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2015 Medical Service Improvement Program

Service improvement project summaries

20 November 2015

2015 Medical Service Improvement Program

The Medical Service Improvement Program, now in its fourth year, continues to engage enthusiastic, motivated junior doctors in service improvement across WA Health.

A total of 85 Resident Medical Officers and Registrars have now participated in the program since its commencement in 2012. The reputation of the program continues to grow locally within the junior doctor cohort, as well as nationally and internationally, assisted by the new program motto ""Lead○Improve○Transform" and logo (see below).

The 2015 program involved 23 junior doctor participants across a total of 10 participating hospitals, as listed below:

- Armadale
- Fiona Stanley
- Fremantle
- Joondalup Health Service
- King Edward Memorial
- North Metropolitan Mental Health Service
- Princess Margaret
- Rockingham
- Royal Perth
- Sir Charles Gairdner

A list of the 2015 participants is provided overleaf.

Service improvement projects

Each junior doctor participant in the Medical Service Improvement Program undertakes a service improvement project at their hospital site supported by an Executive Sponsor, Clinical Supervisor and Service Improvement Supervisor/s. The Institute for Health Leadership and Health System Improvement Unit provide additional project support and also assistance with data analysis as required.

This document provides one-page summaries for the 23 service improvement projects completed during 2015. 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.

Further information

Visit the brand new Medical Service Improvement Program website: http://ww2.health.wa.gov.au/Articles/J_M/Medical-Service-Improvement-Program

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2015 Program participants

Participant		Site	Rotation no.	Service improvement project
Sweeka	Alexander	NMHS MH	3	MATE (MHOA Access Through ED) Project
Sai Rupa	Baskar	RGH	4	TORCH: Time Out for Rockingham Clinical Handovers
James	Colalillo	FHHS	3	FORMing solutions (Mental Health Act Documentation)
Carla	Davies	AHS	3	Helping people breathe easier
Sarah	Devereux	JHC	4	The MAU FLOW M.A.T.T.R.S (MAU Admissions and Transfers Timing Restraints and Suspensions) Project
Lee	Fairhead	SCGH	4	XRAYTED: [Improving] X-Ray Timing in the Emergency Department
Matthew	FitzSimons	FSH	3	Reducing delays in elective theatre start times
Shenoa	Holliday	KEMH	4	Analysing the referral of KEMH women to the Department of Psychological Medicine
Anita	Kothapalli	JHC	4	Improving blood flow: Streamlining phlebotomy services on the medical ward
Anton	Lambers	FSH	4	The PATH to the Ward - Process of Admitting The Hip
Byron	Manning	FHHS	4	Pinball Transfers: Preventing Inter-hospital transfers from Being Allowed to Languish
Lakshmi	Manoharan	FHHS	2	Cracking the Code: Examining and improving the coding process of medical records at Fremantle Hospital
Rebecca	Ng	RGH	2	Metabolic screening in RkPG MHS outpatients
Jing Shen (Joseph)	Ong	RPH	4	#NOF FAST: Fractured Neck of Femur Faster Access to Surgical Treatment
Katherine	Pollaers	SCGH	3	All Hands on Deck! (Hand Hygiene)
Paul	Sander	PMH	Reg. 2	Dr SEUSS Project: Streamlining Emergency Unit Short Stay: Improving the admission process into the Emergency Short Stay Unit (ESSU)
Elizabeth	Shelton	RPH	2	The PRIT Review: Plastic Surgery Referrals & Inter-hospital Transfers
Heidi	Shukralla	KEMH	3	'Bye Bye Baby!' Streamlining the neonatal discharge process
Sarah	Strathie-Page	PMH	2	The Mole Project: Improving patient flow in the Dermatology Outpatient Department
Claire	Sutton	KEMH	2	Improving gynaecology community handover at discharge
Michael	Truong	RPH	3	TACHI: Targeted Antibiotics for CHosen Infections
Claudia	von Peltz	FSH	2	Rolling Gallstones Gather No Moss: Streamlining access to emergency laparoscopic cholecystectomy
Lynda	Weir	PMH	Reg. 3	PMH…Into the Night: A Clinical Handover Project

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MATE (*MHOA Access Through ED*) Project

Dr Sweeka Alexander, North Metropolitan Health Service Mental Health

Project Aim: To improve patient flow from SCGH ED to the MHOA.

Rationale: The Mental Health Observation Area (MHOA) has been operating adjacent to the Sir Charles Gairdner Hospital Emergency Department (SCGH ED) for approximately 20 months. It was designed to provide "rapid psychiatric assessment and streaming into defined mental health care pathways".

The project was undertaken because we were unsure to what extent the MHOA has been successful in reducing delays in SCGH ED and whether there are opportunities to improve the throughput through the MHOA. Through analysing EDIS data during the project initiation phase, we knew that approximately 59% of patients who were admitted to the MHOA between January to June 2015 were spending longer than 4 hours in ED.

Improvement team members

Supervisors:
Dr Peter Allely
Noel Lockyer-Stevens

Supporters:
Katie Bundred, Danny Rock, Patrick Marwick, Tamara Rouen, Milan Dragovic, Brodene Straw, Yvette Tan

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The improvement process

A process mapping session was held to map the current patient journey from ED triage to discharge to the MHOA. The issues identified by staff at various steps along the process were collected. This was translated into measurable outcomes. Data was collected from EDIS, EBM and TOPAS for the period between January to June 2015. Data was analysed by HSIU Data Analysts. We found that there were approximately 24 weekly admissions on average to the MHOA (accounting for approximately 30% of mental health admissions from SCGH ED). We also found that 54% of mental health patients spent longer than 4 hours in ED (excluding those on forms and those with toxicology related presentations). A length of stay timeline with multiple time points was created to reflect the median. We found that 87.5% of 4 hours or 3 hours and 30 minutes was time spent between the ED doctor requesting a consult/bed and the patient leaving ED. During an analyse session we captured a number of root causes for this delay. There are currently no options to fast track patients to the MHOA (i.e. patients deemed suitable for an admission by an ED doctor wait in ED until this decision is confirmed by the psychiatry liaison team (PLT)). Our solution centred around creating a new pathway from ED to MHOA which focused on an ED senior doctor facilitating admission to MHOA. The mental health assessment would be completed by the PLT in MHOA rather than ED.

Project outcomes

- Development of alternative clinical pathway from ED to MHOA
- Raised staff awareness of the issue
- Improved communication between ED and Mental Health- sessions involved staff from both departments and a chance for both sides to hear each other.

Recommendations

- Facilitate direct admission to MHOA by an ED senior doctor
- Pilot the proposed solution for a three to six month period followed by an evaluation of the pilot
- Review and amend the MHOA model of care and key performance indicators to reflect the changes in practice.

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TORCH: Time Out for Rockingham Clinical Handovers

Dr Sai Rupa Baskar, Rockingham General Hospital

Project Aim: To establish a standardised process for handovers occurring between medical staff over the weekend (Friday evening to Monday morning) at Rockingham General Hospital for medical and surgical inpatients.

