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ACHS IMPROVEMENT ACADEMY

Quality Improvement Lead (QIL) Program

PROJECT SUMMARIES

2018-2020

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Quality Improvement Lead (QIL) Program Project Summaries 2018-2020

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Acknowledgement

The Improvement Academy would like to acknowledge the contribution of the following Faculty members who contributed to the success of these programs and the resulting projects contained in this booklet:

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Dr Lynne Maher (2018) – Director of Innovation, Ko Awatea Auckland, New Zealand

Foreword

I am delighted to present the third ACHS Quality Improvement Lead training program Project Summaries booklet. The booklet covers projects undertaken during 2018 – 2020.

The project summaries demonstrate the breadth and scale of the work that has been undertaken across the Australian health care system. The common theme of all these projects is the focus on improved outcomes and service for clients and patients of health services.

The development of improvement capability for frontline clinical teams is essential and a recognised hallmark of high performing organisations. The projects in this booklet demonstrate what can be achieved when frontline teams are empowered to make change in the microsystem.

What makes these projects even more remarkable is that many were completed during the COVID-19 pandemic lockdown in 2020. The resilience of these teams to push through to completion is to be applauded.

We hope that you enjoy reading these Project Summaries and take away learnings for ongoing quality improvement.

Dr Karen Luxford
ACHS Chief Executive Officer

Introduction: Quality Improvement Lead (QIL) Training Program

Since 2016 the Improvement Academy has offered the Quality Improvement Lead (QIL) training program for a range of clinical and non-clinical Executive, managers and staff working in quality improvement, throughout Australia and overseas.

The QIL Program has evolved over this time and has quickly matured into the 'go-to' educational training for Health workers seeking specialised quality improvement science training that provides the tools to implement learnings – and gets results.

This Project Summaries booklet represents some of the projects undertaken during 2018 – 2020 when the health system has had to adapt, and quickly, due to the COVD-19 pandemic. Many of the projects listed here are a result of responding to a changing environment and represent the best of what can be achieved under pressure. New demands and new challenges can be the perfect testing ground for re-visiting current thinking and creating new solutions. The willingness to apply proven quality improvement science is apparent in every project undertaken – and for many the results achieved speak for themselves.

Since 2016, more than 472 dedicated participants have completed the nine-month long QIL program, and have sought to bring a sustainable change to their lead role. Congratulations to all who have participated and we acknowledge your achievements with the publication of this booklet and we thank your managers who provided support and sponsorship to join the program.

Thanks must also go to our predominantly Australian-based faculty who are recognised internationally as experts in the field of quality and safety, combining both practical experience and publication in academic literature.

We strongly encourage all readers to share the outcomes of the projects with your colleagues.

If you would like more information about any of the Academy's programs, please go to: www.achs.org.au/improvement-academy/

Adj Assoc Professor Bernie Harrison
Director, ACHS Improvement Academy

"Thank you for the amazing access to the experts and resources this course allows."

Program participant - Melbourne

"Just a huge thank you to all involved, this has been a fabulous course with fabulous presenters, who are passionate "with purpose". Also, a great cohort, I was so privileged to be a part of."

Program participant - Melbourne

"The presenters were incredibly knowledgeable and presented in an engaging way with excellent examples. The material has direct relevance to our work and will definitely assist in any improvement programs we institute."

Program participant- Central Adelaide Local Health Network - Adelaide

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"I found the training to be very useful in my day-to-day activities and in identification of patterns, bottlenecks and efficiencies in various areas of our service delivery models."

Program participant- Central Adelaide Local Health Network – Adelaide

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"The knowledge of the presenter, and the numerous examples given during the course of the day, helped me to grasp the concepts."

Program participant - Melbourne

"The opportunity to interact with other participants and offer advice for each other's projects was extremely valuable."

Program participant - Women's and Children's Health Network - Adelaide

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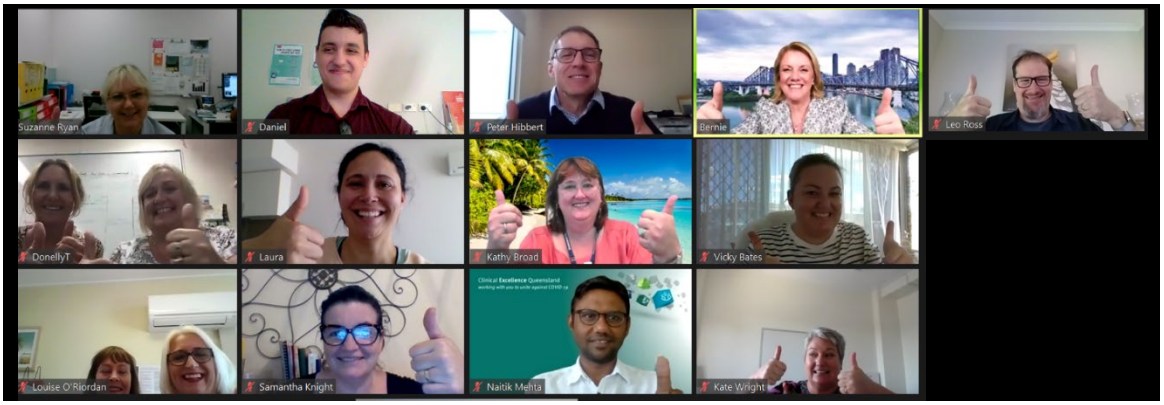
"I really like that the training takes you through the process and then follows up to ensure you have been able to retain the information. I also really enjoy that I am able to continually learn new information through this course even though I have been working in a quality role for 15 years."

Program participant - Brisbane

Graduation Ceremony, Melbourne, April 2019

Graduation Ceremony, Central Adelaide Local Health Network, August 2019

Graduation Ceremony, Women's and Children's Health Network, December 2019



Virtual Graduation Ceremony, Brisbane, October 2020

Virtual Graduation Ceremony, Melbourne, November 2020

Virtual Graduation Ceremony, Melbourne, November 2020

Project category: Acute Health Care

Access wisely: Integrating the right patient pathway at the right time for equity of access

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Mr Scott McConnel
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Problem/Aims

Our project aim was to implement early identification and integrated pathway recruitment of suitable hospital in the home (HITH) patients, to support optimisation of our HITH service.

Background

Wide Bay Hospital and Health Service has rising numbers of frail and vulnerable people within the community—9% higher than the Queensland average for >65 years—and associated healthcare challenges, with high rates of: cancer, obesity and chronic disease, high levels of psychological distress, and high rates of unemployment and socioeconomic disadvantage. In addition there are increasing financial pressures and demand on our Emergency Department and acute hospital services. Therefore it is essential that our HITH service is optimised for hospital admission avoidance and early supported discharge to deliver *equity of access* for our community.

Measurement

Hervey Bay HITH performance data for a two-year retrospective period were systematically analysed as a starting point for this project, to identify trends around HITH admissions; HITH patient profile; HITH length of stay; inpatient referral time to HITH; unplanned HITH

readmissions; and number of referrals by specialty at stages in the patient journey: Preload (GP, nursing home), Frontload (Emergency Department) and Afterload (inpatient). There has been a downward trend of 25.64% of HITH service utilisation, noting Frontload of patients is only 0.64%.

Workshops were undertaken for collection of qualitative data, including discussions with key specialty stakeholders.

Design

Collaborative workshop sessions and process mapping were undertaken with the immediate HITH team to ascertain HITH work as conceptual and HITH work as done. Collective service variations in referral, admission, treatment and discharge were identified from the process mapping. This was collated and displayed in a cause-and-effect diagram, leading to four identified causes:
1. Team function for the intake nurse,
2. System/process for early identification of HITH patients,
3. Service scope and reputation
4. Referrals for Frontload.
In addition, open team discussions and critical reflection from the immediate project team enabled the development of a benefit dependency network diagram. This in turn allowed for envisaged service transformation for early identification and supported hospital discharge.

Strategy

We undertook PDSA cycles throughout the improvement project at deliberate stages of the patient pathway. The PDSA cycles were used to test alternative ways of working as a service with the specialty teams. This enabled small-scale changes with patient specialty cohorts to be tested for governance/patient safety. Emerging findings from the PDSA cycles were integrated back into the service reconfiguration process, and data were routinely collected and reviewed in run charts.

Results

Service reconfiguration with expansion of scope, team rebranding and integration of scale has delivered identification in the first 24 hours of HITH suitable patients. This has led to a reduction in hospital bed base admissions (unnecessary admissions) and supported early discharge of patients. Control charts were used to monitor the ongoing performance of the key variables (Figures 1 & 2). After implementing the improvements in the process, a decrease in the mean duration time to HITH recruitment of Afterload (inpatients) patients was observed, with an average reduction of 12 hours/patient from the hospital bed base. The lower and upper control limits of the individual values and the moving range also showed a reduction, indicating a more stable process. Results achieved thus far:

- HITH separations in 12 months have increased from an average of nine patients/month to 38 patients/month.
- Identification and recruitment of Frontload (Emergency) patients increased from baseline data of 0.64% to 31% (post PDSA implementation), with additional estimated cost saving of $343,743 over three months.
- Emergency Department referral time to HITH has improved by 2 hours 16 minutes, with 76% of identified non-complex diagnosis related group (DRG) HITH patients recruited within the first 24 hours of the patient journey. It should be acknowledged 60.61% of patients arrive outside HITH service hours.
- Early identification of HITH patients for Afterload recruitment (inpatient admission) noted a reduction in hospital length of stay by an average of 12 hours/patient (excluding Frontload data), with additional estimated cost saving of $546,234 over three months.

• HITH representation rates have reduced by 2.2% to 7.76% for adverse events or complications while on the service, which is a notable achievement within the context of significant increase of HITH admissions and inpatients transferring early to HITH.
• Equity of access education sessions (five slides in five minutes) to specialty teams have changed the lens of service scope and building service reputation, and fostered new relationships.
• Sharing data among the immediate team has built 'ownership', 'agility' and 'purpose', igniting a culture change whereby the team is driving their journey and actively seeks improvements for new ways of working.
• There have been increases in patient feedback and compliments.

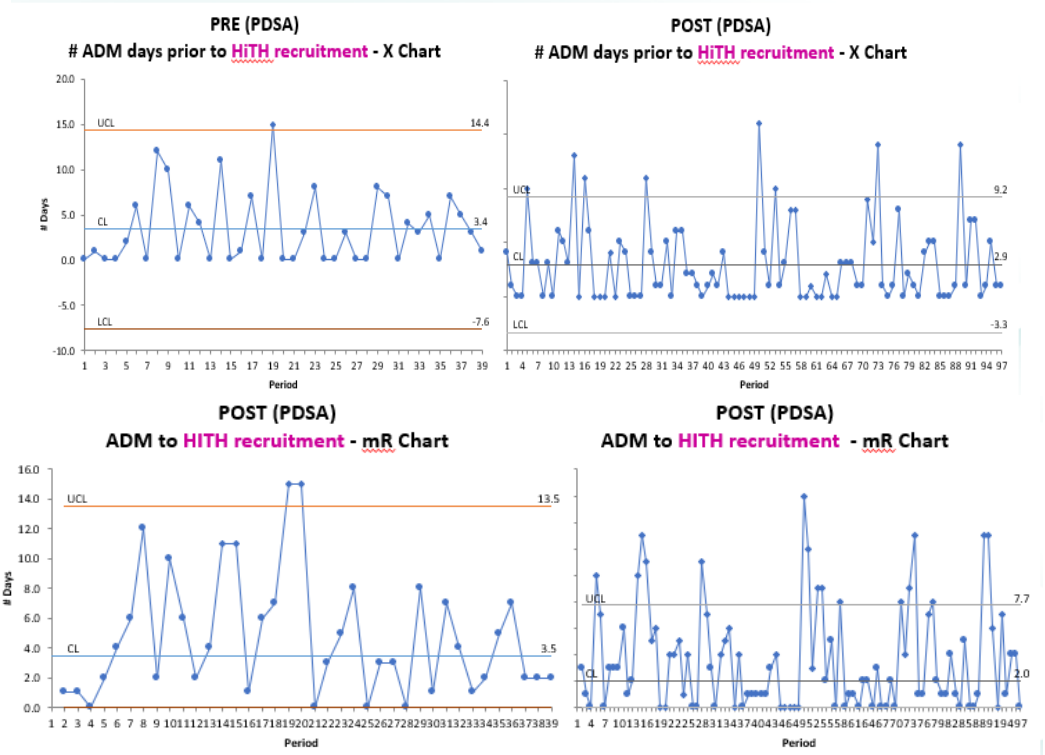
Conclusions

The use of PDSA cycles demonstrated the significance of working collaboratively across teams and building new service relationships to embed the hospital and health service vision of 'Care comes first … through patients' eyes'. It is important to highlight there are limitations to the project and notably there is further data analysis required for reliability of the Frontload identification report and to ascertain further opportunities for patient recruitment in the first 24 hours. It should also be noted COVID-19 had an impact on this project, and an astronomical data point was observed in April 2020; however, there was a notable 'shift'. In summary, rapid cycles of PDSA facilitated 'constant' learning, which generated deeper awareness and understanding of the service landscape as a team, to ignite change with pace and agility as a service.

Plans for next steps

Future steps include:

• optimisation of current intervention strategies
• increasing HITH recruitment for Preload (GP and RACF)
• commencing major projects for long-term gain of service—'access wisely'.



Project category: Acute Health Care

Identifying strangled victims in the Emergency Department

Sue Cochran and Fiona English
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Pictured left to right: Sue Cochran, Fiona English

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Problem/Aims

Non-lethal strangulation (NLS) in domestic and family violence (DFV) is one of the most significant red flags for homicide and premature death. Emergency Department (ED) social workers at the Redcliffe Hospital were concerned that women self-reporting NLS were not receiving standardised assessment and treatment. Existing databases did not capture data on patients presenting with NLS. The social workers were also receiving requests from colleagues in the ED for education and training on responding to patients experiencing DFV.

The aim of this project was to identify a pathway of care for all patients presenting to Redcliffe Hospital ED with suspected NLS to ensure that 100% of identified patients would have a high-risk NLS assessment. A further aim of the project, by May 2020, is that 100% of all patients disclosing, or suspected to be experiencing DFV, will be asked specifically about strangulation.

Background

The release of the *Not Now Not Ever: Putting an End to Domestic and Family Violence in Queensland* report in 2015 highlighted that 100% of the women identified in this report who had been killed as a result of DFV had previously presented to an ED. From the literature, we know that intimate partner violence is a leading contributor to illness, disability and premature death for women aged 18-44. On average, one Australian woman a

week is murdered by her current or former partner. A victim of NLS is 750% more likely to be killed by their abuser than DFV victims who have not experienced strangulation. The immediate, delayed and long-term consequences of strangulation can include serious injuries to the structures in the neck that are not visible to the eye as well as delayed and/or generalised symptoms. Health impacts can include permanent neurological damage, airways obstruction as a result of hydroid bond injury, psychological trauma and damage to arteries that can be linked to delayed stroke.[1]

Measurement

At baseline, we were unable to accurately report the number of patients presenting with NLS. One of our first goals was to identify how to capture data to perform retrospective identification of patients and undertake data analysis. Chart audits would then be possible to elicit information on the patients' journey, presentations to the ED, admissions and outpatient activity, and to test compliance with a proposed clinical pathway.

Design

The project group engaged in consultation with a variety of interdisciplinary clinicians and stakeholders to fully understand barriers to providing evidence-based care for patients presenting with NLS. By benchmarking against national and international services, a project plan over 60 weeks was developed that identified the need to develop a clinical pathway, provide education to staff, and provide education and resources to patients who present with NLS. Consultation with field experts confirmed clinical direction and components of the pathway.

Strategy

Three PDSA cycles were identified as part of the action plan and strategy for this project: development and implementation of the NLS clinical pathway in the ED; education for the interdisciplinary team in the ED; and development of resources (information packs to be shared with victims, environmental information and signage, e.g. for waiting rooms and toilets), and enhanced community networking and knowledge of local service providers.

Results

Since commencing the project, 12 months ago, we have achieved the rollout of targeted education to nursing and medical staff at all levels. Qualitative feedback has shown a notable uptake of knowledge and awareness of clinical staff reviewing processes around patients presenting to ED with NLS. Overall, there has been a great awareness of NLS and the increased risk to patients presenting.

Conclusions

The Non-Lethal Strangulation clinical pathway that supports the development of education and resources has proved to be effective at this early stage. Continuing clinical education will be embedded in the ongoing roll-out of this strategy.

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1. https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/patient-safety/duty-of-care/domestic-family-violence/healthcare-workers

Project category: Acute Health Care

Improving first-cycle chemotherapy administration for lung cancer

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Problem/Aims

An audit of new chemotherapy bookings for lung cancer patients, from time of medical oncological review to the start of treatment, showed high variability, averaging 16 days and ranging from one to 33 days. Further, delays in starting scheduled chemotherapy (also known as 'chair blockage') added to increased nursing time and cost to the cancer treatment centre.

The aim of our project was for 100% of new lung cancer patients to start treatment within the national guideline timeframe (diagnosis to treatment, six weeks).

Background

Lung cancer is a highly fatal disease. Timely access to treatment is important for the control of cancer symptoms and overall patient survival. Delayed treatment can result in unplanned hospitalisation, prolonged hospital stays, decreases in the patient's quality of life and increased patient mortality.

Measurement

An audit tool from a Victorian hospital was adapted to gather information regarding chair blockage in a day cancer centre (see Figure 1).

Design

A team with expertise in chemotherapy, including medical, nursing, pharmacist and administration staff, was selected to

investigate issues affecting efficient patient flow and negatively affecting the start of chemotherapy.

Strategy

A flowchart was developed, outlining key processes in starting chemotherapy. An affinity diagram was used to identify issues causing delays in starting treatment (see Figure 2). From this, a Pareto chart was utilised to select the most important issues for further analysis and to focus our interventions for change.

Results

The following issues and interventions were identified:

- Improving our chemotherapy prescription workflow: The availability of chemotherapy prescriptions was the most pressing issue. Auditing showed that up to six prescriptions were missing per day. A system was implemented to notify medical staff of missing prescriptions. A prescription workflow was also developed, where the next upcoming cycle of treatment was prepared in advance.
- Improving patient compliance with pre-chemotherapy blood tests: Nursing staff focused on education of patients regarding the importance of completing blood tests prior to chemotherapy. An education checklist, located in the patient appointment book, was used to achieve this goal. We are also investigating the use of mobile phone SMS to send electronic reminders to patients.
- Improving our booking workflow: This is a work in progress. At present, it requires extensive nursing involvement to manage the patient bookings to achieve a balanced workload during the week. We believe that continued training of administration staff will provide positive results.
- Access to case notes and treatment records: The availability of case notes and treatment records is essential to the safety of chemotherapy administration. The hospital has recently implemented electronic medical records (Sunrise EMR) in the outpatient cancer centre. We anticipate this will improve access to medical records.
- Delivery of chemotherapy to the cancer day centre: Auditing demonstrated significant delays in the delivery of chemotherapy to the day centre. We presented our data to our facility provider and reached an agreement for a better delivery schedule. Pharmacy also developed a flow board to improve communication between nursing staff in the day centre and pharmacy production.

Conclusions

The use of a dedicated team with expertise in chemotherapy greatly improved our analysis of existing processes, strengths and pitfalls. A number of strategies were developed to improve our internal processes at minimal to zero cost, and data collection shows an improvement in the chemotherapy starting times for lung cancer patients.

Plans for next steps

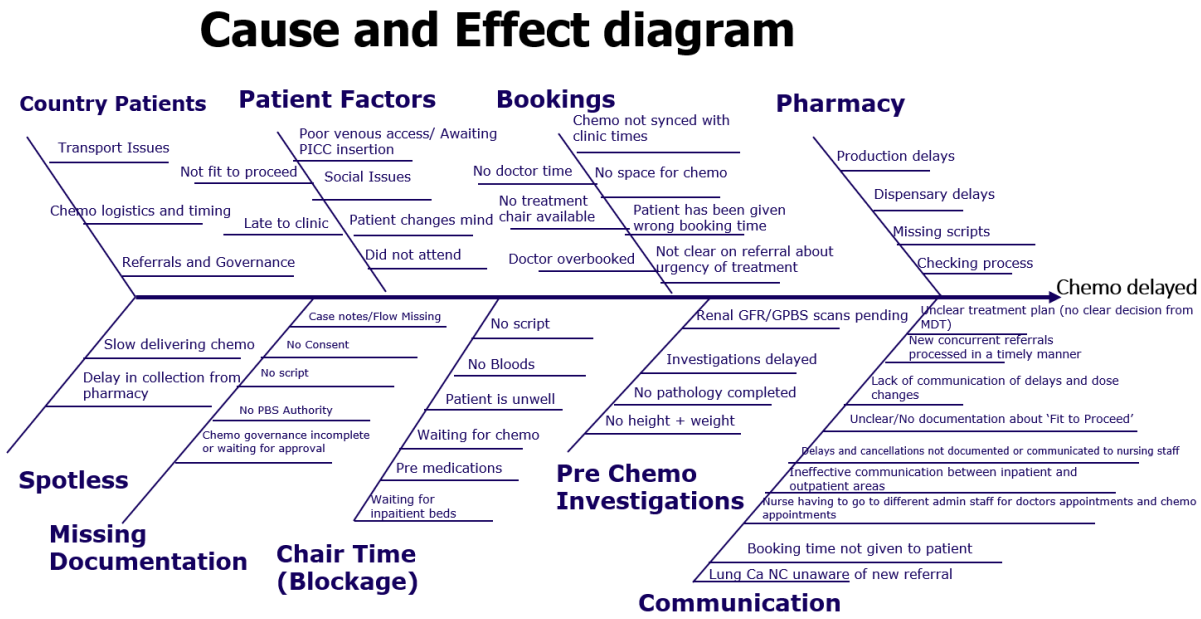
Ongoing work includes:

- establishing an SMS service to provide electronic reminders to patients to complete pre-chemotherapy blood tests
- customising a user-friendly audit tool to obtain relevant and useful information about our service
- examining the available guidelines of other tumour streams and auditing if the cancer directorate at the RAH meets those guidelines
- expanding our strategies, processes and efficiencies to include all cancer tumour streams.

