated the effectiveness of a systems thinking approach to embed a culture of interdisciplinary collaboration and continuous quality improvement at the point of care.

**Method:** The guiding team undertook observational and consultative approaches to identify why the hospital's well-established, evidenced based Pressure Injury Prevention (PIP) Program was not achieving the desired outcomes. Systems issues identified included: ward culture, staff knowledge and skills, communication, patients' perspective, equipment and environment, measurement and evaluation.

The pilot site had numerous data driven opportunities for improvement, including the highest incidence of hospital acquired pressure injuries (HAPI) in the facility with seven significant injuries in the preceding six months. Staff and consumers identified this as a priority and developed their aim statement: Zero significant HAPI on ward for next six months.

A strong governance structure was put in place with scheduled fortnightly meetings to ensure interdisciplinary participation and rapid-cycle testing for assessment of initiatives. Our focus was on building trust by addressing point of care concerns, valuing and connecting with staff, mentoring and enabling engagement with both staff and consumers.

The group collaboratively developed their priorities with practical activities they could implement and evaluate at the point of care. Leadership support and participation was invaluable in empowering the team. Interventions included: interdisciplinary PIP plan, weekly interdisciplinary PIP team huddle to discuss care of high risk patient, communication board, audit, education, leadership walkarounds and patient, family and carer feedback to staff from consumer lead.

**Results:** In the 12-months post-implementation, the team achieved zero significant HAPI, and a corresponding reduction in financial penalties and associated costs (Length of stay, nursing hours etc.) with potential savings of \$1.14 Million per year (based on 14 HAPI per year). Seven of the eight dimensions of care showed improvement on The Patient Experience Survey Tool. For staff a new culture of trust, respect, inclusion and responsibility developed.

**Conclusion:** The partnership achieved enormous cultural change in a challenging and complex environment. The trial provided

proof of concept for a system based partnership approach to healthcare redesign at the point of care. Understanding the complexity of systems and the way they work provided greater insight in embedding context specific improvements to enable success and sustainability. Identifying and resolving causal factors impacting effectiveness and efficiencies at the point of care was foundational for staff to drive quality improvement.

The outstanding outcomes in the project have been an artefact of empowering staff to change the culture to a collaborative, integrated, continuous learning and improvement environment. This project has identified the Safety Partnerships in Clinical Practice model is effective. A best practice model is in development for RBWH to build capacity in systems thinking approaches to care.



# CLINICAL EXCELLENCE AND PATIENT SAFETY

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Departments of Emergency and Geriatrics

**A standardised approach to older people presenting to the emergency department after a fall.**

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### Liverpool Hospital

Cancer Therapy Centre/Department of Radiation Oncology/Medical Physics

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INTENSIVE CARE UNIT

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**Adverse outcomes due to technical competency of healthcare providers**

*Samar Assem Badreddine, Marlene Alimbuyao, Doaa Mady, Eman Elmuzzyen*

### Royal Bahrain Hospital

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*Maysoon Ballout, Parvathy Krishnan, Betty David, Jovi John, Thara Thankachy, Berla Florence, Anal Thankappan, Rehana Nazir*

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### Currumbin Clinic

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*Carole Foot, Joanna Hallam, Liz Hickson, Catherine James, Geraldine Grant, Sue Engele, Louise Cubis*

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*Katherine Francis, Dr Rachel Wenke, Melissa Lawrie, Dr Tanya Rose, Dr Ian Hughes, Katina Swan, Zane Hopper, Marie Hopper*

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*Melanie Glapa, Ashley Moore*

**Central Australia Health Service**

Acute Care Services and Safety and Quality

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*Laurie Grealish, Maree Krug, Kim Jenkinson, Polly Donnelly, Samantha Shumack*

**Queen Elizabeth II Jubilee Hospital, Metro South Hospital and Health Service**

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*Dr Katherine Gridley, Ms Kirsten Strudwick, Dr Edward Pink, Mr Mark Nelson*

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**ACT Health**

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**Blacktown and Mount Druitt Hospitals**

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*Rachel Norris, Leena Chan, Lukas Szymanek, Stephen Woolley, Sharmane Motuliki*

**Royal North Shore Hospital NSLHD**

Northern Sydney Cancer Centre, Department Medical Oncology

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*Meredith Oatley, Margret Fry*

**Western Sydney Local Health District Mental Health Services**

Redbank Inpatient Unit

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*Dr Ashwini Padhi, Caroline McSherry, Sumithira Joseph, Julia Norcott, Elissa Yoo, Jaclyn Mitchell*

**University of Hong Kong-Shenzhen Hospital**

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**Liverpool Hospital**

Department of Medical Oncology

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*Abhijit Pal (Primary Author), Wei Chua, Eugene Moylan*

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*Amanda Paloff (Lead), Ashley Howley, Tyson Peters, Kerry Shanahan, Orinda Jones*

**Townsville Hospital and Health Service**

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**The Sutherland Hospital**

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*Joshua Philp, William Siu, Liz Walter, Beti Krstevska, TSH Hand Hygiene Working Party*

**Western Health**

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*Jason Plant*

**Western Health**

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**NNSW LHD Richmond Clarence Health Service Group - Clarence**

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*Dean Robertson, Charlotte Hall, Sabrina Pit, Margaret Rolfe, Sharene Pascoe, Megan Passey, John Mackenzie, Lindsay Murray*

**Dubbo Health Service**

Intensive Care Unit

**Nursing Education Strategy Intensive Care Unit**

*Matthew Rouse*

**Dubbo Health Service**

Intensive Care Unit

**Dubbo Health Service ICU Governance Framework**

*Matthew Rouse*

**Hunter New England Local Health District**

Departments of Diabetes; Maternity and Gynaecology, John Hunter Hospital

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*Christopher W Rowe, Katie Wynne, Elise Putt, Jacqueline Allabyrne, Alison Gebuehr, Olivia Brentnall, Andrew Woods*

**Royal Brisbane and Women's Hospital, Metro North Hospital and Health Service**

Quality, Innovation, and Patient Safety Service; and Surgical and Perioperative Services

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*Catherine Ryan, Lisa Mitchell, Faileen James, Duane Watson*

**Women and Newborn Health Service**

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*Mary Sharp, Joanne Beedie, Jennifer Gallop, Pippa Vines*

**University of Hong Kong-Shenzhen Hospital**

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*Lanping Shi, Jianfen Cao, Qifeng Sun, Longli Wei, Fanxin Xuan*

**Echuca Regional Health**

Quality Unit

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*Michelle Shingles, June Dyson, Cynthia Opie*

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*Mr Andrew Simpson, Mr Marc Lamond, Mr Lorne Hyde, Ms. Sophie Isobel*

**Correct Care Australasia**

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*Amanda Smith*

**Bankstown-Lidcombe Hospital**

Aged Care & Rehabilitation

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*Katrina Stott*

**Bankstown-Lidcombe Hospital**

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*Katrina Stott*

**Melbourne Health**

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*Kelly Sykes, Karin Thursky, Tristan Vasquez, Dominic Gasparini, Robert McCubbin, Thao Nguyen*

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*Nicola Veness, Berna Gurisik, Alyssa Curtis*

**Logan Beaudesert Hospitals**

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*Mr Branko Vidakovic(Main author), Miss Hailie Uren, Dr Michael Daly*

Hunter New England Local Health District  
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*Sush Wagener, Robin Haskins*

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## NON-CLINICAL SERVICE DELIVERY

### WINNER

## Marie Stopes Australia

Improving the patient experience

*Annette Penney, Jacqueline O'Brien*

### AIM

The aim of this initiative was to conduct a gap analysis against the Clinical Excellence Commission's (CEC's) Patient Based Care Challenge and;

- provide a structure for Marie Stopes Australia (MSA) to enhance its patient-centred care and consumer participation strategic direction,
- make 'patient-centred care' more broadly recognized as everyone's responsibility from the Executive team to clinical staff at the bedside ensuring 'patient-centred care' is a focus at all levels of the organisation and;
- in turn, 'Improve the Patient Experience'

### SUMMARY ABSTRACT

Marie Stopes Australia (MSA) is the national not-for-profit provider of sexual and reproductive health services including contraception and abortion care. This is a stigmatized area of health and can be challenging to involve the consumer in service planning and designing care.

To facilitate discussion and provide a structure for MSA to enhance its patient-centred care and consumer participation strategies, a gap analysis was conducted against the Clinical Excellence Commission's (CEC) Patient Based Care Challenge in May 2017. MSA's Nurse Unit Managers, the Executive team (including the CEO and Medical Director), the National Quality and Risk Manager, Clinical Nurse Consultant and MSA's Consumer Advocate participated.

The group provided evidence of how MSA achieved the actions against the 27 strategies of the Challenge. The pre-intervention results were 37% (10) Achieved, 48% (13) Partially Achieved, 15% (4) Not Achieved. Actions and opportunities identified during the gap analysis;

1. Quality, Safety and Patient Outcomes:
  - Increase transparency in public reporting
  - Commence each Executive meeting with a complaint/compliment for continuous improvement
2. Workforce development:
  - Implement training in engagement techniques including 'empathy' training for front line staff
  - Involve consumers and consumer advocates in staff education
3. Co-design of services:
  - Develop Consumer and Specialist Advisory groups in each state and territory to understand client needs
  - Involve more consumers in service delivery planning and design
  - Conduct regular meetings with Nurse Unit Managers to identify potential consumers to sit on Consumer and Specialist Advisory Groups
4. Advocacy:
  - Implement a policy that all women are seen on their own initially during medical/nurse consultation and counselling sessions to ensure women are not being coerced into a termination by a third party.

Actions to date include;

1. Initiatives integrated into MSA's Strategic Plan 2018 – 2020 with KPI indicators
2. MSA Patient-Centred Care/Consumer Participation Model (Appendix G) highlights the interaction between listening and serving the patients and the community internally and externally, which directs both patient-centred care and advocacy. This model is based on the key principles of CEC's Patient Based Challenge. The patient is at the centre

and is the source for directing how the organisation interacts with patients at all levels of the organisation and the broader community. It highlights the key issues that impact on the patient and what advocacy MSA should prioritise. The model includes creation of Consumer and Specialist Advisory Groups to test and direct the work of the organisation and including media engagement.

3. Quality, Safety and Patient Outcomes:
  - Complaints and compliments tabled at Executive Team meetings for continuous improvement. An improvement example is the enhancement of health literacy for patients. MSA now sends MSA website links to short patient videos on Surgical Abortion, Medical Abortion and Vasectomy prior to patient appointments
  - Increased transparency in public reporting: Patient Satisfaction rates, Complication rates (compared with internationally reported anticipated rates) and ACHS Clinical Indicator outcomes are published on the MSA website <https://www.mariestopes.org.au/about-us/our-standards/>
  - MSA Patient-centred care/consumer participation model presented to all staff, the Consumer and Specialist Advisory Group and incorporated into MSA's Quality Quest Newsletter.
4. Workforce development:
  - All Executive, Senior Management, Nurse Unit Managers and Clinic front line staff have completed "Empathy" training
  - Involved the consumer advocates in staff education.
5. Co-design of services:
  - MSA currently works with five consumer media spokespeople
  - Established routine review of google comments and redirect any complaints into the formal complaints system for investigation and corrective action
  - Established MSA's first Consumer and Specialist Advisory Group in Victoria
  - Engaged consumers at the local clinic level in the design of Clinic Quality Data Outcome posters and a 'Way Finding' Quality improvement initiative.
6. Advocacy:
  - All media has a core focus on patient-centred care

- MSA runs five patient-centred advocacy campaigns to achieve societal change to decrease stigma and increase access to abortions. An example is the development of the reproductive coercion White Paper produced with broad community and consumer input: [https://www.mariestopes.org.au/wp-content/uploads/Draft-White-Paper\\_Reproductive-Coercion\\_Final.pdf](https://www.mariestopes.org.au/wp-content/uploads/Draft-White-Paper_Reproductive-Coercion_Final.pdf)

Pre and Post Intervention Evaluation includes:

1. Quality, Safety and Patient Outcomes:
  - An increase in achievements against the CEC's Patient Based Challenge as follows:

Gap analysis	Pre-intervention 2017 Results	Post-intervention 2018 Results
Achieved	37%	63%
Partially achieved	48%	30%
Not Achieved	15%	7%

- An increase in patient satisfaction from 89% in year end 2017 to 92% in 2018 YTD (end of June 2018)
  - An increase in patient satisfaction on google review from approximately 2.5 stars in 2016 to 3.5 in 2018
  - An increase in reporting through the formal complaints process. A routine review of google reviews redirects any complaints into the formal complaints system for investigation and corrective action as required
  - Awarded two 'Met with Merits' in NSQHS Standard 2 Partnering with Consumers; 2.1.1 and 2.2.1, at the 2017 onsite Victorian Accreditation survey.
2. Co-design of services:
    - State Consumer and Specialist Advisory Groups established in two jurisdictions
    - Consumer advocates involved in branding redesign for Westmead Clinic.
  3. Advocacy:
    - All women are now seen initially on their own in the medical/nursing and counselling sessions at all MSA clinics – refer below to 'Reproductive Coercion'. Compliance is monitored via complaints, incidents and regular clinic onsite mock surveys/reviews where the Clinical Nurse Consultant follows a patient through her journey

- Five consumer-driven advocacy campaigns implemented with one campaign successfully completed.