Rationale: Good quality clinical handover is integral to maintaining safe and quality patient care. Developing a standardised and streamlined approach to handovers will help improve junior doctor preparedness on after-hours shifts and potentially reduce delays in management and increase the quality of care provided to patients.

Improvement team members

Supervisors:
Dr Raj Malvathu
Kerri Martyn

Supporters:
Dr Geoffrey Williamson
Melanie Wright

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The improvement process

A process mapping session was conducted to define the existing process and identify the commonly occurring issues. Eleven handovers across 2 weekends were observed, 38 handover sheets and corresponding patient files were audited for documentation and a junior doctor survey was also conducted, in order to quantify the problems. Root cause analysis was subsequently performed into two significant shortcomings including delays in handover start timings and quality of written information provided in the handover sheets. A solution generation session was conducted and a total of 36 ideas were proposed. Feasibility, ease of implementation and sustainability were taken into consideration to identify the key improvement solutions to be carried forward. A two weekend trial was performed in order to fine tune the final weekend handover process.

Project outcomes

- Improved awareness of the weekend handover process through development of the weekend handover guide for junior doctors including orientation material, quick reference guides and posters
- Increased consistency of handovers and increased awareness of good clinical handover
- Improving multi-disciplinary teamwork after hours with senior nurse attendance at handovers
- Streamlining transfer of written handover information by incorporating weekend handovers into the iSoft handover tab.

Recommendations

- Group paging and/or computer alerts to medical staff in order to improve timely attendance at handover and increase organisation awareness of medical handovers
- Improved rostering of junior doctor staff so that weekend staff are able to attend Friday evening handovers
- Develop an electronic handover tool that enables an integrated multi-disciplinary input and is updated on a regular basis so that it remains relevant to patient care.

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FORMing Solutions

Dr James Colalillo, Fremantle Hospital

Project Aim: To identify and improve the barriers to effective documentation and communication with patients under the Mental Health Act (MHA).

Rationale: Compliance with the standards for legal documentation under the MHA not only ensures appropriate legal coverage for the clinician, it is also good clinical practice which allows the patient and carer to understand their rights within the MHA framework. Currently only 43% of patient rights explanations are being documented and 70% of the MHA Checklists are blank. As this is a legal requirement for every patient there must be 100% compliance with this process and any inpatient episodes where this is not completed is not adequate.

Improvement team members

Supervisors:
Clinical supervisor:
Dr Ajay Velayudhan
Service Improvement Supervisors:
Kendra Beecroft & Emily Nolan

Supporters:
Executive Sponsor: Julien Harris
Brodene Straw (IHL)
Staff at Fremantle Hospital

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The improvement process

The project followed the DMAIC methodology for clinical service improvement. Numerous sessions were held with stakeholders to map the 'Forming' process, identify issues and analyse root causes. Multiple issues were raised with the root causes surrounding the need for increased accountability and improvement of documentation. Solutions addressing these root causes were generated by stakeholders in further sessions and implemented where appropriate.

Project outcomes

- A new Mental Health Act checklist and auditing process
- A procedural directive for the new checklist to detail responsibility
- Improved accountability measures
- Patient MHA rights education poster
- Staff engagement with change and improvement
- Increased awareness of the Mental Health Act requirements

Changes resulted in a 23% increase in patient rights explanations being documented and a decrease in the percentage of blank/absent checklists by 37%.

Recommendations

- Standardised patient and carer admission pack with relevant Mental Health Act documents
- Decrease in duplication and irrelevant nursing admission paperwork
- Patient discharge packs with relevant documentation
- Regular audits of the new Mental Health Act checklist with accountability measures in place and publication of results on each ward
- PSOLIS to have a generate report function
- A review of the consultant psychiatrist workload
- A culture of increased accountability, ownership and leadership

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Helping People Breathe Easier

Dr Carla Davies, Armadale Hospital

Project Aim: To improve the compliance to clinical guidelines and therefore standardisation of care being provided to adult patients who are admitted with an exacerbation of asthma.

Rationale: There were 115 adult admissions with asthma as the primary diagnosis at Armadale Hospital last year and the readmission rate sits at 6%. Unlike with other acute presentations there is no comprehensive clinical care plan in place for asthma and as a consequence gaps in compliance to national guidelines exist.

This project was an opportunity to improve adherence to national guidelines and thereby reduce variances in care. This will help to reduce the readmission rate and improve patient outcomes for patients.

Improvement team members

Supervisors:
Dr Alison Maclean

Supporters:
All the ED, Medical, ICU, Nursing and Physio staff at Armadale Hospital

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The improvement process

A process mapping session was conducted with 27 participants, mapping the patient journey from the 1st patient contact with a doctor in ED through to discharge. Face to face interviews with 3 current inpatients and 15 telephone interviews were conducted with patients who had recently been admitted because of an asthma exacerbation.

A number of issues were raised; many concentrated on lack of role allocation, tasks not being performed, as well as a lack of patient and staff education/understanding.

Root cause analysis revealed the main reasons for this was a lack of co-ordination of care, lack of staff awareness of services available, staff understanding, education and training. Difficulties in the accessibility of equipment/education tools and referral documents were also identified.

A solution generation session was held with 25 attendees, various solutions were put forward. The most popular of these being; staff education; development and implementation of a clinical care pathway; increasing access to equipment and developing patient education packs for the wards to give to patients.

Project outcomes

- Patient education packs for the wards supplied through the asthma o/p educator for free
- Referral form and information sheet for the asthma o/p educator uploaded on the intranet
- Linking the o/p asthma educator with staff development nurses and head of clinical training for JMOs to organise training sessions that are ongoing
- Information about the asthma o/p educator, how to refer to her and where to find the referral forms in the JMO survival guide which is distributed to all doctors rotating to Armadale
- Request for 2 new Spirometry machines – currently in process
- Strengthened relationships between the wards and o/p services
- Clinical care pathway developed with an implementation plan for trial and subsequent roll out.

Recommendations

- Recommend Physiotherapy led education sessions for staff on how to perform spirometry
- Trial and roll out of the clinical care pathway for ED and for the ward
- Recommend approval of the spirometry machines
- Recommend 3 month trial of the clinical care pathway in conjunction with a repeat clinical audit at this time.

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The MAU FLOW M.A.T.T.R.S (MAU Admissions and Transfers Timing Restraints and Suspensions) Project

Dr Sarah Devereux, Joondalup Health Campus

Project Aim: Deliver a safe, efficient, patient-centred and integrated model for the transfer of patients from the Joondalup Health Campus (JHC) Medical Admissions Unit (MAU) to their Destination Ward.

Rationale: The MAU at JHC opened in February 2014. In 2014 Dr Mike Somers completed a Service Improvement Project on the process of transferring patients from the Emergency department (ED) to MAU. The MAU processes all general medical patients for assessment and disposition decision. In August 2015 MAU had 900 admissions, with 793 patients transferred to Destination Wards. Flow through MAU can significantly influence flow through ED and National Emergency Access Targets (NEAT) performance.