Figure 1. Auditing tool

Ur Number/ sticker Date __/__/20__ Chair Number ___	Scheduled Tx	Procedure Cancelled?	Med Review	Blood Test	Sched Appt Time	Nursing/ Patient Assess		Authority to make chemo today	Chemo arrived CDU	Tx/Procedure		D/C from chair
						Start Time	End Time	Time	Time	Start time	End Time	Time
	[ ] Haem [ ] Onc											
	[ ] Other	[ ] No	[ ] No	[ ] No	**Was Nursing/Patient Assess start time delayed?**			**Was treatment start time delayed?**				
	Type	**Yes**										
	[ ] Clinical Trial	[ ] Toxicity			[ ] No			[ ] No / No further delay			[ ] No / no further delay	
	[ ] Chemo/MAB	[ ] Inpatient	[ ] Yes	[ ] Yes	**Yes**			**Yes**			**Yes**	
	[ ]Blood/plts	[ ] Ceasing			[ ] patient late			[ ] Waiting for pathology			[ ] Waiting for Nurse/Disconnection	
	[ ] IVIG	[ ] Pt failed to attend			[ ] Waiting for pathology			[ ] waiting for Med review				
	[ ] PICC				[ ] Waiting for med review			[ ] waiting for nurse			[ ] Waiting for D/C orders	
	[ ] Biphos	[ ] Other			[ ] Waiting for nurse			[ ] Waiting for orders			[ ] Waiting D/C drugs	
	[ ] Iron				[ ] Waiting for chair			[ ] Waiting for product				
	[ ] Education				[ ] Waiting for orders							
	[ ] Other				[ ] Waiting for products							

Figure 2. Affinity diagram: Causes of chemotherapy delay



Project category: Acute Health Care

Improving patient safety in the Emergency Department by reducing falls with harm by June 2020

Elizabeth Paul
Eastern Health, VIC

Elizabeth Paul
Manager Clinical Governance, Quality Planning and Innovation
Eastern Health

Problem/Aims

At Box Hill Hospital Emergency Department (ED), over 300 presentations are seen per day. Recently, multiple falls with harm occurred, leading to a reportable sentinel event for a patient fall and a SafeWork visit within three months.

The project aim is to improve patient safety in the ED by reducing falls from five per quarter to zero by June 2020.

Background

Falls are the main reason for injury-related admissions to hospitals and emergency presentations in people aged over 65.[1] The risk of falling increases when people are unwell and enter healthcare facilities. Injuries result from approximately 30% of such falls in hospital.[1] As Eastern Health has an exponentially increasing ageing population in its catchment, more patients are at risk of falls than other health services in the region. Recent audit data indicate that most of our patient population has mobility limitations and that the highest risk groups for falls are those aged over 75 years and those with confusion. A major falls prevention project occurred within the inpatient units with success; however, limited improvement work occurred in the ED. Recent incidents highlight the vulnerability of intoxicated and drug-affected patients and patients with acute delirium within a fast paced and dynamic ED environment.

Measurement

Quantitative incident data were measured daily by number of falls reported and number of falls with harm reported, as well as rate of falls. Multiple tools were used at the diagnostic phase, including cause-and-effect diagrams, driver diagrams, process map workflow and stakeholder engagement.

Design

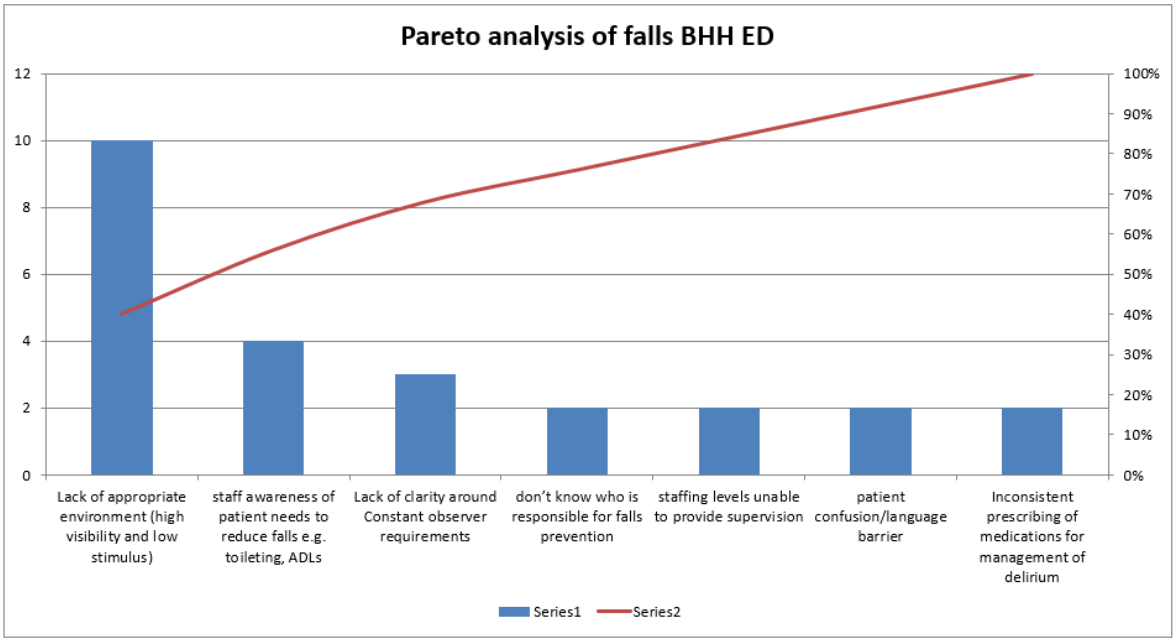
The diagnostic phase included determining why patients fall. This was undertaken through stakeholder engagement and literature review. Current workflow did not enable accurate and timely assessment of patient falls risk while in the ED, and this resulted in workflow mapping, with an electronic medical record solution proposed to be implemented. The use of cot sides and bed rails guidelines in the ED was revised. Visual management signs were implemented in all non-resuscitation cubicles for patient and family fall prevention awareness. Quantitative data were used to measure project success.

Strategy

Data parameters were monitored throughout the PDSA process, and the results of the interventions implemented were noted against time and baseline data.

Results

The number of reported incidents was unpredictable and depended upon clinical reporting and the 'likely to fall' patient population presenting to emergency, so interventions could not always be attributed as the cause of a reduction in falls.



Improvement Error Proof Design

Aim for gold, then silver, then bronze solution types

Solution ideas	1. Easy to implement high benefit	2. Hard to implement high benefit	3. Low Benefit Easy to implement	4. Low benefit hard to implement	Best Practice
For elderly confused patients at risk of falls provide constant supervision	Ask family member to stay ✓ +/-	Request constant observer/Family member ✓+/-			
Move at risk patients to inpatient bed ≤ 4 hours		Dependant on bed availability and medical priority ✓ +/-			
Communicate the risk of falls to patient and family	✓ +/- Use telephone interpreter	✓ +/- Use telephone interpreter (medically unstable)	✓ +/- Use telephone interpreter (confused)		Use visual management signs Use whiteboard
Provide adequate medication management to address delirium	✓ +/-				Not best practice

Conclusions

COVID-19 resulted in a change to emergency services priority and presentations, and at the time of writing this abstract, falls had decreased. However, this might not be attributable to the project success.

Plans for next steps

Continue to promote falls reduction and monitor falls incidents in the ED.

References

1. World Health Organization. Falls fact sheet [Internet]. 2016 [March 2020]. Available from: http://www.who.int/mediacentre/factsheets/fs344/en/

Project category: Acute Health Care

Reducing length of stay in cardiac intensive care

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Problem/Aims

In 2018, the Royal Adelaide Hospital (RAH) Intensive Care Unit (ICU) median length of stay (LOS) for cardiac surgery was 2.8 days compared with the national benchmark of 1.8 days. This equates to an approximate additional cost of $1 million annually.

The aim of this project was to reduce ICU LOS for cardiac surgical patients to the national benchmark within six months without compromising patient safety.

Background

The RAH is a 700-bed quaternary centre, which admits approximately 600 cardiac surgical patients to the ICU annually. This high-volume, high-cost diagnosis related group (DRG) is the top RAH ICU DRG by admission volume, with an overall RAH bed day resource utilisation of 17.7% for 7.3% episodes of care. This project was conducted in an environment where many strategies were being employed to keep departments operational and manage changes, uncertainties and vulnerabilities of a new reduced-bed-capacity hospital with an increased-capacity ICU.

Measurement

A control chart identified no special cause variations influencing the 2018 cardiac surgical ICU patient LOS data. Virtual processes, quality improvement tools and literature reviews were used to identify areas for improvement and to assist in the development and Plan, Do, Study, Act

(PDSA) testing of interventions. Tally sheets, Excel spreadsheets and survey excerpts were used to enter and report data. A LOS run chart was used to establish if the observed outcomes were due to our interventions. Interventions were adopted on the basis of qualitative and quantitative outcomes.

Design

Three interventions were selected initially: early, high-intensity mobilisation; treatment of orthostatic hypotension; and timely removal of underwater seal drains. We planned for sustainability early, involving the patient care team throughout the project and ensuring interventions were evidence based. We incorporated new processes into the current clinical pathway, and planned compliance audits, training and education by clinical change champions. We conducted weekly LOS reviews to monitor the effect of each PDSA cycle.

Strategy

The first PDSA cycle involved rolling out an early higher-intensity mobilisation bundle. Management of orthostatic hypotension was included in the bundle as it correlates to mobilisation. Mobilisation targets and rating of perceived exertion (RPE) scales were used to allow patients to have a controlled mobilisation regime. A clinical nursing champion led the change. The second PDSA cycle involved standardisation of underwater seal drain removal. A consensus guideline was created and implemented with the support of a clinical nurse lead. During the first PDSA cycle, use of a patient journey board was proposed and designed, with the aim of prompting clinicians to progress patients towards discharge.

Results

During the project, new data from January 2019 to April 2019 showed an updated RAH ICU median LOS of 2.3 days. The implementation of PDSA cycle 1 in July 2019 maintained this median LOS. The current run chart has yielded uncertain results because of the preliminary phase of this project. Qualitative data collected post interventions have demonstrated positive feedback from patients and staff. There were nil reported adverse events.

Conclusions

Several ideas to reduce ICU LOS for cardiac surgical patients were identified in a process map and tested in PDSA cycles, and adopted on the basis of overwhelmingly positive patient and staff feedback, as the run chart data were unclear.

Plans for next steps

At the time of writing, the project was ongoing and due for completion in July 2020, with regular reporting of LOS performance against national benchmarks. The results will be disseminated through a peer review publication, and improvements may be rolled out across other wings of the ICU.

Our project revealed LOS, readmission and return to theatre data entry errors. Lessons for the future include making smarter use of technology, looking for ICU LOS solutions through a forward-looking lens and resisting the temptation to seek historic solutions.

Project category: Acute Health Care

RESCCU: Wrong blood in tube

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Problem/Aims

The introduction of electronic health records, equipment and processes as part of the digital hospital program in 2016 correlated with a sharp rise in the number of wrong blood in tube (WBIT) incidents—from 12 per year in 2015 to 83 per year in 2016 and 118 in 2018.

The aim of this project was to reduce the number of WBIT incidents by 20% within 12 months.

Background

WBIT is an internationally recognised phenomenon used to describe blood collection errors where the blood in the tube does not belong to the person whose name is on the specimen label. It is essentially due to 'mis-collection' of the sample.

Measurement

The rising WBIT incidents captured the attention of senior managers, executives and the hospital Board. WBIT was recorded on the organisation's risk register, and these data are now reported through to the Board.

This quality improvement (QI) project's initial focus, as indicated in the title, was to Reduce Errors in Specimen Collection by Clinical Units (RESCCU). As the project evolved, there was a sharpened focus on reducing the rise in WBIT incidents throughout the hospital, especially in the Emergency Department (ED), which had consistently been the area with the highest volume of WBIT incidents.

Design

QI diagnostics resulted in a series of five interventions to apply; attempts were made to implement them using Plan, Do, Study, Act (PDSA) processes. Data were collected before, during and following completion of the 12-month project.

Strategy

Ideas became interventions; most ran concurrently, and where relevant, the learnings from one influenced the plan for the next.

Each intervention was put through a PDSA cycle, but it was only after we developed the communications material that the results of staff interviews were analysed and categorised, and this suggested we had been focusing on the wrong end of the phlebotomy process. We had been focusing on the labelling when the main issue was neglecting to use the digital wristband scanner before the blood was collected. Three of the 'top four' causes of WBIT were related to misuse (including absence of use) of the digital equipment required in the 'new world' of digital health. Therefore, this is what the training tried to emphasise.

The equipment audit validated what staff were saying in the corridors: 'The digital equipment is not working'. However, apart from the printers requiring an upgrade, the other digital equipment was working, but had not been maintained. An equipment checklist was developed and deployed.

Figure1. Diagnostics

Ishikawa Diagram

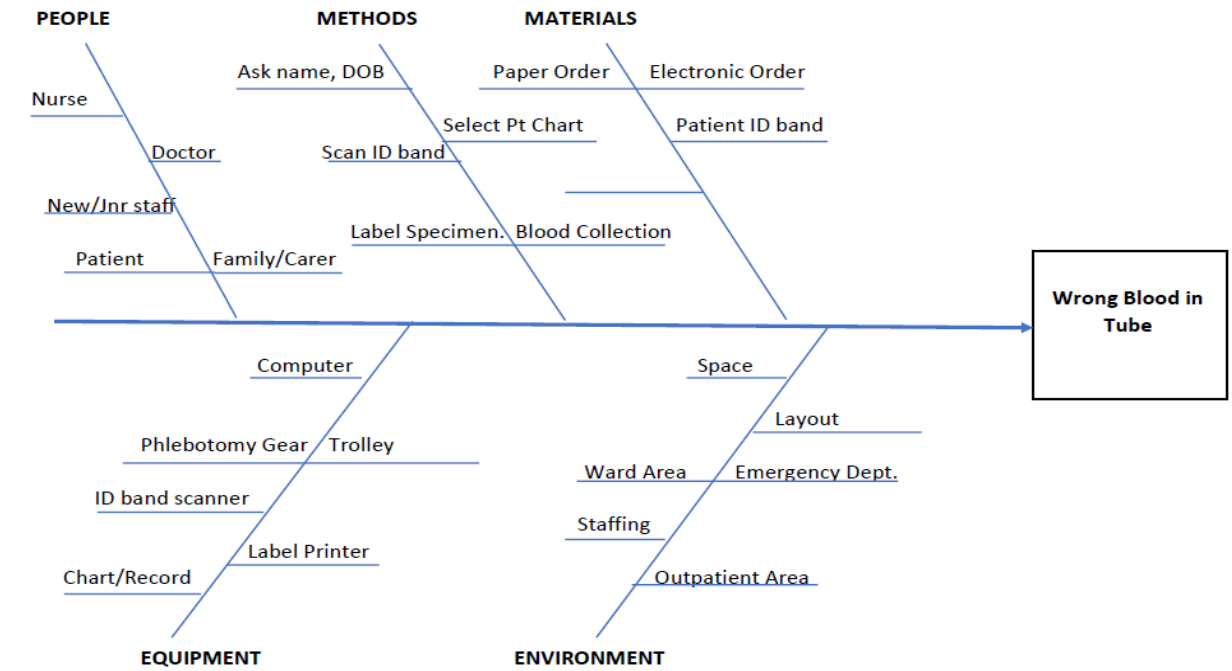
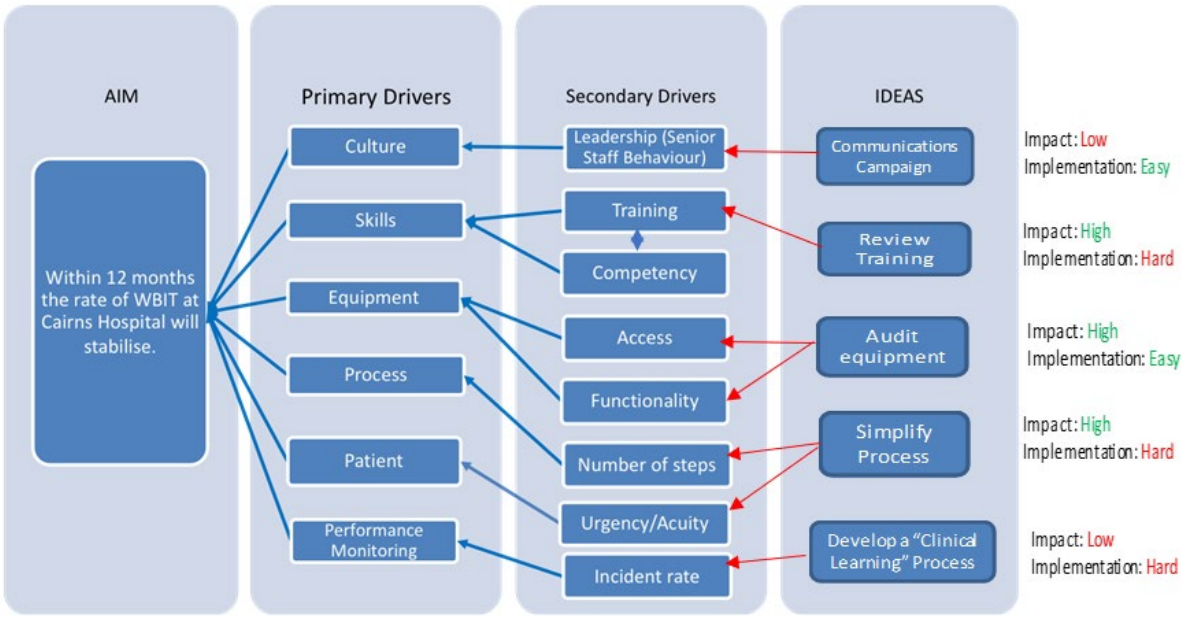


Figure 2. Driver diagram



Results

Whole of hospital WBIT
Target: A reduction from 118 per year (av. 10 per month) to 94 (av. 8 per month)
Outcome: An increase to 146 per year (av. 12 per month)
ED WBIT
Target: A reduction to 77 per year (av. 6 per month)
Outcome: An increase to 96 per year (av. 8 per month)

The idea to simplify the process was a valiant attempt, ultimately abandoned. It was apparent that the system and digital steps were beyond the ability of this group to change.

The collectors of the WBIT were encouraged to reflect on their technique and the sequence they had used in the blood ordering/collection process. While useful, the tipping point required for a change in practice by an entire cohort of clinicians remained elusive.

Conclusions

Despite the valiant efforts of a motivated, experienced team, the aim was unable to be achieved. One PDSA cycle per intervention is insufficient to result in the tipping point needed for sustainable change.

Plans for next steps

Advocate for structural changes including:

- allocation of trained, competency-assessed/maintained phlebotomists in the ED
- competency assessments for non-phlebotomy staff, including use of digital healthcare equipment
- use of clinical audit program to drive change
- continuation of recording, reporting and analysis of WBIT incidents.

Project category: Community

Improvement of influenza vaccination rates in patients with inflammatory rheumatic diseases

Prof Catherine Hill, The Queen Elizabeth Hospital, Central Adelaide Local Health Network
Ms Jodie Dawkins, Glenside Health Service, Central Adelaide Local Health Network, SA

Prof Catherine Hill MBBS MD MSc FRACP
Director, Rheumatology Unit
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Ms Jodie Dawkins
Quality Support Coordinator Mental Health
Glenside Health Service, Central Adelaide Local Health Network

Problem/Aims

The aim of this quality improvement project was to improve influenza vaccination rates among patients with inflammatory arthritis (rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis) and connective tissue disease using disease-modifying antirheumatic drugs (DMARDs), immunosuppressants and biologic agents (bDMARDs) by 50% within six months.

Background

Currently, many Australian adults are under-vaccinated. Australian studies have demonstrated that only 46.2% of Australian adults who are immunocompromised are vaccinated against influenza.[1] Rheumatology patients are at increased risk of influenza infection because of the combination of disease and immunosuppressant medication.

Measurement

A survey of patients was undertaken to determine influenza vaccination rates and potential barriers and reasons for not having a vaccination. We process mapped all the stages from the patient visiting the general practice to the patient attending the rheumatology outpatient department (OPD) clinic in order to identify barriers preventing these patients from receiving the influenza vaccine and potential areas for improvement. We conducted a review of the literature as

well as discussions with interstate rheumatologists at Monash Medical Centre who were also seeking to improve influenza vaccination rates. We held two brainstorming sessions with the team, which included rheumatologists, rheumatology nursing staff and OPD nursing staff, and also sought input from infectious disease physicians and general practitioners. Further barriers were identified and ranked by 15 specialist staff involved with rheumatology patients.

Design

One of the top five barriers identified was 'OPD clinic unable to identify unvaccinated patients electronically'; therefore, the decision was made to begin with identifying rheumatology patients that need the influenza vaccination.

Strategy

The strategy used in the first PDSA cycle was to ask each patient at weigh-in with the OPD nurse if they have had the influenza vaccine. The answer was recorded on the weigh-in and vital sign chart for the rheumatologist to review. This created two outcome/process measures:

1. the number of OPD clinic patients whose influenza vaccination status was known
2. recording of patients' influenza vaccination status

As the highest-ranked barrier was patient knowledge, identification of patients who had not received immunisation allowed nurses and doctors to start education on the need for vaccination.

Results

There was a demonstrated increase in influenza vaccination of OPD clinic patients with inflammatory rheumatic disease from 68% to 75–85% (25% improvement from baseline); and identification of patients' influenza vaccination status improved from 0% to 92.3%.

Conclusions

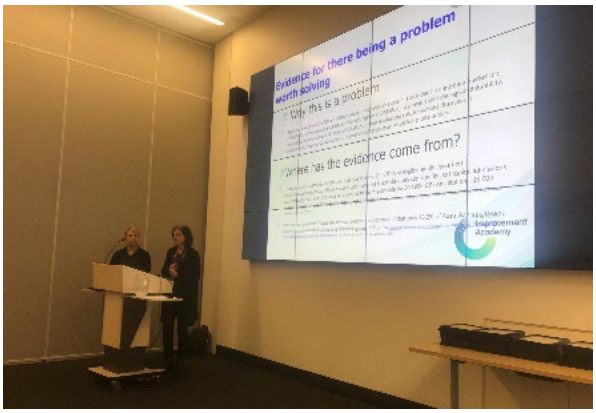
A simple but effective intervention was implemented to identify and record rheumatology patients' influenza vaccination status. Influenza vaccination rates in patients with inflammatory rheumatic diseases were improved by 25% from baseline, and identification of patients' influenza vaccination status improved by 92%.

Plans for next steps

Strategies for further improvement are to instigate a standardised clinical pathway to be implemented in February/March of each year (prior to the influenza vaccine becoming available), provide patient education via fact sheets from the Australian immunisation website in multiple languages, and improve general practitioner knowledge via sending standardised information from the OPD clinic.

References

1. De Oliveira Bernardo C, González-Chica DA, Chilver M, et al. Influenza immunisation coverage from 2015 to 2017: a national study of adult patients from Australian general practice. Vaccine. 2019;37(31):4268–74.



