Government of Western Australia
Department of Health
Institute for Health Leadership

2021 CSI Annual

Service improvement project summaries

January 2022

2021 Clinical Service Improvement Program

2021 was the inaugural year of the newly expanded Clinical Service Improvement Program with a record number of 49 frontline clinicians undertaking the program across three rotations.

Previously known as the Medical Service Improvement Program, this newly expanded program was open for the first time in 2021 to nursing, midwifery, allied health and resident and registrar medical staff across many metro and regional sites.

As part of WA Health's commitment to clinical leadership, the Institute for Health Leadership offered this opportunity for junior clinicians to undertake a service improvement project, enabling them to acquire skills and experience in leadership and change management.

After an interrupted program in 2020 the 2021 program came back with a bang with 49 clinicians undertaking the program at 15 health sites across both metro and regional WA. Of the 49 participants 31 were medical, 10 were allied health and 8 were nursing staff working in a variety of tertiary and community health settings. See below a list of all sites who supported participants in 2021:

- Albany Health Campus
- Broome Health Campus
- Bunbury Regional Hospital
- Child and Adolescent Health Service
- Dental Health Service
- Fiona Stanley Fremantle Hospital Group
- Geraldton Health Campus
- Mental Health Service
- Perth Children's Hospital
- Rockingham Peel Group
- Royal Perth Bentley Hospital Group
- Sir Charles Gairdner Hospital
- St John of God Midland
- Women and Newborn Health Service

As we move into 2022 we celebrate the 10-year anniversary of this Service Improvement Program. Over the last decade the program as engaged 222 enthusiastic and motivated frontline clinicians in service improvement across WA Health.

The 2022 CSI Program has once again increased its number of participants with 53 clinicians undertaking the program. Of that 31 are medical, 12 are allied health and 10 are nursing staff across metro and regional WA. A list of the 2021 participants is provided overleaf.

Service improvement projects

Each participant of the Clinical Service Improvement Program undertakes a service improvement project at their health site supported by an Executive Sponsor, Clinical Supervisor and Service Improvement Supervisor/s. The Institute for Health Leadership provide additional project support with Clinical Leadership Advisors providing mentoring and peer coaching throughout the rotation. Clinical Leadership Advisors as other frontline clinicians who have experience undertaking projects improvements in the clinical setting.

This document provides one-page summaries for all the service improvement projects completed during 2021. Each project summary outlines the project rationale and aim statement, as well as improvements made and outcomes to date. Recommendations for implementation and/or next steps are also included in the summaries as appropriate.

The CSI Program is an opportunity for the participants to develop their leadership skills while leading a service improvement project. These leadership skills are an essential part of being a clinician in healthcare today and therefore this program enables participants to develop and refine these skills right from an early stage in their medical careers.

Further information

Contact the Institute for Health Leadership leadership@health.wa.gov.au; (08) 9222 6401.

2021 Program Participants

Service/Site	Name	Discipline	Project
CAHS - PCH	Edward Nguyen	Medical	PROACTIVE CF - Providing Recommended Organised Annual Checks To Improve Visit Efficiency for CF children
	Elizabeth Palmer	Medical	Project STARStruck: STARS to reduce unsuccessful cannulation in kids
	Maggie McGeachie	Nursing	LYNC IN – Linking young people at PCH with Community Nursing in metropolitan high schools
	Olivia Naylor	Occupational Therapy	Early START: Supporting Transition to the NDIS At the Right Time
	Maddison Burmaz	Medical	Project TORTOISE - Transforming Our Response To Outpatient Interpreter Service Engagement
	Claudia Sampson	Medical	UPWARDs: UP to the WARDs
EMHS - RPBG	Chloe Scott	Physiotherapy	PACE: Physiotherapy Advancing in the Clinical Environment
	Christopher Si	Podiatry	Project RADIANT – Rapid Access for the Diabetic foot for Interdisciplinary Assessment and Treatment
	David Lee	Medical	PR3-OP: Preoperative Optimisation of Obstructive Sleep Apnoea
	Jennifer Hall	Nursing	LAUnCH PAD for Mental Health: Leading and Understanding Community Health Pathways Around Discharge
	Lauren Willis	Medical	excellENT: excelling in ENT outpatients
	Meg Helm	Medical	SPUTM: Streamlined Performance and Utilisation of Team Management
	Zoe Tippet	Medical	REC IT RPH: Improving rates of medication reconciliation for weekend general surgery admissions
	Daniel Sim	Medical	VITAL: Digital Journey Board
	Natala Taylor	Nursing	Reporting of sharps and occupational exposures in OT at RPH
	Nyomi Hall	Medical	ADME: Anaesthesia Documentation Made Easy
	Samantha Carey	Nursing	FACTR- From Acute Care to Rehab
	Sarah Finlay-Jones	Medical	BEHIVE: Better Engagement with HIVE
NMHS - SCGH	Dominique Maberly	Medical	DecisIVe – Choosing a Clinical Indication Based Approach to IV Cannulation
	Riley Pulford	Medical	Access to NucMed/PET for Oncology patients
	Tamsyn McKeith	Medical	Revisiting Goals of Care' - to improve the quality and timeliness of GOPC form completion in Medical Oncology and General Medicine at SCGH
Dental Health Service	Erin Hardie	Dental	Project Dental BUDS: Booking Urgent Dental Services
	Stephanie Taylor	Dental	HEAL: Health, Equity, Access, Link. Improving access to dental care at Graylands Dental Clinic
Mental Health	Galina Lawrence	Nursing	Reducing the wait time of mental health patients in ED
Public Health	Mercy Mutseyekwa	Nursing	SyphLess Project
SJOG Midland	Kate Ryan	Medical	Interpret-ED: Improving communication, improving health
	Emily Muxlow	Medical	Twilight Zone: Getting to the other side safe and sound
	Victoria Hall	Medical	RED: Reducing Extubation Delays

SMHS - FSFHG	Breff O'Shea	Medical	Echos of Freo: Reimagining flow
	Dean Choong	Medical	Project 1 PROJECT JOINTHEART: Evaluating the Role of a Dedicated Cardiovascular Risk Screening Process for Patients with Inflammatory Arthritis Project 2 SKINCISION: Improving the Time-to-Incision for Dermatological Procedures
	Linda Mai	Medical	Project C.O.R.D. (Championing Optimal Restoration of Dysphonia)
	Caris House	Medical	Cardio-Obstetrics linkage Beat as One
	Verena Merry	Medical	Project iCeBErg: improving the knowledge, confidence and skills that lie beneath management of an obstetric emergency
	Yuhan Goh	Medical	ESCAPE DFD: Expediting Specialist Care and Assessment for Patients with Early Diabetes-related Foot Disease
SMHS - RkPG	Tanya Ashoorian	Medical	Project SOAR: Safe Opioids at Rockingham
	Alvin Correia	Physiotherapy	Every Fall Counts: Falls Prevention at Rockingham
	Rachael Dennis	Medical	MatCHED – Medication Check and Education at Discharge
WACHS - Bunbury Hospital	Charlotte Steed	Nursing	WACHS-SW Domiciliary Oxygen Process
	Jessica Barrett	Medical	SWIM: South West Inpatient admissions to the Mental health service
	Alyssa Pisano	Pharmacy	Surgical Winter Bed Strategy
	Anita Pratt	Medical	Management of pre-school wheeze
WACHS - Broome Health Campus	Corey Rosher	Medical	Code Who? MET calls at Broome Hospital
WACHS - Geraldton Regional Hospital	Ee Shyn Su	Medical	EMErgency Response Group Engagement: A Review of Code blue and Medical Emergency escalation process in Geraldton Health Campus
	Paul Mario	Medical	Cellulitis Easier
WACHS - Albany Health Campus	Elyse Powell	Medical	
WNHS - KEMH	Jasmin Sekhon	Medical	Project FLOW
	Rebecca Lewis	Physiotherapy	Gynae Pathways - improving referral pathways and communication between Gynaecology outpatients and Physiotherapy outpatients at KEMH
	Vicki Farrell	Nursing	Transferring Inpatients to Scan Safely
	Emily O'Sullivan	Physiotherapy	Physi-GO: improving accessibility of Physiotherapy services for Gynaecology Outpatients at KEMH
	Jim Fan	Medical	OBTain: Optimising blood taking – decreasing collection error and improving safety

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PROACTIVE CF - Providing Recommended Organised Annual Checks To Improve Visit Efficiency for CF children

Dr Edward Nguyen, Perth Children's Hospital, Child and Adolescent Health Service

The improvement process

Three stakeholder meetings were conducted with over 20 participants which mapped the process of annual review for children with cystic fibrosis (CF), identified 45 issues, determined the root causes and generated 12 solutions to address these issues.

Working closely with the CF multidisciplinary team, the Consumer Reference Group and the Child and Adolescent Health Service Executive Committee, this project implemented 7 solutions at completion.

Project outcomes

- Solution 1 – Utilisation of pre-existing SMS notification system to remind parents of annual review tests 2 weeks in advance
- Solution 2 – Development of a parent infographic for the annual review tests and assessments, and its rationale
- Solution 3 – Development of a checklist of annual review tests for staff in a visually pleasing schedule
- Solution 4 – Development of an updated electronic annual review checklist on REDCaps.
- Solution 5 – Development of a one-page annual review summary letter for parents, as a print off function of REDcaps
- Solution 7 – Proposed process change for a more "Proactive" approach to annual review
- Solution 9 – Approved funding for an administrative staff dedicated to clerical duties for CF patients in Respiratory Department

Recommendations

Further recommendations include: increased clinic space for the review of CF patients due to enormous supply-demand discrepancy; the need for a central database for CF patients; and regular auditing of the changes implemented in this project.

Project Aim

To reduce the number of missing or delayed tests for annual reviews, to optimise the annual review process with consideration to staff and patients, to streamline the booking process for annual reviews and to improve staff work satisfaction and patient experience in annual reviews.

Rationale

At Perth Children's Hospital, the annual review process has deficiencies - from the booking process to the communication of results and management plan to patients and their families. Missing tests and an inefficient process can present a number of problems for the staff, health service and, most importantly, the patients and their families.

Improvement team members

Supervisors:

Dr Robert Lethbridge

Natalia Talikowski

Supporters:

Dr André Schultz

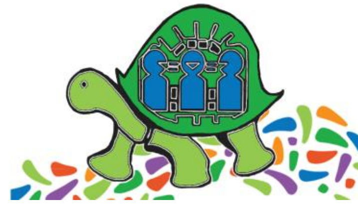
The CF multidisciplinary team

Dr Elizabeth Palmer

Elizabeth Palmer - pdf

Maggie McGeachie - pdf

Olivia Naylor - pdf



Project TORTOISE - Transforming Our Response To Outpatient Interpreter Service Engagement

Dr Maddison Burmaz, Child and Adolescent Health Service

The improvement process

A group of stakeholders including clinical, clerical, administrative, language services and digital transformation staff were engaged throughout the DMAIC process. A process mapping session revealed 78 issues which were expanded within a root cause analysis session. Themes included the lack of clinic notification in patients' primary language, a lack of staff understanding of processes, interpreter availability, language services notification processes, insufficient clinic time (longer appointments being required for equitable care) and the culture surrounding interpreter use.

Twenty-five families, who were attending appointments at Perth Children's Hospital (PCH), were interviewed, whilst an interpreter was present. Only 20% of patients felt that they knew how to change their appointment and every family had a preference for an onsite interpreter and felt we should be offering clinic notification in their primary language. 88 staff members participated in a survey which supported the root-cause-analysis session, revealing uncertainty regarding processes, a desire for additional in system prompts, recognition that consultations requiring an interpreter take longer and belief that patients should contacted in their primary language about their appointments.

Project outcomes

- Valuable feedback from patients on experiences and preferences which has been forwarded to consumer engagement
- Increased staff education on interpreter use and processes
- Distribution of a phone contact with all interpreter numbers
- Interpreter numbers on the VOCERA system (the primary communication method at PCH)
- Approval within General Paediatrics for longer appointments and inclusion of interpreter details on eReferrals (which could be expanded hospital wide)

Recommendations

24 recommendation categories for improvement have been proposed. Appointment notification should be provided in a patient's primary language - with potential processes for this outlined. Automatically booking longer clinic appointments for patients with language requirements should be routine. Additional prompts of language requirements and to book an interpreter should be present on HIAS systems.