Improvement team members

Supervisors:
Melanie Gates
Dr Yuresh Naidoo

Supporters:
Anthony Ryan
Katharine L'Anson
Jo-Ann McIntyre

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The Improvement Process

The process mapping session revealed issues and delays in the process from admission to MAU from ED to transfer to the Destination Ward. Data analysis highlighted the need to assess the factors contributing to a 107 minute average delay between the time a patient's bed is ready to when they depart the MAU. Root causes for the delay were proposed at a session of medical, nursing, clerical and support staff members. The probable root causes of this delay included; multiple processes that compound batching of patients, multiple factors influencing Destination ward acceptance of patients and limited orderly availability.

Project Outcomes

- Increased staff awareness of the impact of delays in patient flow through MAU on the patient, fellow staff members across the hospital, and the hospital itself
- Increased awareness amongst patients and staff regarding the role of MAU in the hospital as an assessment unit not a treatment unit
- Standardised processed relating to Destination Wards accepting MAU patients during nursing handover periods to ensure it is safe and acceptable but also allows for smooth patient flow
- Positive cultural change within the hospital relating to "Pulling" of MAU patients to Destination Wards
- Defining roles and responsibilities of the MAU orderly and providing additional support services to maximise the likelihood of orderly availability when patient transfers are required.

Recommendations

- A project dedicated to assessing and improving the discharge process on the Destination Ward to when the bed becomes ready
- Re-review of ED processes relating to patient flow
- Implementation of a hospital-wide electronic bed management system.

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XRAYTED: [Improving] X-Ray Timing in the Emergency Department

Dr Lee Fairhead, Sir Charles Gairdner Hospital

Project Aim: Reduce the time from X-Ray request to completion in the Emergency Department at SCGH and therefore improve the quality of the patient experience as well as improve the flow, communication and satisfaction among both patients and staff.

Rationale: Plain film X-Ray is an important and common tool used in the Emergency Department (ED) workup of patients and data shows that in the financial year 2014-2015, 51% of patients in SCGH ED had a radiological investigation performed.

Any improvements in waiting times for radiology will assist to expedite decision making, NEAT compliance and patient flow generally.

Improvement team members

Supervisors:

Dr Ioana Vlad, Dr Karen Murphy, Jenny Francis

Supporters:

Russi Travlos, Fiona Bowden, Lisa Gray, Nicole Hoskins, Jane Campbell, Amanda Feige, Sharron Pratt, Russell Le Dain, Robyn Bolton, Adam Arnold

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The improvement process

Firstly, a process mapping session was conducted with representation from all key stakeholders. This included nursing, medical, clerical, hospital support services and radiography staff. Key steps, issues and delays in the patient journey from presentation to the triage desk to completion of X-Ray were identified. There was significant delay getting the X-Ray done once it had been lodged with radiology.

Root cause analysis revealed that the process relied on a busy nurse coordinator to coordinate transport and that the HSAs who are central to the process were not allowed to look at the computer which in order to identify patients who need an X-Ray and their location within the department.

Project outcomes

- Significant decrease in time from X-Ray request to X-Ray completion. From 41 to 10 minutes (Oct-Nov data)
- A more cohesive workforce with extra training and direction given to HSAs which has also relieved pressure on the busy nursing coordinator to focus on other tasks
- Increased communication between the ED and Radiology Departments
- Created an entirely new process for X-Rays to be ordered and completed whilst a patient is still in the triage area
- Reduced waste in the ordering process
- Increased education and resources for doctors ordering radiology.

Recommendations

- Electronic ordering of radiology that must be combined with a well integrated system which allows the consumer (person who orders the request) to track, edit and cancel their order as well as link with patient location data
- Evaluate the use of and necessity for radiological investigations in the Emergency Department according to current evidenced-based guidelines
- Evaluate the current radiology request form in particular the urgency categories and their meanings.

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Reducing Delays in Elective Theatre Start Times

Dr Matthew FitzSimons, Fiona Stanley Hospital

Project Aim: By assessing the elective theatre admission process, we aimed to identify the areas causing these delays in commencing the first case.

Rationale: Since being fully commissioned in February 2015, Fiona Stanley Hospital (FSH) has performed over 5000 elective surgeries. Anecdotally, many staff from a variety of specialties reported there is often a delay in commencing the first theatre case of the day. Data from the month of May reveals that 67% of elective operations commenced greater than 10min after scheduled start time. Combined with turnaround time, this resulted in 469hrs of unused elective theatre time across all specialties in May.

An estimation of theatre costing revealed that at a cost of roughly $712/hr, poor utilisation of theatres is both an expensive exercise and one that has the potential to compromise the experience of patients.

Improvement team members

Supervisors:
Dr Clinton Paine
Joanne Illich
Erin Furness

Executive Sponsor:
Dr Alison Corbett

Supporters:
Catherine Li

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The improvement process

A service improvement analysis using the DMAIC methodology was conducted on the admissions processes for elective patients on the day of theatre. A process mapping session conducted with key stakeholders revealed some of the barriers to this process included poor communication of late changes to order of the list and difficulty contacting porter staff for the transport of patients. We conducted a root cause analysis of the above issues and through further stakeholder engagement, were able to implement solutions to a number of the identified issues.

Project outcomes

- In combination to other changes around the Hospital, this project saw the mean late start time decrease from 45 minutes in the middle of April, to 15 minutes in the middle of July
- Provide more regular feedback on theatre start time KPI in form of weekly emails to relevant stakeholders
- Unified agreement on ‘start time’ definitions
- Institute a standing order of porters in holding bay each morning between 0750 and 0820
- Green/Red notification magnets on Holding Bay whiteboard advertising patient readiness for theatre.

Beyond any specific changes implemented, raising awareness of theatre start times amongst key stakeholders was one of the most significant outcomes. This ensured that it will continue to be a focus well beyond the conclusion of this project.

Recommendations

- Establishing a defined and well understood system for the communication of late change to operative list. A central call centre to take an initial call from the individual initiating the list change, and then that person to disseminate the information to all those who need to be informed
- Negotiating with specific departments to allow a resident or registrar to visit DOSA/Holding bay prior to the commencement of the ward round. This will allow any issues with elective patients to be identified/rectified early enough to ensure these delays do not impact on the list commencing on time.

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Analysing the referral of KEMH women to the Department of Psychological Medicine

Dr Shenoa Holliday, King Edward Memorial Hospital

Project Aim: To devise a referral process that was streamlined, clinically appropriate and sustainable for the future of the Department of Psychological Medicine (PMD) at KEMH.