Project category: Community

Improving the patient journey:

Recognising advanced heart failure, referring to appropriate community resources and reducing hospital readmissions

Mrs Kate Roberts, Ms Lyn Chan and Dr Isuru Ranasinghe
Central Adelaide Local Health Network, SA

Pictured left to right: Isuru Ranasinghe, Ms Lyn Chan, Mrs Kate Roberts

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Ms Lyn Chan
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Problem/Aims

Health Round Table data suggest Royal Adelaide Hospital (RAH) patients have longer lengths of stay and higher readmission rates than comparable hospitals.

This project aimed, within six months, to identify 100% of patients with advanced heart failure (HF) admitted to the RAH Cardiology Service and ensure those meeting the criteria are enrolled in the Advanced HF Care Program. The stretch goal is to reduce length of stay and readmissions for these patients by 50% in that time.

Background

HF is the clinical syndrome where the heart's function cannot meet the body's demands. It affects approximately 600,000 adults. With an ageing population and rising rates of multiple co-morbidities, prevalence of HF is increasing. Nearly one in four patients hospitalised with HF are readmitted, and one in ten die, within 30 days of their initial admission. Hospitalised HF patients tend to have long and frequent hospitalisations and consume disproportionally large amounts of health resources, with $3.6 billion dollars spent annually and $2.7 billion due to hospital-based care.

Patients with advanced HF are a subgroup of HF patients that experience intractable, terminal symptoms with poor quality of life. Evidence suggests aggressive interventions in these patients are futile. Early identification and advance care planning with community-based HF care and follow-up is recommended as best practice. Such care is associated with reduced readmissions and shorter lengths of hospital stay. Better identifying patients with advanced HF and co-referring them to community-based HF programs, and other services such as palliative and aged care programs, may offer an opportunity to improve patient care and minimise unnecessary hospitalisations.

Measurement

Primary outcome measures were as follows:

- identification of patients with advanced HF admitted to the RAH Cardiology Service (Wards 4E1 and 4E2)
- referral rates to the Advanced HF Care Program.

Secondary outcome measures were as follows:

- referrals seen while inpatient
- enrolments in long-term HF programs
- stakeholder feedback.

Design

Stakeholder consultation identified several deficiencies in current care of patients with advanced HF. Informed by diagnostic methodologies and a literature review, the 'Tool for Advance Care Planning for Chronic HF' was developed, ensuring that it was simple to use and appropriately identified patients.

Strategy

The first PDSA cycle was a four-week trial of the tool with weekly audits to measure compliance. The second PDSA cycle was the development of a database to capture patient demographics and outcomes from the Advanced Program.

Results

A total of 28 patients with HF were admitted to the two cardiology wards over the four-week period. Of these, 11 (±40%) patients with HF completed the tool and 10 patients with advanced HF meeting referral criteria were appropriately referred to the Advanced HF Care Program. Of these patients, four were reviewed as inpatients and two were enrolled in the community HF program. During the lead-up to implementing the tool, there was a marked increase in referral to the HF program from other sources including private cardiology practices. We further identified several challenges to implementation, including (1) junior staff turnover requiring re-education and (2) insufficient resourcing of HF nursing staff, including adequate leave cover.

Conclusions

The project team developed and implemented an effective tool to identify patients with advanced HF and ensure they received best-practice community-based care. Implementation of the tool identified several deficiencies in current practice. Further efforts to improve care need to address these barriers as a large proportion of HF patients are currently failing to receive best-practice care.

Plans for next steps

To address the stretch goal of reducing readmissions, further refinement and use of the tool is needed via PDSA cycles. In addition, ongoing auditing is required to monitor readmission rates and lengths of stay for this patient cohort. A business case needs to be developed to address HF nurse staffing, cover and broader resourcing issues.

Project category: Hospital in the Home

QEII subacute hospital in the home (HITH) and acute HITH optimisation: Sustainably increasing bed capacity through effective hospital inpatient admission avoidance and early discharge

Leo Ross
QEII Hospital, QLD Health

Leo Ross, MSc Medicine (Res) (Usyd), B Occ Thy (UQ)
Director: Allied Health Services Executive Services, QEII and Community Based Services
QEII Jubilee Hospital | Metro South Health

Problem/Aims

Following ongoing media reports of a bed capacity 'crisis' in Metro South Health and the subsequent dismissal of the previous health service chief executive in April 2019, Metro South Health and QEII Hospital developed a bed capacity enhancement strategy in May 2019.

This project aimed to optimise the hospital HITH (hospital in the home) service. At least 10% of admissions were to be direct from the Emergency Department (ED). Beds were to be maintained at 85% occupancy (seven of eight HITH beds) with an average length of stay of 6-9 days and approximately 30-40 discharges per month for Q2-4 2019/2020. The service was required to maintain and improve all other benchmarked safety, quality and efficiency indicators within targets and produce activity of 58 QWAU (Queensland weighted activity units) per month with cost per weighted activity unit (WAU) less than $4,857 for cost effectiveness.

Background

Enhancement of the historical nursing-only QEII acute hospital in the home (HITH) service with limited utilisation and scope was justified, with reference to the literature around the cost effectiveness of this type of model and alignment with departmental and health service hospital

avoidance and community health integration priorities.

Measurement

A concept brief was approved for the creation of eight virtual subacute (rehab/geriatric) HITH beds and optimisation of utilisation of the eight existing acute HITH virtual beds. A budget of $2.15m was allocated for the service with clear outcome targets. Baseline monthly data for all measures were taken from the previous financial year where existing.

Design

Using contemporary quality improvement and redesign methodology, this was applied across the project. Specifically we wanted to ensure our diagnostic phase supported our assumptions and therefore our interventions.

Strategy

A mixed-methods participant action research service improvement and evaluation model was used in combination with multiple rapid improvement PDSA cycles to develop the project plan and model of care and for implementation. This was done collaboratively at all stages regularly with key stakeholders, staff, governance groups and the project team. A consumer engagement and co-design method was also attempted to ensure appropriate consumer input.

Results

Summaries of key outcomes are shown in Tables 1–3. Subacute service activity and throughput targets were exceeded, with average separations of 34 and average length of stay (ALOS) of 6.5 days generating 61.5 QWAU, despite lower Christmas/New year average occupancy of 66% (5.3 virtual beds). Expenditure was lower than budgeted, with cost per WAU exceeding target at $2,224 per QWAU. Hospital-acquired complications and other safety and quality KPIs were all reported at 0 or <3 by the service; however, verified coded data were not available at time of publication. An average of 18% of monthly admissions came direct from the ED. Acute activity improved similarly, with an increase in average occupancy to six beds (75%), with ALOS of 6.39 days and 47 QWAU per month. The occupancy drops reported were consistent with total hospital occupancy patterns for the period. Other outcome data were not available at time of publication.

Conclusions

Early results over the summer period indicate the service is clinically and cost effective; however, further longer-term evaluation is required.

Plans for next steps

Sustaining of the service model with regular monthly re-evaluation and stakeholder engagement continues.

Table 1. Summary of key outcome KPIs at 3 months post commencement (Nov-Jan) (Source: QEII Decision Support)

Sub-Acute HITH Evaluation Framework:

Service performance KPI:

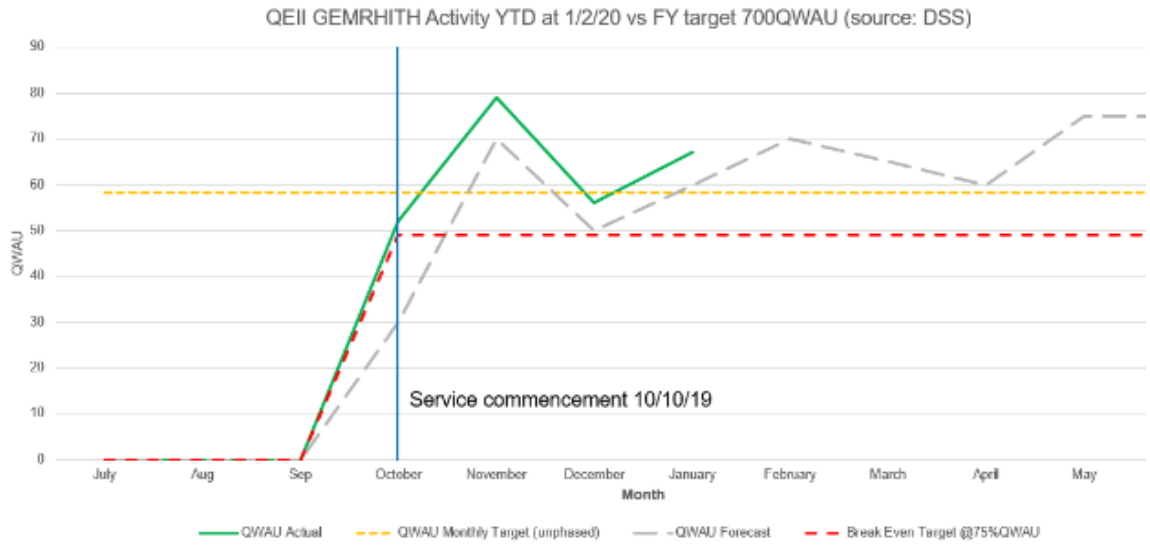
GEMRHITH ALOS YTD: **6.53 days**
Separations per month YTD average: **34.3**
Average virtual bed Monthly equivalents (summer/x-mas): **5.3 beds**
YTD Occupancy % of 8 Virtual beds (summer/x-mas): 66%
Activity (QWAU per month, YTD summer): **61.5** (target 58) 246 FYTD
Expenditure Actual YTD $547, 265 ($540k July-Sep preserved) (target $720k)
Cost Per QWAU YTD: **$2,224**
Facility HITH Occupancy 2%
ED Direct Admits **18%**

Safety and Quality KPI

Hospital acquired complications:
Falls: 1
Hospital acquired Pressure Injuries 0
Hospital acquired Delirium 0
Hospital acquired Infections 0
Medication Incidents 0
Meds pharmacy interventions TBA
Clinical Incidents: TBA
Compliments 9
Complaints 0
Readmissions unplanned 28 days: 1 (unrelated medical event)

Table 2. Activity-based funding generation outcomes at 3 months

Performance KPI Results YTD: Activity generation



Project category: Mental Health

Personal Safety Plan completion:

Supporting a safer environment for patients and staff at Forensicare

Lindy Bennett
Quality Manager, Forensicare, VIC

Lindy Bennett
Quality Manager
Forensicare, Victoria

Problem/Aims

Forensicare, the specialist provider of Victorian state-wide forensic mental health services, has historically recorded high levels of seclusion and restraint. In 2019, a seclusion review was undertaken, which found that seclusion rates were unacceptably high by contemporary standards. Recommendations focused on the need to apply all possible measures to prevent and minimise disturbed or aggressive behaviour, such as the Personal Safety Plan (PSP). A Board key performance indicator (KPI) was developed, setting a target of 100% completion of a PSP within 72 hours of admission. Monitoring of the KPI commenced in first quarter 2019-20, and the completion rate in Q1 was 5.7%. On further investigation, this unacceptable result was also reflected in audits that had been undertaken over the previous three years, which suggests that PSPs were not actively utilised to promote a safe environment. Action was required to address the poor completion rate.

The aim was to increase completion rate of PSPs from 5.7% in first quarter 2019-20 to 100% by the end of fourth quarter 2019-20.

Background

The PSP is a tool to focus patients and staff on developing a collaborative shared understanding of a patient's response to stressors or to feeling unsafe,

and strategies are identified that may be helpful in managing these responses. It promotes the idea of patient self-management and explicitly addresses how safety can be maximised and how threats can be mitigated from everyone's point of view. The PSP records triggers, early warning signs and de-escalation options.

Measurement

Various clinical practice improvement methods were used to initially diagnose problems leading to poor completion rates and identify potential strategies to improve compliance. These comprised process mapping the completion of PSPs, brainstorming contributing factors, and organising these factors through a cause-and-effect diagram and creation of a driver diagram as a tool to help organise the actions that could result in improvement. A Pareto chart assisted with focusing on areas of improvement that would have the greatest effect.

The impact of these multiple actions was monitored by weekly auditing of completion of PSPs for new admissions by the health information manager. Completion rates were tracked over the remaining three quarters of 2019-20 and reported back to the project group.

Following patient consultation, modifications to the format of the PSP were made and then subsequently tested through a pilot project run at prison sites and in the inpatient units.

Design

A range of actions were undertaken, operationalising the ideas generated through the brainstorming phase and refined by utilising a Pareto chart. These comprised:

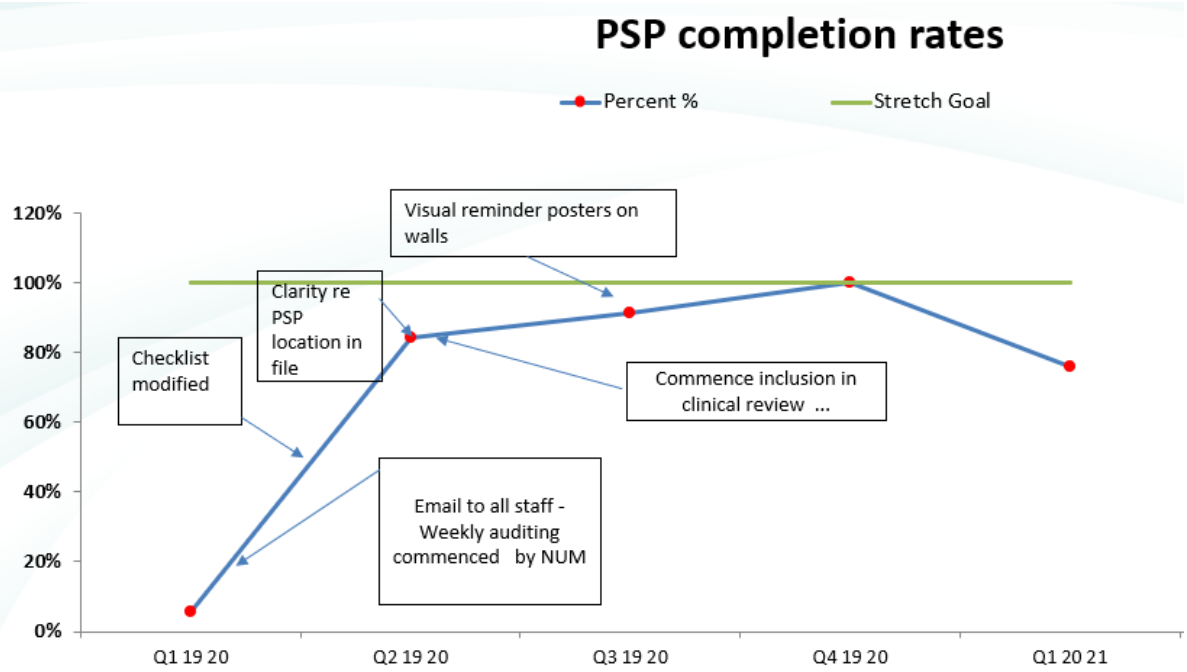
- weekly auditing of new admissions by night staff, reported to nurse unit manager, with follow-up emails reminding staff to complete PSPs (trialled in one unit, and given positive result, extended to other units)
- modification to admission checklist to give greater prominence to PSP completion
- inclusion of discussion of PSP structured into regular clinical review
- clarification of location for PSP within the electronic record by Health Information – so able to be easily accessed by staff when patient showing signs of escalation and also facilitating the auditing process with concomitant confidence in results
- creation of posters reminding staff of the requirement to complete the PSP (also included with other critical items)
- updating PSP procedure to clarify responsibilities for completion and provide details on how to record refusal so document not recorded as incomplete with no explanation (and therefore not counted in auditing process)
- consultation with patient review group to identify barriers with current PSP format and subsequent reworking of document, which was then piloted in both prison and inpatient settings, seeking patient and staff feedback
- justification for review of KPI to remove the 72-hour completion requirement on the basis of patient acuity submitted to Board and approved.

Strategy

The impact of these changes in encouraging patient compliance is yet to be further tested to determine impact on completion rates through a PDSA cycle.

Results

Completion rates of PSPs increased from 5.7% in Q1 2019-20 to 100% in Q4 2019-20.



Conclusions

The multi-pronged approach to address the low completion rates based on quality improvement methodology yielded a positive result. This involved a combination of system changes, communication of clear expectations to staff, integration into clinical review processes and establishment of reminder systems. Closer review of the PSP completion process also highlighted the challenges of completing PSPs within 72 hours when patients are acutely unwell and prompted a review of the KPI. Although not affecting this project, justification for removing the 72-hour requirement was proposed and accepted by the Board going forward.

Plans for next steps

Sustaining the gain will be the challenge. Results for Q1 2020-21 already show a slight decline in completion rates, so continued use of PDSA cycles will be crucial to maintain high levels of compliance. Robust auditing, with recommendations that are tracked through to completion with clear governance overseeing the process, will be critical.

The next phase of improvement will focus on introduction of a service-wide generic PSP form, which will be further piloted with patients and staff as part of the PDSA cycle. This will be accompanied by targeted staff education and an evaluation of the quality of content of plans to ensure PSPs can be used effectively to achieve what they were originally intended for—empowering patients to interpret and respond to warning signs, and for staff to be aware of actions that may assist to de-escalate difficult situations, which can compromise safety of both patient and staff and ultimately result in seclusion for the patient.

Project category: Obstetrics

Raising preterm birth awareness

Dr Lucy Simmonds
South Australian Health & Medical Research Institute, SA

Dr Lucy Simmonds
Postdoctoral Research Fellow
Women and Kids | SAHMRI South Australian Health and Medical Research Institute

Problem/Aims

In South Australia, one in 10 babies is born preterm. These babies often require long periods in intensive care and may have short- and long-term health and developmental problems.

Our aim was to increase preterm birth awareness in pregnant women, with the ultimate goal of improving pregnant women's omega-3 status, if low, to reduce their risk of preterm birth.

Background

Each year around 15 million babies worldwide are born preterm (<37 weeks' gestation). Preterm birth complications are the leading cause of death for children under five years of age and are directly responsible for more than 85% of all health complications in early life. Despite many efforts to reduce preterm birth, rates continue to rise. It is crucial to find and implement successful strategies to prevent preterm birth. While very few interventions have been effective, omega-3 fatty acid supplementation during pregnancy is one of the most promising. The Cochrane review showed that supplementation of omega-3 fatty acids (mostly fish oil) can reduce the risk of preterm birth (birth <37 weeks) by 11% and early preterm birth (<34 weeks) by 42%.[1]

Measurement

Consumer engagement with pregnant women revealed low awareness around preterm birth and its consequences (e.g. only one-third of respondents knew that

premature birth was birth <37 weeks' gestation).

Design

Our intervention was an awareness campaign through media, with supporting materials developed in collaboration with clinicians, the SAHMRI Media Team and the SAHMRI Women and Kids Community Board.

Strategy

We used Plan, Do, Study, Act (PDSA) cycles to complete two rounds of awareness campaigns through the media.

Results

The preterm birth awareness campaign in the first PDSA cycle received extensive national and international media coverage, including the ABC Health Report, with an associated piece in The Conversation being read more than 8,000 times in the first week.

The second PDSA cycle resulted in media coverage in over 35 media outlets across radio, online and print, including The Advertiser, Daily Mail Online and Yahoo! News, with the associated report receiving over 7,000 downloads in the first weeks after publication.

Conclusions

This project by SAHMRI Women and Kids raised awareness about preterm birth and its consequences in pregnant women.

Plans for next steps

Using the feedback from our consumer engagement, we are designing a screening program to identify the pregnant women (i.e. women with singleton pregnancies who have a low total omega-3 status <4.2% of total fatty acids in whole blood[2]) who will benefit from fish/algal oil supplementation.

We will then implement and evaluate the effectiveness of the screening program to identify and treat those women with low omega-3 status in order to reduce their risk of preterm birth.

References

1. Middleton P, Gomersall JC, Gould JF, et al. Omega-3 fatty acid addition during pregnancy. Cochrane Database Syst Rev. 2018;11(11):CD003402.

2. Simmonds LA, Sullivan TR, Skubisz M, et al. Omega-3 fatty acid supplementation in pregnancy - baseline omega-3 status and early preterm birth. BJOG-an international journal. 2020;127:975-981.

Project category: Paediatrics

A culture change:

A quality improvement initiative to reduce blood culture contamination within the neonatal unit

Dr Elizabeth Allen
Women's and Children's Hospital, SA

Dr Elizabeth Allen
Neonatal Fellow
Women's and Children's Hospital
WCHN, Adelaide SA

Problem/Aims

An audit of blood culture contamination rates within the neonatal unit revealed that although the overall rate was below the standard benchmark of 3% at 2.01%, there was a significant variation between specific months. The highest rate observed was 5.7%.

This project aimed to eliminate spikes in monthly blood culture contamination rates (variation) and reduce overall rate of contamination from 2.0% to 1.0% (50% reduction) by February 2020.

Background

Blood cultures are the gold standard test used to detect bacteraemia in patients suspected of having serious infections. Blood culture contamination can lead to initiation of unnecessary antimicrobial treatment, further laboratory tests, increased length of stay and increased cost.

Measurement

Interventions focused on standardising processes to align with best practice were developed using process mapping and cause-and-effect diagrams. The rates (%) of blood culture contamination measured on a monthly basis, as well as for the baseline and study periods overall, were used as the outcome measures for the project, and compliance rates with interventions were used as process measures.

Design

Interventions included:

1. inoculation of blood culture bottles, with introduction of transfer device
2. preparation of skin for peripheral intravenous (IV) cannula insertion
3. aseptic technique education package
4. optimising volume of blood collected for blood culture.

Strategy

This quality improvement study used Plan, Do, Study, Act (PDSA) cycles with ongoing data collection across the study period of April 2019 to February 2020. Compliance with change of practice measures (process measures) was assessed with observational audits throughout each PDSA cycle.

Results

Process measures: Compliance with the standard process for inoculating blood culture bottles (PDSA cycle 1) improved from a mean level of 50% to 100%. Standardised preparation of skin for peripheral IV cannula insertion (PDSA cycle 2) improved from a mean level of compliance of 50% to 95%. After implementation of the aseptic technique education package (PDSA cycle 3), scores on the test administered increased from a mean of 39% (pre-training test; n = 10) to 92% (post-training test; n = 10) ($p < 0.001$). After implementation of a standardised process regarding the recommended volume of blood collected for culture (PDSA cycle 4), a minimum of 1 mL of blood was collected in 94% of blood culture collection events (n = 450) (mean 1.1 mL, range 0.5–3.5 mL).

Outcome measures: The overall rate of blood culture contamination for the study period (12 April to 31 October 2019) was 1.02%. The highest individual monthly contamination rate was 1.8% occurring in June 2019 with no further spikes (astronomical data points) observed during the study period. Special cause variation occurred after the implementation of the PDSA cycles. During the baseline period, the BCC rate was 2.0% and decreased to 1.0% post-interventions implementation.