Project Aims

To use the DMAIC model and a NSQHS Standards, safety-based approach to:

- identify patient experiences and preferences regarding interpreter use and appointment notification in the PCH Outpatient setting.
- review staff opinions, experiences and barriers regarding effectively engaging with interpreters
- identify strategies to improve safety and quality care provision for patients who need an interpreter in the CAHS outpatient setting

Rationale

The majority of interpreter bookings are in the Outpatient setting and the proportion of patients with language requirements is increasing. The literature and NSQHS recognise that failure to effectively engage an interpreter places our patients and organisation at risk and that additional measures are needed to ensure we provide safe, equitable care. Despite this, most appointment communication in the organisation is in English and interpreter use at PCH Outpatient clinics is inconsistent, with interpreter use only documented 14.7% of the time. The voice of patients with language requirements are under-represented within service improvement activities; leading to this becoming an integral project aim.

Improvement team members

- Clinical supervisor Dr Sarah Cherian
- Service improvement supervisor Natalia Talikowski

Thank you to all the incredible staff who made this project possible!

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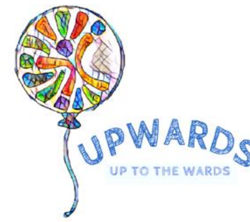

UPWARDs: UP to the WARDs

Dr Claudia Sampson, Perth Children's Hospital, CAHS

The improvement process

Utilising the DMAIC methodology, a process mapping session was conducted, analysing the patient journey from decision to admit in the Emergency Department to patient arrival and clinical handover on the ward. The process map was validated from a medical, nursing, clerical, managerial and patient support services perspective and identified 57 issues. Data was gathered across the process map and subsequently determined the focus of logistical solutions. Root cause analysis revealed key causes for delay include competing clinical priorities, workload, issues with infrastructure, IT. and breakdowns in communication. Solution generation focussed on processes regarding communication of the bed request, patient transfer and clinical handover as well as broader cultural change.

Project outcomes

- Formation of stakeholder-informed logistical solution plan and accompanying resources
- Alternations to electronic bed request
- Improved interdepartmental relationships and communication between Emergency Department and ward staff
- Enhanced organisational understanding of barriers to patient flow
- Commencement of hospital-wide cultural shift to ownership of patient flow issues with focus on collaboration, communication and respect
- Re-focus of child and family at centre of patient flow communication

Recommendations

Primary recommendations include the introduction of a dedicated 24-hour desk-based bed manager as well as an individual responsible for patient flow coordination in the Emergency Department. The implementation of the six-phase logistical solution plan is ongoing and includes key alterations to transfer and handover processes between departments. Formation of a broader UPWARDs Steering Committee on Patient Flow, with focus on innovation and cultural change, is currently underway. Broader strategic work is required in terms of bed availability and state-wide paediatric inpatient service provision.

Project Aim

UPWARDs aims to improve processes between decision to admit in the Emergency Department and patient arrival on the inpatient wards through reduction in waste, duplication and delay. More broadly, UPWARDs aims to improve culture and communication surrounding patient flow at Perth Children's Hospital.

Rationale

Patient flow is the core business of healthcare providers. Well-functioning patient flow ensures the best clinical care for patients and requires seamless integration of logistical and clinical systems. UPWARDs data demonstrates a 4 hour and 54-minute time interval between decision to admit under General Paediatrics and arrival on the ward, indicating significant delay.

Improvement team members

Supervisors:

Dr Deirdre Speldewinde

Natalia Talikowski

Supporters:

PCH Emergency Department Staff
PCH Ward 4B Nursing Staff
Department of General Paediatrics
PCH Patient Flow Unit
CAHS Project Management Office
CAHS Executive

Chloe Scott - pdf

Christopher Si - pdf

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PR3-OP: Preoperative Optimisation of Obstructive Sleep Apnoea

Dr David Lee, Royal Perth Hospital, EMHS

The improvement process

As there were previously several projects done in the perioperative space, the process map of the most recent project was taken and modified to suit the journey of a patient with OSA, from Decision for Surgery to Day of Surgery. Several issues were identified, most involving management in the PAAS clinic. An RCA session was held, which revealed that most of the issues were attributed to lack of management guidelines and escalation pathways. Moreover, we also identified the HIVE system was not being utilised for post-op monitoring of these patients.

Project outcomes

- Development of clear screening criteria to uniformly risk stratify patients with undiagnosed OSA
- Development of clear escalation pathways for high-risk patients
- Ensuring appropriate post-operative disposition for high-risk patients (i.e. HIVE)
- Initiation of modification process to existing HIVE set-up to tailor post-op monitoring to specific needs of OSA patients
- Increased overall staff understanding of OSA

Recommendations

- Exporting Electronic Patient Health Questionnaires (ePHQ) to iCM to allow for easier access
- Involving primary care physicians in the pre-operative investigation process of OSA
- Generalising the use of modified HIVE monitoring to other wards for other ailments (e.g.: Obesity Hypoventilation Syndrome)

Project Aim

To improve the existing preoperative process to ensure safer care for Obstructive Sleep Apnoea (OSA) patients in the perioperative setting.

Rationale

Australia's ageing population and rising rates of obesity have contributed in increased prevalence of OSA in the elective surgical cohort. Local data from the RPH Department of Anaesthesia showed that patients attending PAAS are poorly screened for OSA and that there were no escalation pathways for high risk OSA patients. The same audit also demonstrated that these patients proceeded to develop post-operative complications because of their OSA. There is an opportunity to develop a pathway that streamlines the care of these patients.

Improvement team members

Supervisors:

Dr Paras Malik

Dr Jeanie Leong

Katherine Birkett

Supporters:

A/Prof George Eskander

Dr Sumit Sinha-Roy

Dr Helen Daly

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LAUnCH PAD
FOR MENTAL HEALTH

Clinical Service Improvement Program
Lead•Improve•Transform

LAUnCH PAD for Mental Health: Leading and Understanding Community Health Pathways Around Discharge

Jennifer Hall, Royal Perth Hospital, EMHS

Project Aim

The goal of this project was to identify the barriers to discharge for long-term consumers within BHS CTT and develop initial pathways for discharge into the community.

Critical to Quality

- Reducing risk to patient by having adequate community support
- Increased confidence in GP management of complex MH consumers
- Standardised guidelines and pathways in delivering care
- Improved communication between OP clinic, NGO's and GP clinic

The improvement process

A process mapping session was held with all CTT stakeholders located at BHS Outpatient MH Clinic. This method was used to gather key staff in one room and initiate the redesign process by identifying issues, delays and barriers that exist with the current process.

The voice of the staff, consumers, organisation, non-government organisations and GP were used to generate the 'critical to quality' requirements which then formed potential solutions.

Objectives

Identify BHS CTT consumers who have been continuously active within the service for ten years or more, who have not had an inpatient admission in the last 18 months.

- Identify potential gaps in the MH service from a systems perspective that could prevent discharge
- Identify issues between primary care services, NGO's, and secondary public services to create a seamless service
- Develop a criterion to support discharge
- Inform future funding mechanisms
- Inform consumer and clinician ratio

Within this service, the Clinical Treatment Team (CTT) currently has 435 active consumers. Of these, 74 have been continuously active within the service for more than 10 years with 27 managed on Clozapine. This leaves 46 consumers with an active status of >10 years or approximately 10.5% of total active CTT clients.

Project Outcomes

- Formulation of a MOC to adequately guide current practice within CTT
- Revision of the role and responsibilities of the Care Coordinator and subsequent clarification around same
- Improved TOC documentation with identification of early warning signs, relapse signature and a comprehensive resource list to support the consumer in discharge
- Creation of a pilot program with a local GP clinic with an interest in MH consumers

Lauren Willis - pdf

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SPUTM: Streamlined Performance and Utilisation of Team Management

Dr Meg Helm, Royal Perth Hospital, EMHS

The improvement process

A process mapping session was conducted with Bronchiectasis MDT and Outpatient/Clerical staff to identify focus areas for improvement. Data was gathered, particularly around processes, communication, clinic experience and continuity of care. Root causes were felt be: a clinic booking system not conducive to continuity of care, a lack of standardised processes for communication and patient care, and a lack of support for GPs to manage patients in the community. The following solutions/outcomes were proposed.

Project outcomes

Framework for improved Bronchiectasis MDT communication

- REDCaps database established for trial.
- Monthly case review MDM.
- "Bronchiectasis passport" developed for trial.
- Discharge template to be available for final clinic dictations.

Framework for new model of care for Bronchiectasis service

- Suggestion for nurse-practitioner led model of care. Handed over to project team/department for further consideration.
- Pre-admission nurse phone review (if NP implemented).

Bronchiectasis clinic booking structure amended

- Bronchiectasis consultant roster adjusted to more evenly space patient numbers in clinic, improving patient flow for physio/nurse educator.
- Patients gradually rebooked to individual Physician clinics.

Recommendations

1. Ongoing project discussions as a rolling MDM agenda item, for evaluation of proposed solutions. Evaluation & redesign of implemented changes may take some time, given the clinic only has a weekly frequency, with some Physicians only attending monthly.
2. Implementation of some solutions rely on creation of a NP role. If this solution is not achievable, creation of a nurse coordinator role with similar FTE to the proposed NP role, may allow some of the embedded solutions to be achieved with similar outcome.
3. Suggestion for team to meet with clinician/s who are currently using REDCaps in clinical practice, for advice prior moving to a trial Beta development mode. Contact provided.

Project Aim

Develop a sustainable model of care for RPH's outpatient Bronchiectasis service, that promotes high quality, safe, patient-centred care through improved communication and reduced inefficiencies.

Rationale

RPH's experienced Bronchiectasis MDT provides high quality care to patients referred by both GPs and other respiratory specialists, despite no formal management pathways or policies. There is an increasing need for the service, with new patients outnumbering discharges by **232 (163%)** in the past seven years. To meet current demand, **additional clinics** are being staffed, as well as considerable out of clinic time spent by Physicians spent managing patients to prevent acute admissions. Consideration of different models of care, and improvements to current processes to reduce inefficiencies, are necessary to ensure the service remains sustainable to safely meet future demand, while maintaining the excellent standard of care patients report they receive.

Improvement team members

Supervisors:

Dr. Justin Waring
Ms. Katherine Birkett

Supervisors:

Bronchiectasis MDT:
Dr Ruad Perera
Prof Grant Waterer
Sue Bostock
Sandra Daly.
Executive co-sponsors:
Linda Brearley
A/Prof George Eskander
Charles O'Hanlon.

REC IT RPH: *Improving rates of medication reconciliation for weekend general surgery admissions*

Zoe Tippet, Royal Perth Hospital, EMHS

The improvement process

A process mapping session was conducted with medical, pharmacy and nursing staff from ward 5ASU, mapping the patient journey from admission under general surgery, to medication reconciliation complete. 57 issues were raised by staff, concentrating on team communication and lack of escalation processes. Data was gathered to determine the impact and frequency of these issues.

Root cause analysis revealed that medical staff lacked confidence in the process; there was no appropriate documentation process and no process of escalation or clinical pharmacy support for weekend medication reconciliation.

Project outcomes

- **Amendment to 5ASU admission proforma**
  » Addition of a 'medication reconciliation' section, detailing if process complete and what sources used. This will improve staff communication and minimise work duplication.
- **Addition of medication reconciliation prioritisation and escalation pathway on 5ASU proforma**
  » Addition of 'high-, low-risk' prioritisation for incomplete medication reconciliations on the 5ASU admission proforma. This will be documented by nursing staff on a shared iSOFT handover for medical, nursing and pharmacy staff to see and act upon.
- **Application for weekend pharmacy service support**
  » Incomplete or high-risk medication reconciliation could be escalated to clinical pharmacy staff on weekends. A business case for pharmacy FTE was handed over to HOD pharmacy.
- **Initiation of pharmacy-led medication reconciliation education for JMOs and clear role delegation of medication reconciliation (to include RMOs)**
  » Improved understanding and confidence in the process will improve staff morale and culture of continuous improvement.