Rationale: Past leadership of the department had resulted in a lax protocol for referral. This was not only unsustainable but had been leading to women "slipping through the cracks". A retrospective analysis of referrals to the PMD found that 58% of referrals were inadequate (implying that the referral would require further significant research by the Triage Nurses prior to triage and allocation), 46% of referrals lacked documented consent, and 42% had an inadequate mental health history for triage and allocation. A better way for referral to the PMD at KEMH must be found, if the service is to remain sustainable and of high quality in to the future.

Improvement team members

Supervisors:
Dr Brendan Jansen
Sue Somerville
Esther Dawkins

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The improvement process

The DMAIC method for clinical service redesign was used to guide this project. Multiple sessions for the process mapping, analysis and solution generation session were conducted to ensure all stakeholder voices were heard. The key issues highlighted were; a lack of referral quality – inadequate information and minimal mental health history as well as a high proportion having no documented consent. The root causes attributed to these, were then further explored for solution generation: a history of lax referral processes and corridor referrals; global notion of separation and lower prioritisation of mental health over physical health issues; a lack of confidence and skills in junior doctors and midwifery staff to undertake a mental health assessment, resulting in poor quality, blanket referrals for any distressed woman. Multiple solutions generated, at various stages of implementation at time of project completion.

Project outcomes

- RMO Education Program: Lanyard with Mental State Examination Prompt; Common Psychotropic medication lanyard; Fortnightly RMO Psych Med tutorials; Increased representation of Psych Medicine at Friday afternoon PGME teaching; A Psychological Medicine Educational Toolbox on Wards 3,4,5,6, ASCU, MFAU, LBS, EC
- Midwifery Education Program: Future plans for selected midwives to be up-skilled in Mental Health to act as Mental Health Champions – course to be developed by PMD and DNAMER; Lanyard with MSE prompts; Future creation of role and specialist training of one to two Specialist Mental Health Midwives; Regular 2-3 monthly Midwifery In-services until training programs are complete
- New Referral form created; Notification of Admission form; PMD summary sticker - for clarity of situation and legible, clear plan for further management by PMD clinician in patient notes
- PMD Triage Nurses now conduct daily ward rounds, effective triage and gate-keeping role to ensure high-quality, clinically appropriate referrals are received by PMD for allocation
- Ongoing audit activity to monitor response to new referral form and its impact if any on quality and adequacy of referrals to PMD.

Recommendations

- Commitment to ongoing education and support of junior doctors and midwives in the area of mental health provision
- Executive review of solution charters with strong encouragement to establish a role for Specialist Mental Health Midwives at KEMH
- Creation of mental health Champions through development of specific training program run through DNAMER in collaboration with PMD.

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Improving Blood Flow: Streamlining Phlebotomy Services on the Medical Ward

Dr Anita Kothapalli, Joondalup Health Campus

Project Aim: To ensure that the JHC phlebotomy collection round process is safe, timely and efficient. To ensure that all staff members are aware of their roles and responsibilities, and are able to carry out these responsibilities without hindrance.

Rationale: Causes of inefficiency on phlebotomy collection rounds result in delayed pathology upload time which impacts the ability of medical teams to make prompt medical decisions and discharges. This can lead to prolonged length of stay and delayed discharge. Preventable delays also result in unnecessary added costs to both Joondalup Health Campus and Western Diagnostics.

Improvement team members

Supervisors:
Dr Yuresh Naidoo
Melanie Gates

Supporters:
Brodene Straw
Katie Bundred
Geoffrey Weir
Kat I'Anson

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The improvement process

A process mapping session with ward phlebotomists, junior medical staff, lab managers and nursing staff was conducted to map out each step of the morning phlebotomy collection round process and to identify the issues and delays experienced by staff as part of this process. Major issues identified included (1) Chute and cannister delays (2) Incorrectly filled forms (3) Staffing allocation issues and (4) Bedside delays. 3 weeks of manual data collection was then completed to measure the frequency of chute/cannister issues and incorrectly filled forms (which were the 2 biggest issues identified by staff) and to quantify the extent of the delay resulting from these issues.

Root causes for incorrectly filled forms included lack of awareness/ education amongst junior doctors arising from ineffective orientation, no ongoing education and a lack of accountability and feedback processes. Root causes for cannister delays included poor distribution of cannisters to meet ward needs, no designated "home" ward for cannisters and delays associated with the chute system.

Project outcomes

- Improved education/awareness amongst junior doctors regarding role and correct processes
  - Providing a more effective orientation with improved content and take-home resource for easy reference
  - Provide ongoing education through junior doctor teaching sessions and by displaying a poster in doctors' rooms and next to request boxes.

Recommendations

- Establishing accountability and feedback processes, and engaging senior support, to better engage junior doctors and increase motivation to carry out correct processes
- Determine appropriate distribution of cannisters based on ward needs and implement a daily cannister round to ensure cannisters are in required location
- Further consideration of an electronic system for requesting phlebotomy services
- Further investigation into the root causes of delays caused by the chute system.

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The PATH to the Ward: Process of Admitting The Hip

Dr Anton Lambers, Fiona Stanley Hospital

Project Aim: To improve the multi-disciplinary process of admitting patients with hip fractures to Fiona Stanley Hospital.

Rationale: FSH will see over 700 hip fractures on a yearly basis. Patients spend only a few days in hospital and as such an accurate, complete, and timely admission is necessary. This project will aim to bring together the various departments and staff involved to attempt to streamline care for both patient safety and health economics.

The improvement process

Following the DMAIC framework the key initial event was a process mapping session. This saw representation from emergency consultants, nurse unit managers and floor staff, orthopaedic staff, geriatricians and anaesthetic input. The key issue areas were:

- Quality of initial radiological tests
- Correct pathology test ordering
- ECG acquisition
- Correct documentation of admission
- Communication between team members

These issues were then quantified, analysed and solutions built as a result.

Project outcomes

- Radiology: rate of missed template views reduced from 15% to 0% following education sessions and internal audit
- Pathology: hip fracture blood panel pathology slips created
- ECGs/Documentation: intensive education and workshops
- Communication: “NOFF page” system created that alerts anaesthetic, ward, geriatric and orthopaedic staff of potential admissions 2h prior to formal referral
- Engagement of peripheral and country hospital radiology teams to align protocols and reduce re-imaging frequency.

Recommendations

- Ongoing work with transfer site radiology departments
- Post-implementation audit of paging system
- Pending and summary and recommendations published
- Work needed to reduce delay to radiological investigation.

Improvement team members

Supervisors:

Dr Hannah Seymour
Sarah Artmanni

Supporters:

Emergency Staff
Orthopaedic Staff
FSH Radiography
Anaesthetics
Clerical Staff

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Pinball Transfers: Preventing Inter-hospital transfers from Being Allowed to Languish

Dr Byron Manning, Fremantle Hospital

Project Aim: To examine and improve the inter-hospital transfer process for medical patients from Fiona Stanley (FSH) and Fremantle Hospitals (FHHS).