Conclusions

This quality improvement study improved adherence to better clinical practices through changing how blood culture bottles were handled, standardising how skin was cleaned, optimising blood volume for cultures and introducing an aseptic technique education package. These interventions that focused on standardising practices around collection of blood cultures in neonates were associated with fewer contaminants.

Plans for next steps

Data collection will continue to assess whether this project is associated with a sustained improvement in blood contamination rates.

Project category: Paediatrics

A review of sleep and settling supports across Child and Family Health Services (CaFHS)

Ms Fiona Grant and Ms Penny Rowe
Women's and Children's Health Network, SA

Pictured left to right: Penny Rowe, Fiona Grant

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Child and Family Health Service
Women's and Children's Health Network (WCHN)

Ms Fiona Grant
Nurse Educator
Child and Family Health Service (CaFHS)
Women's and Children's Health Network (WCHN)

Problem/Aims

In 2018, Child and Family Health Service (CaFHS) clinicians provided over 76,000 consultations with families. Over 47,000 consultations were provided for infants and children 0–18 months, including over 10,000 consultations regarding sleep and settling issues for infants and children in this age group. The organisation has identified through anecdotal evidence received from consumers and CaFHS clinicians, along with review of some sleep and settling services, that CaFHS is not the first or the main contact regarding these issues.

The aim of this project is to review consumer and clinicians' knowledge of sleep and settling services provided by CaFHS and implement evidence-based and up-to-date practice changes for all CaFHS clinicians to ensure that consumer needs are met.

Background

With the increasing availability of online parenting supports, the information provided can be varied, conflicting and at times confusing. Infant and toddler sleep patterns and understanding toddler behaviours remain common issues for parents and caregivers, with a wealth of information available in all modes of communication. A literature search was undertaken, focusing on current research regarding sleep and settling issues for infants and children. One study revealed

that 16–38% of parents reported to maternal and child health clinicians that they had sleep problems within the first 0–12 months of age.[1] Infant and toddler sleep and settling issues have associated links to paternal stress, maternal depression, and overall poorer caregiver physical and mental health issues.[2]

The demands and expectations placed on parents and currently available parenting advice can lead to unrealistic expectations about infant and toddler sleep and settling.[3] Providing evidence-based care regarding paediatric sleep has been described as challenging for clinicians because of the lack of sufficient training and education in this area.[4] CaFHS must work in partnership with families to deliver health promotion activities in relation to sleep and settling and provide support for parents.[5] With over 20% of CaFHS consultations provided to infants and children aged 0–18 months in 2018 regarding sleep and settling, this evidence and recommendations must be taken into account when reviewing current supports for consumers and education opportunities for CaFHS clinicians.

Measurement

A systematic review of service data from organisational performance reports provided the initial information on the problem. This data analysis highlighted the extent of consumer engagement with CaFHS in relation to sleep and settlings issues.

Initially, the aim of the project was to examine sleep and settling issues across the 0–18 months age range. Once the data were reviewed, it was noted that many consumers did not access CaFHS for sleep and settling support beyond 9–12 months. The initial aim of the project was redirected to examine sleep and settling issues for the 0–12 months age range.

Design

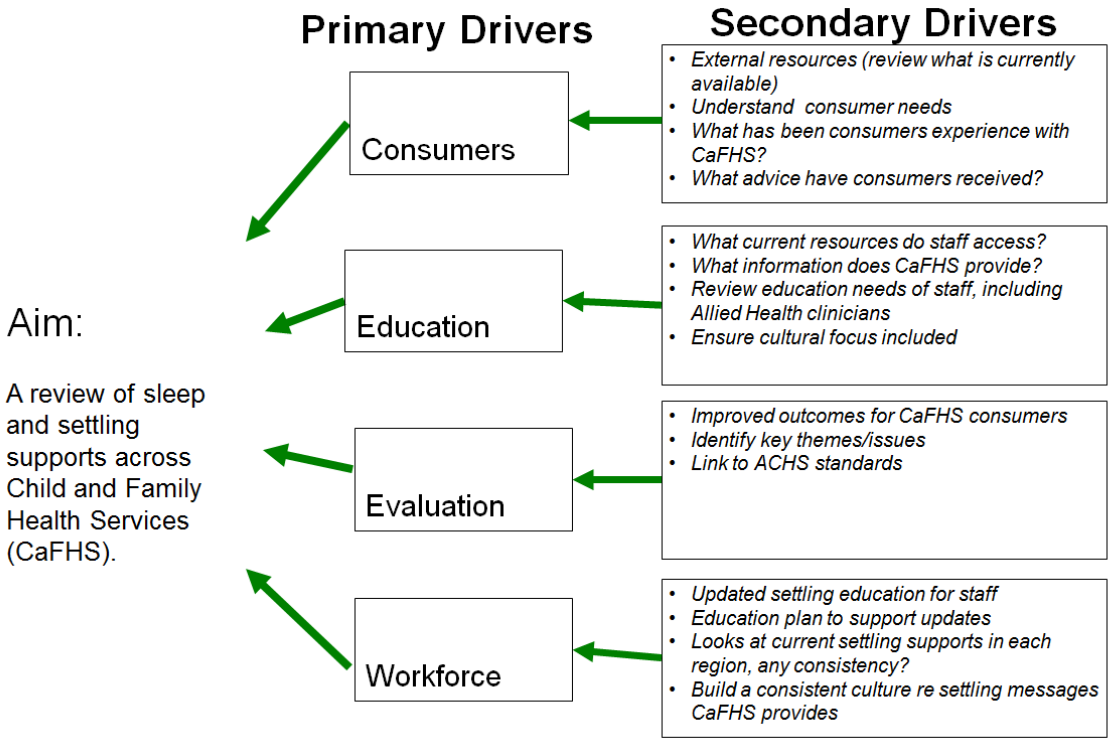
The initial design involved a process mapping exercise, along with two consumer surveys and a survey for CaFHS clinicians. With a group of senior CaFHS clinicians and the manager for service improvement, these activities explored the main issues influencing sleep and settling services and meeting the needs of our consumers.

Process mapping: A cause-and-effect diagram to prioritise the focus of the project

It became evident through a review of the consumer and clinician SurveyMonkey questionnaires that some similar themes were emerging. The question determining what the most valuable information for consumers is in regard to sleep and settling demonstrated these similarities. This included ranking 'ways of settling' and 'understanding crying behaviours' as valuable information sources. We also noted that consumers ranked 'parent education' as the most valuable source of information and clinicians ranked this as fifth.

Strategy

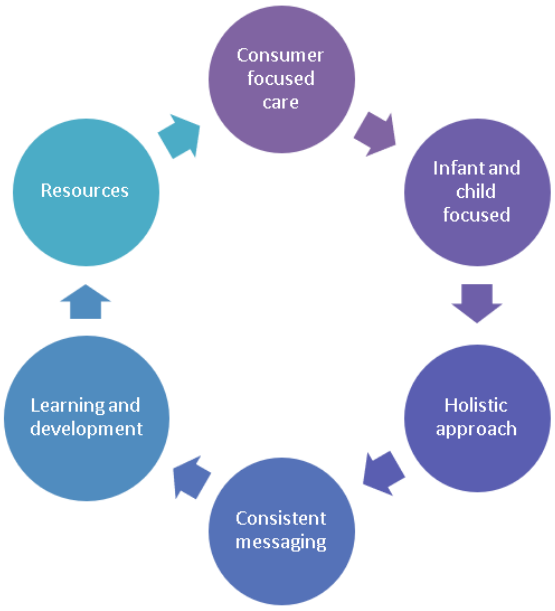
From evidence such as this and the large volume of feedback comments received, this project will continue to evolve using Plan, Do, Study, Act (PDSA) cycles.



Results

The results from the survey questionnaires and along with a survey through the Parent Helpline (PHL) demonstrated a need for a consistent, consumer-focused and evidence-based approach to supporting infants, children and their families. These common themes across all data collected provide a strong platform for further expansion of this approach. Based on the initial results, these themes include understanding infant crying, sleep patterns and ways of settling infants, and children and parent education. These results can be demonstrated through the driver diagram below.

The diagram on the right also summarises the initial findings of this project and highlights the need to link all emerging themes together to ensure a holistic approach to achieve the best outcomes for our infants, children and families.



Conclusions

Consumer-focused care is essential for all CaFHS clinicians. The review of CaFHS sleep and settling supports will continue. Prior to commencing this project, the aim included a review of what other resources CaFHS consumers access for sleep and settling support. These resources are too numerous to review within this stage of

this project and will be reviewed in the next phase.

Plans for next steps

Moving forward, the main enhancement to current CaFHS service provisions is to ensure all consumers have access to consumer-focused and consistent information regarding sleep and settling by June 2020. The following practice enhancements will be proposed.

In the first PDSA cycle:

- confirmation that staff are competent and equipped with best-practice evidence regarding sleep and settling support to support parent education, as highlighted throughout the diagnostic stage
- maintenance of working partnerships with Adelaide University, Department of Psychology, and their current research regarding sleep and settling issues, along with understanding crying and the impact on infants and children (commenced in October 2019)
- establishment of CaFHS sleep settling 'champions'. A representative from each regional area of CaFHS to lead and support clinical updates and practice changes will commence December 2020. This will be commencing following clinician feedback regarding the need to ensure a peer-to-peer education support framework
- establishment of a working group including CaFHS nursing and allied health clinicians, CaFHS clinical leadership, and consumer representatives to ensure a holistic approach to sleep and settling supports. This will commence January 2020.

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Project category: Paediatrics

Increasing mothers' own milk use and breastfeeding in the neonatal unit

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Women's and Children's Health Network (WCHN), SA

Pictured left to right: Laura Summers, Jennifer Gillis, Jacqueline Miller

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Problem/Aims

At the Women's and Children's Hospital (WCH), there are low rates of breastfeeding at discharge for preterm infants. In infants born <32 weeks' gestation or <1,500 g, baseline data suggest a median incidence of 70% of infants receiving exclusive human milk (by direct breast feeding or alternative device) at discharge home or transfer from our neonatal service. This is lower than late preterm infants (77%) and significantly less than full term infants (±93%).

This project aimed to improve the proportion of preterm infants born <32 weeks' gestation or weighing <1,500 g who receive exclusive human milk on discharge or transfer from the neonatal service.

Background

It is well established that human milk, especially mothers' own milk (as opposed to donor milk), is the gold standard for feeding infants because of its nutritional and immunological properties.[1] This is particularly true for our smallest preterm infants—those born <32 weeks' gestation or weighing <1,500 g, as human milk protects against necrotising enterocolitis and late-onset sepsis.[2]

There are clear evidence-based practices that are known to help mothers of preterm infants to breastfeed, including early (within six hours of birth) and regular expression (at least eight times a day).[3,4,5]

However, it is easy for women to slip through the gaps of neonatal and postnatal responsibility and miss out on the support they need from health professionals.

Measurement

A baseline audit of 20 women over 2.5 months revealed a low rate of women meeting the evidenced-based practices known to enhance breastfeeding success:

- 11/20 expressed milk within six hours of birth
- 6/20 received antenatal education on breastfeeding
- 11/20 women received correct advice regarding frequent expressing
- no women expressed the recommended number of times per day.

Design

This quality improvement initiative commenced in June 2019 and is due for completion in December, with data collection continuing until all infants are discharged (approximately March 2020).

A group of stakeholders representing staff from the areas of Antenatal, Delivery Suite, Postnatal, Midwifery Group Practice, Multiple Births, Maternal Foetal Medicine, Neonatal Nurseries and Theatre workshopped the issues. A woman's journey through the health system was mapped, and then used to identify the barriers or problems to exclusive breastfeeding.

Causes were collated into categories and participants used multi and weighted voting, as per the ACHS methods[6], to determine the highest priorities.

Strategy

Three PDSA cycles were initially planned to address the top priorities:

1. an expressing journal for mothers,
2. a lactation assessment tool for staff, and
3. a case note sticker re early expressing in the delivery or recovery rooms. This sticker included:
    a. Early expressing - This was aimed at expressing within six hours of birth (ideally within the first two hours)
    b. A sticker in the case notes to be completed before transfer for Postnatal Care

It was inconclusive as to whether the above strategies made a difference to long term milk supply.

Six out of 11 women who participated provided exclusive breastmilk until discharge. All women provided some breastmilk. The trial however, was seen to improve early expressing rates, with an audit of 20 women in 2020 showing rates of expressing early post birth increased from 55 % to 70 % of women expressing within the first six hours (eight of these women expressed within the first two hours). This trend of increased early expressing frequency continued into 2021.

A further PDSA cycle was commenced in 2021 with the aim of ensuring all babies separated from their mothers are expressed within the first two hours post birth. Results from this PDSA cycle are still ongoing.

Results

A run chart of the proportion of infants discharged or transferred from the WCH neonatal nurseries is shown in Figure 4. The median rate before any intervention was 70%, and this has increased to 80% since the creation of a dedicated Lactation Consultant (LC) position.

Two PDSA cycles have been conducted to date; however, results of these will not be apparent until the end of the year because of the three-month lag time between birth and discharge.

Separate evaluation of the two completed PDSA cycles indicates:

• an increase in the number of women meeting frequency of expressing guidelines from 2 to 14 out of a sample of 28
• staff using the assessment tool to discuss lactation progress with mothers approximately 69% of the time (31 of 45 days with five women).

Conclusions

A dedicated LC position has increased median breastfeeding rates at discharge by 10%. Early indications of PDSA cycles indicate success in raising awareness of breastfeeding in both parents and staff. The proportion of women meeting the frequency of expression recommendations has so far increased from 7% to 50%.

Plans for next steps

A further PDSA cycle aimed at addressing early expressing in recovery/postnatal will be implemented in December, and evaluation and refinement of interventions will continue until March 2020.

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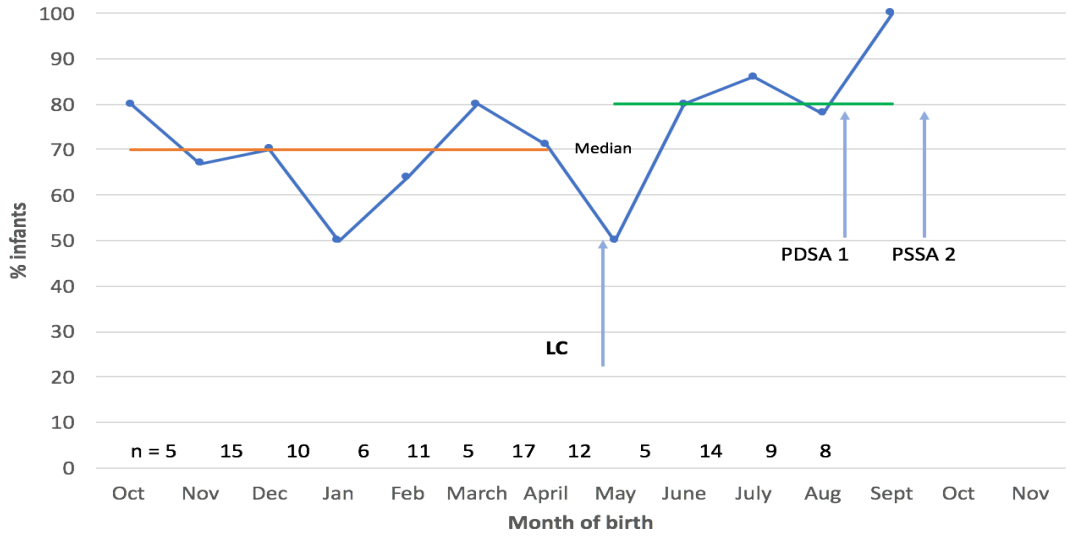
Proportion of infants discharged on exclusive human milk (median in orange and green)



Project category: Paediatrics

Preventing hypothermia in preterm infants during the Golden Hours:

A quality improvement initiative

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Royal Hobart Hospital, TAS

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Paediatrician
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Problem/Aims

Admission hypothermia for preterm infants was found to be a significant issue at our centre (Neonatal and Paediatric Intensive Care Unit [NPICU], Royal Hobart Hospital), and staff raised concerns that the recent implementation of delayed cord clamping as standard practice may further contribute to hypothermia.

This project aimed to reduce the rate of hypothermia in the first hours of life for premature infants (⩽34 weeks' gestation) born at the Royal Hobart Hospital as part of a Golden Hours quality improvement initiative.

Background

The World Health Organization defines neonatal hypothermia as an infant with a core body temperature <36.5°C.[1] Thermoregulation is recognised as a vital component of the care of all infants after birth, with preterm infants at particular risk of hypothermia and its consequences. There is significant evidence of poorer neonatal outcomes associated with hypothermia in preterm infants.[2]

Measurement

Data were collected via a retrospective review of patient digital medical records to determine our unit's historical rate of admission hypothermia in preterm infants. As part of the multidisciplinary Golden Hours Clinical Practice Improvement group in our neonatal unit, we determined that a

reduction in the rate of hypothermia for preterm infants would be a focus for quality improvement. Process mapping was undertaken to help determine at which stages of preterm infant delivery and stabilisation hypothermia may occur, and to identify areas for potential improvement. Several suggestions arose in discussion among the Golden Hours group, and a method for prospective data collection was devised. Brainstorming, and multi and weighted voting, as well as literature review, were used to identify high-priority change ideas. Other stakeholders were involved, including obstetric, midwifery, anaesthetic and peri-operative services.

Design

A Golden Hours checklist was devised to act as a diagnostic tool and to introduce routine temperature monitoring at multiple stages of the stabilisation and admission process. Other planned interventions include standardising the use of NeoWrap occlusive wrapping for all preterm infants, increasing theatre temperature to $\geqslant$25.0° C for all Caesarean sections, introducing a new transport cot with more reliable thermoregulation capabilities, and the use of humidified gases during resuscitation.

Strategy

Interventions will be implemented and tested using multiple PDSA cycles, initially at elective term Caesarean deliveries. Prospective data collection will continue and a run chart will measure the effectiveness of our interventions over time.

Results

Through the use of run charts, we hope to see a reduction in the rate of admission hypothermia to less than 10% without an associated increase in hyperthermia rates (primary balancing measure). We will continue to collect prospective data.

Conclusions

This is an interim report of a recently commenced quality improvement (QI) project. Utilising recognised QI methodology, we aim to see a significant reduction in admission hypothermia rates for preterm infants born at our centre without concomitant increase in hyperthermia rates.

Plans for next steps

We also aim to demonstrate that interdepartmental QI is achievable, and can effect positive outcomes for clinical care in our unit, leading to further QI initiatives in our department.

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Project category: Paediatrics

Preventing neurological injury and improving longer-term outcomes in preterm infants (PINI) in South Australia through closing the evidence-to-practice gap

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Women's and Children's Health Network, SA

Pictured left to right: Charlotte Groves, Angela Cavallaro, Amy Keir and the Honourable Steven Marshall (Premier of South Australia)

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Problem/Aims

The incidence of severe perinatal brain injury in South Australia is higher than that reported for the rest of Australia. In 2015, approximately 7.4% of infants <32 weeks' gestational age (GA) in South Australia experienced a grade 3-4 intraventricular haemorrhage compared with 3.8% in other centres (Australian and New Zealand Neonatal Network data, unpublished). During a national implementation program to support the use of magnesium sulphate, use was up to 90% at the Women's and Children's Hospital, but has since fallen to 50%. In addition, baseline data indicated that up to 80% of preterm infants were admitted to the Women's and Children's Hospital with a temperature outside of the normothermic range.

This project aimed to decrease the rate of severe perinatal brain injury by 50% in preterm babies <32 weeks' GA in South Australia by June 2022, by improving the use of magnesium sulphate in eligible women to >80% in South Australia by June 2022 (Project 1), and decreasing the percentage of infants <32 weeks' GA and/or <1,500 grams with an admission temperature <36.5°C to <20% by June 2022 (Project 2).

Background

In the South Australian perinatal care setting, there are a number of clinical

practices that are not as well used as they could be, leading to an evidence-to-practice gap. These practices include the use of magnesium sulphate in women with threatened preterm birth and preventing neonatal hypothermia on admission to the neonatal unit. Improvements in application of these practices are likely to lead to reduced numbers of infants experiencing perinatal brain injuries and improve their longer-term outcomes.

Measurement

Measurements commenced in October 2018, with a total of 151 babies born <32 weeks included to date.

Project 1—Magnesium sulphate: The primary outcome measure was percentage of eligible women receiving magnesium sulphate prior to preterm delivery (<32 weeks' GA). The process measure was compliance with the local protocol. Balancing measures were any reported adverse effects related to administration of magnesium sulphate.

Project 2—Admission temperature: The primary outcome measure was the incidence of hypothermia (axillary temperature <36.5°C) in admitted infants <32 weeks' GA and/or <1,500 grams. The process measure was compliance with the protocol. The balancing measure was unintended hyperthermia.

Design

For Projects 1 and 2, administration of magnesium sulphate in eligible women and recording of the incidence of hypothermia in admitted infants <32 weeks' GA and/or <1,500 grams, respectively, were instigated.

Strategy

Standard Plan, Do, Study Act (PDSA) models were used for both projects.

For Project 1, a working group was established to identify barriers to the administration of magnesium sulphate. It identified 47 blocks to the administration of magnesium sulphate and narrowed this down to five key blocks (Figure 1). Two interventions have been implemented with associated PDSA cycles.

For Project 2, a staff working group was established to identify causes of hypothermia at preterm delivery. The causes were narrowed down to five as voted by the group. Five evidence-based interventions were identified through a literature review, observational audits and process mapping. The first three have been implemented with associated PDSA cycles.

Results

Preliminary results indicate an improvement from the baseline 50% to up to 100% of potentially eligible women are now receiving magnesium sulphate (Figure 2).Preliminary results indicate an improvement from the baseline of 20% to 70% of admitted preterm infants are now in the normothermic range.

Conclusions

In the early stages of this quality improvement initiative, the use of magnesium sulphate administration and the incidence of hypothermia at admission have improved.

Plans for next steps

Work is underway on addressing the use of antenatal steroids (Project 3) and reducing the rate of late-onset sepsis (Project 4) as part of the overall PINI program.