Recommendations

1. Staff education sessions on the above changes will need to be rolled out and ongoing support from senior leadership will be instrumental in the success of these changes.

2. Auditing of medication reconciliation escalation requirements, after implementing the above changes will indicate the level of need for weekend pharmacy services. From this, the drafted business case can be adjusted appropriately and submitted.

Project aim

To improve the rates of weekend medication reconciliation completion by End of Next Calendar Day (ENCD) after admission, for general surgery patients on 5ASU and thus, reducing medication error directly related to incomplete or inaccurate medication reconciliation.

Rationale

Medication errors are one of the most common incidents in Australian hospitals. To address this, the National Safety and Quality in Health Service developed a standard that all admitted patients require medication reconciliation by ENCD after admission. In 2019, RPH complied with this standard for **46%** of admissions, with **53% of weekday** and **25% of weekend** admissions receiving medication reconciliation by ENCD. In 2019, there were 79 documented medication errors on 5ASU, **30%** of these were directly related to incomplete medication reconciliation. These patients had an average increased length of stay of **1.19 days**, costing **$1,122 per error**.

Improvement team members

Supervisors

Dr. Deiter Weber
Ms. Katherine Birkett

Supporters

Sarah Ward, David McKnight, Samantha Hilmi, Sarah Hill, RPH ward 5ASU pharmacy, medical, nursing and administrative staff

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VITAL: Digital Journey Board

Dr Daniel Sim, Royal Perth Hospital, EMHS

The improvement process

Through discussions and surveys with patients and staff from the Medical Short Stay unit and Acute Surgical unit, we found numerous issues regarding communication between staff during a patient's journey through their respective wards.

The project aimed to implement a bespoke digital journey board to the distinct needs of each department. The surgical department needed communication links with theatres and radiology specifically. Whereas the medical short stay unit benefitted from communication regarding discharge destinations. We learnt from the Acute medical unit's VITAL project to improve the application of a digital journey board to the new wards.

Project outcomes

- The implementation of VITAL Digital Journey board to the Medical short stay unit and Acute surgical unit
- Contribute to improvements to VITAL in Acute medical unit
- Stimulate interest from outside of RPH in the capabilities and potential of VITAL Digital journey boards
- Improve patient flow through medical short stay unit and acute surgical unit

Recommendations

Continual evaluation of the impact of VITAL digital journey board and to monitor VITAL's effect on patient flow and on staff communication. Have the capability to adapt and improve VITAL with new ideas and innovations. The long-term goal is to introduce bespoke VITAL models to other wards within the hospital.

Project Aim

Incorporate a Digital Journey Board specific to the needs of the Medical short stay unit and to the Acute surgical unit.

Rationale

Miscommunication between healthcare is a reoccurring issue. We worked with the Medical Short Stay unit and Acute Surgical unit to develop and implement a new VITAL Digital Journey Board to promote multidisciplinary input and seamless transition of care.

Improvement team members

Supervisors:

Clinical supervisor: Dr Sumit Sinha-Roy

Service improvement supervisor: Katherine Birkett

Project Manager: Anna Rajander

SharpSafe

Natala Taylor, Royal Perth Hospital, EMHS.

The improvement process

The process from the time a staff member receives a sharps injury, in the Operating Theatre Department to the completion of the reporting process was mapped out in a process mapping session. This session showed two district and unilateral pathways for reporting a sharps injury and 37 issues surrounding the process itself. These issues were grouped, validated and the root causes were identified as Human Factors, Time and Workload. Solutions to address these root causes were generated and implemented or were handed over.

Project outcomes

- New sharps injury packs (complete with risk assessment, instructions on how to complete CHOIR forms, prefilled pathology forms, additional information booklets and support) are available to all staff in the Operating Theatre Department.
- Occupational Exposures now has a dedicated resource space available on the RPH Hub for all staff to access information, and resources, anytime from anywhere at RPH.
- An updated Take 5 education package has been sent out to all RPBG staff.
- Staff Clinic and Work Health and Safety will collaboratively provide support, management and follow up with all staff who sustain a sharps injury.
- The Theatre OSH committee have set a structured framework and targets for CHOIR delegation, investigation, implementation and completion of control measures.

Recommendations

- Ongoing review of sharps injuries to continue to identify prevenatative strategies and seek tailored solutions to reduce the risk of sharps from occuring
- Ongoing training and education regarding best prcatice for safe handling for all staff of the multidisciplanary Operating Theatre Department team.

Project Aim

The aim of my project was to identify the true extent and incidence of sharps injuries in the Operating Theatre Department.

Rationale

Data shows RPH consistently reports the highest number of sharps injuries across the Perth metropolitan area. There was 94 staff members who received a sharps injury last year and 38% of those came from the Operating Theatre Department.

Improvement team members

Supervisors:

Clinical supervisor: Leonie Daly

Service improvement supervisor: Richard Clark

Executive Sponsor: Neil Cowan

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Anaesthesia Documentation Made Easy

Dr Nyomi Hall, Royal Perth Hospital, EMHS

The improvement process

A process mapping session revealed the following issues:

- Problems with Theatre Management System (TMS) software
- Duplication of work
- No electronic access to information
- Multiple sources of information
- Unavailable patient notes

Root cause analysis determined two major root causes:

1. Systemic and organisational issues
2. TMS design flaws

Project outcomes

Solutions generated by stakeholders:

1. Create new electronic pre-anaesthesia record
2. Redesign and update TMS
3. Staff education
4. Full patient electronic records

Implementations:

- TMS training and education for anaesthesia staff
- New electronic pre-anaesthesia record

Recommendations

The implementation of the new electronic pre-anaesthesia record is currently ongoing, with continued collboration with the team from Data and Digital Innovation (DDI) .

Project Aim

To develop a streamlined pre-anaesthesia record for both elective and emergency patients, with pre-anaesthesia records becoming a continuously workable electronic document that can be readily visible and accessible by all staff.

Rationale

A patient's medical record guides clinicians to provide both immediate and subsequent patient management and contains important information that plays a role in research and quality assurance. [1, 2] The completeness of medical records and documentation is vital for patient safety. [3, 4]

The anaesthesia record contains crucial information about a patient's health status. Complex patients undergoing elective procedures are seen in the Pre-Anaesthesia Assessment Service (PAAS) where they receive integrated, multidisciplinary care. Patients requiring emergency surgery do not attend PAAS, and do not receive the same optimisation regime.

This project investigated the pathway from patients presenting to PAAS clinic or emergency for either elective or emergency surgery, through to having their surgery and the recovery period. Issues related to this process were identified, and errors, wastage, and areas for improvement highlighted.

Improvement team members

Supervisors:

Dr Scott Douglas

Katherine Birkett

Supporters:

Dr Sumit Sinha-Roy

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FACTR From Acute Care To Rehab

Clinical Service Improvement Program Lead•Improve•Transform

FACTR- From Acute Care to Rehab

Samantha Carey, Royal Perth Hospital, EMHS

Project Aim

To optimise and reduce the ICU LOS of ventilated tetraplegic patients awaiting placement at the FSH State Rehabilitation Service.

Rationale

Incidence of SCI in WA is more than 50% higher than the national average. As the state trauma service RPH manages the vast majority of West Australians with acute cervical SCI. While few, these patients represent a complex cohort, who on average are ventilated in ICU for 72 days, prior to commencing their rehabilitation journey. Delays in this transition may negatively impact their functional outcomes and preparation for their new life.

The improvement process

Using the DMAIC methodology stakeholders across EMHS and SMHS were identified, a project charter was developed, and process mapping sessions held. Through a systems-based review of the patients' journey from admission to ICU, until transfer to State Rehab- 71 issues were identified, centring around clinical variation, communication, resources, education and planning. These issues were validated, and an approximate 14-day delay identified through analysis of the documented patient journey. A root cause analysis session was held with the same stakeholders, determining that a lack of resources, education and multi-disciplinary approach, accounted most significantly to poorly coordinated care. Solutions were devised in collaboration with EMHS and SMHS sites to improve collaboration and cohesion between the services in the delivery of care for these patients.

Project outcomes

- Early referral from RPH ICU to SRS, to involve the Rehab MDT in patient care, and plan activity and capacity
- Nursing referral from RPH ICU to SRS as a fail safe
- Regular cross-site MDT meetings, to provide a structured, patient-centred approach to the management of this complex patient cohort
- Introduced new communication devices and strategies for ventilated patients

Recommendations

Recommendations have been made to ICU management for a protocolised approach for tracheostomy insertion in this patient cohort and dedicated Occupational Therapy services in the ICU. Sustainable education on home ventilators is required for RPH ICU staff in the future.

Improvement team members

Supervisors:

Dr Julian Sunario- Clinical Supervisor
Richard Clark- Project Supervisor

Supporters:

Sarah Ward- Executive Sponsor
Corina Gill- Institute of Health Leadership
Rosie Cooper- Institute of Health Leadership
Katherine Birkett

BEHIVE: Better Engagement with HIVE

Dr Sarah Finlay-Jones, Royal Perth Hospital, East Metropolitan Health Service

The improvement process

Project BEHIVE utilised the DMAIC methodology for clinical service redesign to review communication processes between HIVE and ward-based staff. Current communication workflow was reviewed and mapped through stakeholder consultation to identify current pitfalls and limitations to use. Root cause analysis revealed three core issues which were reducing communication efficiency. In summary these were 1) process inefficiency, 2) poor communication governance, and 3) time constraints. Solutions which would address these root causes were brainstormed. Ultimately, it was decided communication should be streamlined by eliminating the requirement to know an individual by name, instead focusing on the role they occupy.

Project outcomes

- Identification of common barriers to communication
- Identification of education opportunities for medical staff with regards to HIVE to promote interaction with the service
- Discussion with a third-party provider regarding the introduction of a role-based messaging platform. A trial period of a proposed software solution is currently in the planning phase.

Recommendations

Many of the communication modalities utilised by HIVE are not unique to the service and employed throughout Royal Perth Hospital. Therefore, any changes made to communication modalities will also impact healthcare delivery outside of HIVE. Expanding analysis of communication modalities to a hospital-wide approach will be key to ensure future improvements are sustainable across the healthcare service. For example, consideration should be made to re-structuring the current paging system in order to standardise pager labelling for ease of communication.

Project Aim

To identify current communication modalities between HIVE and ward-based staff which are not meeting the clinical workflow requirements. Through the identification of these deficits, we would utilise root cause analysis to synthesise sustainable improvements.

Rationale

Health in the Virtual Environment (HIVE) is an innovative remote patient monitoring service. Unwell ward patients are monitored continuously by the HIVE team, allowing for the early detection of patient deterioration. Due to the time-sensitive nature of responding to patient deterioration, efficient communication is required between staff. A multi-modal approach to communication is the current operating standard for HIVE, who utilise the paging system, MS teams, phone calls, and audio-video call to the patient bedside.

Improvement team members

Supervisors:

Dr Sumit Sinha-Roy, Dr Tim Bowles, Katherine Birkett

Supporters:

Dr Kate Nuthall, Katie Khoury, Eliza Stuart, Eve O'Mahony, Drianca Naidoo

‘Scans for Plans: Improving cancer patient’s access to PET services’

Dr Riley Pulford, Sir Charles Gairdner Hospital, North Metropolitan Health Service

The improvement process

This project was completed through the application of lean six sigma principles and methodology. A process mapping session with key stakeholders of the WA PET service and SCGH Cancer Centre was conducted which identified 36 potential issues that were grouped thematically into communication between the services, duplication of processes and indeterminate departmental demand and activity. To further examine these issues, further data was gathered by examining the Nuclear Medicine department’s 3 key pillars – demand, capacity and activity. The data collected during the measurement phase was disseminated to stakeholders during a root-cause analysis (RCA) session, with 7 key questions surrounding these findings being posed and probed utilising brainwriting. RCA session feedback was collated and thematically grouped to inform 9 questions that were raised during a separate solutions generation session, ultimately arriving at 32 possible solutions. These solutions underwent further evaluation against a ‘doability’ vs. benefit graph before proceeding to local and executive sign-off.