#### Next Steps;

- Secondary quality improvement initiatives identified through the State Consumer and Specialist Advisory committees, for example, the BMI initiative is being developed with the consumer advocates
- Developing MSA short patient videos on Surgical Abortion, Medical Abortion and Vasectomy in multiple languages
- With Australian National University, commenced international collaborative Research Program "What Women Want in Abortion Care Services" to guide future service delivery from a patient-centred perspective. Past patients and the community participation will provide predictive pathways to customize MSA's services in line with patient expectations
- Further establish Consumer and Specialist Advisory Groups in three remaining states
- Provide communication skills training to clinical staff
- Implement a Health Literacy initiative
- Implement a Staff Patient Safety Climate Survey
- Continue Open Disclosure.

## REPORT

### APPLICATION OF ACHS PRINCIPLES

#### 1. Consumer Focus

- The overall aim of the initiative was to 'Improve the Patient Experience'.
- A session was dedicated at the Nurse Unit Manager's conference, also attended by the CEO, Executive. Senior Management and Consumer Advocate from the Women's Health Issues Centre, to discuss patient-centred care utilising the CEC's Patient Based Challenge as a platform for focus and discussion.
- The Nurse Unit Managers had a wealth of knowledge at a local clinic and state level of patient experience including the varied cultural components of the patient experience eg Aboriginal and Torres Strait Islander women and other multicultural representative groups such as Asian, Indian, African, Pacific Islander and Arabic.
- The Consumer Advocate was able to provide a perspective that some women

may be coerced by a partner or family member into having an abortion. This is called 'Reproductive Coercion'. MSA has now taken steps to ensure women have the opportunity to speak freely in a medical/nurse or counselling session, without the potential influence of partners, friends or relatives, regarding their decision to have or not to have an abortion.

- The investment in the staff 'Empathy' training across all states and the Research project "What women want in Abortion Care" demonstrates the level of MSA's commitment to providing a patient focused service delivery.
- Evaluating the service from a patient perspective includes review of complaints (including those tabled at Executive meetings), patient feedback including google reviews, regular onsite clinic reviews/mock surveys, feedback from the State Consumer and Specialist Advisory Groups, regular attendance of the Consumer Advocate at all MSA Clinical Governance Meetings, patient feedback at the clinics, GP and hospital feedback, and review of incidents and adverse events. MSA convenes a critical incident panel 72 hours post an Adverse Event. Open disclosure practice is discussed at these meetings as one incident review components and an ongoing Patient Liaison Person is assigned as required.
- MSA develops all of its advocacy campaigns with the patient at the centre of its efforts. Since the establishment of the Patient Centred Care/Consumer Participation Model (Appendix G), the organisation has developed and is currently active with five campaigns;
  - establishment of safe access zones in NSW, QLD and WA (MSA was part of a collaborative effort that successfully achieved the zones in NSW in July)
  - decriminalisation of abortion in NSW and QLD (MSA works collaboratively with partners and consumers in these states to lobby for law reform)
  - greater access to public support for abortion care: MSA currently leads a national reform agenda to move abortion care into the primary health care space so as to increase access and public funding for the service. This has

- been directed by the challenges reported to us through our patients
    - development of the reproductive coercion White Paper to better assist our staff to manage and support patients who may experience coercion
    - lobbying for reform in the pregnancy crisis counselling area so counselling organisations are transparent about any agenda that may coerce their decisions. This campaign has been driven by a number of former patients who have had challenging and traumatic experiences when accessing third party crisis counselling services that do not agree with abortion.
  - MSA works with consumers who wish to have their stories told to the community. We work with consumers to sensitively, respectfully and appropriately feature their stories. We have done a significant amount of work to build trusted, respectful relationships with key media who will help consumers tell their story in the most compassionate way possible.
- 2. Effective Leadership**
- The CEC patient based challenge provided MSA with an opportunity to focus on our patients at a senior level and provide future direction for the service delivery.
  - Improving the patient initiative includes the research project 'What women want in Abortion Care Services' has the complete support of the CEO and Executive team. Focus groups are attended by patients, front line staff and senior management. This innovative research may have international applicability.
  - Full day staff empathy training sessions, facilitated by an external consultant, have been held in head office and throughout the clinic network in all states. Each training session was attended by the CEO and the Executive team which demonstrates the level of commitment to improving the patient experience initiative.

### 3. Continuous Improvement

MSA works within a Quality Improvement Framework and continually strives to improve the quality of care for our patients. As demonstrated in MSA's onsite 2017 ACHS Accreditation Surveyors' comments; 'There is evidence of a culture of safety, evaluations, improvements and sustainability'.

This quality culture is also demonstrated by;

- Our willingness for transparency in publically reporting our outcomes both locally in clinics via the Quality Data Posters and on our website
- Our determination to establish the Consumer and Speciality Advisory Groups in each state to hear our patients and their representatives' perspectives and appropriately act on their feedback.
- Our willingness to fund and promote extensive research in this area of women's health
- Our 'next steps' to progress the secondary Quality Improvement initiatives
- Our Continuous monitoring, reporting and evaluation of patient feedback at all levels of the organisation including the Consumer Specialist Advisory, the Executive/Corporate, Consumer Clinical Governance and Clinic levels of MSA's Health System
- MSA is embarking on its 18 month accreditation journey to secure White Ribbon Workplace Accreditation to better equip staff to deal with circumstances where women are experiencing violence.

### 4. Evidence of Outcomes

MSA's evidence of improvement through the 'Improving the patient experience' initiative is evident in its Pre and Post Implementation Intervention Evaluation as outlined in the abstract. This includes;

1. Quality, Safety and Patient Outcomes;
  - An increase in achievements against the CEC's Patient Based Challenge as follows;

Gap analysis	Pre-intervention 2017 Results	Post-intervention 2018 Results
Achieved	37%	63%
Partially achieved	48%	30%
Not Achieved	15%	7%

- An increase in patient satisfaction from 89% in year end 2017 to 92% in 2018 YTD (end of June 2018)
- An increase in patient satisfaction on google review from approximately 2.5 stars in 2016 to 3.5 in 2018 in MSA's Clinic reviews
- An increase in complaints from 0.30% in 2017 to 0.54% 2018 YTD. MSA attributes this to increase to a more transparent, formal complaints process, where staff are actively encouraging all our patients to formally tell us about their experience, whether negative or positive, so that we can learn, take corrective action as required and continue to improve our service delivery
- Awarded two 'Met with Merits' in Standard 2 Consumer Partnership in Service Planning, 2.1.1 and 2.2.1, at the 2017 onsite Victorian Accreditation survey.

Surveyors' comments included; 'There is evidence of a culture of safety, evaluations, improvements and sustainability at the MSA Victoria Centres in relation to consumer partnership in service planning deserving an increase of ratings for actions 2.1.1 and 2.2.1 to 'Met with Merit'.

'The mechanisms for involving consumers in safety, evaluation and improvement strategies are evident in the corporate structure and sustained in both centres and therefore this action is assessed as 'Met with Merit'.

'The involvement of consumers in the evaluation of care and service delivery demonstrates improvements as a result of senior staff attendance at CEC Patient based Care Challenge and ongoing training through eLearning modules on Open Disclosure. It is expected to improve through the activities of the planned Consumer and Specialist Advisory Groups planned for each state'.

2. Co-design of services:
  - State Consumer and Specialist Advisory Groups established now two states
  - Consumer advocates involved in branding redesign for Marie Stopes Westmead clinic.
3. Advocacy:
  - All women are now seen initially on their own in the medical/nursing and counselling sessions at all MSA clinics – refer below to 'Reproductive Coercion'.

Compliance is monitored via complaints, incidents and regular clinic site mock surveys/reviews where the Clinical Nurse Consultant follows a patient through her journey.

- Five consumer-driven advocacy campaigns have been implemented with one campaign;
  - establishment of safe access zones in NSW, QLD and WA (MSA was part of a collaborative effort that successfully achieved the zones in NSW in July)
  - decriminalisation of abortion in NSW and QLD (MSA works collaboratively with partners and consumers in these states to lobby for law reform)
  - greater access to public support for abortion care: MSA currently leads a national reform agenda to move abortion care into the primary health care space so as to increase access and public funding for the service. This has been directed by the challenges reported to us through our patients
  - development of the reproductive coercion White Paper to better assist our staff to manage and support patients who may experience coercion
  - lobbying for reform in the pregnancy crisis counselling area so counselling organisations are transparent about any agenda that may coerce their decisions. This campaign has been driven by a number of former patients who have had challenging and traumatic experiences when accessing third party crisis counselling services that do not agree with abortion.

### 5. Striving for Best Practice

Utilising the CEC's Patient Based Challenge to compare the current status of MSA's service delivery, provided MSA an opportunity to focus its attention on best practice principles and a platform to grow its patient-centred care/consumer participation strategy. The CEC's published evaluation of the Patient Based Challenge also indicated its benefits to other health services, demonstrating the Challenge's value and worth to the MSA group. The challenge was a simple tool and fun to complete which motivated staff participation at all levels of the organisation.

As demonstrated by MSA's 2017 ACHS Accreditation outcomes (as above), this initiative also aligns with the requirements of the National Safety and Quality Health Service Standards, in particular, Standard 2: Partnering with Consumers.

#### **INNOVATION IN PRACTICE AND PROCESS**

Conducting a gap analysis against the CEC's Patient Based Care Challenge facilitated discussion regarding the deficit of knowledge and research regarding what women really wanted in abortion care services. These discussions generated the idea of conducting one of our next step initiatives; the collaborative MSA/ANU Research Project of 'What Women Want in Abortion Care Services'.

MSA's Patient Centred Care/Consumer Participation Model (Appendix G) directly links patient experience to its advocacy campaigning efforts. This ensures that advocacy campaigns are patient-centred, patient-directed and feature the voice of the patient.

#### **APPLICABILITY TO OTHER SETTINGS**

MSA's work in engaging and encouraging consumer participation could be applied across a variety of settings, particularly those that can be stigmatised. MSA's Patient Centred Care/Consumer Participation Model (Appendix G) provides a means of directing patient-centred care and advocacy for any health care setting wishing to engage in broad societal change that will ultimately improve the experience of future patients.