Figure 1. Processing mapping for Project 1: Improving the use of magnesium sulphate in eligible women

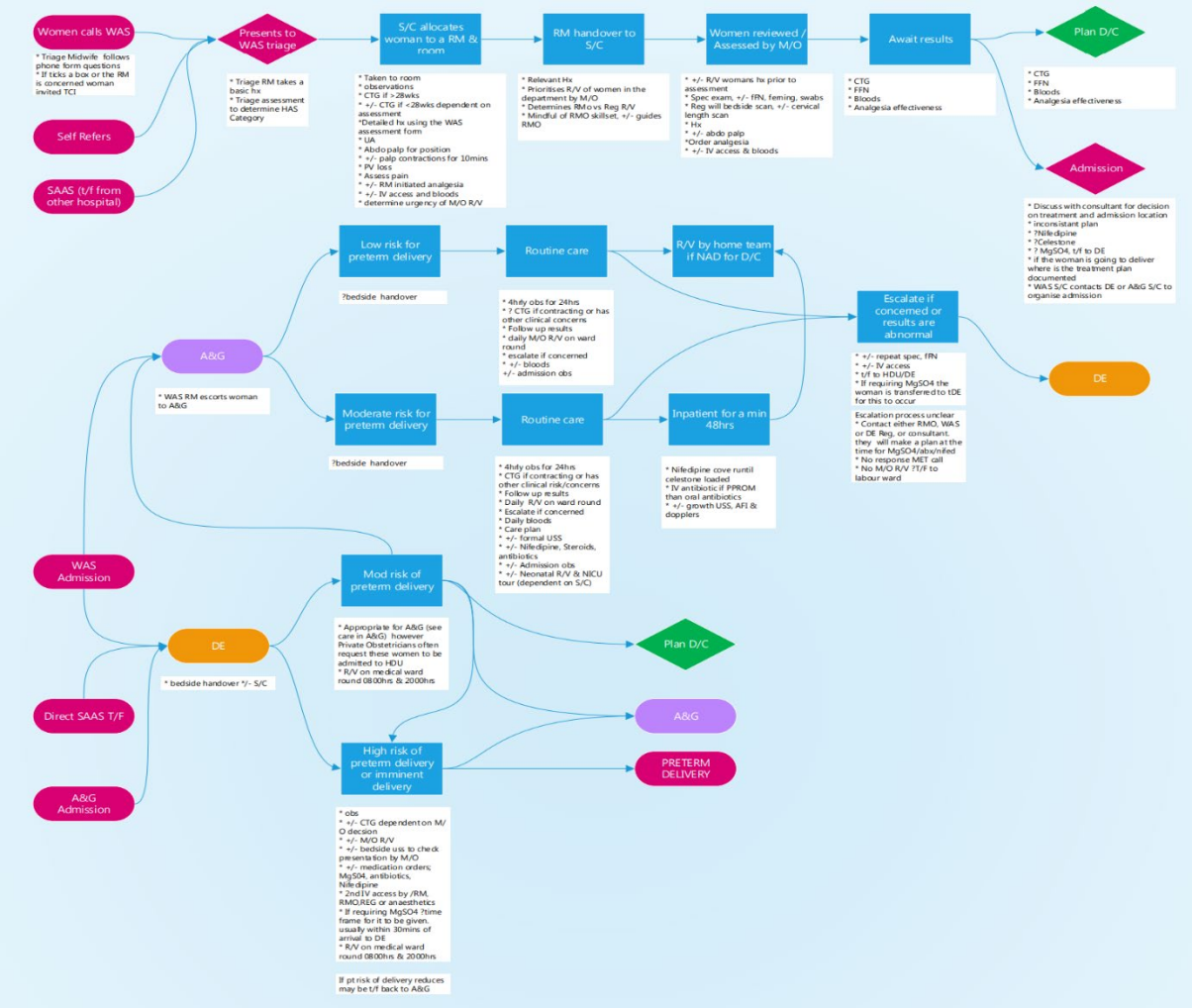
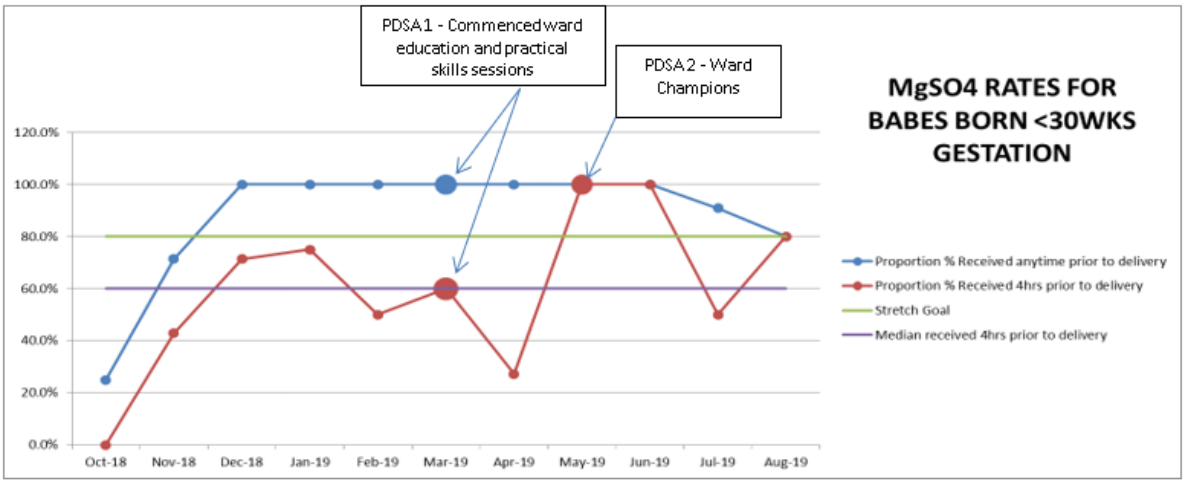


Figure 2. Run chart for Project 1: Improving the use of magnesium sulphate in eligible women



Project category: Partnering with Consumers

Improving patient experience in the Emergency Department

Megan Bool and Ms Vicky Bates
West Moreton Hospital and Health Service, QLD

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Problem/Aims

Ipswich Hospital is a major acute non-tertiary facility with a 341-bed capacity located 40 kilometres from Brisbane. Ipswich Hospital Emergency Department (ED) has seen significant growth over the last five years, demonstrated by 50,493 presentations in the year 2012-2013 increasing to 67,127 in the year 2017-2018, with further growth predicted.

The aim of our project is to improve the ED patient experience by reducing the number of complaints received by 10% in six months to correlate with the West Moreton Health Strategic Plan for person-centred care.

Background

There is currently limited literature relating to improving the ED patient experience, specifically in relation to reducing complaints, with current benchmarks not possible. Limited Australian data from the health service ombudsman report that nearly a quarter of complaints concerned communication, with over half directly related to clinical care and treatment issues. Similarly, UK complaints data revealed most complaints were in relation to communication problems concerning attitude and behaviour.[1]

Patient satisfaction does not solely come from the clinical care provided; it can be dependent on patient-provider relationships, nurses' interpersonal skills, perceived staff attitudes, and provision of information.[2] Literature has also identified

that qualities, including friendliness, courtesy, respectfulness and compassion, in the ED contribute to patient satisfaction.[1]

Waiting time is considered an important determinant of patient satisfaction. Factors that contribute to a positive patient experience include the duration of waiting time, patients' evaluation of care by doctors and nurses, the organisation of ED staff, and the quality of received information.[3]

The rationale for reviewing complaints within the ED is that patient satisfaction is a quality indicator. Addressing main themes that contribute to patient dissatisfaction can help to better understand health service performance and be used to improve patient care in a challenging environment.

Measurement

Baseline complaints data were initially collected from 1 January 2018 to 31 August 2019, with analysis of the 332 complaints reported. This analysis determined specific themes and trends of patient complaints and allowed additional considerations for specific department factors, including the rollout of the digital health system.

To understand the problem within the ED, staff were involved in a cause-and-effect exercise to determine their perceptions behind the patient experience. Staff were asked over multiple shifts what elements contribute to the ED patient experience and complaints, the results of which were developed into a cause-and-effect diagram.

A short questionnaire was designed asking patients about their expectations and experience, what affected their time in the ED, and how they felt processes could be improved.

Questionnaire data from both staff and patients were analysed using the cause-and-effect process. Post analysis, staff were asked to vote on the areas they felt were of the greatest concern to the ED, from both a staff and a patient perspective. Results were consolidated to higher-level categories and transcribed to a Pareto chart highlighting the highest priority themes for improvement. Delays, patients' belongings including medication, communication and privacy were the four main categories identified, each with subcategories allowing to better define the problem areas and support areas to achieve the best outcomes.

Additional information was gathered during interviews with the ED Director and Nurse Unit Manager (NUM), who currently manage the complaints within the ED. As identified through the cause-and-effect process, patient belongings and the management of patient own medication were identified as key priority areas for improvement. While the health service has defined procedures, staff were questioned why they felt medications and belongings were increasingly being forgotten and left in the department, with no one specific reason identified.

Investigations into the financial costs incurred from lost, damaged or stolen patient property by the health service were ineffective. The total cost incurred for the health service in ex-gratia payments over the 2018/2019 and 2019/2020 financial year periods was $1,877.94, which was significantly lower than expected. Further investigation showed that the process for ex-gratia payments is extensive and can take a minimum of six weeks before funds are released, indicating this could be the reason for the low number of payments.

Design

The management of patient own medication and property was identified as the initial focus area because of the increased number of medications not

being returned to patients, cost to the department, and it being a key priority area for the NUM and ED Director following a significant clinical incident relating to a recent overdose from patient's own medication.

ED nursing staff were identified as integral to any improvement in this area. Communication was sent via email to make all ED nursing staff aware of the issue; group brainstorming was conducted allowing staff to be involved with change ideas and strategies for improvement, and senior staff members were also individually engaged as they are key drivers of any change in the department.

Strategy

Three areas including patient property, patient medication and the storage of S4/S8 medication were used to focus brainstorming activities with the ED nursing staff to identify potential interventions for improvement and to commence small cycle tests for change.

Interventions related to the storage of S4/S8 medication were initially prioritised as they remained cost neutral and required limited additional education and training. Key interventions related to visibility and education.

PDSA cycles were used and included the following interventions:

1. team leaders required to check patient own medication during current drug count
2. team leaders required to check patient own medication during count and complete patient register for all patient own S4/S8 stored medication
3. education provided to staff with the count and register conducted on the shift.

Staff feedback was received after each cycle, which was positive; however, during the testing phases, no patient own medication was stored. Ongoing issues identified remain with ensuring that the medication is stored as per the correct procedure. Further PDSA cycles to include one-on-one education are planned to identify if face-to-face education improves compliance with the storage of patients' own S4 and S8 medications.

PDSA cycles are planned to incorporate patient property and other patient medication not requiring drug safe storage, with a bag-and-tag process to be tested.

Additional improvement strategies include a focus on the ED reception area and waiting room. Both staff and patients considered this space overwhelming, especially during times of high acuity. Administration and triage staff will be key drivers when considering change strategies, with consumer consultation supporting the process. It is envisaged the project will adopt the Lean process through the guidance of the Patient Safety & Quality team, with overall aims to reduce delays, improve general communication and provide more consistent messages through media resources available in the department.

Results

The overall aim of the project was to improve the patient experience in the ED. With interventions only just being introduced and further interventions to be developed, it is too early to determine any significant changes in satisfaction from patients and a reduction in patient complaints. Further quality improvement cycles are required in all areas identified in order to implement sustained change strategies and improve overall patient satisfaction in the ED.

Continued reviews of patient complaints and more frequent patient experience surveys will be vital as we aim to assess the success of change strategies post implementation.

Conclusions

By raising the awareness of patient experience in the department, we have anecdotally identified a 25% reduction in the amount of complaints being formally reported.

Improving the experience for patients during a time of high stress and anxiety can be difficult to establish. The emotional wellbeing of both patients and staff can affect the experience for each individual walking through the door. While there is very little literature on improving patient experience, it is known that qualities such as friendliness, courtesy, respect and compassion are important factors contributing to satisfaction. Enhancing clinicians' skills in this area has demonstrated improvements in patient satisfaction.

Plans for next steps

The unprecedented events of 2020 and the COVID-19 pandemic has brought about significant challenges, not only for the ED but also the way healthcare is provided worldwide. While improvement strategies were placed on hold during the pandemic, transitioning back to business as usual provides another opportunity to improve the patient experience with a working group led by ED staff now created. Moving forward, there is still an exceptional amount of work to be established around ongoing improvement strategies, specifically communication, delays and privacy.

With support from the ED management team, we hope to demonstrate cost neutral change interventions by partnering alongside multidisciplinary department staff and consumer groups.

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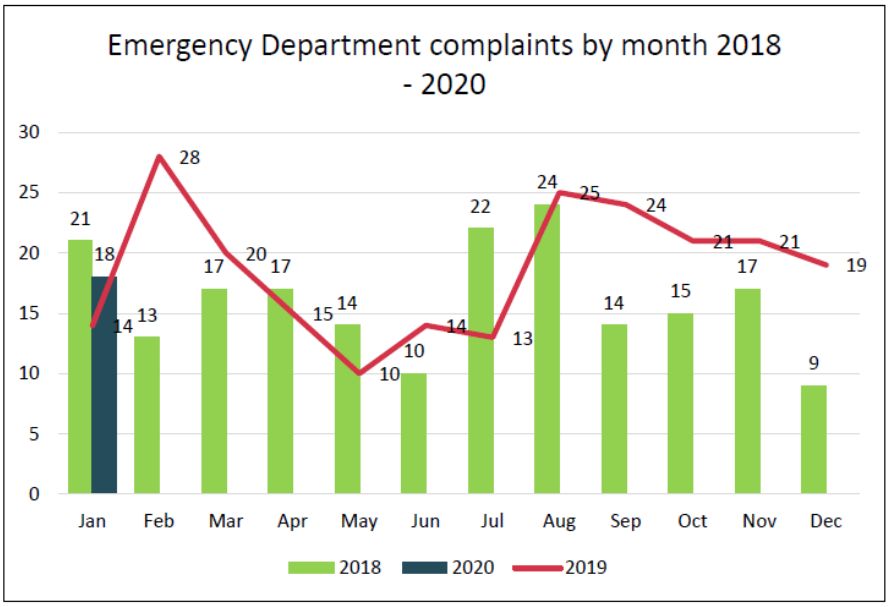

Project category: Partnering with Consumers

Listening with intent:

Re-imagining a consumer partnership program using features of co-design

Ms Denielle Beardmore and Ms Sue Thorpe
Ballarat Health Services, VIC

Pictured left to right: Denielle Beardmore, Sue Thorpe

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Problem/Aims

Ballarat Health Services (BHS) is a large regional public health service located in Victoria with approximately 4,500 staff, and provides support for 12 health services in the wider Grampians region, including acute, subacute, residential and mental health services. Upon review, the BHS consumer register in December 2019 contained only nine consumers, with 67% of those being actively engaged in meaningful partnership activity such as advisory, operational or governance committees. There was no targeted or structured marketing or recruitment process, and consumers did not receive induction to the organisation upon commencement. Staff reported that they were unclear about the role of the consumer, and consumers reported dissatisfaction and feeling 'forgotten' if not engaged soon after recruitment.

The aim of this project was to re-engineer the BHS consumer participation program using co-design and participatory methodology to increase the number of consumer partners actively engaged by 20% in 12 months.

Background

Literature outlines that consumer partnerships are widely regarded as being integral for adding value to healthcare decision-making at all levels.[1,2,3] It is reported that in nearly every instance of avoidable harm, consumer

feedback (e.g. letters, emails and phone calls) has attempted to warn us about system failures that contributed to that harm.[3] The need for consumer engagement in care is well documented in a variety of accreditation standards and frameworks.[2,3,4]

Measurement

Initially, data were collected from a review of the consumer register to ascertain the extent of the problem. Nine consumers were listed on the BHS consumer register, with 67% of the list being engaged in committees or other activities.

Consumer focus groups were used to collect qualitative data prior to April 2020, when face-to-face interactions were still permitted prior to restrictions that came into force with the state of emergency due to COVID-19. Once the pandemic took hold, consumer feedback was then sought via teleconference or by other virtual means, which required BHS to provide additional information technology support.

Participatory methodology was used as it enabled consumers to play an active and influential part in decisions that affect their lives and patient outcomes.

Design

The project team consisted of two co-leads as a contingency plan for the rapid changes in human resources and redeployments during the project period. Other team members included a lived experience worker and the Consumer Liaison & Engagement Officer. The guidance team members were from the BHS Community Advisory Council (CAC), and included consumers, BHS Board representatives and an Executive Staff Council member. Team members met monthly at a minimum to review progress, and the guidance team were consulted every two months.

It was clear to the project team that a series of interventions were required to improve and sustain consumer participation across the health service. Each intervention was expected to influence the quality of the consumer participation program as each was directly related to feedback received from consumers in focus groups. The interventions included:

- a review of the current BHS consumer register; PDSA cycles on orientation and onboarding, and marketing/recruitment processes for consumers; and a review of existing policies and procedures
- ensuring governance documents were updated and added to the online system and assisted staff and active consumers to follow a standardised process well after the project finishes
- monthly project team meetings to monitor progress and identify barriers (however, a pandemic and the resultant upheaval of health services was not anticipated).

Strategy

Three separate PDSA test cycles were conducted to test interventions related to marketing/recruitment, orientation/onboarding and governance documentation. Interventions were tested to determine their effectiveness and what further modifications, if any, were required for the next cycle. PDSA cycles were completed on a monthly basis to enable new and existing consumers on the register to provide feedback.

PDSA cycle 1	Interventions for this cycle were designed to reduce variation in consumer engagement through centralising our marketing and recruitment strategies to be more targeted and standardised across the organisation. In line with the co-design principle of a collaborative approach, which engages stakeholders in the design process, feedback was collected from key stakeholders who would use and deliver the service (e.g. consumers, managers, consumer liaison staff, committee chairs and the CAC). Feedback was collected via focus groups, poster board themed data and surveys. Data received indicated that there was no formal, uniform point of entry into consumer roles. Consumer roles were poorly utilised, defined and understood, and at times were unsupported and lacked evaluation. There was a lack of governance processes to meet the minimum requirements of general recruitment (i.e. selection and interview, police checks).
Key learnings	Need for a marketing plan and structured recruitment processes for consumer partners, supported by governance documentation.
PDSA cycle 2	The second cycle implemented interventions related to onboarding. This was achieved by collecting feedback from consumers who were currently engaged within the health service. Feedback received via 1:1 discussions indicated that a number of consumers had not received any onboarding at all during their tenure, including members of the BHS Community Advisory Committee, who were not listed on the consumer register. Overall, the onboarding was ad hoc, lacked structure and was inconsistent.
Key learnings	Onboarding of consumers was a key element in demonstrating the value and expectations of the role. Targeted onboarding also provided the opportunity to appropriately match experience with requests for consumers in the health service.
PDSA cycle 3	The third cycle was designed to test the re-engineered processes for engaging consumers at BHS. This was achieved by using clearly documented algorithms, timeframes and evaluation of the impact of previous interventions related to marketing, recruitment, onboarding and orientation. Feedback was received from consumers about their lived experiences, which were followed with presentations of the new process to Board and consumer committees.
Key learnings	Co-designed interventions have a shared impact, which is more sustainable when integrated into daily business. They also create opportunities to continually 'hear' the voice of the consumer.

Results

As the project is still in progress, the main outcome measures to date have been in relation to numbers of consumers on the BHS consumer register, number of consumers engaged on committees, and consumer satisfaction.

Acknowledging that the baseline of consumers on the register in 2019 was extremely low, there has been a large increase of consumers recruited at BHS since then—from 9 in 2019 to 57 in October 2020, a 533% increase. This greatly exceeded the initial goal of a 20% increase. Consumer representation on governance committees has increased by 400% from two in 2019 to 10 this year. In addition, consumer satisfaction has improved from 'somewhat satisfied' in 2019, to 'satisfied' or 'very satisfied' in 2020. It is not clear if the pandemic affected the recruitment of consumers to BHS during this time. While consumer engagement has increased significantly, the results might have been even higher if the project had been fully conducted in a pre-COVID environment.

Resources to support the role of the consumer partner have been developed, including an application pack; tools for interviews, onboarding and orientation; request forms for committees to request a consumer partner; and policies and guidelines. All of these resources will assist in supporting the ongoing sustainability of the program following project completion.

Conclusions

While still in progress, this project has already exceeded the initial aim of a 20% increase in consumers on the BHS register within 12 months. The significant increase in both numbers and engagement of consumers, supported by updated recruitment and orientation processes, despite the unexpected and ongoing challenges of a pandemic, will assist BHS to hear consumer voices, and listen with intent to improve healthcare provision. The approach and tools used could be replicated in other organisations who wish to improve consumer engagement.

Plans for next steps

In October 2020, BHS held a virtual consumer forum with 13 participants, and participated in the first online Grampians Regional Consumer Forum with 23 participants, hosted by the CAC. BHS plans to host four additional regional consumer events in 2021.

Further successes can be achieved with ongoing improvements, monitoring and evaluation of the consumer partnership program at BHS. By embedding interventions into everyday practice, improvements can be sustained.

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Project category: Partnering with Consumers

Redesigning consumer feedback management

Del Payne
Queen Elizabeth II Jubilee Hospital, QLD

Pictured left to right: Tracy Donelly, (Patient Safety Officer), Del Payne, William Kingswell (Executive Director)

Mrs Del Payne
Consumer Liaison Service, Safety and Quality Unit, QEII Jubilee Hospital
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Problem/Aims

Over the last 12 months, there has been a 25% increase in the number of complaints received, which has influenced compliance with state-wide and Metro South Health key performance indicator targets. On review of the literature and in consultation with hospital executives, it was agreed to critique a three-tiered complaint resolution process, with the aim of increasing the number of complaints resolved in Tier 1 (resolved at frontline / service area) and Tier 2 (internal review) by the service area.

This project aimed to increase the number of complaints resolved through a decentralised process by 30% within 6 months.

Background

Most patient and family complaints are made with the intention to improve the quality of healthcare.[1] The nature of complaints vary; however, three main areas are inadequate treatment, poor attitude and delay in treatment.[2] The current system is primarily designed to resolve individual complaints case by case in a central organisational department. Exploring the effectiveness of resolving complaints at the service area is important to observe whether local quality initiatives improve patient-centred care and reduce complaints.

Measurement

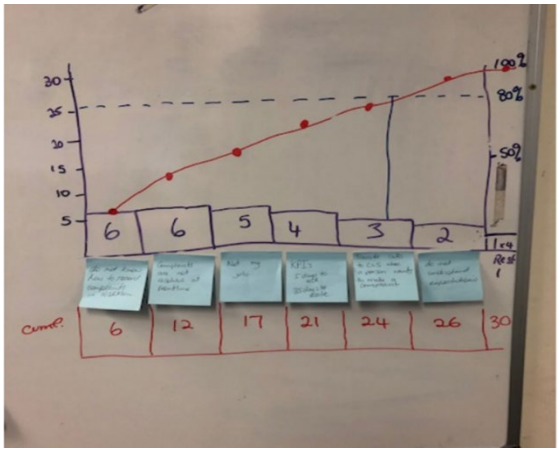
A retrospective assessment of patient complaints from 1 January 2018 to 31 December 2019 was undertaken using data obtained from reports generated from the feedback recording system RiskMan. This assessment was undertaken to diagnose the extent of the problem. The data used included the number of complaints, type of complaints and service areas. A comparative assessment was carried out to benchmark with other hospitals within the health service.