Project outcomes & Recommendations

The scope of this project was unforeseeably large and was complicated by a demanding measurement phase. However, multiple solutions were identified, and they received local and executive sign-off. This will continue to be progressed by the SCGH Innovations and Improvement team. This includes:

Locally endorsed solutions:

- Improved communication with patients regarding appointments
- Referral form redesign to improve identification of urgent scans
- Improved liaison with isotope supply and production

Executive endorsed solutions:

- Physical redesign of department
- Strategic replacement of scanning equipment
- HR recruiting strategies for nursing, MIT and clerical staff
- Additional AIN for the nuclear medicine department

Project Aim

Improve cancer patients’ access to the WA PET service at Sir Charles Gairdner Hospital, such that scans are performed according to the follow-up plan.

Rationale

Nuclear Medicine scans including Positron emission tomography (PET) scans are commonly used in the diagnosis and treatment planning of many cancers. At present the WA PET Service (SCGH) is perceived to not be meeting expected time frames, with a number of requested scans not being completed prior to cancer patients’ next follow-up outpatient appointment. This was highlighted during a 4-week audit conducted through the SCGH Cancer Centre which identified 70 occasions in which the PET scan had not been performed by the follow-up appointment.

Improvement team members

Supervisors:

A/Prof Ros Francis & Dr Michelle McMullen (Clinical supervisors)

Jennifer Francis (Service improvement supervisor)

Revisiting Goals of Patient Care

Dr Tamsyn McKeith, Sir Charles Gairdner Hospital, North Metro Health Service

The improvement process

The Revisiting Goals of Care project focussed on the SCGH General Medicine and Medical Oncology departments with a view to translate identified solutions across all specialties.

A retrospective audit of MET call data found that 29% of General Medical patients and 32% of Oncology patients did not have a GoPC form completed prior to the MET call.

Through a hybrid root-cause-analysis and solutions generating session with General Medicine, a few key areas were identified for improvement hospital-wide; staff education, improving consumer (patient and family) awareness and improving communication surrounding GoPC.

Project outcomes

- Development of a staff education program addressing clinical, communication and administrative skills surrounding GoPC
- Development of a patient education and awareness campaign to improve understanding and acceptance of GoPC
- Development of a Departmental Guide incorporating 'Lessons Learned' from General Medicine
- Audit tool and baseline GoPC measurement for monitoring of eForm rollout
- Recommendations for further improvements

Recommendations

- Executive support required to make GoPC an organisational priority
- Ongoing training and education for staff
- Ongoing monitoring through regular auditing

Project Aim

To improve the timeliness and quality of Goals of Patient Care (GoPC) conversations for patients admitted to SCGH.

Rationale

SCGH Medical Emergency Team (MET) data indicated that 1 in 4 MET calls attended at SCGH did not have GoPC documentation completed prior to call. Often resulting in the need for after-hours and MET teams to have these important discussions with patients and families who are not well known to them at points in the patient journey when they are most unwell. The result of this is incredibly burdensome to both patient, family and staff.

Improvement team members

Supervisors:

Dr Stef Maticevic, General Medicine Consultant

Annie Brinkworth, SCGH MET coordinator

Lucy Gent, HoD Medical Oncology

Jennifer Francis, Manager Innovations & Improvement

Supporters:

Dr Tor Ercleve

Dr Deepan Krishnasivam

Project Dental BUDS

Dr Erin Hardie, Dental Health Services, NMHS

The improvement process

Project Dental BUDS reviewed the urgent care booking system at the Morley and Rockingham General Dental Clinics (GDCs). The improvement opportunity was defined through process mapping sessions at each clinic, a survey of patients accessing urgent care and evaluation of previous activity reports. Issues identified centred around the length of time patients were waiting for an urgent care appointment, difficulty in determining appropriate appointment length and a subsequent potential underutilisation of urgent care appointment time. Data was gathered and illustrated that patients could access an urgent care appointment within the recommended time frame but there was an underutilisation of urgent care appointment time. Root cause analysis revealed that this underutilisation of urgent care appointment time was more apparent for certain presenting complaints; this was therefore the focus area for improvement solutions.

Project outcomes

- Developed recommended standard urgent care appointment lengths according to a patient's reported presenting complaint.
- Drafted a document to assist non-clinic staff in determining urgent care presenting complaints.
- Introduced clinical and non-clinical staff to the service improvement process.
- Developed solution charters for recommendations listed below.

Recommendations

- Develop a guideline for the management of urgent care patients in GDCs throughout DHS. Included in the guideline should be recommendations for standard urgent care appointment lengths and a document to assist non-clinic staff in determining urgent care presenting complaints.
- Improve the recording of urgent care patients through DenIM (patient management software).

Project Aim

To review the current urgent care booking system and identify ways to improve its efficiency.

Rationale

Providing urgent dental care in a community setting is linked with goals of the latest State Oral Health Plan and 2019 Sustainable Health Review. The current urgent care booking system has resulted in a drop in urgent care clinician activity and difficulty in coordinating access to urgent care appointments. The perceived flow-on effects from such issues included difficulty in balancing appointment availability for both non-urgent general care and urgent care, increase in non-urgent general waitlist length and underutilisation of appointment time. These effects, and their potential impact on the goals mentioned above, identified a need to review the urgent care booking system.

Improvement team members

Supervisors:

Service improvement supervisor: Dr Peter Wilkins

Clinical supervisors: Dr Gino Cirillo & Dr Martin Glick

Executive Sponsor: Sam Carrello

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HEAL: Health, Equity, Access, Link

Improving access to dental care at Graylands Dental Clinic

Dr Stephanie Taylor, Special Dental Services, Dental Health Services

Project Aim

To review the referral pathway for enrolment and inclusion of patients into the Graylands Dental Clinic, with a focus on defining those patients who are eligible and revising the referral process.

Rationale

Graylands Dental Clinic currently accept referrals from less than half of the mental health residential and service delivery facilities across the Metropolitan area.

Referral into the clinic requires completion of a PMR20, the Graylands Hospital referral form. As a paper form, it has caused issues with patient confidentiality, inefficient use of clinical time and forced rejection of eligible referrals.

The Improvement Process

The HEAL Project was run over a ten-week term following the DMAIC methodology. This involved defining the problem with a process mapping session following the journey of patients requiring access to dental care at Graylands Dental Clinic. This session identified issues with accessibility and format of the existing PMR20 form, poor understanding of the service provided, who is eligible, and wasted clinical time. These issues were measured and analysed to determine the root causes. From here, a solution generation session was held which determined the project outcomes below.

Project Outcomes

- Development of a new PMR20 referral form to include a full medical history and redefining the length of referral validity based on the patient's mental health diagnosis.
- Development of an electronic version of the PMR20 referral form (GEKO quality improvement project).
- Development of a procedure for access to fully subsidised emergency appointments, as required, for Graylands-eligible patients at Government Dental Clinics.
- Development of an alternative treatment letter for ineligible patients.
- Access to electronic missed appointment letters for use by the Graylands Dental Clinic team.
- Development of a consumer feedback survey for Graylands Dental Clinic patients (GEKO quality improvement project).

Recommendations

Clarification of the service and eligibility at Graylands Dental Clinic with an approved Memorandum of Understanding. This has been drafted and currently undergoing review. Once approved, this information and the details of the electronic PMR20 form will be distributed to relevant stakeholders.

Improvement Team Members

Supervisors:

Catherine Alford

Martin Glick

Sam Carrello

Supporters:

Graylands Dental Clinic Team

Glen Walker

Stephen Wanstall

Clare Devellerez

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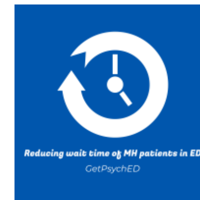


Reducing the wait time of mental health patients in ED

Galina Lawrence, North Metropolitan Health Service, Mental Health

Project Aim

To deliver prompt assessment and interventions for mental health patients at the point of Triage;

To assist with patient and staff safety and reduce ED access pressures.

Rationale

Emergency department (ED) mental health presentations and wait times are increasing substantially.

This project laid the foundation of a new way of collaboration between Sir Charles Gairdner Hospital (SCGH) ED and North Metropolitan Health Service (NMHS) Psychiatric Liaison Service (PLS).

The improvement process

The project was undertaken using Clinical Service Redesign methodology. Consultation of staff across agencies was undertaken through process mapping sessions, professional group discussion, patient and staff surveys. Analysis of SCGH ED data was also performed, as well as literature reviews, consulting interstate services and evaluating national data.

Review of current service processes and root cause analysis validated the need of implementing a new PLS Model of Care, including PLS Clinical Nurse position and Level 3 PLN to perform mental health Triage duties at the point of ED entry.

Project outcomes

- ✓ Improving communication and collaboration with mental health and ED staff, patients, interagencies and developing a con current QI project with SCGH ED and Psychiatric teams;
- ✓ Addition of a PLS Level 2 Mental Health Nurse position and Level 3 Triage Nurse Proposal, including Draft Model of Care;
- ✓ Review of the current PLN service; and
- ✓ Plannning of new education for Mental health staff, SCGH ED staff and Interagencies (e.g 'ED Walk through' proposed by SCGH ED management).

Recommendations

- 6- month Pilot project to deliver New Model of Care including Level 3 MH Triage Nurse and adding Clinical Nurse position to PLS team;
- PLS Nurse Manual for SCGH ED mental health staff;
- Education program for SCGH mental health, SCGH ED and interagency staff (e.g WA Police, RFDS and SJA);
- Training Level 2 mental health Nurses to act as a PLN to improve skills and provide cover in case of staff shortages; and
- Allocating Project team to monitor and report the progress and outcomes of the 6 months Pilot Project.

Improvement Team members

Project Supervisors:

Slattery Marianne – Executive Sponsor
Dr O'Sullivan, Anne – Clinical Supervisor
Orifici, Dannielle – Non-Clinical Supervisor

Supporters:

Pedler, Kim, Dante Giacomin
Peter Allely, Nicole Hoskins, Sandra O'Keefe, Karen Harris, Pierra Rogers, David Oats, Nevada Mc Ginnis;
Mental health community clinics, WA Police, WA St John Ambulance, Wilson Medic One, RFDS, MHU, MHOA, PLS staff; and

Institute of Health Leadership.

SyphLess

Mercy Mutseyekwa, Metropolitan Communicable Disease Control (MCDC), NMHS

The improvement process

The SyphLess project utilised the DMAIC methodology to evaluate MCDC's process of contacting women of child-bearing age (WCBA) with infectious syphilis. It focussed on stakeholder engagement and participation. The scope was guided by the voice of the consumer (captured in stakeholder survey and a "yarn" with people experiencing homelessness attending RUAH), voice of staff (surveys and verbal reports), voice of the organisation (operational plans and guidelines).
A process mapping session was conducted to review the case journey from the time of notification to the time of sufficient treatment, identifying issues in the process. It highlighted issues related to delays in laboratory result notifications and communications with the testing doctor and the people diagnosed with infectious syphilis.
To investigate this further an audit tool was developed. Root causes were validated by qualitative and quantitative data analysis of audit results, review of cases notes, and staff interviews.
A solution generation session was held by members of MCDC stakeholders.

Project outcomes

- Our Public Health Physician met with the laboratory Head of Department.
- Staff members (including new members) valued process mapping session as a learning opportunity of the public health process.
- Interdisciplinary collaboration to propose solutions for more efficient processes.