Rationale: Patients experiencing inter-hospital transfer after-hours are known to have worse clinical outcomes compared to in-hours. Currently, 30% of medical patients being transferred from FSH to FHHS arrive after 5pm and there is an overall average delay of 5.5 hours from time of request and 4 hours from bed allocation to patient arrival. This represents significant waste through waiting and there is opportunity to improve communication, reduce waste, and ultimately to improve patient outcomes through a shift towards earlier inter-hospital transfers.

Improvement team members

Supervisors:
Professor David Bruce
Kendra Beecroft & Emily Nolan

Supporters:
Executive (FHHS): Annie Thompson
Lauren Nicholson (CSR)
Katie Bundred (HSIU)
Staff at FSH and FHHS

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The improvement process

Following the DMAIC framework for clinical service redesign, sessions designed to capture current processes were conducted with stakeholders at both hospitals and 66 steps and 71 individual issues were identified. Further sessions were undertaken at both sites to analyse root causes, and broadly these identified areas and reasons for poor communication and handover, delays in completion of 'process critical' paperwork, and ambiguous inclusion and exclusion criteria for inter-ward and inter-hospital transfer. Solutions were developed during further sessions that could be implemented to address these root causes as appropriate.

Project outcomes

- Improvement in communication between staff members and between sending and receiving hospitals
- Improvement in the handover process so that the need for a completed and printed NaCS discharge summary to be finalised before the transfer could occur will been removed
- Development and promulgation of clear inclusion and exclusion criteria for patients undergoing transfer
- Increased understanding of Transit Lounge criteria leading to increased utilisation of this service
- Simplified process for booking patient transport which will leading to reduced delays in waiting time for transport and increased 'ready-now' requests
- Reduction in duplication, waste, inaccurate information, and development of a culture of continual improvement.

Recommendations

- A Project Implementation Plan (PIP) has been developed and promulgated to relevant stakeholders. This PIP details the recommended solutions and steps for implementation that will lead towards creation of an ideal future process.

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Cracking the code:
Examining and improving the coding process of medical records at Fremantle Hospital

Dr Lakshmi Manoharan, Fremantle Hospital

Project Aim: To examine and improve the process of coding and movement of medical records post patient discharge at Fremantle Hospital.

Rationale The quality of information in a patient's medical record directly affects the quality and safety of the care which a health institution delivers. The accurate and timely delivery of healthcare information is vital to safe and effective handover of care between health professionals. The Department of Health mandates that a patient's medical record be coded within 28 days of patient discharge. The SMHS hospitals coding compliance rates are recorded weekly in the Coding Boundary Report. Historically, FHHS has had the poorest completion rates of coding within 28 days of patient discharge. In March 2015 FHHS demonstrated a 52 % coding rate of medical records within 28 days, which highlights the need for improvement in this area.

Improvement team members

Supervisors:
Kendra Beecroft
Emily Nolan

Executive sponsor:
Dr Eva Denholm

Supporters:
Julien Harris

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The improvement process

The project focused on the efficient coding of medical records post patient discharge at Fremantle Hospital. The DMAIC methodology was utilised, and a number of sessions were held to map out the process of coding the medical records, to identify issues and analyse the causes. The 'flow' or movement of the record to clinical coding post patient discharge was identified as the main root cause, and thus measures were put in place to make this process more efficient and timely.

Project outcomes

- A new and streamlined process for the efficient and timely transport of medical records from the mental health department at Fremantle Hospital to the clinical coding department
- A new and streamlined process for efficient and timely movement of medical records from clinical coding to the medical records department, ensuring that these records were coded prior to leaving the department
- Improved organisation of the uncoded medical records in the clinical coding department
- Improved communication and liaison within the clinical coding department and increased awareness of the importance of coding.

Recommendations

- Monitoring of the efficiency of the new processes put in place for the timely movement of medical records between mental health and the medical records department
- Use of a laptop for mobile coding on the wards for episode of care changes
- Monitoring of the coding staff numbers and experience levels and comparing this to the coding boundary report statistics.

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Metabolic Screening in RkPG MHS Outpatients

Dr Rebecca Ng, Rockingham General Hospital

Project Aim: To create a streamlined metabolic screening process that utilises a metabolic screening tool that is accessible, efficient and useful to clinicians, and amenable to regular audit and review.

Rationale: Metabolic syndrome is both more common in psychiatric patients and exacerbated by psychotropic medications. Metabolic screening is a mandated process, however audits have showed ongoing poor compliance, with the R6 audit showing the likelihood of having an entry on the metabolic screening tool only 12%. There is an opportunity to improve the metabolic screening process to improve the management of metabolic syndrome in patients and provide process streamlining and role clarification for staff.

Improvement team members

Supervisors:
Dr Lakshmi Fernandes
Kerri Martyn

Supporters:
Dr Claire King, Mel Wright, Brodene Straw

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The improvement process

The project collected the voices of the patient, staff and organisation through face to face interviews, and a process mapping session with key stakeholders which mapped the current metabolic screening process from a patient's commencement of outpatient follow up at RkPG MHS to their discharge from the service. 37 issues were identified and clustered around initial assessment, pathology and the metabolic screening tool. Pre-existing audit data (showing poor compliance with metabolic screening) and newly collected staff survey data (showing that only 37% of staff regularly use the metabolic screening tool) validated these issues. A root cause analysis session identified the four root causes as lack of role clarification, administration, filing and culture and education. A solutions session identified 22 solutions, which were assessed to identify the key solutions and deliverables for this project.

Project outcomes

- Redesign of metabolic screening tool to decrease time wastage and risk of transcription errors
- Redesign of pathology request form to provide visual cues for ordering of metabolic screening and to assist timely return of pathology results to clinicians.

Recommendations

- Creation of workflow protocol within each service to allow improved accountability, role clarification and streamlining of process
- Ongoing education about importance and process of metabolic screening provided by senior Consultants to medical, nursing, allied health and clerical staff
- Ongoing review of compliance with documentation audits.

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#NOF FAST – Fractured Neck Of Femur Faster Access to Surgical Treatment

Dr Joseph Ong, Royal Perth Hospital

Project Aim: To reduce the time to theatre for fractured neck of femur patients from 49hrs to under 36 hours. To improve the overall quality of care by reducing the variations in standard of care.

Rationale: Fractured Neck of Femur (NOF) patients are an elderly and vulnerable population group. The quality of hip fracture care varies considerably across institutions in terms of time to surgery, peri and post-operative complications, length of stay and readmissions.

2014 Health Roundtable Data demonstrates that it takes an average of 49 hours for Royal Peth fractured NOF patients to get to theatre. Royal Perth Hospital does not currently have a well-established fractured NOF pathway. This contributes to delayed surgical treatment leading to prolonged fasting, bed rest and delirium.