Design

Mixed methodologies were used throughout this project. The aim was developed through a collaborative decision-making process using the SMART criteria. A work flowchart was developed from review of the procedure and process mapping. A cause-and-effect tool was used to identify barriers for resolving complaints at the service area. A brainstorming session with a multidisciplinary group recorded ideas and, with multi and weighted voting, defined the barriers. Using the 80/20 rule, a Pareto chart was developed, and this highlighted:

- a gap in staff knowledge
- no alternative to central complaints service.

With this information, a driver diagram was developed, and four main change ideas were identified as part of the Plan, Do, Study, Act (PDSA) cycle. The change ideas included (1) conduct education and training sessions, (2) develop and test education packages, (3) identify a trial area, and (4) develop a work flowchart for line managers. Exclusions included Tier 3 (external agencies), dual complaints and medical complaints.

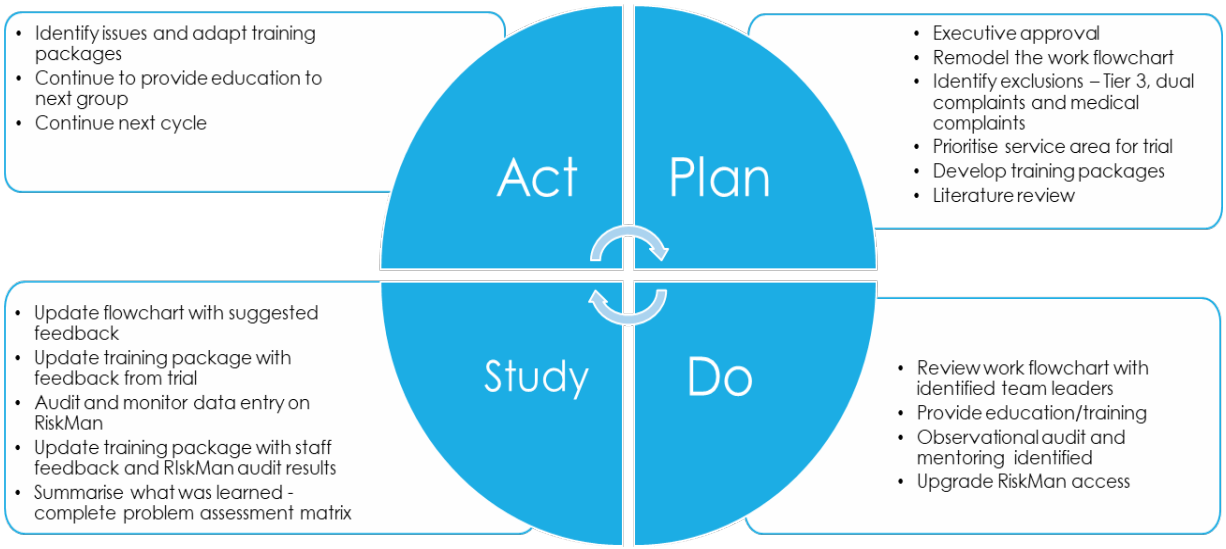


Strategy

The first step involved consultation with key stakeholders for support and to discuss strategies. It was agreed that administration team leaders would be responsible for complaints in their area. The service areas identified for the first trial were Endoscopy and Allied Health. The team leaders' access in RiskMan was upgraded to line manager status to enable them to complete the complaint management process. Education sessions were held and education packages developed. To support staff and foster confidence, one-on-one training was provided to observe how the consumer liaison officer managed a complaint.

Results

The first PDSA cycle highlighted that the integrity of data entry in RiskMan affected the accuracy of reports, including meeting key performance targets, method of resolution and trend data. Inappropriate recording of staff identification was also noted. There were two quick wins: staff confidence in managing feedback increased and the likelihood of an improvement to the health service being considered increased.



Conclusions

The results from the first PDSA cycle showed an increase in the number of service improvements implemented in the service area, and an increase in the awareness and responsiveness of managing complaints in the trial sites. In addition, a training package was developed, and quality checks and audits defined. However, resolution of complaint targets remained a challenge. It is critical that healthcare providers listen and learn from the patients' and families' experience in order to provide patient-centred care and quality improvements.[1]

Plans for next steps

The plan is to continue to work on compliance with key performance targets and project aims, extend the decentralised model to other areas, continue to update education packages as needed, provide education sessions and mentorship, and audit/evaluate and report outcomes to senior executives.

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Project category: Surgical

Cardiothoracic pre-operative length of stay (LOS)

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Problem/Aims

Patients requiring urgent cardiac surgery (i.e. admitted but unable to be discharged without surgery—code E72) have a pre-operative length of stay (LOS) of over six days. This prolongs total LOS, decreases outcomes and reduces the experience for our patients. This reflects a range of factors including the referral and acceptance process, information sharing, pre-op assessment and work-up, and surgical scheduling. Further, the inefficiencies associated with the care of this patient group affect routine elective cardiac surgery by reducing surgical and bed flow. This process involves a range of stakeholders including Cardiology and other Local Health Networks (LHNs). The cost of this delay is estimated at over $1 million annually.

The aim of this project was within six months to reduce pre-operative LOS in E72 patients at the Royal Adelaide Hospital (RAH) to four days. Further, the total LOS of this patient group will reduce by 33%—a potential saving of 500 bed days.

Background

Delayed surgery causes patients increased risk and stress and results in unnecessary occupied hospital bed days. Additionally, patients requiring urgent cardiac surgery have a high likelihood of harm with delays, whereas timely surgery results in good outcomes.[1] There are multiple potential reasons why this occurs, and there has been a somewhat

uncoordinated approach to this in the past. We have categorised the various reasons into diagnosis, referral, assessment and scheduling.

The LOS for this patient group is significantly longer than the elective cardiac surgical patient, as reflected by the CTSU Activity and Performance Report against Benchmarks. The ongoing challenge is management under multiple teams, reflecting the need for a standardised and formalised approach.

Measurement

A spreadsheet was created to manually collect data on a variety of influencing factors such as date of referral, referral site, theatre date, date if cancellation occurred, LOS from referral to surgery, and pre-operative LOS at the RAH. Additionally, we are collecting data on rationale for delays to theatre, including drug cessation. From January to June, the average pre-operative LOS was seven days. There was a combination of delay factors such as inadequate or 'lost' referrals, cancellations for more urgent cases, theatre time, and inappropriate drug cessation.

Design

Following the initial working group with all key stakeholders, and follow-up voting, it was clearly identified the biggest influencing factor was no standardisation of work-up requirements, or of the referral process. The first intervention was developing a mandatory 'Referral Template' to standardise the information and process. There was a collaborative effort across services and disciplines. Difficulty arose when technology was required to support the document. The second intervention was a uniform work-up checklist for both nursing and medical staff, with an associated education package.

There was also intervention in theatre timetables being adjusted to allow for E72 lists, and consultant awareness increased, with prompt assessment mandated.

Strategy

PDSA cycles were utilised for the referral form, as well as the work-up checklist and education package.

Results

The average pre-op LOS for the six months prior to intervention was seven days, with time from referral to theatre eight days. With the recent introduction of the new referral process, the length of stay is now 4.75 days. A combination of awareness, improvements in morale and communication, and interventions has contributed to this.

Conclusions

Despite the project only recently starting, early indications are that with engagement and awareness created, the pre-operative LOS will continue to decrease over time.

Plans for next steps

The PDSA cycle continues for the referral form as it is evident that further improvements are needed. Referrals come from many sources, including other LHNs, so engagement has been difficult. In addition, because of IT limitations, the shared drive access will need to be continually reviewed and updated.

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Project category: Surgical

Decreasing hospital-acquired pneumonia rates in Ear, Nose and Throat patients

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Problem/Aims

Royal Adelaide Hospital (RAH) health roundtable data (Jul 2017 – Jun 2018) for Ear, Nose and Throat (ENT) patients showed a hospital-acquired pneumonia (HAP) rate double that of a comparable peer group.

The project aim was within six months to reduce the incidence of HAP in ENT patients at the RAH by 50%.

Background

6GW2 is the home ward for ENT patients at the RAH. This unit is the South Australian state centre for complex head and neck oncological surgery. These patients often undergo complex, long operations complicated by their preadmission sarcopenia. This fragility puts them especially at risk of HAP, which leads to prolonged hospital admissions. This reduces the patient's experience, as well as increasing patient risks and the financial burden to the hospital.

Measurement

Data were collected through weekly staff-initiated audit requests (March 2019 onwards) measuring HAP incidence, hand hygiene (HH) and oral care (OC) consumer knowledge, oral health goals of care case note documentation, staff OC pre-education knowledge, and staff HH compliance.

Design

The following interventions were introduced:

- HH—an effective measure to reduce HAP
  - education included in all staff induction sheets
  - compulsory staff education sessions regularly run by Infection Control (IC) unit
  - compulsory completion of HH intranet workshop by all staff
  - HH poster present in all patient rooms
  - on admission, all patients educated regarding their rights and responsibilities in HH
- OC—strong link between good oral hygiene and HAP
  - education sessions reinforcing best practice
  - modified Beck Oral Assessment placed outside each patient room
  - technique poster in each patient room
  - implementation of Surgical Directorate Oral Hygiene tool kit on the ward
  - ward-based OC champions to assist in ongoing education
- goals of care—early mobility and pulmonary exercises highlighted as areas needing improvement
  - encouragement of #endpjparalysis hospital-based project
  - individualised goals of care developed on daily basis
  - patient involvement in daily checklist documentation of goals of care
- Yankeur sucker hygiene—strong link to oral hygiene
  - bedside holders sourced and changed daily
  - sucker changed with each shift.

Strategy

The project focused on staff and patient education, with pre and post staff/consumer surveys, reinforced by weekly audits of implementation.

Results

Incidence of HAP following commencement of the first two PDSA cycles has so far demonstrated no HAP in ENT patients at the RAH for three months, a cost saving of $115,000, and a significantly improved patient experience. HH compliance when last audited was 100%. Patient and staff engagement surveys for HH and OC have steadily risen.

Conclusions

This project to reduce HAP in ENT patients at the RAH by implementing sustainable improvements in HH and OC, and commitment to individualised goals of care, has shown encouraging results.

Plans for next steps

Sustainability and then implementation across surgical specialities at the RAH are future goals. This end is achievable through regular staff audits and consumer engagement surveys.

Project category: Surgical

Group and save rationalisation in post elective LSCS patients:

A quality improvement project

Dr David Barlow
Women's and Children's Hospital, SA Health

Dr. David Barlow MBBS FANZCA
Anaesthetic Fellow
Women's and Children's Hospital, SA Health

Problem/Aims

The aim of this project was to reduce the unnecessary antibody testing, performed at the same time as the Kleihauer, in Rhesus-negative women immediately post elective LSCS from 100% to less than 20% by December 2019.

Background

Patients who undergo an elective lower-segment Caesarean section (LSCS) at an obstetric and paediatric centre routinely have a group and save and antibody screen (G+S) performed pre-operatively in case of bleeding and the need for a subsequent blood transfusion. Rhesus-negative women have a Kleihauer test and antibody screen performed immediately post-operatively. The Kleihauer test is used to detect foetal cells in the maternal circulation to guide anti-D dosing. The antibody screen is used to detect Rhesus iso-immunisation; however, in this patient cohort; this additional antibody screen is unnecessary as they would have had an antibody screen immediately pre-operatively.

Measurement

A multidisciplinary team was formed to help undertake this quality improvement initiative. Improvement science methods were used, such as process flow charts; failure modes and effects analysis; and Plan, Do, Study, Act (PDSA) cycles. Data were collected via the hospital's electronic

pathology testing program and entered weekly into an Excel spreadsheet. Data analysis was monitored and recorded using a run chart.

Design

Interventions were focused on improving staff education and awareness of appropriate antibody screen ordering, inserting visual reminders into workspaces, and changing established protocols.

Strategy

Several PDSA cycles were utilised to implement the required interventions. Education of the staff was performed principally via emails, with optional education sessions. Posters with information about appropriate ordering were inserted into the workspace of the midwife who would be taking the blood tests post-operatively. Hospital protocols were unable to be updated in time, but consent was given to inform staff of updated testing.

Results

The percentage of cases where an antibody screen was unnecessarily performed post-operatively reduced from 100% of cases per month to 0% of cases per month by the end of November.

Conclusions

Using quality improvement science methods, the rates of unnecessary antibody testing in post elective LSCS patients dropped significantly, resulting in savings in both cost and time. Increased staff education of rationalised testing and communication were also observed throughout the study.

Plans for next steps

We plan to expand the quality improvement ideas to help reduce other unnecessary pathology tests. We also plan to continue promoting and developing a quality improvement culture within the hospital to assist in generating other quality improvement projects.

Project category: Surgical

Improving patient safety, teamwork and communication:

Surgical Safety Checklist compliance initiative

Mr Anthony Lock, WA

Pictured left to right: Tanya Douglas (Project Officer), Paras Malik (Consultant Anaesthetist), Natala Taylor (Clinical Nurse Specialist, Theatres), Scott Douglas (Consultant Anaesthetist and SSC Project Medical Lead), Jesus Reyes (Clinical Nurse Specialist, Theatres), Caris Sides (Project Officer), Anthony Lock

Mr Anthony Lock, DSM
Former Director of Patient Safety at Royal Perth and Bentley Hospitals

Problem/Aims

The Royal Perth Bentley Group (RPBG) of hospitals determined that the World Health Organization (WHO) Surgical Safety Checklist (SSC) was not always completed.

This quality improvement initiative was to improve the compliance with the SSC to ensure patient safety. The project goal was to improve SSC compliance for increased patient safety, reaching a level of 90% completion within the first six months of review.

Background

Numerous articles across many developed nations have revealed barriers in the conduct of the SSC. The most common barriers were as follows: lack of communication between surgeons and team members, checklist too long and cumbersome, checklist duplicative in nature and delayed procedures—even sometimes causing conflict, team members not listening, and a lack of leadership and standardisation when conducting the checklist. Many solutions to overcome these barriers were devised at a local level, with significant emphasis on leadership support and the investment of non-technical skills training for surgical teams and leaders. Further studies revealed that the checklist, in some first-world nations, made no impact on improving patient safety. In areas where no positive impact was observed, it was

shown that little or no change management was incorporated, and surgical teams were given the checklist to complete as part of their normal workflow with no education on how to complete the checklist.

Measurement

A detailed paper audit of the SSC revealed that all surgical teams were 100% compliant with the checklist 100% of the time. However, a visual audit conducted over two weeks observing 150 surgical procedures showed that the SSC was used in 45% of all procedures and the Sign-Out portion of the checklist was completed in less than 10% of all procedures. Staff completed the checklist—ticking the boxes on the form—well ahead of time, and in some cases, the paper form of the checklist was not referred to, with staff preferring to complete checklist items from memory or relying solely on the patient consent form.

In addition, to ensure we addressed staff concerns and potential barriers to effective completion of the SSC at RPBG, an anonymous staff survey open to all surgical disciplines was developed, and completed by 112 respondents.

The observational audits of surgical procedures, together with the anonymous survey, indicated that staff felt the SSC was repetitive, cumbersome, had little to no benefit, and lacked senior leadership roles modelling the behaviours required to perform the checklist.

Design

An SSC Initiative Team was assembled, consisting of an executive sponsor, a lead anaesthetist, a nurse, surgical representation and project support personnel. A number of diagnostic tools were used to gain a greater understanding of the issues at hand. Root cause analysis from clinical incidents, failure mode and effects analysis (FMEA), focus groups, and development of a Pareto chart and driver diagram led to three key areas for improvement:

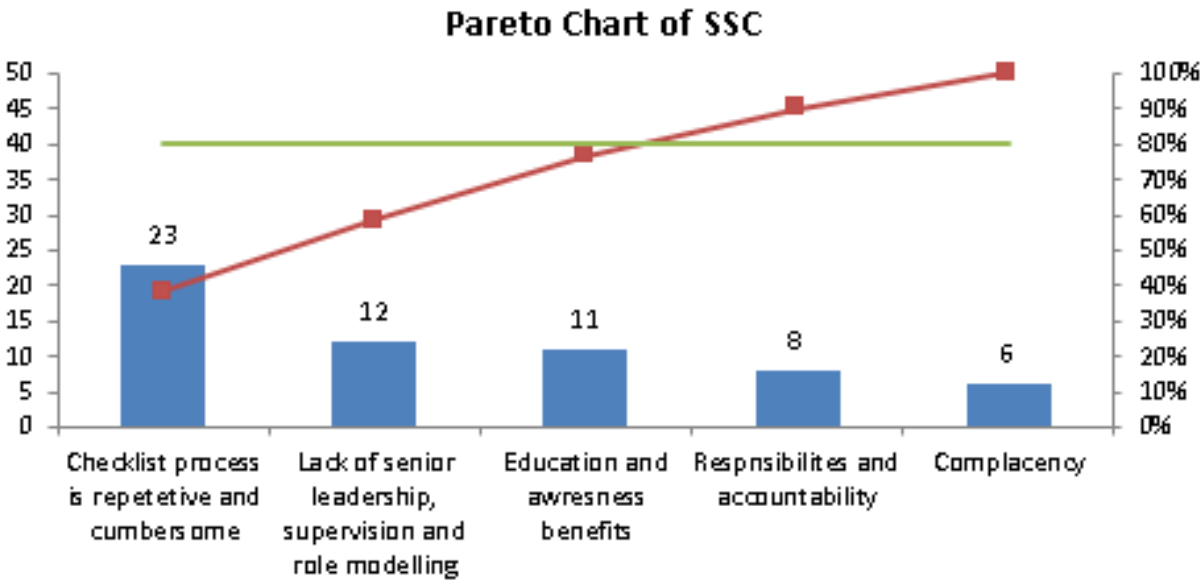
1. SSC process
2. senior and local leadership, supervision, and role modelling the expectations of the checklist
3. education and awareness of the benefits of the SSC.

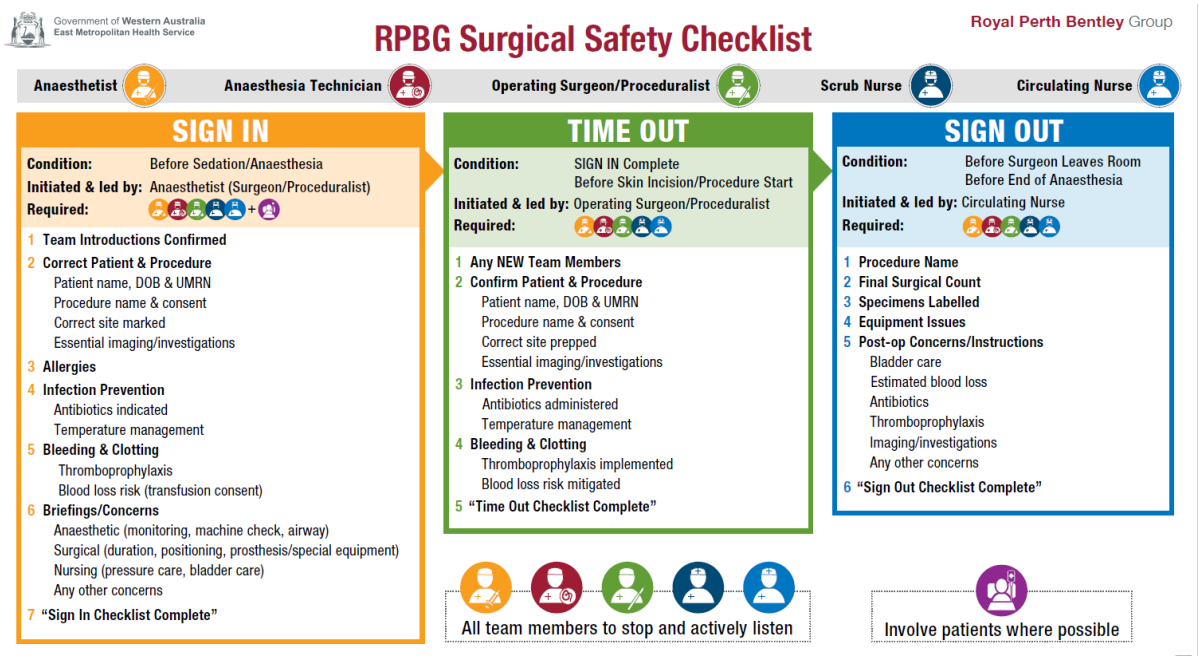
Strategy

Plan, Do, Study, Act (PDSA) cycles were used across all surgical specialties to test improvements and changes to the checklist. Staff were given the opportunity to change the checklist wording if it met the intent of the original checklist. Additionally, staff were empowered to suggest how the checklist should be run and who should be responsible for initiating and leading the scripted communication for each part of the checklist. The main changes determined for the PDSA cycles were:

- removal of the paper-based checklist in theatres
- large checklist poster on the wall of the operating theatre for all staff to see and refer to
- clear points within the process when the checklists will be conducted and which member of the team is responsible for initiating each portion of the checklist.

Further, organisational safety and quality data pertaining to surgical site infection rates, bladder and pressure injury care, and venous thromboembolism (VTE) prophylaxis were used to determine where within the checklist these items should be discussed to improve patient outcomes. Nursing and anaesthesia staff added temperature management to the Sign-In part of the checklist to better improve patient outcomes linked to surgical site infection rates.





The PDSA cycles collected large amounts of qualitative data and revealed several predicted common points across the surgical disciplines pertaining to the conduct of the checklist. Predominantly, staff indicated that designated roles and responsibilities in running the checklist was a vast improvement ensuring standardisation. Staff also provided feedback that leadership in theatres played an active part in role modelling the behaviours required to perform the checklist—everyone should stop and listen at each part of the checklist. Observations within the PDSA cycles revealed that it was often very difficult for staff to stop what they were doing and listen to the checklist as they felt pressure to complete

the job. This information was fed back to theatre managers and executive leadership. The decision was made to remove any perceived pressures by leaders, allowing staff to take the necessary time to complete the checklist and own this safety process. Additionally, suggestions from the aviation industry to do away with a paper checkbox checklist were embraced, and now staff only record which member of the team led each checklist part.

All feedback from the PDSA cycles were categorised and subsequent versions of the checklists were developed with minimal changes. Checklist design was refined over numerous trials incorporating human factors and ergonomic design methodology; limiting the amount of words on the checklist; and incorporating symbols, colours and key words to assist teams in covering each item of the checklist in the most efficient time possible. Further education around the purpose of checklists was needed as staff saw the current checklist as a 'to do' list rather than checking each item had already been completed and that the SSC was the final check within the process. Subsequent PDSA cycles with individual teams saw improvements in preparation for procedures as staff were aware of each checklist item ahead of time, and the time to complete each part of the checklist shortened considerably as teams became more familiar.