#### **REFERENCES**

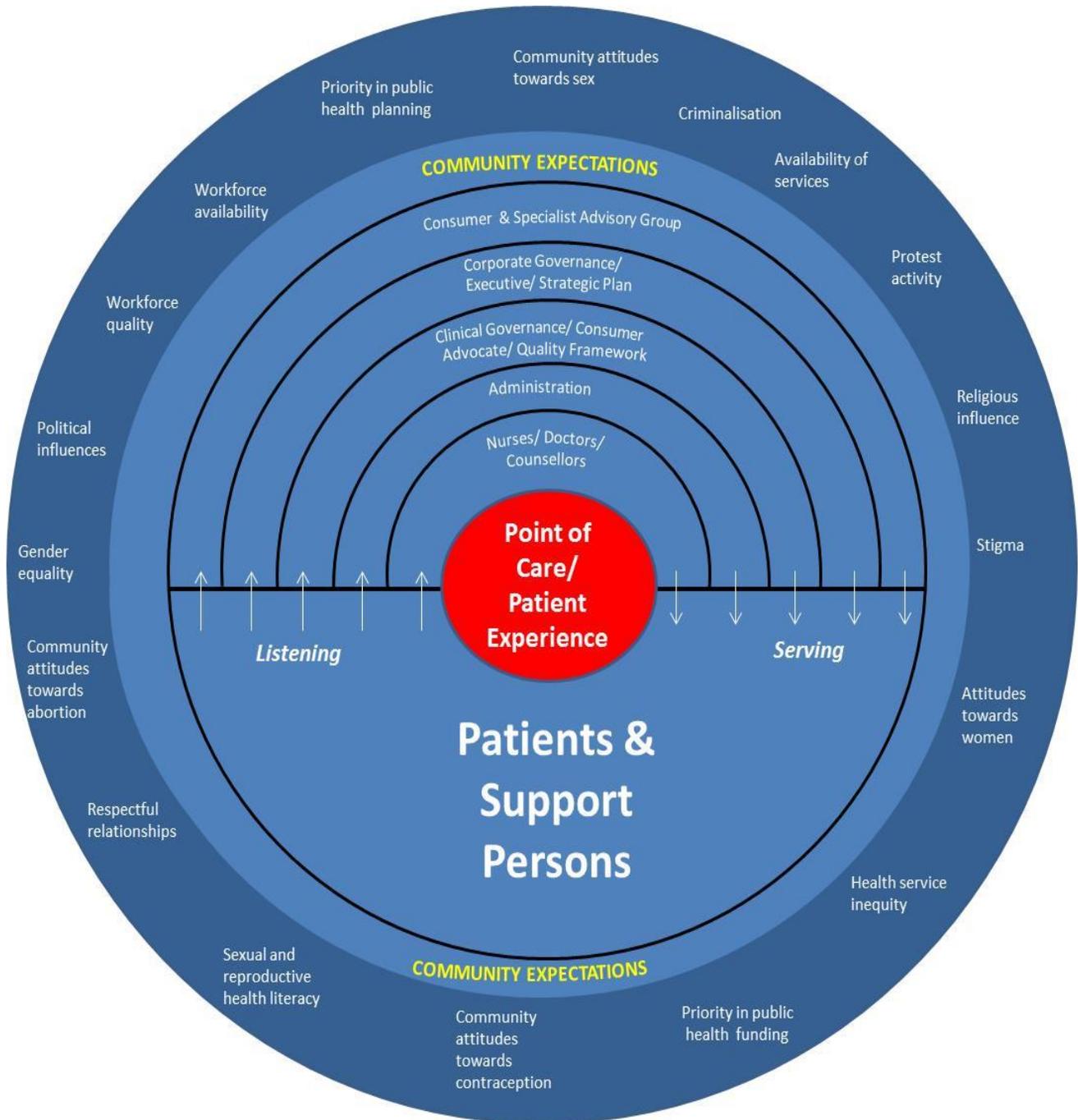
Australian Commission on Safety and Quality in Health Care, National Safety and Quality Health Service Standards (September 2012). Sydney. ACSQHC, 2012

Clinical Excellence Commission (2014) Are you ready to take – The Patient Based Care Challenge? NSW

Luxford K, Newell S. New South Wales mounts "patient based care" challenge. BMJ 2015;350:g7582.

**APPENDIX**

**MSA's Patient Centred Care/Consumer Participation Model\***



\*Adapted from CEC's Patient Based Care Model 2014



## NON-CLINICAL SERVICE DELIVERY

### HIGHLY COMMENDED

#### Royal Perth Hospital, WA

Wellbeing/Pastoral Care/Postgraduate Medical Education

I worry about the ones trying to go it alone: An interdisciplinary project to improve the wellbeing of Junior Doctors and the culture in which they serve

*Richard Read, Michael Hertz, Lucy Kilshaw, Roger Lai*

#### AIM

A collaborative interdisciplinary team supporting a dedicated Wellbeing Officer aims to improve the wellbeing of junior doctors while fostering an organisation-wide culture that is conducive to delivering high quality medical education and safe patient care. We do this by providing junior doctors a deeper sense of community, value, purpose and accountability through one-on-one care, peer group support and a coordinated referral plan, and by advocating on their behalf across all levels of hospital management.

#### SUMMARY ABSTRACT

In just two years, Royal Perth Hospital has emerged as a leader in the development and delivery of services to improve the wellbeing of junior doctors and to foster an organisation-wide culture of wellbeing. As has been the case in hospitals across the country, Royal Perth junior doctors were experiencing disturbing levels of burnout, mental health challenges, self-harm and suicidal thoughts and acts. Conversation and collaboration between pastoral care, medical education, junior doctors, occupational health experts and hospital executive has morphed into a transformative group of services that is already generating empirical and anecdotal results. Key to the success of the program was the creation of a dedicated Wellbeing Officer position, the appointment of a Pastoral Care professional to that role and the high level of collaboration between the Wellbeing Officer, Medical Education, Workplace Health and Safety, the Industrial Physician, the Pastoral Educator and key leaders across the hospital.

Published literature confirms that there is a positive correlation between a doctor's wellbeing and his or her capacity to provide attentive, compassionate and safe patient care. Simply stated, healthy doctors provide better care, and the early signs are confirming that this is the case at Royal Perth Hospital.

The Wellbeing Program's success is due to strong leadership at all levels—from supportive senior executives, through to the junior doctors who called out for help and assisted in the design of the program, and to all those in between who collaboratively invested their time, skills, creativity and passion for helping our new doctors learn to thrive at this critical early time in their careers.

Whilst this new program is already demonstrating amazing results, we know we can always do better; we use evidenced based literature and feedback from the doctors to continually revise our practices. In our second year we have added events and outings to the services we offer, amended the format of the groups we provide, and launched a comprehensive research project.

The soul and spirit of the Doctor's Wellbeing Program is its emphasis on forming relationships and deepening the sense of community with and amongst the junior doctors. To some, those values might seem in conflict with the data-driven empiricism of healthcare culture, but that is not the case. A current research project is tracking the empirical emotional and physiological measures of wellbeing and the impacts of the wellbeing program. A recent Australian Medical Association study demonstrated reduced burnout and increased wellbeing and morale of junior doctors at Royal Perth Hospital compared to those at other public hospitals in Perth. Numbers of medical students and resident doctors nominating Royal Perth Hospital as their preferred training hospital have increased markedly since the Wellbeing Program was initiated.

The Wellbeing program is recognised as demonstrating best practice by a variety of

professional disciplines. In the past two years, the program has been presented to the Pre-vocational Medical Education Forum, Australian Medical Association, Doctors' Health Advisory Service, Post Graduate Medical Council of Western Australia, Australia-New Zealand Association for Clinical Pastoral Education and Spiritual Care Australia. The program was a finalist in the 2017 Western Australia Health Excellence Award and has been nominated again in 2018. Other current award nominations include Rotary's Allied Health Award and the Innovative Education award of the Association for Clinical Pastoral Education in the USA.

Whilst other hospitals in Australia have taken steps to improve doctors' wellbeing, Royal Perth Hospital's Wellbeing Program is innovative in several ways. First, we are the only hospital to employ a Wellbeing Officer, whose role is to travel alongside the doctors throughout their internship, attending induction, teaching sessions, visiting them on their wards, meeting for coffee, intervening with those who experience distress, and working with a collaborative wellbeing group to find the best support and expertise for those with greatest need. Second, the program utilises peer groups; less a clinical debrief and more a community-building exercise in which anything of personal or professional manner can be shared in confidence and safety. Third, the Wellbeing Program is co-housed within Postgraduate Medical Education and the "Centre for Wellbeing and Sustainable Practice" alongside Pastoral Care and Clinical Pastoral Education; the program is distinctly pastoral in nature, not in any religious sense, but in its emphasis on the deep human longings for connection, relationship, meaning, value and personal growth.

One goal for the future is to replicate this program in other hospitals and to other healthcare staff. To that end we have developed a set of core competencies for Wellbeing Officers, based on the competencies required of Pastoral Care professionals. We have developed a training curriculum based on the methods used to train Clinical Pastoral Educators. We have hosted "model" peer groups for healthcare professionals who are interested in offering doctors peer groups in their institutions.

Nothing communicates the impact and effectiveness of Royal Perth Hospital's Doctors' Wellbeing Program better than the voices of the participants. Below is a small sample of the volumes of comments made by doctors who have participated in the Wellbeing Program:

I realised I needed to make greater effort to get to know my patients... I saw things that concerned me which need to change... I was not so numb to issues I read in medical records...I got better at managing my time...I heard the mistakes of others and am less likely to repeat them ...I got better at communicating with my patients...I became less critical of colleagues and patients ...I take better care of myself and therefore better care of my patients...my sense of professional values was upheld... I am more mindful when I practice medicine...I feel very lucky to be in RPH because of this program...I worry about the ones who are trying to go it alone.

I just wanted to extend my sincerest thanks for your support in escalating the incident I encountered .....I'm so grateful that the culture is changing in medicine and that there's a shift in what's tolerated in the workplace. I've been pleasantly surprised by how supportive and validating everyone has been. Thank you for listening.

## Hunter New England Local Health District, NSW

Hunter New England Population Health

### Healthy food in childcare: an online solution

*Sze Lin Yoong, Alice Grady, Luke Wolfenden, John Wiggers, Meghan Finch, Karen Gillham*

#### AIM

The "healthy food in childcare" program is a population-based health improvement initiative that aimed to improve the diets of young children by supporting childcares services to provide meals consistent with nutrition guidelines. The initiative employed a staged program development and evaluation approach to identify an effective and scalable strategy of population health staff support for childcare services to provide healthier meals to children.

#### SUMMARY ABSTRACT

Poor nutrition is a primary modifiable risk factor for the development of chronic

diseases including cardiovascular disease, overweight and obesity, and cancer (Forouzanfar, et al. 2015). In 2011, only 4% of the Australian population met national dietary guideline recommendations for consuming sufficient serves of vegetables, and over one third (35%) of total daily energy intake came from foods that are nutrient poor and high in saturated fat, salt and/or sugar ("discretionary foods") (Australian Bureau of Statistics 2017). As early childhood is a formative period for establishing eating behaviors that track into adulthood (Craigie, et al. 2011), efforts to improve child nutrition and prevent obesity is a national priority to reduce the burden from chronic disease in the population.

Childcare services are a recommended setting to deliver population-based nutrition interventions to improve child diet as they provide access to the majority of young children. In Australia, almost 90% of children aged 4-5 years old attend childcare services for an average of 18 hours a week (Australian Bureau of Statistics 2015), where they can consume up to 67% of their daily energy requirement (Radcliffe, et al. 2002). As such, the implementation of nutrition guidelines in childcare services to improve child nutrition is a local (Hunter New England Local Health District 2018), state (NSW) (NSW Ministry of Health 2014) and national priority (Australian Government Department of Health & Ageing 2013). However, despite significant efforts to improve the implementation of nutrition guidelines, our research shows that less than 5% of childcare services in NSW meet nutrition guidelines (Yoong, et al. 2014). Without initiatives to support childcare service implementation of nutrition guidelines, the opportunity afforded by this setting to significantly improve child health cannot be achieved. The delivery of initiatives to support childcare services meet the nutrition guidelines is a performance requirement of population health services in NSW.

The "healthy food in childcare" initiative is the first globally to use a scientifically rigorous and staged quality improvement approach to identify an effective and scalable solution to this significant problem. The initiative was co-developed by end-users and experts in population health service delivery and behavioural science, and was based on systematic assessment of the barriers to guideline implementation among childcare

service staff. The main barriers identified in this process were the i) lack of knowledge and skills of cooks and menu planners in childcare services to interpret and apply nutrition guidelines; ii) computational complexity of assessing whether the menu met guidelines (i.e. provided adequate amounts and types of healthy foods while not providing 'unhealthy' foods); and iii) lack of knowledge of how to modify/substitute unhealthy recipes to become healthy.

As such, phase one of program development resulted in a high-intensity support strategy delivered by population health service dietitians to build the capacity of childcare services to interpret and apply nutrition guidelines. This strategy was evaluated with 45 childcare services within the Hunter New England region and was found to be effective in improving the provision of healthier foods and improving child dietary intake and quality (Seward, et al. 2018). However, the high cost of delivering this support limited its ability to be delivered at-scale by population health services across jurisdictions.

In phase two of program development, the population health team partnered with information technology providers to develop an online menu-planning program (feedAustralia) to support childcare services to provide healthier foods consistent with nutrition guidelines. The online program was designed to support childcare cooks and menu planners with interpreting the guidelines, and reduce the computational complexity associated with assessing menu compliance. Drawing on a national database of food items, the program provides real-time automated menu feedback on guideline compliance based on recipes entered into the software (Appendix 1). The program also provides dietetics advice including suggestions for meal modifications and new recipes to align with guidelines. In effect, the program was built to provide 'a dietitian in every childcare service'. Further, the program provides over 200 healthy recipes and snack suggestions with established energy, macronutrient profiles and serve size recommendations and the ability to share meals and recipes with parents of children in care.