Improvement team members

Supervisors:
Dr Sapna Samida
Katherine Birkett

Executive sponsor:
Lesley Bennett

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The improvement process

A process mapping session was conducted with all stakeholders involved with getting fractured Neck Of Femur (NOF) patients from the Emergency Department to the operating theatre. Data was collected from a snapshot audit, Hip Fracture Quality of Care Registry and Theatre Management System (TMS). Analysis of the data was undertaken to validate the issues raised during the mapping session. A Root Cause Analysis (RCA) was then conducted with the key stakeholders to understand why patients aren't ready when they reach the patient reception area, why there are variations in analgesic practises and why there is a lengthy delay for a medical review. Formulation of solutions after the RCA resulted in the following outcomes and recommendations.

Project outcomes

- Identified root causes for variation in care, delays in medical review and getting NOF patients to theatre
- Development of a new NOF acute care collaborative management plan
- Development of an after-hours model of care for NOF patients
- Development of a group page system to facilitate patient preparation and hand-over communication.

Recommendations

- To use the DMAIC methodology to examine the entire acute admission process for NOF patients
- To trial, further refine and rollout the newly designed NOF Collaborative Management Plan in conjunction with the group page and after hours model of care
- To continue to develop the acute pain management process for NOF patients.

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ALL HANDS ON DECK!

Dr Katherine Pollaers, Sir Charles Gairdner Hospital

Project Aim: Improvement of overall Hand Hygiene (HH) compliance amongst medical staff to ≥75% by the next audit period.

Rationale: Standard 3 of the National Safety and Quality Health Service Standards is 'Preventing and Controlling Health Care Associated Infections (HCAIs)'. A number of hospital based strategies are used to minimise HCAIs - hand hygiene is one of these.

The most recent hand hygiene audit (Audit period 1, 2015) conducted at SCGH showed an overall compliance rate of 73%. Compliance rate amongst medical staff was below the benchmark, at 63% (CI 57-68%). WA Health has recently increased the minimum compliance benchmark from 70 to 75%. HH compliance by medical staff at SCGH is significantly below the new WA Health benchmark and is an area in need of urgent attention.

Improvement team members

Supervisors:
Dr David Speers
Helen Cadwallader
Jennifer Francis

Executive Sponsor:
Dr Karen Murphy

Supporters:
Russi Travlos, Fiona Bowden

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Project outcomes

- **Ward Round Trolley**
  After extensive consultation with medical staff, ward Clinical Nurse Specialists, the Infection Prevention and Control team and Occupational Safety and Health the 'ideal' ward round trolley was designed. A Business Case has been approved by Dr Victor Cheng for a trial of the trolley on 3 wards at SCGH.
- **Medical staff ward round hand hygiene audits**
  Hand hygiene on medical team ward rounds will be audited by the Infection Prevention and Control Team, immediate feedback will be provided and then the compliance rate will be published on a leader board. Teams below the 75% benchmark will be asked to provide a plan to improve HH in their department.
- **Hand Hygiene Champions**
  One consultant per department will be the Hand Hygiene Champion. Their role will be to advocate for and 'champion' hand hygiene within their department.
- **'Remind Me!'**
  The 'Remind Me!' campaign will promote a cultural change where all members of the MDT are empowered to remind everyone else to do hand hygiene – leading to behavioural change and habit formation amongst medical staff.
- **Education**
  In an effort to educate medical staff about the connection between hand hygiene non-compliance and healthcare associated infection, case based discussions about this topic will be included in the University Clinical Round.
- **Consultant Posters**
  A set of posters have been developed showing consultants supporting hand hygiene.

Results

Key Performance Indicators

1) Medical staff compliance with the '5 Moments for Hand Hygiene'.
Measured three times/year as part of the National Hand Hygiene Initiative, in accordance with guidelines set by Hand Hygiene Australia.

2) Medical staff use of the WR trolley on ward rounds.

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Dr SEUSS Project

Streamlining Emergency Unit Short Stay:

Improving the admissions process into the Emergency Short Stay Unit (ESSU)

Dr Paul Sander, Princess Margaret Hospital for Children

Project Aim: To streamline the patient admission process into the ESSU at Princess Margaret Hospital (PMH).

Rationale:

- The ESSU admits the largest number of patients per year compared to all other hospital departments.
- In 2014 there were 3000 patients admitted to the ESSU, an increase of 66% in 5 years.
- The average duration from the medical decision to admit a patient until the time that patient is physically transferred into the ESSU is 90 minutes.
- There has been an increased number of ESSU patients who are *not* meeting the National Emergency Access Target (NEAT) times, with a 50% rise in the last 3 years.

Improvement team members

Supervisors:
Dr Meredith Borland
Kirsten Rosato

Supporters:
Dr Mark Salmon
Dr Lauren Mott

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The improvement process

- *Defining* the problem was undertaken using patient and family interviews and a process mapping session for all frontline Emergency Department (ED) medical, nursing and clerical staff. The process mapping session identified several main issues including delays in the final step of the patient transfer process, a lack of standardisation of this process compared to other inpatient wards, and discrepancies around appropriate transfer criteria for wheezing and procedural sedation patients.
- When the issues were *analysed*, the root causes that were identified included delayed communication between staff involved with procedural sedation, delayed communication in notifying key staff that a bed request had been created, unclear responsibilities around the final patient transfer step of the ESSU admission process, and different perceptions of the clinical appropriateness of wheezing patients and their readiness for transfer.
- Potential *solutions* included clinical pathways for common ESSU conditions, standardising the final step of the patient transfer process, and revising the ESSU admission criteria and clinical guidelines.

Project outcomes

- Clinical pathways and a standardised ‘push’ (as opposed to ‘pull’) patient transfer process will be implemented in August 2015. ESSU admission criteria and clinical guidelines were revised in late July 2015
- The outcome of these solutions will be reviewed with a repeat audit in late 2015.

Recommendations

- Consideration to expand the concepts of clinical pathways to include other common ESSU diagnoses
- Translation of this project’s findings (including the repeat audit) to the ESSU at the Perth Children’s Hospital.

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The PRIT Review:
Plastic Surgery Referrals & Inter-hospital Transfers

Dr Elizabeth Shelton, Royal Perth Hospital

Project Aim: To streamline the admission process for transferred and referred patients for Plastic Surgery services to avoid duplication of Emergency Department review in two hospitals for the same injury.

Rationale: In a 12-month period April 2014-March 2015 39% of patients seen by Plastic Surgery in the ED had been seen in another metropolitan hospital for the same diagnosis. These patients were averaging 416 minutes in total ED length of stay compared to 218 minutes for primary presentations to RPH. Of these, 75% are admitted. On average patients wait 94 minutes from Plastic Surgery consult request to be reviewed, and take an average of 31.4 hours to get to theatre. This project was aimed at addressing the most efficient pathway for referred and transferred patients to be admitted to RPH and access senior decision making.

Improvement team members

Supervisors:

Dr David McCoubrie
Katherine Birkett
Dori Lombardi

Supporters:

Dr Brigid Corrigan
Tanya Douglas
Sam Green
Jake Nelson

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The improvement process

The redesign process was conducted using the WA Department of Health DMAIC methodology. Research was focussed on identifying the numbers and current patterns of admission, total ED time and waiting times for theatre for plastic surgery patients transferred and referred from metropolitan hospital ED's.