Ultimately the change management around the revised SSC was the most important aspect of this project, requiring significant leadership involvement and frontline staff engagement. Surgical division leaders were responsible for implementing a psychological safety environment within our operating theatres, where staff members felt that they could speak up addressing any areas of concern without fear of retribution and the promise that all staff would be listened to.

Workshops and updates to the project continued throughout the planning and development stages. Local leaders and clinical champions briefed all surgical specialties, nursing teams, anaesthesia technicians, anaesthetists, clerical staff, and organisational governance and policy oversight committees. The SSC project team met with theatre staff and supported teams with question and answer sessions while delivering online material that could be accessed outside the hospital intranet network. Coaching session in theatres were also provided, assisting teams in the conduct of the checklist.

Education videos on 'how to' conduct each part of the revised SSC were made with representatives from every surgical team. Documents containing guiding principles for completing the checklist and the expected behaviours were produced by project clinical champions to demonstrate what is, and is not, acceptable behaviour by an individual during the conduct of the SSC.

Widespread organisational communication and messaging by senior leadership to all staff on the progress of the checklist has proved to be critical in gaining support throughout the project. Executive leaders and Board members, along with local managers and supervisors, have been present in operating theatres throughout this change. This has led to staff reporting improvements in the team culture, stating they felt supported to take a more active role in the conduct of the checklist and this widespread change.

Engaging with consumers early in the project, seeking their expectations and thoughts on current safety measures employed to protect patients at their most vulnerable moments, was met with uniform agreement that all elements of the SSC must be completed 100% of the time. Questions related to the SSC were

raised with consumers prior to elective surgical procedures.

Results

At the time of writing, the revised SSC was two weeks away from the launch date (20 November 2020). Teams have already started implementing the behavioural changes around the current version of the SSC, with individuals reporting a renewed emphasis on covering checklist items, potentially preventing errors and improving communication among team members.

An observational audit led by local clinical champions has been developed to report not only on compliance but also how team members rate the engagement and communication of the team during the conduct of the checklist. Additionally, reporting on surgical site infection rates; monitoring clinical incidents associated with VTE prophylaxis, and bladder and pressure care injuries; and events where the items of the SSC were not completed, will be monitored. Individual surgical specialties will have access to the audit results for the potential to measure checklist compliance and, where possible, improve team performance.

Conclusions

Research from around the world indicated numerous healthcare providers have experienced similar problems when completing the SSC. The barriers and reasons why checklists were not providing the level of safety originally expected when the WHO released the checklist in 2009 were very similar to what was experienced at the RPBG. Further, other safety critical industries also reported the reason for checklist non-compliance to be closely associated with understanding why a checklist is needed, the benefits of a checklist, and the importance of leaders role modelling expected behaviours when carrying out the checklist.

Plans for next steps

Random audits of the revised SSC will determine its effectiveness, while monitoring key safety and quality metrics linked to items within the checklist will also indicate its success. A checklist is a living document and must be adapted to current practice over time. However, its primary purpose of bringing a team of experts together to ensure safety critical steps are not missed must never be forgotten.

Project category: Surgical

Improving the efficiency of the pre-operative assessment process for patients undergoing direct access colonoscopy

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Problem/Aims

The Queen Elizabeth Hospital currently treats over 3,000 colonoscopy patients per year, who are referred onto the elective surgery waiting list via multiple pathways. Patients (including those from the National Bowel Cancer Screening Program) may be referred to gastroenterology, colorectal and upper gastrointestinal (UGI) specialties via a direct access (DA) model of care. All of the sessions by the colorectal and UGI units are assisted by anaesthetists. However, only 20% of gastroenterology sessions are supported by anaesthetists, with the remaining 80% of sessions requiring sedation administered by the treating proceduralist. At the time of scheduling patients for DA colonoscopy requiring anaesthesia, a preadmission clinic (PAC) appointment is also made [1]. Limitations exist in the number of appointment slots available in the pre-operative assessment clinic, resulting in delays to schedule these patients. An audit of treated DA colonoscopy data in August 2018 showed 44% of the patients had breached their clinical urgency category. In addition, 50% of the DA patients booked on a colorectal/UGI anaesthetic support list were under the age of 65 years, who are presumed to be low risk.

The aim of this project is to ensure that within nine months, 90% of high-risk patients undergoing DA colonoscopy will have specific pre-procedure assessment

to support DA colonoscopy within clinical urgency wait times.

Background

The DA model of care supports efficiencies by avoiding unnecessary OPD assessments [2,3]. However, challenges are supporting a safe admission pathway and avoiding delays for high-risk patients due to patients breaching their clinical urgency category [1,4]. Approximately 20% of colonoscopy patients are DA referrals, of which nearly 50% do not have pre-procedure assessment [5].

Measurement

Mapping the colonoscopy patient journey from referral to discharge from service highlighted a complex process. The colonoscopy patients' admission pathways were primarily based on specialty and then clinical need (i.e. DA or OPD review). It was noted that specialties with 100% anaesthetic supported lists were booking low-risk patients, who would require PAC appointments. This over-servicing of low-risk patients was placing unnecessary pressure on areas of high demand in the pre-operative assessment OPD clinics, was not following best practice for patient-focused care, and was not cost effective.

Design

Delays in booking high-risk patients with clinical indications onto anaesthetic lists could be reduced if an appropriate process was developed supporting suitable admission pathways for all colonoscopy patients.

Brainstorming sessions and construction of a Pareto chart highlighted the priority areas to address, and solution strategies were discussed.

The areas of focus for this improvement plan were narrowed to:

- lack of nurse specialist positions to support the journey
- no pre-op assessment option other than face-to-face appointment
- delays in access to PAC appointments
- limited PAC appointment slots.

Strategy

The strategies were grouped into three PDSA cycles. The primary PDSA intervention involved implementation of a specialty clinical nurse with executive support selected from within the existing endoscopy ward (1.0 FTE) to support the DA patient journey. A role description and KPIs were developed; a suitable staff member was recruited, and appropriate resources were provided. The specialist nurse undertook a review of the DA colonoscopy referrals and carried out a telephonic clinical assessment using an existing health questionnaire to determine if the planned admission pathway was suitable. Results were collated over the trial period.

Results

Over the trial period, 15 October 2018 – 30 November 2018, 287 DA colonoscopy referrals were reviewed. An existing questionnaire was used for the clinical assessment via phone call, with results collated in Excel. An average of eight patients were contacted per day, averaging 18.3 minutes per call. The outcomes of the review are shown in the following graph.

Conclusions

Pre-trial, all patients referred via the DA access pathway were contacted by a gastroenterology nurse prior to being scheduled; however, review was only undertaken when resources were available on an ad hoc basis. Approximately 40 DA referrals per month were being actively reviewed during the pre-trial period. After the implementation

of a dedicated specialist nurse position undertaking this role, a monthly average of 135 referrals were reviewed. As a result, an improvement in care was seen, with 35% of patients being redirected to an appropriate admission pathway, potentially reducing late cancellations, hence improving session utilisation and assisting with administration efficiency.

Plans for next steps

To complete this project, another two PDSA cycles are planned: first, enhancing the DA nurse phone interview via a computer health assessment tool and, second, expanding this assessment to an online option [6,7]. Continued executive support, oversight of the expanded pre-operative assessment options from within the anaesthetic department, and embedding these processes within our governance will be key strategies for sustaining improvement in this model of care.

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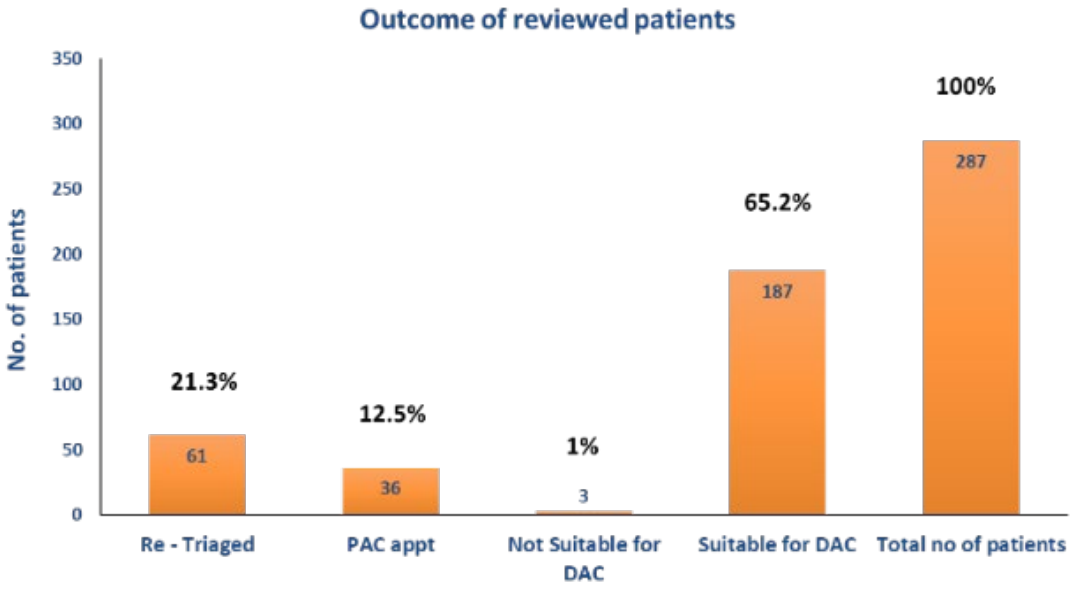

Project category: Surgical

Reducing hospital length of stay for patients undergoing elective biopsy for newly diagnosed brain tumours

Ms Jaipreet Kaur and Dr Adam Wells
Royal Adelaide Hospital, Central Adelaide Local Health Network, SA

Pictured left to right: Adam Wells, Melissa Starsky (Unit Coordinator, Neurosurgery, Royal Adelaide Hospital), Jaipreet Kaur, Guy Ludbrook (Consultant Anaesthetist, Royal Adelaide Hospital)

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Problem/Aims

Between July 2017 and June 2018, 38 stereotactic brain biopsies were performed at the Royal Adelaide Hospital (RAH) for patients with a newly diagnosed brain tumour. The average length of stay was 3.9 days, which comprised a pre-operative diagnostic period, the surgery itself, and a post-operative observation period to ensure no operative complications prior to discharge. On nine occasions, discharge was delayed until the results of the biopsy became available and an oncological treatment plan was developed. An additional eight patients residing in the country had discharge delayed for accommodation reasons, and a further three patients who had surgery on a Friday were kept in hospital over the weekend before discharge.

To decrease our average length of inpatient stay for elective brain biopsies by 50% at six months, we sought to design a peri-operative pathway to introduce a 23-hour protocol in patients appropriate for criteria-led discharge. Our 12-month stretch goal was to standardise the elective brain biopsy pathway for suitable patients with newly diagnosed brain tumours as a day procedure.

Background

The RAH Department of Neurosurgery is the main quaternary neurosurgical referral centre for not only South Australia but also regional centres in bordering states including VIC, NSW, NT. Approximately 40

brain biopsies are performed yearly at the RAH for the management of newly diagnosed brain tumours. Although technical aspects of surgery are well defined, there are no current peri-operative protocols in place to manage patient flow, which increases inpatient stay, and patient and family anxiety.

Measurement

Our working group consisted of a neurosurgeon, an anaesthetist, senior neurosurgical nursing staff, the pre-operative assessment unit, post-operative recovery staff, and elective booking clerical staff. As every post-operative patient requires a brain scan, staff from radiology were also consulted.

Using recognised process measurement tools, we identified the main factors contributing to delay in discharge following elective brain biopsy, which included booking the case within available theatre slots, post-operative analgesia and antiemetics, and timely booking of CT brain scans.

Design

A new pathway was implemented targeting the identified barriers to discharge, and a suitable checklist. A Consumer Information Sheet was created for patients and their caregivers with information relating to the pathway, as well as emergency contact numbers for any future concerns.

Strategy

The new 23-hour pathway was applied to seven consecutive patients who had been newly diagnosed with a brain tumour.

Results

Although the surgery remained identical, we were able to optimise pre-operative patient flow, peri-operative medications, and booking and post-operative scans prior to discharge.

Our first patient developed symptomatic dizziness, nausea and vomiting, precluding 23-hour discharge, which resulted in more aggressive subsequent peri-operative analgesia and antiemetic usage. There were no further post-operative problems in the next six patients. All seven patients had post-operative brain imaging booked, performed and reviewed within six hours of their operation. Three of the seven patients were from country areas, and local accommodation was arranged to commence the day following surgery. With one exception, all patients met criteria-led 23-hour discharge following the new pathway, and without the development of any complications or safety concerns.

Conclusions

We have demonstrated that a criteria-led discharge pathway for patients undergoing elective brain biopsy is safe, feasible and achievable, reducing hospital length of stay from almost four days to only 23 hours. Country patients and patients undergoing surgery on a Friday are no longer barriers to early discharge. Further, feedback about the new pathway was positive, with patients reporting that they felt well supported, were provided with a contact person and an ongoing plan.

Next steps

Our next steps will involve further refining the pathway to a single-day procedure. For this to occur, we will first run PDSA cycles to ensure patient safety and evolve our current pathway, and once established, we will recruit the RAH Day Surgery Unit to begin performing biopsies via the day procedure unit. We aim to report our processes within the Australasian surgical literature and share our pathway.

Project category: Surgical

Reducing hospital length of stay for patients undergoing mini-craniotomy (keyhole surgery) for unruptured anterior circulation aneurysms

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Problem/Aims

Data from 22 consecutive cases of elective mini-craniotomies for unruptured aneurysms performed at the Royal Adelaide Hospital (RAH) in 2018 - 2019 were reviewed. The overall average length of stay was eight days, which comprised a pre-operative diagnostic period, the surgery itself, and a post-operative observation period to ensure no operative complications prior to discharge.

To decrease our average length of inpatient stay for elective mini-craniotomies for unruptured aneurysms by 50% at six months, we sought to design a peri-operative pathway to introduce a 48-hour protocol in patients appropriate for criteria-led discharge. By 12 months, our stretch goal was to standardise the elective mini-craniotomy for unruptured aneurysms pathway for suitable patients as a day (23-hour) procedure.

Background

The evolution of intracranial aneurysm surgery has included the development of minimally invasive techniques (mini-craniotomies), which involve aneurysm clipping through a keyhole craniotomy. However, despite the attractiveness of reduced surgical invasiveness, these techniques have not yet been widely utilised as routine practice despite increasing numbers of reports about their safety; durability; and advantages compared with standard surgery, such as

their impact on shorter operative times, post-operative recovery, and health and hospital resources including bed utilisation, length of stay and treatment costs.

The RAH Department of Neurosurgery is the main quaternary neurosurgical referral centre with neurovascular surgery sub-specialisation for South Australia and regional centres in bordering states including Victoria, New South Wales and the Northern Territory. Approximately 20–25 mini-craniotomies are performed yearly at the RAH for the management of newly diagnosed unruptured brain aneurysms. Although the technical aspects of the minimally invasive surgery have been well defined and implemented to world class standards by the senior author, there are currently no peri-operative protocols in place to manage patient flow, which significantly increases inpatient stay, patient and family anxiety, and health costs.

Measurement

Our working group consisted of a neurosurgeon sub-specialised in neurovascular surgery, a neurosurgery fellow and registrar, senior neurosurgical nursing staff, senior ICU and anaesthesia consultants, pre-operative assessment unit nursing staff, allied health and post-operative recovery staff, and elective booking clerical staff. As every post-operative patient requires a brain scan (CT angiogram), staff from radiology were also consulted.

Using recognised process measurement tools, we were able to identify the main factors contributing to delay in discharge following elective mini-craniotomies for unruptured aneurysms, which included anaesthetic factors such as intra-operative and post-operative analgesia and antiemetics, and timely booking of CT brain scans.

Design

A new pathway was implemented targeting the identified barriers to discharge, and a checklist suitable for criteria-led discharge was constructed. A Consumer Information Sheet was created to provide patients and their caregivers with information relating to the pathway, as well as emergency contact numbers should there be any concerns following discharge.

Strategy

The new clinical pathway was applied to two consecutive patients who had been booked from the mini-craniotomy for unruptured aneurysms.

Although the surgery remained identical, we were able to optimise peri-operative medications, recovery and ward management, and booking of post-operative scans prior to discharge, and avoid unnecessary ICU stay as well as the traditional universal referral to allied health staff. Both patients were discharged at 48 hours post-op. The first patient had a past history of irritable bowel syndrome and had been prescribed standard first-line aperients as per protocol but re-presented to the Emergency Department on day three post-op with constipation and was discharged within two hours following a successful enema. The protocol has been updated accordingly to allow for escalation of aperients as required.

Results

For 22 patients there was a length of stay reduction to two days (from four days). Outcomes were sustained over two years with further improvements leading to nine patients with a 23 hour stay.

Patients contacted post discharge to assess recovery, provided positive feedback. Two patients reported pain or constipation, with this subsequently

addressed in the pathway. There were no identified risks or adverse events demonstrating the new pathway was safe, feasible and sustainable.

There was a cost saving as a result of avoiding ICU admission and reducing length of stay for 22 patients. The estimated saving is $131,942.

A significant benefit to patients was continuation of surgery. Due to the COVID 19 Pandemic, patients would have had their elective aneurysm surgery cancelled due to the requirement for ICU beds following surgery. However, following the implementation of this clinical practice improvement pathway, surgical cancelations were avoided as there was no longer a requirement for ICU beds post-operatively.

Conclusions

Our preliminary results suggest that a protocolised early discharge pathway for patients undergoing elective mini-craniotomy for anterior circulation aneurysms is safe, feasible and achievable, reducing hospital length of stay by 50%.

Plans for next steps

Feedback from patients and other hospital units involved in the new pathway will continue to be sought to ensure a safe and positive experience for patients and their families, as well as the staff involved.

In line with our stretch goal, our next steps will involve further refining the pathway to a single-day procedure. For this to occur, we will first run PDSA cycles to ensure patient safety and evolve our current pathway. Once established, we will recruit the RAH Surgery Unit to begin performing this surgery via the day procedure unit. We aim to report our processes within the Australasian surgical literature and share our pathway within the Australasian neurosurgical community.

Project category: Systems

Addressing the Royal Adelaide Hospital category 3 Ear, Nose and Throat waitlist: A patient-focused approach to improving accessibility to care in the outpatient service

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Problem/Aims

The Royal Adelaide Hospital (RAH) has more category 3 patients on its outpatient waitlist than it can manage. This results in unacceptable delays for patients, poorer patient experience and, potentially, clinical risk. Our inability to deal with this waitlist creates significant reputational harm for the organisation. In 2019, the biggest challenge was the RAH Ear, Nose and Throat (ENT) service category 3 waitlist.[1]

This project aimed to reduce the category 3 wait time for the RAH ENT service by 50% within six months.

Background

Outpatient waiting times continue to be a significant challenge for public healthcare patients in need of specialist care.[2] The RAH has a large multidisciplinary outpatient department, which aims to provide an accessible and patient-focused service. Increasing demands for access to services, along with space and resource constraints, result in long waiting times for non-urgent consultations. Anecdotal data suggest that many of the patients on the ENT category 3 waitlist may no longer need their appointment. The primary aim of this initiative was to identify a solution to the long waiting times for ENT services within the RAH outpatient service.

Measurement

As of July 2019, the longest waiting time for a category 3 ENT outpatient appointment at the RAH is 14 years (as per the Royal Adelaide Outpatient Waitlist data July 2019)

Intervention

Our project team, consisting of outpatient management and ENT specialist clinicians, mapped the current referral process, and then brainstormed areas for improvement. It was evident that to reduce wait times, interventions needed to address the imbalance between available resources and the demand for access to services.

Strategy

PDSA cycle 1: Pre-interventions included distribution of yearly audit letters to all patients on the outpatient waitlist to assess whether they still needed an appointment. Of 2,000 patients audited across all disciplines, 1,000 patients confirmed that they no longer required their appointment.

PDSA cycle 2: A flowchart endorsed by the ENT service, and utilised by a senior nurse to conduct a phone clinic, was developed. With a patient and safety focus, the flowchart is used to support patients through a series of questions to determine if they still require an appointment. Those patients needing to see an ENT specialist are appointed, and those who no longer need an appointment are removed from the waitlist, and their GP is notified. This nurse-led clinic is templated within the patient administration system to ensure it is captured as hospital avoidance activity.

Results

Data collected to date demonstrate that only 25% of patients contacted via the phone clinic still required their appointment. Run chart projections are that 75% of patients may be safely removed from the ENT category 3 wait list.

Conclusions

The phone clinic is a patient- and safety-focused means of assessing if patients still require their ENT outpatient appointment. Those patients no longer requiring an ENT outpatient appointment can be safely removed from the waitlist, reducing the overall wait time to see a specialist by 50% within six months.

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Project category: Systems

Consistent orientation webinar for National Safety and Quality Health Service Standards (NSQHS Standards; 2nd edition) and Evaluation and Quality Improvement Program 6 (EQuIP6) regarding ACHS processes and requirements

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The Australian Council on Healthcare Standards (ACHS), NSW

Mona Ramsay
Customer Services Manager
The Australian Council on Healthcare Standards (ACHS)

Problem/Aims

The ACHS Primary Contact promotional visits have identified that there is confusion among ACHS members regarding the ACHS phases and reporting requirements under the NSQHS Standards (2nd edition) and EQuIP6. This has resulted in the need for pre-assessment tasks to be resubmitted to ensure compliance with the ACHS quality program requirements. The need to develop a consistent orientation program for ACHS new Primary Contacts is essential to improve consistency ratings in customer evaluation feedback and continuous improvement outcomes.

The aim of the project is to improve the understanding of ACHS members regarding ACHS processes and requirements.

Background

ACHS members need to complete evaluation forms at the end of their onsite assessments. Review of completed evaluation forms in 2017 and 2018 (290 evaluations) demonstrated positive feedback regarding Customer Service Managers (CSMs); however, there were consistency issues regarding ACHS processes and pre-assessment requirements.

Measurement

A SurveyMonkey of 400 ACHS members yielded 110 responses, with over 55% indicating that they did not receive any orientation regarding the ACHS processes and requirements from their nominated organisations.

Design

The initial intervention strategy included the development of a district-wide onsite orientation program from February to November 2018 (10 months) for Primary Contacts and Lead Managers regarding the NSQHS Standards (2nd edition). This involved a focus on ACHS requirements and procedures, including:

- a 3-hour presentation session regarding ACHS processes and requirements
- changes in the NSQHS Standards (2nd edition) requirements
- questions and clarifications
- Quality Improvement awards dates and submission requirements
- Improvement Academy (IA) course dates and updates brochures discussed.

The following factors were critical to success:

- testing of the consistency of members evaluation outcomes
- feedback from ACHS Primary Contacts regarding their understanding of ACHS processes and requirements
- enhancing the knowledge of ACHS members regarding ACHS quality program requirements to reduce resubmission of their pre-assessment documents.