The online program was evaluated in a trial across childcare services in NSW. Evaluation via randomised controlled trial with approximately 52 childcare services and 500

children found significant reductions in the provision of unhealthy foods by childcare services, improved child dietary intake, and a 10% difference in the proportion of children in the healthy weight range in the intervention group (compared to the control group) at 12-months follow up. The program was also found to be highly acceptable and useful among childcare service cooks and menu planners.

The online menu planning program is available free of charge to all childcare services nationally, and accessible by parents of young children. With funding support by the Commonwealth Department of Health, the program has now been disseminated nationally, with over 1,800 childcare services accessing the program since March 2018, improving the diets of hundreds of thousands of children across Australia.

**NON-CLINICAL SERVICE DELIVERY**  
**– INTERNATIONAL**  
**Hong Kong Baptist Hospital**  
 Environmental and Occupational Safety & Health  
 Committee

Joyful @healthy workplace program at  
 Hong Kong Baptist Hospital

*Clara SUEN Yuk-ha*

### AIM

The aim of the Joyful @ healthy workplace program is to advancing holistic healthy living for staff; building-up of health, safety and well-being culture; and help to enhance productivity and competitiveness of the hospital.

### SUMMARY ABSTRACT

The "Promoting Health in Hong Kong: A Strategic Framework for Prevention and Control of Non-communicable Diseases" was first proposed by Department of Health (DH) of Hong Kong SAR Government in 2010, suggested that work and health are closely related and workplace is an ideal setting for promoting health. Basing on this strategy, DH, Labour Department (LD) and the Occupational Safety and Health Council (OSHC) of Hong Kong launch the "Joyful@Healthy Workplace" programme (J@HWP) in 2016. Hong Kong Baptist Hospital (HKBH) signs the charter and pledges to promote physical and mental wellbeing among staff with emphasis on areas of

physical activities, mental wellbeing and healthy eating. Inherently, hospital service is complex and operating at a unique work environment which impose different potential health risks, including both physical and mental, to the employees. A series of promotional activities were delivered with target to prevent and control the potential health hazards of both clinical and non-clinical employees. A J@HWP preparatory committee consist of representatives from OSH, Human Resource, Physiotherapy, Dietetics Departments and Counselling & Patient Support Centre led by General Manager is set up to design, plan, implement the interventions and coordinate the program.

### Physical activities

Extensive manual handling of patients is one of the core daily tasks of our frontline staff members. In this regard, all staff who are involved in patient handling and heavy manual work are mandatorily required to attend MHO training classes in our OSH training center which imitated the real-life hospital setting with bed unit, toilet, pantry and a ramp. Staff are equipped with practical skills, correct working posture and use of MHO equipment. Core muscle training is added to encourage staff to be physically fit to handle the task. Besides, the Square Stepping Exercise which has high reputation on balancing training is also added to prevent fall injury and train mental focus. In 2017 & 1Q-2Q2018, 963 and 384 staff have completed the required course respectively. Active participation was observed with 100% passing rate.

To encourage staff doing stretching exercise before or during work, a promotional program on workplace stretching exercise was implemented since 2017. Our physiotherapists visited various departments to do the onsite training with staff, with particular reference to the unique workplace and work process hazards.

To advocate the habits of doing regular exercise, a 13 months-long fit and fun program to promote 10000 steps daily was launched by OSH department in June 2017 to start a healthy journey for each participant. There was a total of 637 staff enrolled to the program with record of 1,257,874,438 steps which measures 'around-the-earth' by 21 times obtained. 17.7% of participants have achieved improvement or maintain a steady

pace in normal Body Mass Index (BMI). The program also included a series of physical activity such as OSH Sports Fun Day, towel exercise in OSH carnival, hiking, jogging class, yoga class, and participation in Hong Kong Marathon, "Green Power Hike for a Green Future" and "Run for Paralympians", etc. From 2017 to Aug 2018, around 700 participants had taken part in.

Potential health hazards induce by prolonged inactivity and excessive sitting for office workers are also addressed. An ergonomic program was implemented in June 2018 to engage sedentary staff in taking decisions about health and safety of their own work stations. Special ergonomic stations for computers have been set up as when needed.

### **Mental wellbeing**

To enhance mental well-being of staff by creating a positive, happy and joyful environment in the workplace. A series of activities was organized for promoting "Sharing", "Mind" and "Enjoyment" elements to be added in life. We held the Joyful Everyday Video Competition to encourage staff to share their tips on how to maintain psychosocial health in the workplace with the actual scenario during daily operation; issued posters of tips in every department; organized the annual Award & Appreciation Day / Dinner to recognize staffs' good performance; issued festive subsidy; provided special birthday/new year meal and encouraged volunteer service. From 2017 to Aug 2018, 428 staff volunteers have joined community service to contribute 1871 service hours.

In addition, we arranged diverse types of activities to staff and their families to build and maintain harmonious relationship among staff; cultivate sense of belonging and foster work-life balance. From 2017 to Aug 2018, 250 participants had taken part in.

To help staff to cope with stress and anxiety arising from work, family and personal problems, there's an independent external professional institution (Employee Assistance Program) to provide counselling service to staff. Staff members may also solicit our pastoral care service when needed. Besides, our Counselling and Patient Support Center also provide platform on mental wellbeing screening (staff's happiness level) and counselling for staff in need, e.g. set up "Joyful Everyday" booth in the OSH Carnival,

support candidates of the voluntary return-to-work program.

Despite limited space, we provide relaxation space for staff for their enjoyment and relief of stress. Staff can enjoy gardening at the Support Services Centre and Hydroponic Gardening at Hospital Building.

### **Healthy eating**

In our staff canteen, we supply cup fruit and veggie box with a discounted price. There is also "Green Monday" program to promote vegetarian food for staff. We regularly organize bazaar for promotional sales of healthy foods and organic vegetables to staff. We also promote habits of eating healthy fruits by distributing free fruit to staff on hospital activities. Our Dietetics Department regularly organized healthy eating talk, e.g. key nutrition to maintain muscle strength and prevent sarcopenia. In addition, OSH newsletter provides an excellent vehicle for keeping employees up-to-date on healthy eating, e.g. how to avoid energy overload during festivals.

In conclusion, a healthy workplace not only protects the physical well-being of employees, it also enhances productivity and competitiveness; helps to establish a positive image for the organization; promotes a win-win situation for both employers and employees. By implementing the J@HWP, staff awareness toward health and work safety is raised; significant reduction of Injury on duty (IOD), incurred sick leave day are recorded and high rating in staff opinion survey is obtained.



# NON-CLINICAL SERVICE DELIVERY

## TABLE OF SUBMISSIONS

### Royal Perth / Bentley Hospital Group WA

The Education Centre

5 Minute Education for Busy People

*Nick May*

### Illawarra Shoalhaven Local Health District

Adolescent Mental Health Inpatient Unit

**PAWS Open Doors to Recovery – A Collaborative Approach to Adolescent Mental Health Care**

*Rachel Wade (Lead), Nathan Boulton*

### Hong Kong University Shenzhen Hospital

Quality and Safety

Our Quality Improvement Journey – from Australian Council on Healthcare Standards to China Class 3A Hospital Accreditation

*Kate KY CHOI, Anne WM LEE*

### Kowloon Hospital, Hospital Authority Hong Kong

Quality and Safety Office

**Mobile Application to enhance hospital accessibility**

*Dr. LAM Chun, Mr. Ho Wan CHAN, Mr. Timothy WONG, Mr. Kam Hon CHUNG, Ms. Kathleen CHUEN, Ms Pik Ka FUNG, Mr. Sum YEUNG*

### Hunter New England LHD & Calvary Healthcare

Calvary Mater Newcastle hospital

**The VIP Program: Reducing presentations to hospital by identifying & addressing the social determinants of health.**

*Dr MaryAnn Ferreux, A/Prof Rosemary Aldrich, Roslyn Barker*

### Calvary Public Hospital Bruce

Innovation and Redesign

**Teaching, Training and Research in an Activity Based Funding Environment – an ongoing model for data collection, collation and costing**

*Rachael Henson*

### Regional Imaging Cardiovascular Centre

Consumer Advisory Group

**Developing effective consumer partnerships**

*Vickie Kendall, Nic Carusella*

### Dubbo Health Service

Physiotherapy Department

**Dubbo Health Service Physiotherapy Screening Referral Process**

*Craig Lennox*

### The University of Hong Kong-Shenzhen Hospital

Central nursing department : surgical department: medical department:IVF:IT

**Evaluation of implementation effect of electronic document management system**

*LIU CHUNHONG, SHI LANPING, HUO RAN, XU YINLING, ZHOU JINYANG, LIU CHANG, GUO QING, DENG YAYUN*

### The University of Hong Kong Shenzhen Hospital

Department of Gynaecology

**Use PDCA to enhance accuracy of medical record documentation**

*LYU Chaoxia, NGAN HY Hextan, ZHANG Li*

### WA Country health Service, Kimberley

Kimberley Palliative Care Service

**Leading the way with Aboriginal Elders: A collaborative approach in building capacity of health professionals to deliver culturally appropriate palliative care for Aboriginal people.**

*Fiona Mardling*

### Dubbo Health Service

Pharmacy Department

**Educating Rural Oncology Patients to Minimise the Effects of Chemotherapeutic Agents**

*Ian Mawbey, Ashleigh Boatman*

### KIMS Qatar Medical Centre

Administration Department

**Patient Experience Feedback–A Real Glimpse of Patient Centered Care**

*Manjari S Nair*

### Dubbo Health Service

Stages 3 Redevelopment

**Dubbo Health Service New Surgical Unit Design Principles**

*Kerrie O'Neill, Denise Howey*

### Metro South Health

Oral Health Services

**Improving access to oral health care through health service planning**

*Anthony Peet, Helen Boocock, David Strain*

**Marie Stopes Australia****Improving the patient experience***Annette Penney, Jacqueline O'Brien***Royal Perth Hospital**

Wellbeing/Pastoral Care/Postgraduate Medical Education

**I worry about the ones trying to go it alone: An interdisciplinary project to improve the wellbeing of Junior Doctors and the culture in which they serve***Richard Read, Michael Hertz, Lucy Kilshaw, Roger Lai***Blue Mountains District Anzac Memorial Hospital**

Dietetics

**'Get on Track- Blue Mountains'-a Get Healthy at Work initiative***Shaun Seldon***Dubbo Health Service**

Oncology Department

**Accessing The Allies***Jodie Spittles***Hong Kong Baptist Hospital**

Environmental and Occupational Safety &amp; Health Committee

**Joyful @healthy workplace program at Hong Kong Baptist Hospital***Clara SUEN Yuk-ha***Central Coast Local Health District**

Health Information Services Gosford Hospital

**Deceased Documentation Improvement***Kirsty Toms***South East Health Service**

South East Health Service - Volunteers

**Mount Gambier Volunteer Guide Program***Amy Watt, Yasir Arfat***Hunter New England Local Health District**

Hunter New England Population Health

**Healthy food in childcare: an online solution***Sze Lin Yoong, Alice Grady, Luke Wolfenden, John Wiggers, Meghan Finch, Karen Gillham*



## HEALTHCARE MEASUREMENT

### WINNER

## South Western Sydney Local Health District, NSW

Liverpool Cancer Therapy Centre, Centre for Oncology Education and Research Translation (CONCERT),  
Psycho-oncology Research Group

PROMPT-Care: eHealth facilitating timely person-centred care to every cancer patient

*Afaf Girgis, Geoff Delaney, Ivana Durcinoska, Anthony Arnold, Nasreen Kaadan,  
Andrew Miller, Kenneth Masters, Stephen Della-Fiorentina*

### AIM

Patient reported outcomes (PROs) are increasingly important in patient-centred healthcare; however, integration into clinical practice remains challenging. Our innovation is an Australian-first eHealth system, PROMPT-Care (Patient Reported Outcome Measures for Personalised Treatment and Care) which supports the electronic capture of PROs in the oncology setting and utilises that information to a) support patient-centred care in real-time, and b) empower patients to self-manage their cancer related concerns. Our research has demonstrated the acceptability and feasibility of PROMPT-Care to patients and oncology staff, and the eHealth system is now implemented in four cancer centres in South Western Sydney and Illawarra Shoalhaven LHDs (SWSLHD & ISLHD), with long term planning for adaptation and state-wide roll out by the Cancer Institute NSW.