A process mapping session identified four key areas of focus – an inconsistent referral process, duplication of medical assessment in RPH ED, access to plastic surgery registrars and theatre booking processes, particularly for ambulatory patients admitted for non-complex procedures. This was taken to a root cause analysis session to drive solution generation.

The final phase of the project involved close engagement with the clinical leads and Executive sponsors to design an implementation plan and sustainability model based on recommendations for solutions.

Project outcomes

- Business Case developed for a proposed weekend service procedure room at RPH to manage the weekend flow of patients requiring non-complex procedures under local anaesthetic
- Development of a clinical assessment proforma in the Emergency Department for reviewing and referring patients to Plastic Surgery for injuries to the hand, upper limb and face
- Acquisition of a departmental smartphone for the on-call plastic surgery registrar for use of medical photography and to provide the rest of the hospital with a single contact point for the Plastics team.

Recommendations

- Development of a referral criteria to be built into E-Referral to help peripheral sites triage patients to the appropriate clinical site in SMHS (e.g. RPH Trauma Clinic, RPH inpatient team, FHHS Hand Service)
- Proposal to set up a dedicated RPH Plastic Surgery WA Health email address for use of medical photography in patient referrals.

Acknowledgements

I would like to acknowledge the support of Brodene Straw and Stephanie Samuelraj at the Institute for Health Leadership and their team, as well as the involvement of Dr Helena Van Dam and Dr Raj Zaman from the Department of Plastic Surgery for their input throughout the project.

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Bye Bye Baby! Streamlining the Neonatal Discharge Process

Dr Heidi Shukralla, King Edward Memorial Hospital

Project Aim: To implement strategies to address the current neonatal discharge performance and improve patient flow from admission to discharge.

Rationale: KEMH aims for the timely discharge of both mother and baby from the postnatal wards, with Women's and Newborn Health Service discharge policy aiming for at least 40% of discharges by 1000hrs. A recent audit found that only 1.5% of neonates were discharged by 1000hrs, and highlighted the need for action to be taken to address this performance. Ensuring the bulk of discharges take place before the majority of ward admissions ensures efficient flow on the ward. Delays in neonatal discharge impact bed availability on the postnatal wards for mothers and babies and have an implication for other areas such as the delivery suite.

Improvement Team Members

Supervisors:
Dr Rolland Kohan
Esther Dawkins

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The improvement process

The neonatal discharge process on the postnatal wards was reviewed using the DMAIC framework. A process mapping session was conducted and issues in the process were flagged and documented. Data was then collected and three key areas regarding communication, competing demands and access to resources were reviewed by staff at a root cause analysis session.

Root causes were found to include: a lack of communication between departments and disciplines, as well as differing priorities, and a culture of lower priority given to ward paediatric patients. A number of solutions have been identified targeting these root causes as outlined below.

Project outcomes

- A multidisciplinary daily discharge huddle on each postnatal ward with all key stakeholders present to facilitate communication and discharge planning
- Standardising and updating the ward journey whiteboards and encouraging consistent use by all staff
- Postnatal education delivered in a group setting by midwives on the postnatal wards – saving over 12, 000 hours of midwife time!
- Paediatric consultant daily 9am discharge round
- Increasing awareness of discharge times and targets across all departments, with weekly reporting by the Service Improvement Unit on discharge performance
- Improved resident medical officer (RMO) education on discharge times and targets via the department of Postgraduate Medical Education.

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The Mole Project

Improving patient flow in the Dermatology Outpatient Department at Princess Margaret Hospital

Dr Sarah Strathie Page, Princess Margaret Hospital for Children

Project Aim:
Improve clinical flow in the Dermatology clinic by effective utilisation of existing staff and resource.

Rationale:

- Dermatology is an outpatient service under high demand with hundreds of referrals from General Practitioners a month
- There are currently over 880 patients on the waitlist for an appointment
- Non-urgent patients wait 1 to 11/2 years for a Dermatology appointment
- Did not attend rates are on average 14.7% which is above the PMH average
- These are busy clinics with high patient throughput and increasing pressure on staff

Improvement team members

Supervisors:
Dr Roland Brand
Kirsten Rosato

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The improvement process

- Patient questionnaires and a process mapping session for staff helped *define* issues within the clinic. The process mapping session identified several main issues with the clinical flow including waiting times, incorrect staff utilisation and communication. The impact of these issues was *measured* via patient surveys, staff survey and through online databases.
- Root causes that were identified included lack of clear role definition for the Clinical Nurse Specialist (CNS), communication issues between members of the Dermatology team and ineffective clinic model for booking appointments.
- Potential *solutions* included development of a nursing led eczema workshop program, more effective utilisation of nursing staff within the clinic, clinic profile restructure, development of orientation guidelines and a review of the SMS reminder service.

Project outcomes

- A CNS lead eczema education workshop program has commenced. Referrals come from Princess Margaret Hospital dermatology clinics and the emergency department. Other solutions include orientation manuals for junior medical staff, role definition documents, clinic profile restructure and clear referral guidelines for the CNS
- Demand management was addressed through a review of the referral procedure and waitlist management guidelines
- SMS appointment reminder service was streamlined to include more relevant patient details and clinic name. This solution has been implemented across all outpatient clinics at Princess Margaret Hospital.

Recommendations

- Further expansion of the workshop model to provide service for patients with mild to moderate eczema who currently place a huge demand on clinic time
- Translation of this projects findings to similar outpatient services and adaptation to the Perth Children's Hospital.

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Improving Gynaecology Community Handover at Discharge

Dr Claire Sutton, King Edward Memorial Hospital

Project Aim: To create a standardised and streamlined process for community handover of gynaecology patients at discharge, which is timely, accurate and effective resulting in improved patient care.

Rationale Ward 6 discharges 2,425 gynaecology patients per year with each discharge requiring a discharge summary to be completed and forwarded to their GP. Only 1% of summaries are completed prior to patient discharge and 30% completed by 48hours. In addition, 30% of audited summaries were inadequate in terms of content for effective handover and 56% lacked adequate medication reconciliation at discharge. It was identified that this process requires a more streamlined approach to address current deficiencies.

Improvement Team Members

Supervisors:
Dr Elizabeth Gannon
Dr Mathias Epee-Bekima
Dr Victoria Westoby
Esther Dawkins

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The improvement process

The gynaecology handover at discharge process was reviewed using the DMAIC framework. A process mapping session was conducted and issues in the process were flagged and documented. Data was then collected and staff reviewed three key areas in a root cause analysis; discharge summary timeliness, quality and medication accuracy.

Root causes were found to include: Lack of awareness and monitoring of benchmarks and goals, lack of standard process, inadequate software (DLS) for completion of a quality discharge summary, poor usability & access to DLS, inconsistent approach to pre-planning of RMO time, inadequate RMO education and completing a reconciled medication list is not seen as a priority by staff. A number of solutions have been identified as outlined below.