Recommendations

- Having a designated mailbox for results and advocate for a laboratory results portal instead of sending by fax. This will also help moves toward paperless record keeping.
- Continuing engagement with outside stakeholders such as Primary Health Care network, Homeless HealthCare for ongoing support with managing infectious syphilis cases and targeted communication to GP practices through the Communicable Disease Control Directorate
- Flagging cases with outstanding treatment on the Syphilis REDCaap database.
- Advocate for clinical notes including symptoms to be recorded on all Syphilis pathology request forms (as part of Syphilis outbreak response action).
- Continue to explore ways to minimise barriers preventing WCBA attending for treatment (cultural barriers) and improve staff cultural awareness.
- Continue to monitor timeliness and completeness of laboratory reporting of test results.

Project Aim

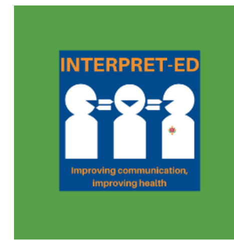
To identify reasons for delayed treatment of Syphilis among women of childbearing age in Metropolitan Perth.
To propose recommendations to improve public health service delivery to people diagnosed with infectious syphilis

Rationale

Syphilis infection can be diagnosed by a simple blood test and treated with accessible antibiotics. The infection causes huge effects on unborn babies such physical deformities and cognitive deficits, therefore interrupting infection transmission through early detection and prompt treatment is paramount in women of child bearing age (WCBA).
MCDC identified critical points in the process which cause delays in treatment of Syphilis among the WCBA. About 35% of women received treatment outside the recommended and acceptable period from time of diagnosis (>5 days). Delayed laboratory reporting (> 4 days), measured by mean reporting time, occurred in 24% of women.
Although known social impediments such as homelessness and behavioural factors were noted as creating limitations in the process, other issues such as duplications or delays in notifications, inefficient communication systems and challenges in accessing test results were highlighted. The SyphLess project provided an opportunity to assess process issues and propose recommendations for improvement in the service delivery.

Improvement Team members

Project Supervisors:
Dr Suzanne McEvoy (PHP), Jo Fagan (Director PH), Caroline Hussey (Coordinator nursing)
Supporters:
MCDC team: Doctors, nurses, Aboriginal health team, Epidemiology team



Interpret-ED

Dr Kate Ryan, St John of God Midland Public and Private Hospital (SJGMPPH)

The improvement process

After development of the project charter, the first task was a process mapping session with key stakeholders. This revealed ambiguity around roles and responsibilities in terms of identifying the need for and obtaining an interpreter, and lack of appropriate resources supporting the use of an interpreter. Root causes generally fell into one of three categories: personnel, policy, and infrastructure/equipment. The final group session entailed solutions generation to address root causes.

Project outcomes

- Mobile interpreter station with an iPad and Interpret Manager application to facilitate quick and easy access to a phone interpreter
- Improved signage in ED notifying patients of the availability of interpreters
- Inclusion of the Translating and Interpreting Service (TIS) phone number and client code on the 'important contacts' lanyard provided to all staff at commencement in ED
- Education sessions delivered to ED clinicians and the broader hospital, some of which were recorded so they can be delivered to subsequent cohorts
- Educational resources being made available on both the JMO Portal and the ED education website
- Updating of intranet resources around culturally and linguistically diverse (CALD) populations
- Improved identification of patients requiring an interpreter by providing them with a lanyard stating their preferred language and a sticker on the front of the patient's file

Recommendations

- Roll out the Interpret Manager application across the whole of SJGMPPH
- Include cultural competency training as mandatory for all SJGMPPH employees
- Development of a standard operating procedure (SOP) outlining management of CALD patients in ED
- Ongoing review by Standard 2 committees at the hospital and departmental levels

Project Aim

To improve the utilisation of telephone interpreters in the Emergency Department.

Rationale

St John of God Midland Public and Private Hospital (SJGMPPH) serves a population of CALD people. These populations typically face disproportionate barriers to health care and poorer health outcomes. It is best practice for all people who do not speak English as a first language to be provided with an interpreter. There has traditionally been poor uptake of telephone interpreters in ED, with a tendency to instead use accompanying friends or family members.

Improvement team members

Supervisors:

Nicole Ghedina, Matt Summerscales,

Melissa Maluda, Amanda Boudville, Anthony Bell

Supporters:

ED, PGME, ICT, D&T, Marketing & Communications, Quality, Aboriginal Health Team, Finance and Performance, Patient Experience Team, IHL

Twilight Zone: Getting to the other side safe and sound

Dr Emily Muxlow, St John of God Midland Public and Private Hospitals

The improvement process

A process mapping session was conducted with after-hours caregivers to map the junior doctor's experience during the evening medical ward cover. A number of issues raised during this session concentrated on deficiencies of the evening handover and so data was collected to explore the quality of this handover. An audit of the evening handover revealed that compliance with the iSoBAR handover was very poor. Root cause analysis supported that both cultural and organisational issues were contributing to the poor handover quality and a solutions generation session identified strategies to improve the handover quality.

Project outcomes

- Consultant attendance to the evening medical handover to provide senior leadership and support.
- Creation of an iSoBAR handover template to generate a written patient handover.
- Assigned seating for the after-hours doctors to support a team approach to after-hours care.
- Revision of the handover meeting protocol, agenda and attendance forms to provide structure and expectations to the handover meeting.
- Creation of a handover audit to facilitate ongoing review of the handover quality.

Repeat audit following solution implementation revealed a significant improvement in all domains of the iSoBAR handover.

Recommendations

Future work in Twilight Zone will endeavour to:

- Restructure the after-hours model of care to reduce patient load for junior doctors and increase senior support.
- Introduce tasking software to improve the communication and oversight of junior doctor task lists.

Project Aim

To improve the evening medical handover for the General Medicine and Aged Care / Rehabilitation Departments at SJGMPPH.

Rationale

It is known that after-hours shifts have a negative effect on junior doctor wellbeing, and that stressful work settings have direct and indirect negative effects on patient care. Twilight Zone was established as a multi-part project to improve after-hours care for doctors and patients at Midland. We know that communication failures have a key role in adverse hospital events, and effective clinical handover is therefore mandated by our national health and safety standards. With the care of over 200 patients handed over to 3 junior doctors, the quality of the evening medical handover to the after-hours team was the first work for Project Twilight Zone.

Improvement team members

Supervisors:

Dr Anthony Bell - Service Improvement Supervisor and Executive Sponsor.

Dr Marium Fazal - Clinical Supervisor.

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PROJECT JOINTHEART: Evaluating the Role of a Dedicated Cardiovascular Risk Screening Process for Patients with Inflammatory Arthritis

Dr Dean Choong, Rheumatology, Fiona Stanley Hospital

The improvement process

Cardiovascular risk is not adequately addressed at Fiona Stanley Hospital. An FSH Rheumatology Inflammatory Arthritis Audit (2018) showed lower levels of blood pressure and lipid lowering pharmacotherapy than background population rates, even though this cohort is at higher risk. This reflects inadequate cardiovascular risk factor screening and management. Additionally, 'Voice of the Patient' surveys indicated that a majority of inflammatory arthritis patients were unaware of their increased cardiovascular risk and had not had previous discussions with their clinician about risk management.

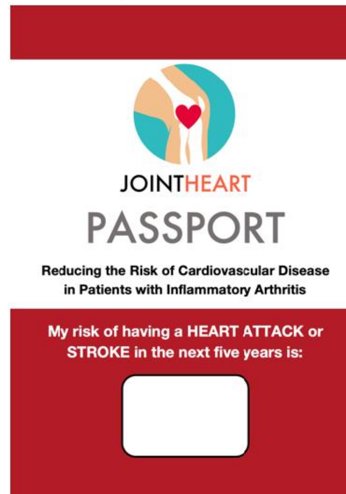
Consultation of stakeholders identified the root causes of poor screening rates, which included:

- Lack of a standardised screening protocol for this patient group
- Time constraints of outpatient clinic consultations / conflicting priorities
- Logistical difficulties with risk calculation including poor historian, locating investigation results, documentation of risk score.

Project outcomes

The major solution developed was the JOINTHEART Patient Passport. Patients bring the passport to each rheumatology, GP, or cardiology appointment, and it acts as a conduit between primary and specialist care.

- Risk calculation takes place when patients are first given the book
- This can be confronting! However, it provides an opportunity for counselling. This can trigger a referral of 'high-risk' patients to cardiology for further assessment.
- There are multiple sections within the book, one for each key risk factor. These sections contain: information and counselling (largely from Heart Foundation Australia), action steps e.g. lifestyle vs. medical interventions, and record keeping for measurements and investigations



Recommendations

This tool lowers the threshold for clinicians to intervene for patients with cardiovascular risk factors, by streamlining the process. The passport is currently in production on a larger scale to be distributed to all inflammatory arthritis patients. We will undertake a re-audit in 6-12 months' time to assess passport usage and uptake, as well as screening rates.

Rationale

Inflammatory arthritis includes conditions such as rheumatoid arthritis (RA), gout, psoriatic arthritis and other spondyloarthropathies. Patients with RA have a 70% higher risk of myocardial infarction, and the risk is comparable to patients with diabetes. EULAR rheumatology guidelines emphasise the need for cardiovascular risk screening in patients with inflammatory joint disorders. Screening is recommended once every 5 years, or every time treatment is changed.

There is growing awareness of the importance of primary prevention in all areas of medicine. Project JOINTHEART involved developing a new treatment tool which:

- Educates patients and encourages them to be proactive in managing their risk factors
- Promotes cardiovascular risk factor screening and management
- Solidifies communication between primary and specialist

Project Improvement team members

Supervisors:

Dr Paul Cannell (Executive Sponsor)
Dr Helen Keen (Consultant Rheumatologist)
Prof Girish Dwivedi (Consultant Cardiologist)
Ms Nerinda Bradshaw (Service Improvement Supervisor)
Dr Aindreas Dorai-Raj (Service Improvement Supervisor)
Ms Esther Dawkins (Institute for Health Leadership)
Dr Arusha Miocevich (Institute for Health Leadership)

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SKINCISION: Improving the Time-to-Incision for Dermatological Procedures

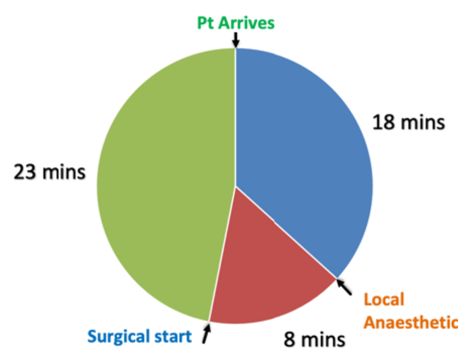
Dr Dean Choong, Dermatology, Fiona Stanley Hospital

The improvement process

Process mapping of the 'day of procedure' of dermatology procedural lists occurred in consultation with key stakeholders. Key Issues identified in the process included: time needed to identify lesions of interest (usually based on a previous clinic note), consent being performed on the day of procedure, and the local anaesthetic being a rate-limiting step.

Measure

- A significant number of dermatological procedures fall outside of the project bounds. Between September 2020 to March 2021, 46.6% of the 73 dermatological procedures fell outside of project bounds.
- When analysing Category 1 procedures, 67.3% of the 46 procedures fell outside of project bounds.



Analyse

A significant area of delay was the identification of lesions. This resulted in the time from the patient walking through the door, to administration of anaesthetic being 18 minutes on average. This was identified as a root cause in the delay of procedures, as was the need to consent patients on the day.

Project outcomes

Together with key stakeholders, three solutions were implemented, which all received excellent uptake and support. The solutions were:

- Incorporation of medical photos and images into the procedural booking and documentation process.
  - This was achieved through the MICE (Medical Image Communicate and Exchange) mobile phone-based application. This allows users to take photos on their phone and securely upload them to the electronic medical record, without local storage of photos on the phone. Having photos on the record allowed for almost instantaneous identification of the lesion of interest on the day of procedure.
- Consent being performed at the time of procedural booking rather than on the day of procedure
  - This was also facilitated through the eConsent mobile-phone application.
- Providing better orientation/training for the dermatology resident, to be able to help-out with biopsies and minor procedures. This was achieved through creation of a departmental orientation guide for junior medical staff.