### SUMMARY ABSTRACT

High-quality symptom management and supportive care are essential components of comprehensive cancer care. Despite improvements in survival rates and prognosis, a cancer diagnosis remains a major life stressor because treatment often leads to significant short- and long-term toxicity and places significant psychological, physical, social, and existential demands on the person diagnosed (Meyerowitz and Oh, 2009). The physical and psychosocial issues experienced following a cancer diagnosis and treatment persist into long-term survivorship. Ongoing health issues such as fatigue, pain, musculoskeletal dysfunction, endocrine imbalances, impaired cognition, and psychological and emotional problems, have the potential to span and evolve over many years and, in many patients, these

issues precipitate unnecessary hospitalisation, resulting in significant burden to the individual and the health system.

Unfortunately, much of the morbidity experienced by cancer patients is not detected by healthcare providers and, as a consequence, remains untreated (Fallowfield et al., 2001, Newell et al., 1998, Ryan et al., 2005). The collection of Patient-reported outcomes (PROs) is one approach to address this deficit in patient care. PROs are increasingly important in patient-centred healthcare, with accumulating evidence in oncology as well as other health areas that collecting PROs and transferring results to the treating health professional in real-time has the potential to improve patient well-being and the efficiency of the use of the medical system (Basch et al., 2016, Barbera et al., 2015, Basch et al., 2017, Yang et al., 2018). Research has demonstrated significant improvements in patient outcomes, including in a study of 766 patients at Memorial Sloan Kettering Cancer Center (n=766) who were randomly allocated to report 12 common symptoms via tablet computers (PRO-intervention) or to receive usual care consisting of symptom monitoring at the discretion of clinicians. Significantly more PRO-intervention patients demonstrated improved health related quality of life compared to the usual care group (34% v 18%). In addition, the PRO-intervention group also demonstrated significantly improved survival outcomes, both at 1-year and at 7-years (Basch et al., 2016, Basch et al., 2017). Despite this, the practice of routinely collecting PROs is not widespread in clinical practice and remains challenging, partly because of a lack of easy to use tools, lack of a systematic approach for how the collected PROs will inform patients' treatment plans

and limited or no capabilities for integrating PRO results into electronic patient records.

Collecting PRO assessments can provide health professionals with the opportunity to tailor interventions based on the reported outcomes in order to better systematically manage patient care. However, for this to be effective, they need to be integrated into the work flow and available at the point of care, with pathways needing to be evidence-based. The use of computing devices and automated data collection in clinical settings enables rapid execution of automated algorithms. Those algorithms can incorporate a variety of patient factors into patient-specific recommendations (Souza et al., 2011), thereby standardising care in an effort to optimise patient care.

Our team's innovation is an eHealth system, PROMPT-Care (Patient Reported Outcome Measures for Personalised Treatment and Care), the first system internationally that has achieved full electronic integration into hospital oncology information systems (OIS). PROMPT-Care facilitates the routine collection of PROs to support and enable cancer patients to achieve and maintain improved health, well-being, and cancer outcomes. PROs are collected electronically from patients approximately monthly and presented as summary reports which are accessed in real-time and used by the medical staff to address "red flag" issues. To support and empower patients to self-manage their symptoms and concerns, patients also concurrently receive an email with links to information and resources that specifically target their flagged self-reported outcomes. Figure 1 (Appendix) provides a simplified overview of the PROMPT-Care eHealth system. Already published research has demonstrated the acceptability, feasibility and impact on patient outcomes when eHealth systems like PROMPT-Care are well implemented. Our own research has demonstrated PROMPT-Care to be acceptable and feasible; and the system addresses a significant gap in care. Over the past 21 months, PROMPT-Care has informed the care of 400+ cancer patients in four cancer centres in SWSLHD and ISLHD. Patients have reported that PROMPT-Care facilitated communication and increased recognition and acknowledgment of their concerns. Oncology staff have indicated that the PROMPT-Care system is a useful screening tool which allows them to identify

specific issues to raise with the patient during consultations, with the specific clinical feedback reports allowing them to adequately prepare for the upcoming consultation.

To date, the team have published five papers which detail the impetus for developing this eHealth system (Girgis et al., 2015), the process to develop the system and test the acceptability and feasibility (Girgis et al., 2016, Girgis et al., 2017), the development of algorithms to standardise the cancer care pathways which underpin the clinical care of patients (Girgis et al., 2018b), and the protocol for evaluating the efficacy of PROMPT-Care (Girgis et al., 2018a). In 2017, PROMPT-Care received three prestigious awards in recognition of its innovation in health care delivery and potential impact on patient outcomes: the SWSLHD Translational Research Award, awarded for having the greatest translational impact in the health service; the SWSLHD Board Award, selected from all award applicants across all categories in 2017; and the South West Sydney Research Annual Prize.

Our LHD has committed to implement PROMPT-Care as business as usual and the team are currently working on achieving this goal. At a state level, the Cancer Institute NSW and Bupa Health Foundation funded the team to develop and test the acceptability and feasibility of PROMPT-Care as a proof of concept, and the Cancer Institute NSW has committed to a state-wide rollout. The team continue to work collaboratively with the Cancer Institute NSW, with Prof Girgis Chairing the Patient Reported Measures Clinical Reference Group (Cancer Institute NSW). Since 2015, Prof Girgis has also been working with the Agency for Clinical Innovation (ACI) through its Patient Reported Measures for Integrated Care Advisory Committee to embed PRO collection and utilisation at a broader level, and beyond cancer.

## REPORT

### APPLICATION OF ACHS PRINCIPLES

#### 1. Consumer Focus

The project has included consumer input throughout its development, inclusive of consumers on the Ingham Institute for Applied Medical Research consumer advisory panel, who have been regularly consulted about the project design and execution.

PROMPT-Care is all about empowering patients and ensuring their needs are met, using a shared decision-making approach. Patients are empowered to report their cancer-related challenges and to self-manage them via resources provided to them through the PROMPT-Care system. Studies have shown that routine clinical consultations often miss signs from patients that they require additional support. Collecting PROs routinely ensures that the patient voice is heard, and that clinicians are much more likely to identify and address patients' unmet needs in a timely manner. Our pilot testing of the acceptability and feasibility of PROMPT-Care supports this, with some examples below from the evaluation interviews undertaken with patients.

Patients complete the PROMPT-Care assessments approximately monthly. In our evaluations, patients have reported that the assessment gave them a concrete way of communicating their concerns and also helped to normalise some of their concerns. One patient said:

It [completing the assessment] actually gave me a handle to express something that I hadn't – couldn't figure out how to express to the person [doctor] I was speaking to. If I didn't have that survey, I wouldn't have even known that was normal to have a problem and I wouldn't know how to bring it up. And I don't know if I would've – I probably would've suffered in silence. I don't know what I would've done.

When PROMPT-Care assessments identify "red flags", ie issues where a patient's scores were above a pre-determined threshold, suggesting clinical action may be required, and an email alert is sent to a care coordinator who reviews that patient's report and follows the recommended care pathway. The first action is often the care coordinator calling the patient to discuss their assessment:

... not just paperwork and then filed. There was an actual result from someone rang me up and quite quickly actually. I was very impressed with that.

Red flags also result in patients receiving an email with links to self-management resources (see Figure 2 for sample email to patients) tailored to their areas of concerns, thereby facilitating patient-centred care and empowerment.

Well there was a very good article on being intimate and the difference between intimacy and sexual, sex – like those two terms. That helped me a lot. I printed that off so Pete and I could look at it and I could read it and I could bring it up with him. I was having a bit of sleeping problems and just strategies for trying to sleep in there, and those two are particular because I've used them a lot.

As well as the self-management resources helping the patients directly, a number of patients also reported sharing these resources with others to help them too.

I clicked on some of the other subjects that were there – and included on that website was one about families who have to deal with a family member who has terminal cancer and I found that incredibly interesting. So, what I actually did was I referred my friend's father to that particular website. So, although it didn't affect me directly, I was able to ... spread the word to – and I thought it may have helped somebody else ..... 'cause people are not necessarily aware of them and I just sort of let them know that there's this website, it helps.

#### 2. Effective Leadership

This project involved significant cross-LHD collaboration between health professionals, senior LHD management, Cancer Institute NSW and researchers, with ongoing collaboration to ensure successful transition into real world clinical practice. At the start of the project, three expert groups were convened to inform the development and evaluation of the PROMPT-Care system: a Clinical Advisory Group (CAG, n=38) and a Technical Advisory Group (TAG, n=23) guided the content, development and functionality of the system, and an Evaluation Advisory Group guided the feasibility and acceptability testing of the developed system. Additionally, Special Working Groups were convened, as required, to advise on specific aspects of the eHealth system development and content. These included a multi-

disciplinary Clinical Algorithms Working Group (n=8, medical and radiation oncologists, social worker, clinical psychologist, care coordinators) that specifically focussed on development of algorithms and evidence-based recommendations for clinicians to respond to each PROMPT-Care item that breaches the clinical threshold (see Figure 3).

The project has also benefited significantly from a good collaborative clinical and administrative leadership. Initially, enrolment to the PROMPT-Care trials was dependent upon the leadership of a few clinicians, who have championed the need for improving patient psychosocial screening. The obvious and immediate results in the form of instantaneous, integrated reporting quickly became the incentive for others to become involved. Some clinicians were referring all of their patients to the program, understanding the immediate benefits for their patients, and seeing the gap in this important level of reporting being addressed. These are the new champions of the system, who are leading the groundswell of interest in the project.

Nursing staff have been instrumental in this concept and have embraced this tool for triaging patients and are encouraging others to review these patient results and to address issues quickly before they develop into unmanageable problems.

Most importantly, the leadership provided from local Information Technology experts has been instrumental in ensuring the success of the system, and the integration of the patient assessment results. Without this, the system would be another stand-alone application that would not have the potential impact that PROMPT-Care will deliver. Their commitment to make this a priority enabled a highly feasible and acceptable product that is leading to best practice clinical care.

### 3. Continuous Improvement

The entire design of the PROMPT-Care system was driven by the need for long-term accessibility and viability. To ensure relevance and future uptake beyond our LHD, we engaged key stakeholders and potential PROMPT-Care users via cross-LHD expert groups, including the clinical advisory group, the technical advisory group, and evaluation advisory group, as previously

described. Consumer input has been integral to developing a highly acceptable and relevant PRO-collection interface, with early feedback on PROMPT-Care Version 1 informing the improvements which were applied to Version 2. We investigated implementation of evidence into real world clinical practice, developing an efficient and user-friendly eHealth system to facilitate PRO data capture, as well as retrieval to support clinical decisions and patient self-management, and data retrieval to support ongoing evaluation and innovative research. Integration of PROMPT-Care into the hospitals' OIS enhances the routinely collected PROs' relevance and usefulness in informing routine care. Pilot testing demonstrated feasibility and acceptability of Version 1, and PROMPT-Care Version 2 is now implemented in four cancer centres in SWSLHD and ISLHD.

Our project advisory groups continue to provide input into the system to ensure continuous improvement. For example, our ongoing evaluations with oncology staff have identified further improvements including options for patients to include additional comments using free text, assessment of patients' "background anxiety" to reduce the frequency of potentially false positive clinical alerts, and considering changing the frequency of assessments to 3-monthly rather than monthly. The team will review the data from our current PROMPT-Care work to inform decisions about these recommendations as well as any future modifications, to ensure the program continues to improve and meet the needs of cancer patients and their health care teams.

### 4. Evidence of Outcomes

A systematic review published in 2013 (Chen et al., 2013) concluded that routinely collecting PRO measures enables better patient-centred care in cancer settings where a patient management plan is integrated with routine collection of PROs. This review identified strong evidence that well-implemented electronic PRO (ePRO) systems with timely feedback improved patient-health care provider communication and patient satisfaction, and may also improve the monitoring of treatment response and detection of unrecognised problems. As detailed in the Summary section, the impact of ePROs on clinical and health service outcomes has also now been demonstrated, with a large randomised controlled trial with

cancer patients reporting significant outcomes including reduced emergency room visits, longer tolerability of chemotherapy, and improved survival (Basch et al., 2016). PROMPT-Care was developed with consideration of some of these past ePRO attempts and was also well-informed by features identified as important to supporting a successful ePRO system in a review of 33 ePRO systems (none of which were Australian) (Jensen et al., 2013).