Project outcomes

- Updated Discharge Policy (W062) requiring summaries to be completed at or prior to patient discharge
- Monthly monitoring of compliance: Aim to achieve 80% completed at discharge and 95% completed within 48hours of discharge
- Patient to receive a copy of their summary at discharge
- Parties who require the summary for continuity of care to receive a copy e.g. Specialist/Silver Chain
- All summaries to include a reconciled medication list
- Streamlined access to DLS for new RMOs
- Improved RMO education on the process
- Recommendations put in place for when verbal handover to GPs should occur
- Increased consultant supervision & RMO engagement.

Recommendations

- Business case placed for KEMH to receive new discharge summary software that is in-line with other WA Hospitals.

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TACHI:
Targeted Antibiotics in CHosen Infections

Dr Michael Truong, Royal Perth Hospital

Project Aim: To improve the compliance of antibiotic prescriptions with guidelines and reduce the overuse of Tazocin at RPH.

Rationale: The NAPS Survey (2014) found that 24.9% of prescriptions were not compliant with antibiotic guidelines. Misuse of antibiotics breeds resistance, causes harm to patients and prolongs inpatient stay.

There is an opportunity to influence practice so that antibiotic prescriptions follow standardised guidelines that are agreed upon and consistent between hospital executive, the Microbiology department, senior medical staff and junior medical staff.

Improvement team members

Supervisors:
Dr Grant Waterer
Katherine Birkett

Supporters:
Dr Tom Gliddon
Dr Paul Myhill
Dr David McCoubrie
Dr Owen Robinson

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The improvement process

A process mapping session was performed with stakeholders present, including 4 HODs. An audit of the Acute Medical Unit over two weeks (50 patients) was conducted. The data was collaborated and presented to stakeholders before a Root Cause Analysis was performed. Key findings included:

1) Guidelines are not used because they are not easily seen (i.e. next to the medication chart) and not consistently agreed upon by seniors and hospital executive
2) Leadership is needed to encourage documentation and verbalization of clinical reasoning
3) 81% of Tazocin prescriptions were incompliant with guidelines.

At the Improve Session, stakeholders from the departments of ED, AMU and Microbiology tackled these issues and jointly put forward potential solutions.

Project outcomes

- Collaboration between key stakeholders and developed a culture of improvement
- Tazocin education poster.

Recommendations

- Hospital Endorsed Guidelines
  - The Microbiology department to consult with Specialties and agree upon standardised antibiotic guidelines
  - Guidelines to be endorsed by Hospital Executives, Microbiology, HODs, Senior and Junior medical staff
- AMU Admission Proforma
  - To include documentation of clinical reasoning for commencing antibiotic treatment.

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Rolling Gallstones Gather No Moss:
Streamlining access to emergency laparoscopic cholecystectomy

Dr Claudia von Peltz, Fiona Stanley Hospital

Project Aim: To create a clear, streamlined, timely and auditable pathway through the Acute Surgical Unit and mixed emergency theatre, for patients undergoing an emergency laparoscopic cholecystectomy.

Rationale: Laparoscopic cholecystectomy is a common emergency surgical procedure in patients who are not always systemically unwell. Consequently, many have expressed frustration over perceived delays in both accessing theatre time and performing these procedures in a timely fashion. Fiona Stanley Hospital offers a new surgical service and opportunity currently exists to address perceived delays and minimise unnecessary financial and productivity costs.

Improvement team members

Supervisors:
Dr Alison Corbett
Joanne Illich
Zoe Moran
Erin Furness

Supporters:
Mr Chris Whennan, Dr Amanda Foster, Prof. David Fletcher, Brodene Straw

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The improvement process

Using the DMAIC methodology, the patient journey from the time that the decision for laparoscopic cholecystectomy was made, through to the postoperative return to the ward was evaluated. The voice of the patient, staff and organisation guided the issue definition. The journey was then mapped with the input of clinical stakeholder groups with a total of 30 issues generated.

Electronic data were extracted from clinical programs to measure the severity of the issue, and a 5 Why's model was employed to analyse for root causes. From this process it was apparent that the major root cause of several issues was the lack of a clear pathway defining individual responsibilities that staff could follow.

An ideas workshop with stakeholders identified several possible strategies for improvement, with the majority of individuals favouring the creation of an easy to follow guideline. This was created with the input of all clinical stakeholder groups, and underwent several reviews and corrections. Project outcomes were widely shared with stakeholders at departmental meetings and grand rounds.

Project outcomes

- Creation of a clear and detailed guideline outlining the patient journey and the individual roles and responsibilities of staff
- Clarifying the requirements for a valid procedural consent form.

Recommendations

- Establish clear target completion rates for laparoscopic cholecystectomy at 24 and 48 hours from admission
- Continue to develop an electronic 'virtual dashboard' to record the patient journey and bridge communication gaps between theatre and ward staff
- Re-audit progress in late 2015 against any established targets.

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PMH…Into the Night: A Clinical Handover Project

Dr Lynda Weir, Princess Margaret Hospital

Project Aim: To increase the number of handovers that occur in an appropriate environment, using a consistent format. To see a reduction in the number of interruptions occurring during handover and an increase in the quality of information that is communicated at handover.

Rationale: Clinical handover is a vital component of patient care during which responsibility of care is transferred. Ineffective handover can lead to delays in diagnosis or treatment, adverse events and patient complaints.

There was an opportunity for a systematic approach to clinical handover to be developed, which would improve the quality and efficiency of handover between junior doctors.

The improvement process

A process mapping session was conducted with medical and nursing staff, mapping the process of junior doctor handover after hours: from the day team to the evening team, and subsequently to the night team. Multiple issues were raised including attendance, timing and interruptions. A manual audit and staff surveys confirmed and quantified these issues. Root cause analysis revealed that lack of protocols, education and leadership played a key role. Other root causes included time constraints and competing priorities.

Project outcomes

- New structured afternoon handover process
- New structured night handover process
- Compulsory attendance at afternoon handover
- Allocated leaders at handover
- Use of iSoBAR sheets for handover documentation
- Quarantined time for handover
- Predefined DuraPage message for non-urgent ED admissions
- Section on handover in orientation documents
- Improved communication between junior doctors, nursing staff and hospital managers
- Increased awareness of the importance of clinical handover
- Increased nursing staff awareness of junior doctor handover.

Recommendations

- The changes made to junior doctor handover should become normal business within PMH, and should be replicated following the move to Perth Children's Hospital
- The new processes should be monitored for effectiveness and alterations made where necessary
- These structured processes could be extrapolated to other handover times such as in the mornings, or at weekends.

Improvement team members

Supervisors:
Dr Emma Argiro
Dr Lauren Mott
Dr Mark Salmon

Supporters:
Kerryn Barton
Caroline Roper
Brodene Straw

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