Recommendations

The three solutions are now employed as standard practice in the dermatology procedural clinics. Formal re-audit of the waitlist and procedural timepoints will be completed in 6-12 months' time.

Rationale

Prompt diagnosis and management of cutaneous malignancy can be life-saving

- A Fiona Stanley Hospital Melanoma Audit (2020) showed that patients referred from the GP for suspected melanoma – 59.2 days on average to have a biopsy performed (if not already done) vs recommended 14 to 21 days
- Preliminary evidence of many procedures falling outside the boundaries of the waitlist categories

Project Improvement team members

Supervisors:

Dr Paul Cannell (Executive Sponsor) Dr Alan Donnelly (Consultant Dermatologist)
Dr Hock Chua (Consultant Dermatologist)
Ms Nerinda Bradshaw (Service Improvement Supervisor)
Dr Aindreas Dorai-Raj (Service Improvement Supervisor)
Ms Esther Dawkins (Institute for Health Leadership)
Dr Arusha Miocevich (Institute for Health Leadership)

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Project iCeBErg: improving the knowledge, confidence and skills that lie beneath management of an obstetric emergency

Dr Verena Merry, Fiona Stanley Hospital, O&G

The improvement process

A process mapping session was conducted with 20 participants, mapping the management of an obstetric emergency from the point at which the midwife pressed the emergency call bell on labour ward to the resolution of that emergency. A number of issues raised, concentrated on the confidence, knowledge and skills of the most junior members of the maternity team. Root cause analysis revealed that our junior doctors lack confidence in their knowledge and skills & do not feel integral to the birth suite team because they do not receive the appropriate procedural skills training during their orientation and induction to obstetrics, they do not receive practical bedside teaching or simulation training as part of their routine teaching, and they do not have the opportunity to learn from senior members of the team through debrief following a critical incident.

Project outcomes

- 1-day procedural skills workshop at orientation: Jan 2022
- Credentialing for routine procedural skills: Jan 2022
- Bedside teaching, obstetric emergency management: Dec 2021
- Routine maternity in-situ simulation training: Oct 2021
- Cognitive/Visual Aids in birth & induction suite: Dec 2021
- Weekly debrief ‘teach back’: Dec 2021
- Development of simulation portfolio holder: Jan 2022

These solutions will improve junior doctor knowledge, skills & confidence in the management of obstetric emergencies which will reduce the risk of sentinel events & improve patient experience and safety. In-situ simulation will improve team functioning including, communication, cohesiveness & rapport between the individual members of the maternity team

Recommendations

To ensure sustainability of both implemented and planned solutions, it is recommended that we embed simulation portfolio holder into core staff & re-audit the maternity team, in their knowledge, confidence and skills in managing an obstetric emergency in March-April 2022

Project Aim

- To ensure all women have a safe and supported labour and delivery
- To identify the key factors that lie beneath the successful management of an obstetric emergency
- To ensure all doctors and maternity staff will feel confident in their knowledge and skills in managing an obstetric emergency

Rationale

- Obstetric emergencies are unpredictable & evolve rapidly.
- Successful management of an obstetric emergency involves a coordinated response from an adhoc multi-disciplinary team of varying experience
- Bad outcomes are the result of poor teamwork and poor communication.
- Routine simulation in obstetric emergencies are needed to develop knowledge, skills & confidence because of the rarity of these events & the ethico-legal implication related to management by novices.

Improvement team members
Dr Alnaggar
Dr Dorais-Raj & Ms Bradshaw
Supporters:
Dr Trawber & Dr Nanda
Dr Anantharachagan & Dr Zidan

ESCAPE DFD: Expediting Specialist Care and Assessment for Patients with Early Diabetes-related Foot Disease

Dr Yuhan Goh, Fiona Stanley Fremantle Hospitals Group

The improvement process

A Process Mapping session with key stakeholders was held to identify the individual steps of the process, defined as from initial healthcare professional assessment (for new DFD) to patient seen in FSFHG MDFU clinic. eReferral data was measured and analysed to determine delays in each step of the process. Between January – June 2021 there were 90 referrals to FSFHG MDFU for new DFD. Median time to MDFU clinic (from referral receipt at FSFHG) was 5.5 business days (interquartile range 3 to 11). Identified root causes for delay included:

- Insufficient details in referrals.
- Outdated HealthPathways and Central Referral Service (CRS) referral criteria.
- Initial eReferral not received by MDFU (1 in 9 patients).
- Lack of trained MDFU Triage gatekeepers and Clerical officers.
- No MDFU clinic on every business day.

Project outcomes

1. Updated HealthPathways to emphasise need for prompt referrals for all DFD to FSFHG MDFU clinic.
2. Updated CRS referral criteria to mark DFD referrals as "priority".
3. Modified eReferral layout to reduce DFD eReferrals to incorrect/non-MDFU specialty.
4. Created a FSFHG Active Foot Disease Pathway flow diagram.
5. New Podiatry-led MDFU clinic capacity on Friday (previously, Friday was the only business day without MDFU service).

Recommendations

- Promotion of FSFHG Active Foot Disease Pathway to referrers.
- Creation of MDFU Triage and Booking Guide.
- Re-audit of delays to MDFU clinic in 2022/2023.

Project Aim

To reduce delays to Multidisciplinary Diabetes Foot Ulcer (MDFU) clinic for patients referred with new diabetes-related foot disease (DFD).

Rationale

Patients, with new DFD, who receive expert assessment within 2 weeks (from initial healthcare professional assessment) are more likely to be alive and ulcer free at 12 weeks and less likely to need hospital admission or amputation (NDFA 2019). In Australia, the National Association of Diabetes Centres (NADC) recommends all patients with new DFD are seen by a MDFU team within 5 business days of referral. At FSFHG, only 50% of patients with new DFD referrals meet this recommendation. There is an opportunity to expedite time to first MDFU clinic at FSFHG to meet NADC's recommendation and therefore improve patient outcomes.

Improvement team members

Supervisors:

Emma Hamilton (FSH MDFU Lead)
Nerinda Bradshaw (MEU Officer)

Supporters:

Nyrene Jackson (FSFHG Service 1 Director)
Jon Hiew (FSFHG Podiatry Head of Dept.)
Ashley Makepeace (FHHS MDFU Lead)
Sally George (FSH Outpatients Clerk)
Elizabeth Sheridan (FSH Referrals Clerk)

Project SOAR: Safe Opioids at Rockingham

Dr Tanya Ashoorian, Rockingham General Hospital

The improvement process

A process mapping session was conducted with key stakeholders, exploring the role of opioid medications in the standard inpatient journey. The project looked specifically at the medical wards and Aged Care Rehabilitation Unit (ACRU) at Rockingham General Hospital, from time of admission to time of discharge. A total of 29 issues were raised, with a majority of these occurring at the time of prescribing or administering an opioid medication. To quantify the problem, data was collected and analysed from two sources: 1) Clinical reported incidents 2) An audit of opioid prescriptions. Root cause analysis investigated both prescribing errors and administering errors and identified staff education as the major root cause contributing to opioid medication errors.

Project outcomes

- Development of “A Guide to Prescribing Oral Opioids”, a A2 size poster to be displayed on the medical wards and ACRU, to assist junior prescribers
- A series of “Take 5” resources around opioid safety to be made available on the local intranet
- Implementation of opioid prescribing workshops for junior prescribers, running them through common clinical scenarios

Recommendations

Opioid safety is a complex issue that will require multilevel changes in order to be fully addressed. Recommendations for RGH include:

- Developing an Opioid Stewardship Program to oversee opioid safety and opioid-related projects
- Implementing an Electronic Prescribing System to minimise errors and misinterpretation associated with prescriptions
- Implementing a Chronic Pain Service to assist in managing complex patients with chronic pain

Project Aim

To reduce the number of clinical incidents related to opioid medications on the medical wards and ACRU at Rockingham General Hospital.

Rationale

Opioid medications are often essential in the provision of pain relief. However, they are classed as “high risk” medications due to their side effect profile, and errors in prescribing or administering can result in serious consequences. On the medical wards and ACRU at RGH, opioid medications account for 25% of all medication errors. Stakeholders identified that staff education was a key factor that contributed to these errors. There is a great opportunity to improve staff education around opioids, in order to reduce opioid related errors.

Improvement team members

Supervisors:

Kerri-Anne Martyn

Dr Anthony Bell

Dr Raj Malvathu

Supporters:

Thank you to all the departments who lent their time and expertise to assist this project, including Pharmacy, General Medicine, Geriatrics, Palliative Care, and the Acute Pain Service.

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Every Fall Counts: Falls Prevention at Rockingham

Alvin Correia, Rockingham Peel Group, SMHS

The improvement process

The current situation in relation to falls was determined. This included falls incidence and falls rate across RkPG and on individual wards analysed from Datix CIMS data.

Process mapping was conducted with 11 participants, mapping the patient journey from presentation to ED to discharge from Aged Care Rehabilitation Unit (ACRU). A number of issues were raised during this session that formulated a direction for analysing inpatient processes and falls data. These processes included bed moves, cognitive screening, medication reconciliation, falls risk assessment. Falls incidence in terms of time of day, day of week and location of falls were also investigated.

Project outcomes

There were 251 falls reported within RkPG in the 12 months between 1 June 2020 and 31 May 2021.

Falls rate at RkPG = 5.3 falls per 1000 Occupied Bed days

The wards with the highest falls rates within RkPG are Older adult inpatient closed (16.7), Ward 1 Murray Districts (11.3) and Aged Care Rehabilitation Unit (8.3).

Current falls prevention initiatives that were being utilised within the organisation and external to the organisation were identified.

Recommendations aimed at reducing incidence of falls within the organisation were developed.

Recommendations

- Continue with Falls rounding and expand to other wards
- Utilise environmental strategies e.g. Signage, sensor alarms
- Improve reporting of falls within the organisation
- Utilise Soft Call bells
- Trial pre-fall huddles
- Benchmark use of Assistant in Nursing (AIN) staff

Project Aim

To evaluate the current situation at Rockingham Peel Group (RkPG) in relation to falls rate and to formulate recommendations to reduce falls rate across the organisation.

Rationale

Every fall that is prevented is positive for the patient and organisation.

Falls are the number one clinical incident at RkPG and reducing falls is a priority for the organisation. An inpatient fall has a negative impact on the patient, staff and organisation

Individual wards within our organisation and external to our organisation are utilising various strategies to reduce falls that following evaluation of effectiveness could be used throughout our organisation.

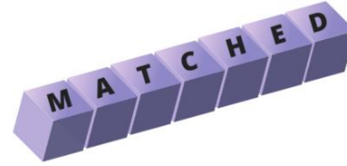
Improvement team members

Supervisors:

Kerri Martyn

Luke Bongiascia

Dr Deanna Antony



Project MATCHED: MedicATion CHeck and Education at Discharge

Dr Rachel Dennis, Rockingham General Hospital, SMHS

Project Aim

To improve the process and safety related to medications on discharge on the Multi-stay Surgical Unit (MSSU).

Rationale

Medication errors are an important cause of clinical incidents and potential patient harm. A recent clinical incident involving discharge medications at RGH suggested the potential for improvement in this area.

Studies have shown that medication reconciliation on discharge can help to reduce errors as well as facilitate continuity of care post discharge. There is also an opportunity to improve patient education on discharge regarding medications.

The improvement process

Process mapping was conducted with key stakeholders from pharmacy, nursing and medical staff. Several issues relating to the provision and reconciliation of medications on discharge were identified. Data analysis confirmed that medication reconciliation and patient education were not occurring for all patients being discharged. Further analysis of this issue highlighted staffing shortages in the context of a high turnover unit with multiple specialties, contributing to difficulties in meeting these standards. Solutions have been generated by relevant staff as to how we can help ensure that patients are receiving suitable and correct medications on discharge as well as improve patients' understanding of medication plans.