Importantly, PROMPT-Care has been developed in an iterative manner. Initially, we pilot tested Version 1 with 35 patients (13 on-treatment and 22 in follow-up) who completed 67 assessments during the study period. The mean completeness of patient-reported data was 91.8%, with 100% accuracy of data transfer. Ten of these patients completed cognitive interviews, 28 completed evaluation surveys and 14 completed evaluation interviews at the end of the pilot study. The results demonstrated that PROMPT-Care was highly acceptable to patients and oncology staff and feasible to implement in the clinical setting. Patient acceptability was high, with 100% (28/28) reporting the time to complete the online assessments (average 15 minutes) as "about right", most (79%) were willing to answer more questions, almost all (96%) found the online assessment "easier/same as" completing a paper copy, and they valued the self-management resources.

The results of our pilot testing of Version 1 informed the enhancements which we then included in Version 2. Version 2 has been implemented in four cancer centres in SWSLHD and ISLHD over the past 21 months, informing the care of more than 400 cancer patients to date. Patients have reported that undertaking the assessments helped them to communicate their concerns to the care provider, for example: "It's been marvellous because some things I've felt very embarrassed to talk to my doctor about at first, and I didn't know how to bring it up and then I could say to him, "Look, I'm doing the survey and they're asking a lot of questions about things."

Clinical staff have also reported high levels of acceptability and feasibility. They perceived PROMPT-Care to be a good screening tool which allows them to identify specific issues to raise during consultations (see Figure 4 for clinical feedback report reviewed by

oncology team), brought patients back into the system for unresolved issues (Figure 5 for email alert), and facilitated appropriate referrals. For example:

I would have an impression about a patient, that things weren't going fantastically, but it [reports] gave greater granularity and specificity about where the needs were.

Well, I quite liked the physical problems [checklist] because patients sometimes forget to tell us things, and/or they don't think things are important.

Ongoing evaluations will inform the broader impact of PROMPT-Care on healthcare utilisation, including on emergency department presentations, and utility as an alternative model for ongoing supportive care. This will include using PROMPT-Care to better support an integrated shared-care model between the primary care and specialist care, thus reducing unnecessary specialist follow-up and empowering the patient and primary care team. To date, 2774 PROMPT-Care assessments have been completed, providing more than 185,000 data items. These data and ongoing PRO collections will continue to be used by the cancer service to identify gaps in care and patients' unmet needs, as well for evaluating the effectiveness of newly introduced cancer programs which are aimed at addressing identified care gaps.

## 5. Striving for Best Practice

Published evidence (Basch et al., 2016, Basch et al., 2017) already highlights that the routine collection of PROs improves patient outcomes significantly. Despite this, there are no groups which currently routinely collect patient reported outcomes for their patients and utilise this information to inform their cancer care. Our feasibility testing has shown that our electronic PROMPT-Care system is highly acceptable to both clinicians and patients. Patients complete their PRO assessments electronically from home using an email link which is sent to them ahead of their appointments, thereby minimising any impact on the clinic flow. The electronic design and the integration of data within the OIS ensures highly efficient data collection and feasibility for implementation as part of routine care. The system was designed with the long-term plan of state-wide, or even national, roll-out once feasibility and acceptability were appropriate.

The treatment algorithms and treatment interventions were all designed with consideration of current best evidence. By routinely collecting PROs and recommending evidence-based care for those patients who require care (as indicated by the "red flags"), this ensures a greater likelihood that all patients are screened appropriately, and then evidence-based interventions are commenced, compared with the random nature of "usual" care without such a systematic approach.

When a patient assessment score raises a red flag, the information that is automatically sent to the patient (through a series of clinically developed algorithms) was selected by a panel of clinicians and education experts, under the Cancer Institute NSW's rigorous EViQ team. This panel reviewed all available patient resources, and developed a suite of the most recent and validated information pertaining to the patient's personalised issues. These included supported resources where available. For example, a patient interaction with the Quitline site will generate a first contact point with the patient from the Quitline staff.

#### **INNOVATION IN PRACTICE AND PROCESS**

Whilst physical and psychosocial issues experienced following a cancer diagnosis and treatment persist into long-term survivorship, much psychosocial morbidity experienced by cancer patients is not detected by healthcare providers and remains untreated (Fallowfield et al., 2001). Person-centred care reflects a movement away from predominantly tumour-focused treatment toward care for the whole patient, acknowledging that cancer presents physical, but also emotional, social, informational, spiritual and practical challenges for patients and families (Fitch, 2008).

Whilst oncology care pathways that routinely include comprehensive symptom and emotional wellbeing assessments improve patient outcomes, historically, PROs have not been systematically collected from cancer patients. PROMPT-Care is the first fully integrated eHealth system internationally that electronically captures information about a cancer patient's symptoms, distress and unmet needs, provides ePRO summary (Figure 4) and longitudinal reports to the cancer care team in real time to improve patient care, and empowers patients by

providing self-management tools and resources tailored to their needs (Figure 2).

Utility of PROs for informing real-time patient-centred care has been limited by lack of integration into hospitals' point-of-care OIS. The key feature distinguishing PROMPT-Care from previous oncology-based eHealth systems is its total integration into the hospital's OIS, which has not been achieved in other projects to date. This project has been seen to be so innovative, and also practical, that both the Agency for Clinical Innovation (ACI) and the Cancer Institute NSW have developed a partnership with the investigators to explore state-wide roll-out.

#### **APPLICABILITY TO OTHER SETTINGS**

Methods used include application of a strong evidence base to support decisions, with reference to published literature for PRO selection wherever available, interpretation and development of care pathways and a multi-disciplinary approach to the development of the pathways. Extensive consultation with oncology centre management and end-users of the system (oncology and allied health staff) throughout the state was critical for ensuring buy-in and relevance to their practice, in order to facilitate widespread roll-out. Developing care pathways in consultation with local end-users was also important for including local services and supports which may vary in different centres.

A key strength of our work is that the processes used to make decisions in the PROMPT-Care system can be applied to other systems using different PROs to those used in PROMPT-Care. Furthermore, PROs have been effectively used in non-oncology settings, including to inform surgical decisions in the orthopaedic setting (Cella et al., 2007, Papuga et al., 2014) and other general medicine settings (Deshpande et al., 2011, Nelson et al., 2015). Our publications (five to date) aim to facilitate uptake by clinical groups and collaborations with researchers and clinicians to further develop the eHealth system. Since the electronic tool can be adapted to other clinical groups very easily, it is likely that this method of electronic data collection will easily become the way of the future in health care. Interest has been shown by the Agency of Clinical Innovation as well as cancer and non-cancer departments internationally to adopt a similar system for their jurisdictions.

Our work with the Cancer Institute on their state-wide roll-out will embed the system into routine oncology care across NSW and ACI has also incorporated much of the knowledge developing in the PROMPT-Care program to its state-wide patient reported measures program.

## REFERENCES

- BARBERA, L., SUTRADHAR, R., HOWELL, D., SUSSMAN, J., SEOW, H., DUDGEON, D., ATZEMA, C., EARLE, C., HUSAIN, A., LIU, Y. & KRZYZANOWSKA, M. 2015. Does routine symptom screening with ESAS decrease ED visits in breast cancer patients undergoing adjuvant chemotherapy? *Supportive Care in Cancer*, 23, 3025-3032.
- BASCH, E., DEAL, A. M., DUECK, A. C., SCHER, H. I., KRIS, M. G., HUDIS, C. & SCHRAG, D. 2017. Overall survival results of a trial assessing patient-reported outcomes for symptom monitoring during routine cancer treatment. *JAMA*, 318, 197-198.
- BASCH, E., DEAL, A. M., KRIS, M. G., SCHER, H. I., HUDIS, C. A., SABBATINI, P., ROGAK, L., BENNETT, A. V., DUECK, A. C., ATKINSON, T. M., CHOU, J. F., DULKO, D., SIT, L., BARZ, A., NOVOTNY, P., FRUSCIONE, M., SLOAN, J. A. & SCHRAG, D. 2016. Symptom Monitoring With Patient-Reported Outcomes During Routine Cancer Treatment: A Randomized Controlled Trial. *Journal of Clinical Oncology*, 34, 557-565.
- CELLA, D., YOUNT, S., ROTHROCK, N., GERSHON, R., COOK, K., REEVE, B., ADER, D., FRIES, J. F., BRUCE, B. & ROSE, M. 2007. The Patient-Reported Outcomes Measurement Information System (PROMIS): progress of an NIH Roadmap cooperative group during its first two years. *Med Care*, 45, S3-S11.
- CHEN, J., OU, L. & HOLLIS, S. J. 2013. A systematic review of the impact of routine collection of patient reported outcome measures on patients, providers and health organisations in an oncologic setting. *BMC Health Services Research*, 13, 211.
- DESHPANDE, P. R., RAJAN, S., SUDEEPTHI, B. L. & ABDUL NAZIR, C. P. 2011. Patient-reported outcomes: A new era in clinical research. *Perspectives in Clinical Research*, 2, 137-144.
- FALLOWFIELD, L., RATCLIFFE, D., JENKINS, V. & SAUL, J. 2001. Psychiatric morbidity and its recognition by doctors in patients with cancer. *British Journal of Cancer*, 84, 1011-1015.
- FITCH, M. I. 2008. Providing supportive care. In: FITCH, M. I., PORTER, H. B. & PAGE, G. G. (eds.) *Supportive care framework: A foundation for person-centred care*. 1 ed. Pembroke, Ontario: Pappin Communications.
- GIRGIS, A., DELANEY, G., ARNOLD, A., MILLER, A. A., LEVESQUE, J. V., KAADAN, N., CAROLAN, M., COOK, N., MASTERS, K., TRAN, T. T., SANDELL, T., DURCINOSKA, I., GERGES, M., AVERY, S., NG, W., DELLA-FIORENTINA, S., DHILLON, H. & MAHER, A. 2016. Development and Feasibility Testing of PROMPT-Care, an eHealth System for Collection and Use of Patient-Reported Outcome Measures for Personalized Treatment and Care: A Study Protocol. *JMIR Res Protoc*, 5, e227.
- GIRGIS, A., DELANEY, G. P. & MILLER, A. A. 2015. Utilising eHealth to support survivorship care. *Cancer Forum*, 39, 86-89.
- GIRGIS, A., DURCINOSKA, I., GERGES, M., KAADAN, N., ARNOLD, A., DESCALLAR, J., DELANEY, G. & GROUP, P.-C. P. 2018a. Study protocol for a controlled trial of an eHealth system utilising Patient Reported Outcome Measures for Personalised Treatment and Care: PROMPT-Care 2.0. *BMC Cancer*, Accepted 7th August 2018.
- GIRGIS, A., DURCINOSKA, I., KOH, E., NG, W., ARNOLD, A. & DELANEY, G. 2018b. Development of health pathways to standardise cancer care pathways informed by patient-reported outcomes and clinical practice guidelines. *JCO Clinical Cancer Informatics*, 2, 1-13.
- GIRGIS, A., DURCINOSKA, I., LEVESQUE, J. V., GERGES, M., SANDELL, T., ARNOLD, A. & DELANEY, G. P. 2017. eHealth System for Collecting and Utilizing Patient Reported

- Outcome Measures for Personalized Treatment and Care (PROMPT-Care) Among Cancer Patients: Mixed Methods Approach to Evaluate Feasibility and Acceptability. *J Med Internet Res*, 19, e330.
- JENSEN, R. E., SNYDER, C. F., ABERNETHY, A. P., BASCH, E., POTOSKY, A. L., ROBERTS, A. C., LOEFFLER, D. R. & REEVE, B. B. 2013. Review of Electronic Patient-Reported Outcomes Systems Used in Cancer Clinical Care. *J Oncol Pract*, 10, e215-22.
- MEYEROWITZ, B. E. & OH, S. 2009. Psychosocial response to cancer diagnosis and treatment. In: MILLER, S. M., BOWEN, D. J., CROYLE, R. T. & ROWLAND, J. H. (eds.) *Handbook of Cancer Control and Behavioral Science: A Resource for Researchers, Practitioners, and Policymakers*. Washington, DC: American Psychological Association.
- NELSON, E. C., EFTIMOVSKA, E., LIND, C., HAGER, A., WASSON, J. H. & LINDBLAD, S. 2015. Patient reported outcome measures in practice. *BMJ : British Medical Journal*, 350.
- NEWELL, S., SANSON-FISHER, R. W., GIRGIS, A. & BONAVENTURA, A. 1998. How well do medical oncologists' perceptions reflect their patients' reported physical and psychosocial problems?: Data from a survey of five oncologists. *Cancer*, 83, 1640-1651.
- PAPUGA, M. O., BECK, C. A., KATES, S. L., SCHWARZ, E. M. & MALONEY, M. D. 2014. Validation of GAITRite and PROMIS as high-throughput physical function outcome measures following ACL reconstruction. *Journal of Orthopaedic Research*, 32, 793-801.
- RYAN, H., SCHOFIELD, P., COCKBURN, J., BUTOW, P., TATTERSALL, M., TURNER, J., GIRGIS, A., BANDARANAYAKE, D. & BOWMAN, D. 2005. How to recognize and manage psychological distress in cancer patients. *European Journal of Cancer Care*, 14, 7-15.
- SOUZA, N. M., SEBALDT, R. J., MACKAY, J. A., PROROK, J. C., WEISE-KELLY, L., NAVARRO, T., WILCZYNSKI, N. L. & HAYNES, R. B. 2011. Computerized clinical decision support systems for primary preventive care: A decision-maker-researcher partnership systematic review of effects on process of care and patient outcomes. *Implementation Science : IS*, 6, 87-87.
- YANG, L., MANHAS, D., HOWARD, A. & OLSON, R. 2018. Patient-reported outcome use in oncology: a systematic review of the impact on patient-clinician communication. *Supportive Care in Cancer*, 26, 41-60.