The second intervention cycle was developed through the need to develop a computer-based orientation program. The engagements with ACHS Primary Contacts resulted in the development of orientation webinars to explain the ACHS requirements and processes for the NSQHS Standards (2nd edition) and EQuIP6. These webinar orientation programs were placed on the ACHS website for ACHS members in March 2019, and were developed to increase the consistency and reduce the variation of information provided regarding the ACHS processes and requirements. This ensured that the basic ACHS processes and requirements were explained in a concise, timely and cost-effective manner. A SurveyMonkey was attached to the webinars to assist organisations to provide feedback.

Year	New Primary Contract	No accreditation experience but clinical	Not clinical and no accreditation experience
2017	(15%)	4	7
2018	(32%)	17	8
2019	(13%)	3	7

Strategy

The aim of the initial Plan, Do, Study, Act (PDSA) cycle involving an onsite three-hour presentation session was to clarify ACHS requirements and processes. Those Districts with assessments in 2019 and new Quality Managers were provided with the onsite assessment sessions. The data collected were based on District feedback to the ACHS, requirement to resubmit assessment tasks, and understanding of the ACHS phases and requirements. The feedback regarding these presentations conducted was all positive as it allowed organisations to seek clarification regarding the requirements and continuous improvement activities.

The second PDSA cycle was developed because of the large number of new Primary Contacts without accreditation experience. The aim of this cycle was to develop an orientation resource for ACHS members regarding the ACHS requirements and support provided by CSMs. The two webinars focused on the requirements for the NSQHS Standards (2nd edition) and EQuIP6.

Initial access issues to the webinar in rural and remote settings were resolved by the IT team. The ACHS Primary Contacts indicated that they had difficulty seeing

the SurveyMonkey under the program. This link was enlarged for members in order to increase completion rates. The feedback regarding the webinars was very positive; however, not all members that completed the webinar completed the SurveyMonkey, which is a similar pattern to most SurveyMonkey programs.

Results

Data were collected for eight District-based promotional interventions over an eight-month period. The results included:

Year	Advance Completion (AC 90)	Quality improvement submissions	Readmissions
2017	(47%)	27	10
2018	(38%)	60	nil

- Positive feedback (100%) from all ACHS members who completed the presentation program.
- The ACHS Primary Contact requirement to resubmit their tasks reduced by 100%.
- The results of the requirements for Advance Completion assessments resulted in a 10% reduction for organisations.
- The organisations attending the training programs had onsite assessments in 2018 and had excellent accreditation outcomes.
- There were no Advance Completion assessments for organisations that attended the presentation session.
- This resulted in improved District evaluation ratings in consistency. In addition, there was a 47% increase in Districts taking part in quality improvement programs.

The second intervention using webinar-based orientation programs regarding ACHS processes and requirements resulted in maintaining the consistency rates, positive feedback and cost-effective outcomes.

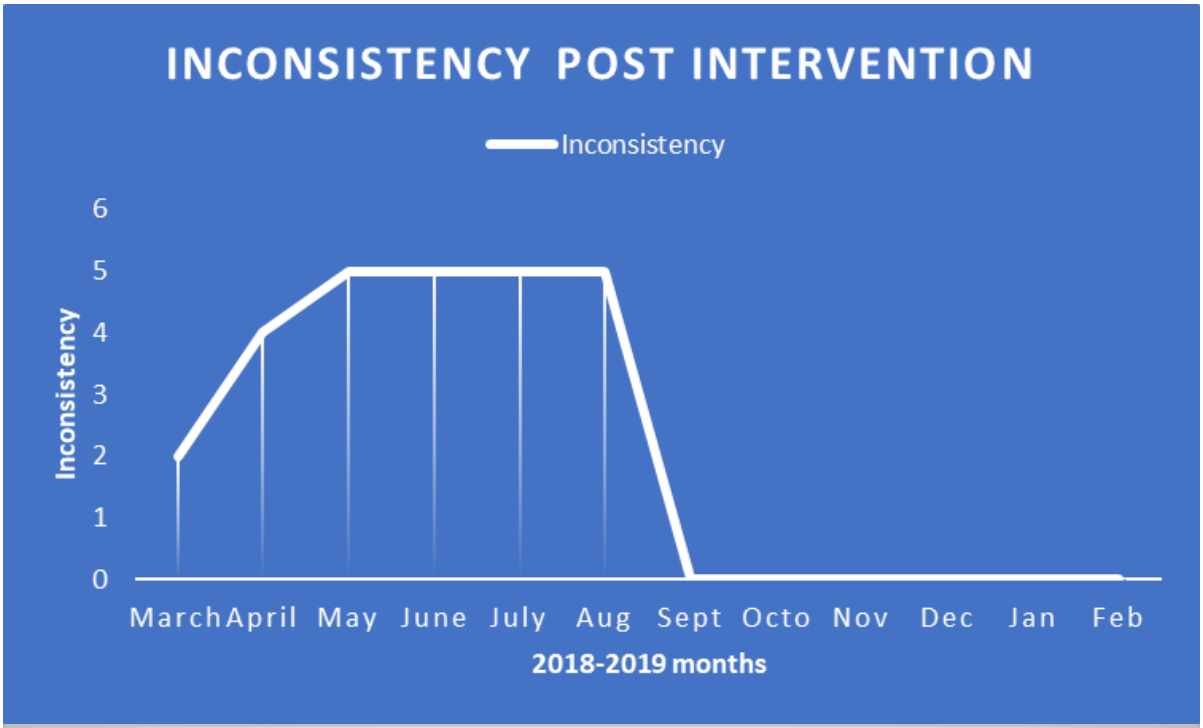
The new members are continuing to use the orientation program and the orientation webinars are also available on the ACHS website for members. This Orientation webinar has been popular with new ACHS members. The feedback continues to be positive from our new members that use the webinar. Additional projects are currently being developed to develop another Self-Directed Learning Webinar to assist our members with the ACHS Not Applicable submission processes.

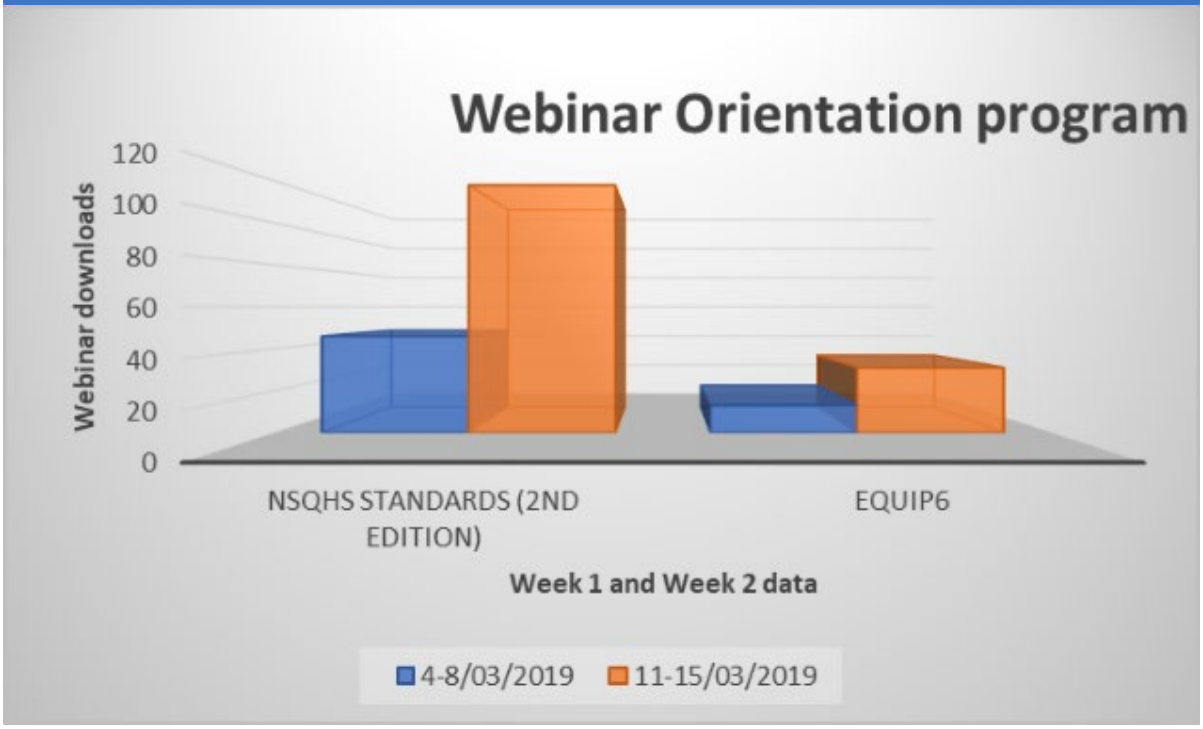
The NSQHS Standards (2nd edition) and EQuIP6 webinars are available on the ACHS website for all ACHS members. There has been an increase in the number of ACHS members accessing these webinars:

- The email comments and webinar responses regarding the program are in the initial stages, so responses are small but all of the responses have been positive.
- In the second week, 118 members enrolled for the NSQHS Standards (2nd edition) webinar with positive feedback.
- The EQuIP6 webinar had 31 members enrolled due to a smaller customer base, but feedback has also been positive.

Conclusions

The initial customer interviews and SurveyMonkey results have demonstrated positive feedback regarding the onsite promotional visits and the webinar programs in understanding the ACHS requirements and processes for the NSQHS Standard (2nd edition) and EQuIP6. The establishment of ongoing follow-up with ACHS Primary Contacts during onsite promotional visits and webinar support may continue to assist in maintaining consistency and continuous quality improvement outcomes.





Plan for next steps

The next step for this project is to combine both of the PDSA cycles and evaluate organisations' long-term consistency and continuous improvement outcomes. This will include providing onsite support to organisations before their onsite assessment and short webinar programs for non-accreditation years. The induction orientation guide has been developed for all CSMs to increase consistency of orientation programs for new Quality Managers.

Project category: Systems

Employee confidence in protection from reprisal for reporting improper conduct

Ms Debra Taylor
Edenhope & District Memorial Hospital, VIC

Ms Debra Taylor
Quality and Risk Coordinator
Edenhope & District Memorial Hospital

Problem/Aims

Edenhope & District Memorial Hospital (EDMH) is a small multi-purpose facility, east of the Victoria/South Australia border. In 2018, employee turnover had increased by >4% over the previous four years, and the 2019 People Matter Survey (PMS; a voluntary survey conducted annually by the Victorian Public Sector Commission) identified 50% of staff felt safe (compared with 20% in 2018).

The Board of Directors wanted to mitigate organisational risks to employee mental health, patient safety and budget blowouts. Therefore, this project aimed to increase the number of staff confident that they would be protected from reprisal for reporting improper conduct from 50% in June 2019 (PMS) to 80% by June 2021.

Background

There is a widely held view that positive organisational culture is related to positive patient outcomes[1] and organisational and workplace cultures were correlated with patient outcomes in over 90% of studies.[1] Therefore, workforce safety potentially affects consumer safety and confidence. Further, work-related mental health conditions have become a major concern in Australian workplaces given the negative impact on individual employees, and the associated costs. Each year 7,200 Australians are

compensated for work-related mental health conditions, equating to around 6% of workers' compensation claims—approximately $543 million.[2]

Measurement

The myriad of reasons for feeling safe/unsafe made mapping the process challenging. We defined 'feeling safe' as being protected from detrimental effects as a result of reporting, and having confidentiality respected.

Interpretation of 'improper conduct' was investigated though brainstorming and grouping like ideas, and it was eventually defined as conduct that would, if proved beyond reasonable doubt at trial, constitute a criminal offence that is indictable (i.e. serious)[3], or conduct that if proved would constitute a criminal offence that is not indictable (i.e. a more minor criminal offence) or reasonable grounds for dismissal from employment.[3]

Design and Strategy

Intervention 1—Complaints management process review: Diagnosis through cause-and-effect charting identified the primary cause as 'No action taken; the complaint fell on deaf ears'. The assumption was made that awareness of the 'whistleblowers' legislation or effective management of allegations/complaints was lacking. We took the approach of 'input from and articulated to all'.

A complaints communication flowchart was developed, with strict timeframes; succinct responsibilities of managers at each step; and a risk matrix that outlined the escalation process as the level of risk increased, including escalation if dissatisfied with the internal process. The new process was communicated to all stakeholders.

Intervention 2—Increase survey respondents: The survey question was put on an iPad, and employees were canvassed personally.

Results

Intervention 1 indicated an 8% increase in respondents feeling safe.

Intervention 2 PMS results increased from 50% (June 2019) to 62% (June 2020). Increased uptake of surveys from 36/124 (June 2019) to 82/120 (June 2020) showed a 31% increase in total number of employees feeling safe from reprisal.

Conclusions

This project demonstrated that by redesigning processes for complaints management, staff confidence in reporting concerns increased. We will continue to monitor these results over time.

Plans for next steps

Further improvement is anticipated over time with increased stakeholder awareness. Cultural change is gradual but achievable.

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Project category: Systems

Improving compliance with mandatory training among SAHMRI Women and Kids theme staff, students and volunteers

Dr Merryn Netting, South Australian Health and Medical Research Institute, SA
Mrs Lana Earle, Women's and Children's Hospital, SA

Pictured left to right: Robert Kluttz (Executive Director, Clinical Innovation & Improvement, The Commission on Excellence and Innovation in Health), Lana Earle-Bandaralage, Merryn Netting, Bernie Harrison (Director, ACHS Improvement Academy)

Dr Merryn Netting
NHMRC Early Career Research Fellow
Adv APD SAHMRI Women and Kids

Mrs LANA EARLE-BANDARALAGE
Consumer Representative on SAHMRI Community Board
Women's and Children's Hospital, SA

Problem/Aims

The South Australian Health and Medical Research Institute (SAHMRI) is an independent research organisation affiliated with the three major South Australian universities. The Women and Kids theme, located at the Women's and Children's Hospital, comprises 55 staff, students and volunteers. All theme members must complete four online mandatory training modules and provide DCSI certification. Aboriginal Cultural Awareness must be completed once, SA Health Fire Safety Training annually, and Child Protection and Good Clinical Practice training every three years. An administration officer is responsible for reminding theme members when their training is due, and upkeep of records demonstrating that the theme meets its mandatory training requirements. Despite training being mandated, there were low compliance rates, particularly with the modules that needed repeating regularly.

The aim of our project was to increase compliance with mandatory training requirements across the SAHMRI W&K theme to 95% within six months.

Background

Online mandatory training ensures staff receive cost-effective and consistent training in essential protocols and

procedures essential for safe and appropriate job performance. A literature search identified descriptions of mandatory training programs for hand hygiene, medical counselling, drug safety training etc., but no publications describing use of quality improvement cycles to improve compliance with mandatory training requirements were found.

Measurement

To define the scope of the problem and identify potential solutions, we held two meetings with key stakeholders. The first meeting was with the W&K administration officer (6 Jun 2019). Tools used included a flow chart, cause-and-effect diagram and affinity diagrams. The second meeting involved stakeholder engagement (19 Jun 2019) and included the W&K business manager, three postdoctoral researchers, the administration officer and a consumer representative. Tools used during this meeting were a flowchart (updated), a cause-and-effect diagram (repeated during this meeting to ensure we were capturing the experience of the people undertaking the mandatory training), a fishbone diagram, an affinity diagram, brainstorming and voting.

After each meeting, a PDSA cycle was conducted, measuring the effect of a single intervention. The outcome measured was the number of theme members who had completed the training after each PDSA cycle.

Intervention

The following interventions were applied after each of the meetings:

1. After Meeting 1, standard reminder emails were issued to see if this increased uptake.
2. After Meeting 2, a new style of reminder emails was developed, together with a reward for completing the training.

Strategy

PDSA cycle 1	
Plan	Meeting 1
Do	Standard reminder emails
Study	41/61 staff completed training
Act	Five strategies were developed for application in the next cycle: 1. Positive incentives. Provide a reward (chocolate frogs) for completing the training 2. Redesign reminder emails to make the links to training modules easier to follow, and add 'gifs' to make them more eye-catching 3. Administrative reminders. Schedule reminder emails to calendar so they are sent out, send group reminders/add reminders to theme emails/place a poster in tearoom 4. Send 2–3 reminders, then to manager (or no WCH access card) 5. Group training was discussed (but not feasible as there are individual assessments)
PDSA cycle 2	

Plan	Meeting 2
Do	New style of reminder emails and reward on completion
Study	24/66 staff completed training
Act	Plans for next steps

Results

Meeting 1 revealed that 62 training modules were outstanding for 66 staff. Meeting 2 showed that 41 training modules were outstanding for 61 staff. After both PDSA cycles, 24 training modules were outstanding for 66 staff, and all staff had completed annual fire safety training.

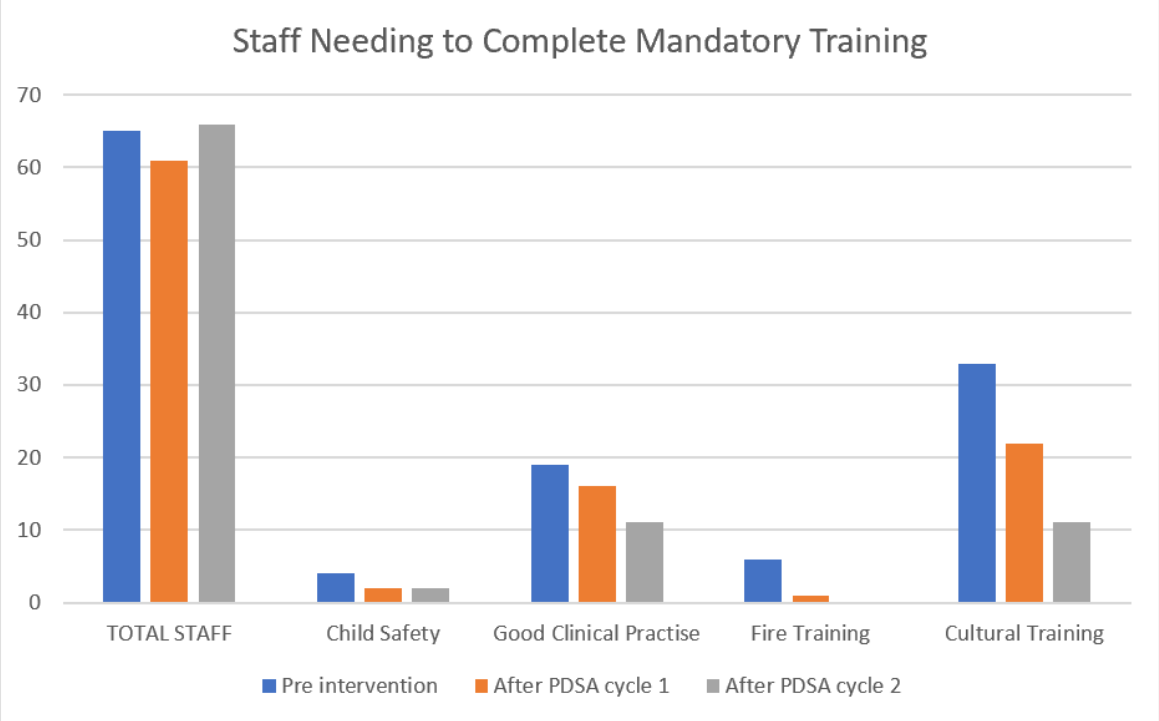
Conclusions

Using a standardised diagnostic process and two PDSA cycles, we observed a decrease in the number of SAHMRI Women and Kids theme staff members with outstanding mandatory training. After four months of interventions, we met our aim of 100% compliance with Fire Training.

Plans for next steps

Upgrading of the Excel spreadsheet used to track compliance with mandatory training, and development of reminder email templates, as part of this project will reduce the administrative burden in the future.

Table 1: Staff needing to complete mandatory training after each PDSA cycle



Project category: Systems

Improving recording of open disclosure for clinical incidents in primary health care

Fiona Wake
NT Health

Fiona Wake
Safety and Quality Manager
Population and Primary Health Care
NT Health

'I recommend that Top End Health Service speak to families after the death of a loved one and ensure that the family have been afforded proper communication, open disclosure and their reasonable needs are being met' NT Coroner 2018

Problem/Aims

The Top End Health Service (TEHS) is the principal provider of health services for the Darwin, Katherine and East Arnhem regions. The primary health care (PHC) arm includes remote and urban cancer screening, hearing, oral and prison-health services. The majority of these services are provided in isolated Aboriginal communities, where access to services, training and support can be challenging. To ascertain PHC compliance with open disclosure, PHC audited 'Open Disclosure' records in the RiskMan Incident Management system. The audit revealed less than 10% of clinical incidents had Open Disclosure recorded.

The aim of this quality improvement project was to improve PHC recording of open disclosure in RiskMan for ISR 1-4 incidents to 80% by June 2019.

Background

There is much literature related to the process, effectiveness and issues re disclosing incidents. However, little was found regarding the actual recording of disclosure outside the Australian Open Disclosure Framework.

Measurement

A PHC working group mapped the TEHS Open Disclosure process and identified opportunities for improvement. A driver diagram was drawn, identifying issues including guidelines, training and resource availability for both open disclosure and RiskMan.

To further diagnose the problem, a survey was sent to PHC managers: 33 respondents revealed a significant gap in knowledge and recording requirements; 40% of respondents were not aware of the requirement to record Open Disclosure in RiskMan, and 70% said they were not confident to undertake Open Disclosure.

Main survey themes included lack of training (both RiskMan and Open Disclosure), time pressure, and not confident of role. Comments included 'Wasn't sure it was for me to tick', 'Fear of retribution and bullying', 'Open disclosure is ... exposing the individual ... to litigation' and 'Is the PHCM responsibility'.

Intervention

The following priority strategies were identified for PDSA cycles:

1. policy guidelines
2. education
3. RiskMan training options
4. open disclosure compliance reporting.

Strategy

PDSA cycles revealed the guideline did not require open disclosure training for staff, and instructed the manager to undertake any disclosure. A new open disclosure policy launched in November 2018 included clarity re: training requirements and responsibilities.

Other improvements included open disclosure and RiskMan incorporated into orientation. Open disclosure is now a regular agenda item at Safety Quality Committee meetings to monitor compliance. Training was provided at the N5 Forum, and feedback indicated staff were clearer about responsibilities and recording disclosure.

Results

Following these improvements, a February 2019 audit revealed 65% compliance with recording of Open Disclosure in RiskMan, an increase of 55%.

Conclusions

The open disclosure project has provided an opportunity to undertake quality improvements related to recording of open disclosure. Open disclosure and RiskMan training is now established in regular processes, as is the monitoring of compliance. Appropriate policy and resources are now available to guide staff through the process.

Plans for next steps

RiskMan data show we are well on the way to reach the 80% target by June 2019.

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