Project outcomes

- Improved awareness of need for medication checks on discharge and provision of medication education on the MSSU
- Enhanced planning and communication regarding anticipated discharges on MSSU
- Business cases for additional pharmacy FTE on the MSSU and weekend pharmacy cover

Recommendations

- Introduction of a dedicated discharge nurse role on MSSU
- Introduction of weekend pharmacy at Rockingham hospital and recruitment of additional pharmacy FTE
- Revision of discharge checklist to improve medication related prompts
- Roll out of workstations on wheels (WOWs) with access to internet/WIFI on ward rounds to enable timely access to relevant patient information as well as facilitate efficient updates to patient's medications in discharge summary and preparation of scripts for discharge

Improvement team members

Dr Helen Thomas (Clinical supervisor/ Executive sponsor)

Anne Doherty (CSI supervisor)

Kerri-Anne Martyn (CSI supervisor)

WACHS-SW Domiciliary Oxygen Process

Charlotte Steed, Bunbury Hospital, WACHS-SW

The improvement process

10 stakeholders met to map the process of supplying domiciliary oxygen (DO) from referral in, to delivery to the patient. Data collection and analysis of 180 referrals revealed that there were multiple entry points for referrals and several steps causing delays. The data confirmed that referrals were urgent with 70% requiring next day delivery and 2% requiring same day. This is in order to get inpatients home to free up hospital beds, and the patients referred on palliative (45%) indication home to maximise their time with family and friends (57% of these patients died within a month and 82% passed away by 3 months).

Project outcomes

- 8 step process reduced to 4 steps (47% of time), in best case scenario and 7 steps (13% of time), in worst. Saving several hours, even days of processing time.
- Internal/in-patient referral process to use the existing e-referral system. Digitising and streamlining the process ensuring consistent and secure management of patient information.
- External/out-patient referral process to use the new central referral process for all WACHS-SW out-patient referrals (33% of all DO referrals), ensuring consistent and secure management of patient information.
- Approval/regulation from Specialist only required for GP referrals, not all referrals for WACHS-SW.
- Oxygen Coordinator to place order directly with BOC and then inform BH Supply Department who still raise the purchase order and manage holdings.

Recommendations

1. E-referral access to be given to the Specialists and Consultants who refer patients from SJOG Bunbury for DO.
2. Education of the criteria and process for DO to be given to referrers: Hospitals, GP's and Specialists in SW.
3. Development of a database to track DO holdings for the SW.

Project Aim

To produce a robust process for the delivery of domiciliary oxygen (DO) to appropriate patients meeting the State Guidelines, in a timely manner, often within 24 hours.

Rationale

Due to a lack of Specialists in non-metro/WACHS areas, GP's are allowed to request DO in the regions. Prior to July 2019 referrers faxed referrals to Bunbury Hospital Supply Department and DO was ordered and delivered. Since its regulation, 12% have been rejected and these patients have received appropriate diagnosis and treatment, not oxygen. The process was inconsistent with delays and took 8 steps (Metro process has 4 steps). The oxygen process needs to be straightforward so that oxygen can be appropriately provided in a timely manner.

Improvement team members

Supervisors:
Kendra Mutch
Dr Chris de Chaneet

Supporters:
Jo Moore
Dudley Mason
Arusha Miocevich
Esther Dawkins
Richard O'Halloran
Corina Gill

SWIM: South West Inpatient admissions to the Mental health service

Dr Jessica Barrett, Bunbury Hospital, Term 2 2021

The improvement process

This project primarily followed DMAIC methodology. Stakeholder process mapping sessions were conducted to map out the journey of 18-65yo patients from Bunbury ED to our open & locked wards; starting from point of referral by ED doctor and ending with patient arrival on ward. Interviews, a staff survey & review of prior formal feedback were used to gather issues & variations with the process.

Bed Access Time (BAT) & ward patient movement data from the last 3 years & a Time in Motion Study were used to validate the process map & issues. Key findings:

1. *Admissions take longer at key times of the day & week:*
- Longer median BAT on weekdays 07-1530 (29m APU & 51m PICU vs 5-8m)
- On the other hand, *very* long BAT due to waiting for a ward discharge is more likely to occur Sun-Weds & >3:30pm. On both weekends & >3:30pm, discharges drop by at least 2/3; & yet the admissions rate remains similar or increases.

2. *Ward staff capacity contributes to prolonged BAT across the week*
3. *Staff spend time waiting & searching for information on Bossnet, email & EBM:*
- These platforms are time consuming & inconsistently used & do not alert clinicians on the floor of the arrival of new documents.
- Required referral documentation usually arrives 30-55min after ED to ward handover: it is rarely a cause of delay, ward staff are making do without.

4. *As such, preparation for an admission relies upon the ED to ward verbal handover:*
- Lack of consensus re: content of handover (both nursing & medical).
- Shift coordinator experience & rapport with ED/PLN increases handover yield.

5. *Patient experience:*
- ED physical environment can be uncomfortable, intimidating & stimulating
- Patients rarely access non-pharmacological support for their symptoms in ED
- Extreme time pressures & skillset/confidence in rotating ED clinicians reduced the use of verbal de-escalation, counselling & updates on progress.

Root cause analysis combined with the above data collection identified several key contributing factors, which include:

- Nursing & medical handovers: no consensus on components or objectives
- Lack of clarity around roles & responsibilities with respect to bed management, medical and mental health aspects of an admission,

Project Aim

1. To reduce time patients spend in BRH ED waiting for a psychiatry admission
2. To improve the staff and patient experience of ED to psychiatry admissions, specifically with regards to:
   a. Timely and effective communication between parties (staff-staff and staff-patient) that prioritises the safety of both patients (medical care) and staff (management of risk of aggression).
   b. Clarity of roles and responsibilities
   c. Subjective report of patient and staff satisfaction with care

Rationale

In recent years, the time from ED bed request to admission to Bunbury Hospital's open (APU) and locked (PICU) psychiatry wards has been a source of frustration for patients & staff alike; and has only escalated in the wake of recent national factors. In 2020, this time was 18m for APU & 85m for PICU; and in the 1st quarter of 2021 it was 42min for APU, & 522min for PICU. These bed access times have resulted in: ED 'bed block' for other patients; delayed access to mental health care; & potentially avoidable use of security staff, restraint and psychotropic medications.
Staff & patients expressed frustration regarding ambiguity of process & responsibilities; time spent searching for information or people; gaps in communication & an admission experience that is often not patient centred. This

particularly after hours.
- Lack of routines that foster intra & interdepartmental relationships & supports
- Difference of scheduling of ward events across the day and week incl discharges
- No protected access to ED staff to provide advocacy & non-pharm support
- ED environment not designed with acutely mental illness in mind

Project solutions & recommendations

A combination of tools were used in small & large group settings with stakeholders to generate potential solutions. The below items are at varying stages of proposal, planning or implementation. Other items will follow according to change readiness.

Patient experience	Room renovations Sensory & boredom box trial Peer Support Worker in-reach
Access to information	Working group: handover process (medical & nursing) Bed flow role: define in vs after hours responsibilities
Relationships & human factor	After hours nurse coordinator ward visits Staff orientation Staff cross pollination experiences
After hours movement	Trial of handover to on call psychiatry staff

Future SWIM 'sub-projects':
Some issues that were out of scope or need further change management were identified as needing their own projects. These are crucial to achieving substantial & sustainable impact on bed access time, patient care & staff burnout. 1) After hours patient movement: incl weekend discharges. 2) NHPPD classification & measurement of ward acuity. 3) Ward staff morale & engagement

results in lost clinical time that could be used providing care to the patient being admitted or other patients in the departments. e.g. missed opportunities to offer mental health 'first aid' & optimise a patient's medical status before transfer to the ward. Ultimately, these matters undermine the working relationship between staff across involved departments.

Improvement team members

Clinical supervisor: Dr Allison Newman
Executive supervisor: Dr Mark Monaghan
Key supporters:
Lucy Goodhew
Dr Yasmin Soliman & Victoria Civitico
Dr Arusha Miocevich & Esther Dawkins
Dr Altaf Khoja & Dr Lynette Teoh
Kairon Smith
Debbie Easther

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Surgical Winter Bed Strategy

Alyssa Pisano, Bunbury Hospital, WACHS

The improvement process

Reduced admitting surgical bed capacity was identified as an area for improvement due to winter bed needs and ongoing health system pressures. The Day Procedure 23-hour ward, a weekday elective day procedure ward, was identified as an area where hospital bed capacity could be expanded on weekends as a bed strategy.

Due to the limited availability of these beds, a weekend Acute Surgical Unit was proposed. This service was developed, implemented and reviewed during the CSI rotation. During service construction, the ED admission process was reviewed and streamlined.

During the service review process qualitative and quantitative data was reviewed weekly (and further analysed where required). Limited admissions soon after the service opening were identified as an emerging issue. Root cause analysis revealed multiple causes, which were actioned.

Project outcomes

Development of an acute surgical unit service, which was reviewed on multiple occasions to ensure best model adaption to a non-standard setting.

Overall, the surgical winter bed strategy project outcomes were:

- Improved patient experience
- Reduced surgical bed pressure demand
- Improved timeliness of speciality oversight

Recommendations

Additional work in this area should focus on service ability to: consistently reach HSPR targets, improve patient and staff experience.

Further work required to existing project work are:

1. Ongoing service reviews. This would facilitate service adaption to system pressures, plus enable service refinement.
2. Development of a data hub to reduce waste associated with manual data extraction and cleaning.
3. Ongoing nursing teaching and training opportunities to enable consistent quality management of acute surgical patients, especially undifferentiated surgical patients.
4. Further service promotion and engagement with the Emergency Department workforce.

Project Aim

To improve flow of surgical patients through Bunbury Hospital given current and rising bed pressures, plus seasonal demand changes.

Rationale

There is an ongoing shortage of beds available at Bunbury Hospital expected to worsen in winter when bed demand is commonly greatest.

BH develops an annual 'Winter Demand Strategy' to combat this challenge.

Surgical patients are particularly affected by bed shortages, with most surgical admissions breaching the 4-hour rule and known suboptimal experiences.

Bed block often occurring on weekends due to whole system reduced staffing and services.

Improvement team members

Supervisors:
Dr Jacinta Cover
Jo Moore
Dr Mark Monaghan

Supporters:
Ceri Elliott
Denise Clement
Stephen Hartwig
Nicola Piacentini
Surgical Registrars
IHL

Special thanks:
Ben Symmons

Management of pre-school wheeze

Dr Anita Pratt, Bunbury Regional Hospital, WACHS

The improvement process

This project followed the DMAIC methodology for Clinical Service Redesign. A project charter was developed followed by a process map. This map was designed with key stakeholders and examined the patient journey from triage in the ED through to discharge home.

Data was collected for all children aged 1-6 years presenting with pre-school wheeze. It was found that 1 in 5 children waited over 1 hour between medical review and first dose of bronchodilator therapy and that nearly 4 in 5 children had no documented evidence of caregiver education prior to discharge home from ED.

Root causes for these issues included a lack of routine education for medical and nursing staff as well as the absence of a clear guideline to facilitate management of these children in a regional setting. Following the identification of these root causes, stakeholders engaged in a solution generating session.

Project outcomes

1. Development of a printable flow chart to guide management of pre-school wheeze in the ED
2. Initiation of nurse led education sessions about management of wheeze for children presenting to the ED
3. Request made to fix broken links to the 'Asthma Action Plan' located on the ED homepage and to correct errors on 'Asthma fact-sheet' on Health Point

Recommendations

A recommendation has been made to the local medical education unit to incorporate a regular teaching session on the management of pre-school wheeze into the RMO education program.

The printable flow chart is currently under review by WACHS Clinical Leads to determine if it has applicability WACHS wide. This flow chart will require regular review to ensure it stays up to date with best practice guidelines.

Project Aim

To facilitate prompt and appropriate management for children aged 1-6 years presenting with mild to severe pre-school wheeze at Bunbury Regional Hospital.

Rationale

Pre-school wheeze is a common paediatric emergency presentation. Treatment with bronchodilators forms the mainstay of therapy. Prompt treatment improves patient flow through the emergency department (ED). This means reduced time spent in the ED by patients and their caregivers, reduced hospital admissions and reduced burden on the healthcare system at Bunbury Hospital.