APPENDIX

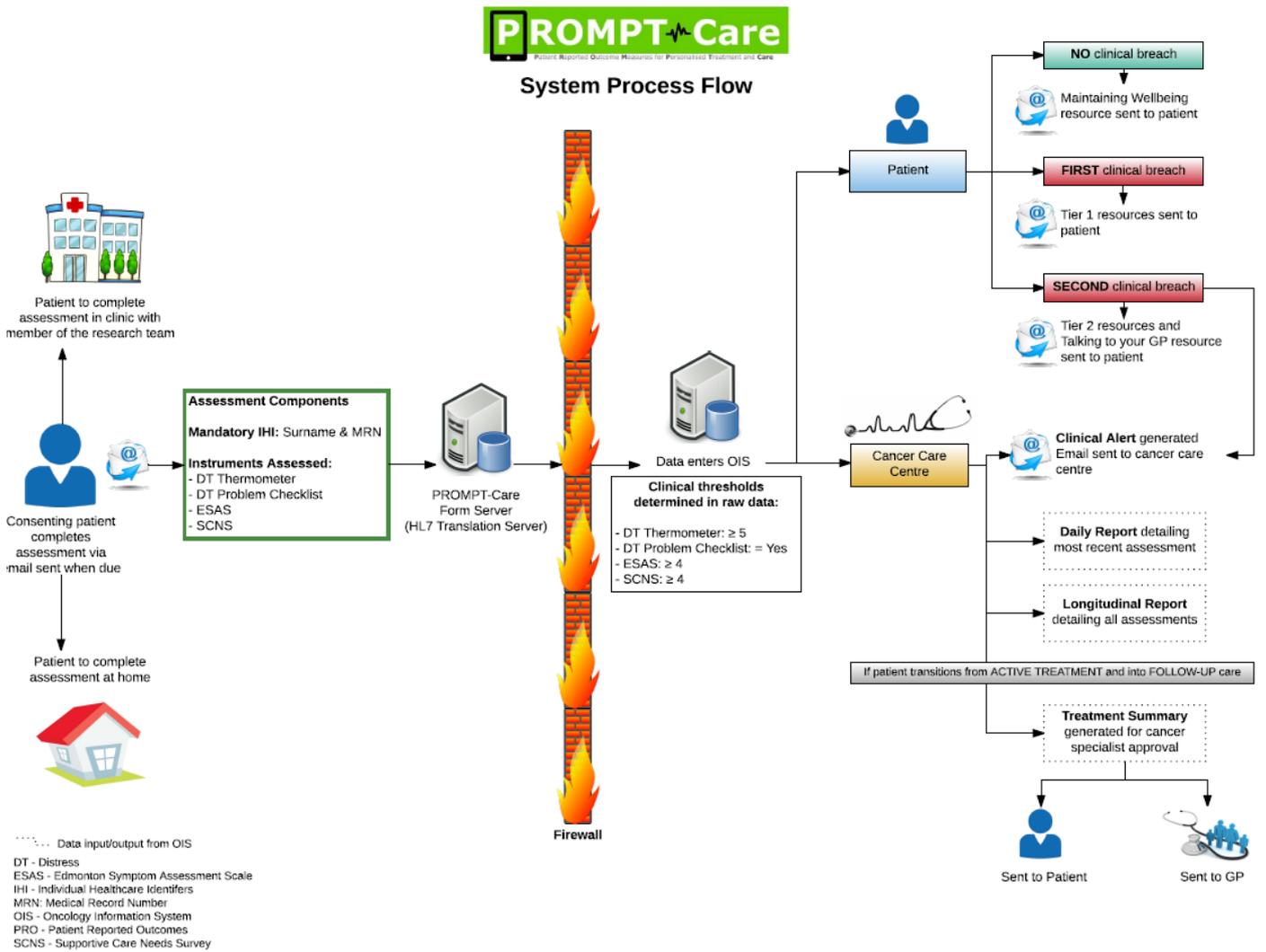


Figure 1: Simplified overview of the PROMPT-Care eHealth system

Thank you for recently completing the PROMPT-Care survey.

The responses you provided suggested that you may still be experiencing some concerns with the emotional impact of your cancer and cancer treatments.

Please scroll down to find some more self-management resources that can help you improve and maintain your emotional wellbeing.

#### **The MindSpot Clinic**

The MindSpot Clinic is a free service for adults living in Australia with stress, worry, anxiety, low mood or depression. The MindSpot Clinic provides courses on psychological symptoms that contain easy to read information, practical skills, and stories about how other people have learned to overcome their symptoms. The MindSpot Clinic deliver their services remotely, which means people can conveniently access assessment and treatment online or via the telephone.

- **The MindSpot Clinic** (website)

#### **Coping with fear of recurrence**

- **Fear of recurrence and late effects: Living with uncertainty** (podcast/audio file)
- **Fear of the cancer coming back** (website)

#### **THIS WAY UP Self Help**

THIS WAY UP offer free Self Help courses, which you complete at your own pace, that will help you learn skills to better manage your symptoms of anxiety or depression. These courses are based on the principles of Cognitive Behavioural Therapy (CBT), the leading evidence-based psychological treatment for anxiety and depression. THIS WAY UP is a not for profit initiative of ST Vincent's Hospital, Sydney Australia.

- **THIS WAY UP Self Help** (website)

#### **Access to community psychology services**

Medicare rebates are available for psychological treatment by registered psychologists under the Australian Government's Better Access to Mental Health Care initiative. This scheme provides considerable assistance to people living with mental health problems, allowing them greater access to psychologists and providing more affordable mental healthcare. For more information on how you can access a psychology services click the information page link below.

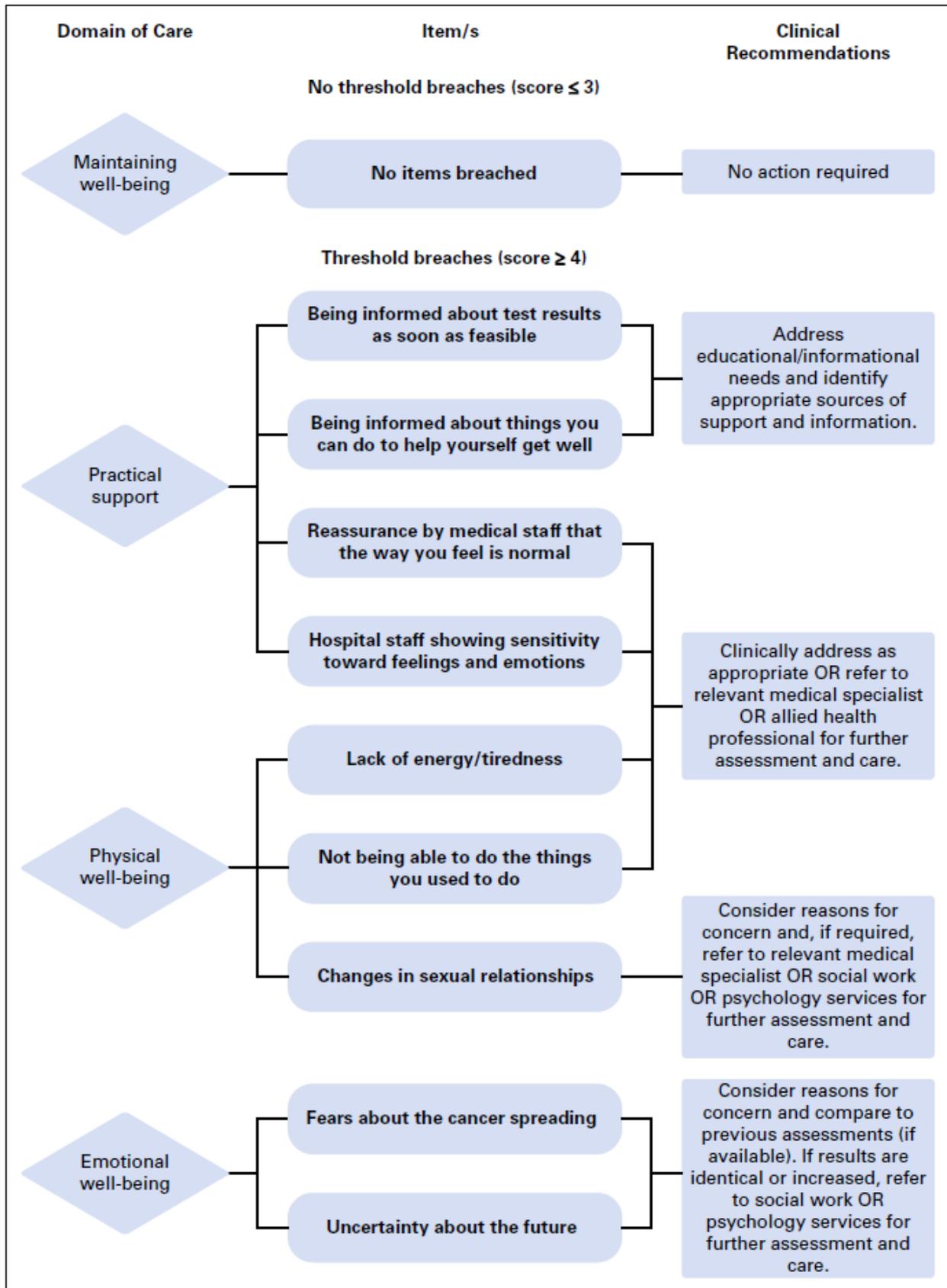
- **APS fact sheet – Medicare rebates for mental health service provided by psychologists** (PDF)

#### **myCompass**

myCompass is an interactive self-help service that aims to promote resilience and wellbeing for all Australians. myCompass is a guide to good mental health – it points you in the right direction. You can track your moods, write about them and view information and tips. You can also choose to do one of the modules designed to help you manage mild to moderate stress, anxiety and depression. myCompass has been created by the Black Dog Institute with financial support provided by the Australian Government Department of Health.