Improvement team members

Supervisors:

Dr Sanjay Paida

Dr Mark Monaghan

Supporters:

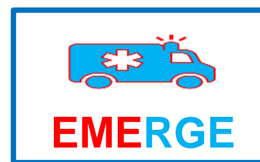
Dr Geoff Hawkins

Dr Lila Stephens

Suzanne Smith

Tania Murphy

Corey Rosher - pdf



EMErgency Response Group Engagement: A Review of Code blue and Medical Emergency escalation process in Geraldton Health Campus

Dr Ee Shyn Su, Geraldton Regional Hospital WACHS - Midwest

The improvement process:

EMERGE is a CSR project for quality and safety improvement to review Code Blue emergency response procedures in GRH.

The DMAIC methodology was adopted as a guide to assist with the project.

A multidisciplinary process mapping session was conducted with relevant stakeholders with common issues identified includes staffing problems, equipment and facilities inadequacy, delay with airway support during code blue and the lack of formalise clear escalation pathway during medical emergencies.

A survey was conducted to collect feedback from interdepartmental hospital staffs, 144 participants responded with 46 % were not orientated about medical emergency escalation plan, majority had reported that the process was disorganised without clear role and leadership during medical emergencies. It is also noted that infrastructure and facility inadequacy could potentially be a significant cause for delay in responding for medical emergencies, with 25% of respondent reported unclear location and codes were being sent to pagers.

Project outcomes:

- To establish a simple escalation pathway for medical emergencies with a formalise policy for Code Blue escalation process.
- The establishment of dedicated rapid responder for medical emergencies within the hospital grounds inclusive of critical care team support for airway.
- The need to review current infrastructure & IT system for medical emergency alert system.
- To engage with staff development unit & MEU for ongoing education planning for regular multidisciplinary simulation training.

Recommendations:

- Development of formal medical emergency escalation policy for GRH.
- Establishment of dedicated MER team with designated communication tool for easy communication and rapid response.
- Establish new governing team over infrastructure and IT performance review of the current emergency alert system in keeping with current structure & re-development of GRH.
- Planning and initiation of weekly multidisciplinary simulations & training for medical emergencies.

Project Aim:

To establish pathway for escalation of acute deterioration with dedicated rapid responding team for medical emergency with formalisation of the Policy for Code Blue Emergency Procedure in GRH.

Rationale:

The project aims to review current Code Blue/ MER-call (Medical Emergency Response) procedures to bring improvement with timely recognition and management of acute deterioration with appropriate medical emergency response within the hospital campus for inpatients and outpatients.

The revise workflow process aims to improvise workforce productivity and efficiency with clear escalation pathway and dedicated MER team for medical emergencies for best practice and better outcome for patients.

Improvement team members:

Executive Sponsor:
Dr Katherine Templeman

Clinical Supervisor:
Dr Divine Verbe

Supporters:
CN Judie Dumapis
CN Terri Ann Haeusler
Caitlin Smith
Shannon McAullay
WACHS Midwest Board of Executives
WACHS-Midwest Quality & Safety Team
Entire medical and supporting staffs of Geraldton Regional Hospital

Cellulitis Easier

Dr Paul Mario, Geraldton Regional Hospital

The improvement process

A process mapping was carried out with 8 participants mapping out the patient's journey from the ED to admission to Hospital in the Home (HITH). A number of issues were raised during the session concentrated on difficulties on referrals over weekend and afterhours. Data was gathered to check how often this occurred and a survey on ED doctors was done to explore where the challenges of referral were.

Root cause analysis revealed a referral pathway is in place. Lack of a dedicated medical registrar taking care of HITH including during afterhours and weekends came up as a major challenge to a smooth pathway of referrals.

Project outcomes

- Updated HITH flow chart with Key contacts added
- HITH Pack/Tray – All HITH admission documents put together in a pack and placed on a specific Tray in ED
- HITH Registrar/RMO Orientation manual/email.
- ED Doctors HITH orientation manual/email.
- Interdepartmental HITH Quarterly Meetings addressing new challenges
- Staff education on HITH

Recommendations

A dedicated HITH registrar is key having a smooth referral process to HITH from ED. Lack thereof has led to task shifting to ED and the HITH team taking up some of the roles.

Identification of a HITH Champion advocating for utilization of Hospital in the Home service and ensuring best practice is maintained

Project Aim

To simplify the process of referral of patients with cellulitis from the Emergency Department to Hospital in the home.

Rationale

The Emergency Department accounts for 30% of patients referred to Hospital in the Home (HITH) at Geraldton Regional Hospital. 60% of ED Doctors surveyed described lack of clarity on the process of referring patients to HITH with only 40% having referred eligible patients afterhours or during weekends.

This project was an opportunity to interrogate causes of perceived underutilization of the HITH service by ED. A clear, simple and efficient process of referral of patients with cellulitis from ED to HITH is attainable.

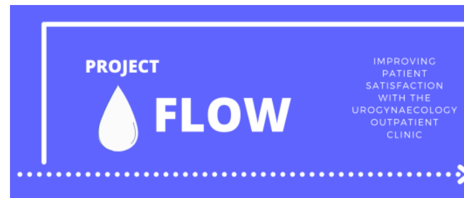
Improvement team members

Katie Templeman
Jaclyn Chin
Divine Verbe
Esther Dawkins

Supporters

HITH Team
Emergency Department

Elyse Powell - TBC



Project FLOW

Dr Jasmin Sekhon, King Edward Memorial Hospital, Women's and Newborn Health Service

The improvement process

A process mapping session was conducted with the urogynaecology team, mapping the patient journey from arrival to Centenary clinic to leaving the clinic on a Thursday morning. Key issues emerged including the convoluted nature of the process and staffing bottlenecks. A patient satisfaction survey and timed patient journeys were collected to reveal long wait times and inappropriate patient expectations around multidisciplinary team involvement. Root cause analysis revealed that the clinic profile (booking template) did not appropriately reflect the heterogeneity and complexity of patients hence resulted in avoidable wait times. In addition to this, there was a lack of information available to the patient prior to arrival to the clinic which framed their unsuitable expectations.

Project outcomes

1. Re-set patient expectations
   - ✓ The introduction of an in-depth introduction to service template that will be mailed to all patients, explaining what the service offers and who they will see.
2. Re-work the clinic profile
   - ✓ Three "low complexity follow up" appointments are now booked for the first time slot in the clinic in order to facilitate some quick flow of patients and prevent build up in the waiting room.
   - ✓ New appointments are staggered throughout the clinic.
3. Lean the clinic
   - ✓ A nurse practitioner pre-assessment phone call to patients to ensure they have the right tests and imaging and initiate e-referrals to physiotherapy

Recommendations

Increased Physiotherapy presence in clinic.

Project Aim

To improve patient flow through and satisfaction with the Thursday morning Urogynaecology clinic at King Edward Memorial Hospital.

Rationale

The demand for urogynaecological services is increasing at a greater rate than predicted with one US study predicting an increase in demand of 45% by 2030(AJOG). This is driven by the ageing population and increased awareness by patients and physicians around pelvic floor disorders.

The optimisation of urogynaecology service provision is paramount as demand on the system grows. Urogynaecology is a subspecialty that relies heavily on a multi-disciplinary team (MDT) approach with input required from physios, nurse specialists and pharmacists. This is closely reflected in the Thursday morning Urogynaecology clinic run out of King Edward Memorial Hospital (KEMH) whereby the majority of patients will do procedures with a nurse, have a doctor consult and also see the physio. When viewed with regard to the comorbid and elderly profile of patients, the ease of patient flow through this multi-disciplinary clinic should be prioritised in order to ensure patient centred care.

Improvement team members

Supervisors:

Clinical supervisor: Dr Nic Tsokos
Service improvement supervisor: Dr Katrina Calvert

Supporters:

The Urogynaecology team at KEMH.

Rebecca Lewis - pdf

Vikki Farrell - pdf

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Physi-GO

Emily O'Sullivan, King Edward Memorial Hospital, WNHS

The improvement process

A process mapping session was held to map the patient journey from initial referral via their GP through to eventual discharge from gynaecology at KEMH. The identified issues concentrated around two main areas: GP referral to gynaecology at KEMH; patient attending physiotherapy at KEMH.

160 medical records were reviewed, and this uncovered another major issue: patient engagement with physiotherapy. 50% of patients referred to physiotherapy from gynaecology failed to activate their referral.

A root cause analysis session established reasons why patient engagement in physiotherapy was such a prevalent issue. The top reasons were:

- Lack of patient understanding of the role of women's health physiotherapy.
- Patient didn't receive the referral letter.
- Complicating life factors.
- - Patient wants surgery/ not interested in conservative management.

Project outcomes

- Patients referred to gynaecology with POP and/or UI will be referred to physiotherapy while awaiting their initial gynaecology review.
- Development of resources to enhance patient understanding of the role of women's health physiotherapy: video, pamphlet.
- Engagement with the patient's GP.
- Quick win: updating the Physiotherapy page on the WNHS website.

Recommendations

- Increased physiotherapy FTE to aid timely achievement of patient goals while awaiting gynaecology review.
- resources outlining the role of women's health physiotherapy to be rolled out to other clinics who refer to physiotherapy.
- Physiotherapist lead pelvic health clinic as has proven to be cost effective and beneficial in other tertiary settings across Australia.
- Physiotherapist in general gynaecology clinics.

Project Aim

To improve the accessibility of physiotherapy services for gynaecology outpatients at King Edward Memorial Hospital.

Rationale

It is widely accepted that conservative management strategies are the recommended first line treatment for pelvic organ prolapse (POP) and urinary incontinence (UI).
There is a lack of public women's health physiotherapy services across Western Australia. This results in women being referred to gynaecology at KEMH before they have trialled conservative management strategies. This contributes to the long wait time for a gynaecology appointment, currently 12 months for POP/UI.

Improvement team members

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OBTain: Optimising blood taking – decreasing collection error and improving safety

Dr Jim Fan, King Edward Memorial Hospital, WNHS

The improvement process

The issues with transfusion medicine specimen collection were defined using formal surveys and multiple project mapping sessions among key clinical and laboratory staff. Key issues which could be measured were: Rates of error due to haemolysis (technique and equipment related), and rates of error due to labelling. Approximately 60% of errors were due to labelling errors. Furthermore, clinical practice was audited to determine frequency of labelling at patient bedside, distractions, and labelling from patient wristband. Labelling guidelines were infrequently followed.

Root cause analysis showed: Poor relationships and trust between laboratory and clinical staff, disincentivisation of bedside labelling, large heterogeneity in blood collection practices, constrictive collection policies that are inflexible to the clinical environment, lack of knowledge towards systems and processes, relaxed competency requirements, and lack of individualised quality control feedback

Projected Project outcomes : Safer and more efficient

- Decrease specimen labelling errors
- Decrease wrong blood in tube incidence
- Improved bedside labelling rates
- Improved inter-lab and clinical staff relationships

Recommendations

- Implementation of a cheap, reliable, and easily useable bedisde labelling device to improve the labelling process during blood collection. This device is a Red pen attached to the side of the bed using a single rubber band. It will
- Development of competency guideline and guideline related to alternative scenarios (Contact precautions, emergency presentations and urgent transfer to theatre)
- Interdepartmental clinical education sessions involving laboratory staff and clinicians, inclusive of simulation
- Ongoing audit of labelling errors that are inclusive of clinical practice

Project Aim

To decrease error and waste in the transfusion medicine specimen collection process, while also improving blood product safety for patients.

Rationale

Wrong blood in tube can cause severe iatrogenic harm to the patient resulting in morbidity and mortality. Strict requirements in terms of specimen identification and quality are required to minimise this risk of transfusion-related injury. However, mistakes in this process are frequent. Over 7% of transfusion medicine specimens are unable to be processed and require recollection. These rejections are largely preventable. They cause increased discomfort to the patient, and potential delays in care. They cause inefficiencies and frustration for both clinical and lab staff alike. More worryingly, these errors likely reflect a deficiency in the process of specimen collection, which in itself increases the risk of wrong blood in tube.

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