- **myCompass introductory video**
- **myCompass registration**

**Figure 2:** Sample self-management email sent to patients experiencing above-threshold emotional concerns



**Figure 3:** One example of algorithms developed - unmet needs algorithms mapped from the Supportive Care Needs Survey-Screening Tool 9, with actionable recommendations

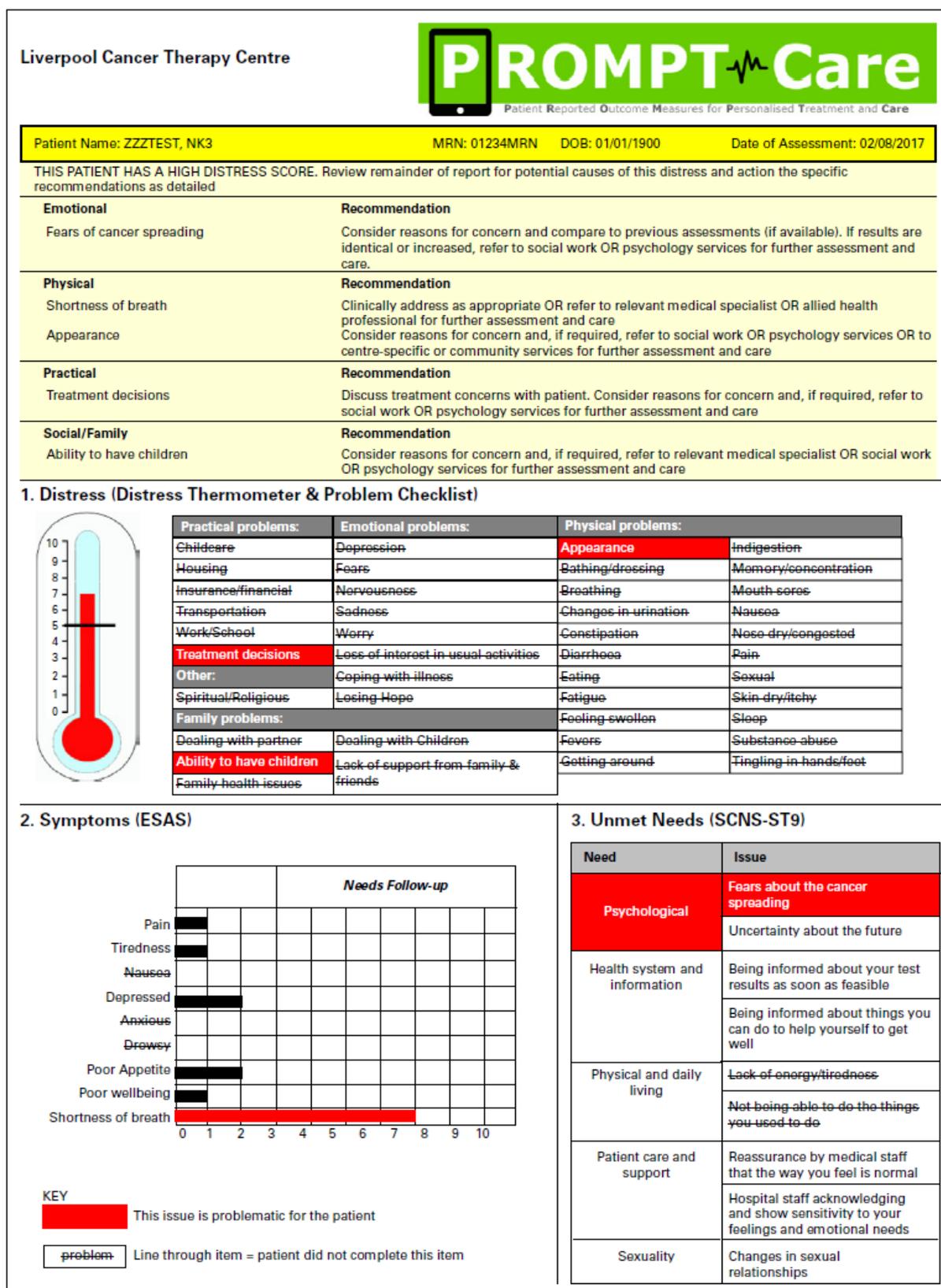


Figure 4: Sample clinical feedback report, displaying clinical recommendations for “red flag” items, for use by the oncology care team

**From:** [MED Prompt Care](#)  
**To:** [MED Prompt Care](#)  
**Subject:** PROMPT-Care report requiring review  
**Date:** Saturday, 5 August 2017 8:15:03 AM

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High levels of distress or symptom burden have been reported by the following PROMPT-Care patient:

Patient MRN: 0123456  
Patient surname: SMITH

Please review the PROMPT-Care report in MOSAIQ and contact the patient and/or follow the care pathway in place for your centre/facility.

Thank you for your cooperation on this matter.

**Figure 5:** Sample email alert sent to cancer centre when a patient's PROMPT-Care assessments identifies any issues above-pre-determined thresholds



## HEALTHCARE MEASUREMENT

### HIGHLY COMMENDED

#### Macquarie Hospital, NSW

Macquarie Hospital / Cottage / Bridgeview

Macquarie Hospital Clinical Formulation Tool - Using the UK-FIM/FAM to create a heat map of strengths and needs to inform rehabilitation and transition planning

*Tertia van Antwerpen*

#### AIM

To develop an electronic tool that enables the multidisciplinary team to use evidence based methods:

- to integrate and analyse assessment information gathered by the multidisciplinary team
- to gain a clear understanding of the consumer's functional ability, support needs and prognosis for functional gain.
- to focus the work of the multidisciplinary team to assist consumers in achieving their personal goals and discharge back to the community
- to justify the level of support and care as per the Australian Mental Health Care Classification (AMHCC)

#### SUMMARY ABSTRACT

Macquarie Hospital Clinical Formulation tool uses the UK-FIM/FAM, to create a heat map of strengths and needs to inform rehabilitation and transition planning.

Macquarie Hospital is a large mental health care facility with 180 consumers. The hospital's multidisciplinary team (MDT) conducts up to 21 assessments per consumer. With this amount of assessment data the hospital was seeking better methods to utilise the information to ensure that it guides the clinical formulation and decision making process.

Clinical Formulation Process is a process of integrating and analysing the assessment findings from all the health care disciplines which results in a clearer understanding of the person's functional ability support needs and prognosis for functional gain.

Macquarie Hospital's Clinical Formulation Tool is a smart electronic clinical reasoning tool, based on the decision trees of the UK Functional Independence Measure and Functional Assessment Measure (FIM+FAM) methodology and scale. The tool provides structure to facilitate the MDT's clinical reasoning process and captures the team's findings by producing a heat map of the consumer's current functioning, then produces spider graphs to monitor progress.

The formulation process begins with gaining a clear understanding of the person's wishes, needs and strengths, with regards to preferred accommodation, community activities they would like to participate in, and types of support they think they may need.

The MDT applies the UK FIM+FAM's clinical decision trees and support scale to determine the consumer's level of self-direction and independence in 4 domains:

1. Self-regulation
2. Ability to take care of oneself and one's environment
3. Ability to handle situations and adversities
4. Ability to relate to others and form relationships

A heat map is automatically generated and is used to:

- inform intervention planning and the type of care, including the allocation of responsibilities amongst the MDT
- determine current and future supports needed to maintain the consumer's quality of life with meaningful connections
- identify an optimum living environment that best meets the consumer's wishes and needs.

## St Vincent's Hospital Sydney, NSW

Rehabilitation Consultation Service, Department of  
Rehabilitation

### Why wait? A Proactive Rehabilitation Screening Service (PReSS)

*Jane Wu, Olivia Misa, Christine Shiner, Steven Faux*

#### AIM

Patients admitted to hospital following illness or injury are at risk of becoming weak and frail. Early rehabilitation can help to improve patient's health, and reduce the time they spend in hospital. We have developed a new way of identifying patients in hospital who need early rehabilitation, to make sure they can access it as soon as possible. This has now been implemented hospital-wide, with aims to improve patient recovery, reduce delays to treatment, and reduce hospital costs.

#### SUMMARY ABSTRACT

Patients admitted to hospital for an acute illness or injury experience impairment and are at risk of deconditioning. For some patients, the initiation of early rehabilitation can help to prevent decline during hospitalisation, and accelerate recovery [1-5]. However, there are currently no systematic screening processes available that can be used to identify these patients early during their admission, and proactively trigger rehabilitation interventions. Traditionally, rehabilitation physicians do not get involved in a patient's care until after they receive a referral from acute medical or surgical teams. This may result in patients 'waiting' for rehabilitation, or some patients not being referred for rehabilitation at all. Such delays in accessing rehabilitation have been shown to negatively affect patient outcomes, to prolong the duration of overall hospital admission, and to impose significant costs on the health care system [6-9].

To capture all patients who would benefit from rehabilitation during a hospital admission, one approach may be to conduct formal rehabilitation assessments on all hospital admissions. However, such a process would be expensive, labour-intensive and impractical to implement widely as a screening process. A more streamlined and time efficient process is required, that would be practical to implement in busy clinical settings yet remain

sensitive to proactively identify patients most likely to require rehabilitation input –thus directing rehabilitation services where they are needed.

In 2017, driven by a desire to improve the equity and efficiency of service delivery for their patients, the investigators developed and implemented a novel Proactive Rehabilitation Screening Service (PReSS). Based on a redesign of the Rehabilitation Consult Service at St Vincent's Hospital Sydney, PReSS was established as a means of proactively screening hospital admissions to identify rehabilitation needs.

PReSS uses a simple 5-item questionnaire to perform rapid review of patient's medical records in order to identify rehabilitation needs. This questionnaire was designed by the project team, and incorporates simplified elements of the Rehabilitation Complexity Scale, an established metric developed in the United Kingdom to measure care complexity in rehabilitation settings [10, 11]. The PReSS questionnaire rates 5-items on simple categorical scales, namely: patient care needs, therapy disciplines, therapy intensity, equipment needs, and pre-morbid disability. A sum total score is calculated out of 15 for each patient screened, with higher scores indicating greater rehabilitation needs (see Appendix 1).

Since May 2017, the PReSS tool has been used to proactively screen all acute hospital admissions to St Vincent's Hospital Sydney, where the length-of-stay is 5 days or more. Screening is conducted daily by a rehabilitation-trained nurse, and screening scores are used to identify those patients with a high likelihood of requiring rehabilitation. Based on the PReSS score for each patient, the appropriate pathway of action is triggered:

- i) For scores <7, no rehabilitation intervention is required
- ii) For scores ≥7, a proactive rehabilitation consultation is triggered, and rehabilitation intervention/s are initiated as needed

All patients identified as having high rehabilitation needs (PReSS score ≥7) receive a specialist rehabilitation consult within 24 hours of screening, and as appropriate, rehabilitation interventions which may include in-reach rehabilitation from the Mobile Rehabilitation Team (MRT), inpatient

rehabilitation, and/or outpatient rehabilitation.

The Rehabilitation Consult Service at St Vincent's Hospital Sydney has been successfully redesigned to incorporate daily PReSS screening of hospital-wide admissions. This redesign has been successfully implemented since May 2017, with now >3000 patient admissions having been screened. Pilot analyses demonstrate that PReSS is feasible has high sensitivity and specificity for identifying patients with rehabilitation needs: correctly identifying patients in need of rehabilitation, improving patient access to early rehabilitation, reducing delays to treatment and resulting in benefits to the patient and health care system.

a prospective audit. *ANZ J Surg* 2010;80(6):443-6.

9. Sirois MJ, Lavoie A, Dionne CE. Impact of transfer delays to rehabilitation in patients with severe trauma. *Arch Phys Med Rehabil* 2004;85(2):184-91.
10. Turner-Stokes L, Scott H, Williams H, Siebert R. The Rehabilitation Complexity Scale--extended version: detection of patients with highly complex needs. *Disabil Rehabil* 2012;34(9):715-20.
11. Turner-Stokes L, Disler R, Williams H. The Rehabilitation Complexity Scale: a simple, practical tool to identify 'complex specialised' services in neurological rehabilitation. *Clin Med (Lond)* 2007;7(6):593-9.

## REFERENCES

1. Brooke KJ, Faux SG, Wilson SF, Liauw W, Bowman M, Klein L. Outcomes of motor vehicle crashes with fracture: a pilot study of early rehabilitation interventions. *J Rehabil Med* 2014;46(4):335-40.
2. Teasell R, Bitensky J, Salter K, Bayona NA. The role of timing and intensity of rehabilitation therapies. *Top Stroke Rehabil* 2005;12(3):46-57.
3. Biernaskie J, Chernenko G, Corbett D. Efficacy of rehabilitative experience declines with time after focal ischemic brain injury. *J Neurosci* 2004;24(5):1245-54.
4. Sorbo A, Rydenhag B, Sunnerhagen KS, Blomqvist M, Svensson S, Emanuelson I. Outcome after severe brain damage, what makes the difference? *Brain Inj* 2005;19(7):493-503.
5. Ponsford J. Rehabilitation interventions after mild head injury. *Curr Opin Neurol* 2005;18(6):692-7.
6. Jacobs DG, Sarafin JL, Norton HJ, Christmas AB, Huynh T, Sing RF. Wasted hospital days impair the value of length-of-stay variables in the quality assessment of trauma care. *Am Surg* 2009;75(9):794-802; discussion -3.
7. Thomas SN, McGwin G, Jr., Rue LW, 3rd. The financial impact of delayed discharge at a level I trauma center. *J Trauma* 2005;58(1):121-5.
8. Edirimanne S, Roake JA, Lewis DR. Delays in discharge of vascular surgical patients:



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Rehabilitation Consultation Service, Department of Rehabilitation

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