Government of **Western Australia**
Department of **Health**
**Institute for Health Leadership**


# 2019 MSI Annual

## Service improvement project summaries

December 2019

**health.wa.gov.au**

# 2019 Medical Service Improvement Program

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

A total of 155 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.

The 2019 program involved 25 junior doctor participants across a total of 9 participating hospitals. 2019 saw the first WACHS participant undertake the program at Bunbury Regional Hospital.

Participating hospital included:

- Bunbury Regional Hospital
- Fiona Stanley Hospital
- Fremantle Hospital
- King Edward Memorial Hospital
- Perth Children's Hospital
- Rockingham Hospital
- Royal Perth Hospital
- SCGOPHCG
- SJOG Midland

A list of the 2019 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 provide additional project support and also assistance with data analysis as required.

This document provides one-page summaries for 22 of the 25 service improvement projects completed during 2019. 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 MSI 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 the RMO participants to develop and refine these skills right from an early stage in their medical careers.

## Further information

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

Contact the Institute for Health Leadership leadership@health.wa.gov.au; (08) 9222 6459.

## 2019 Program Participants

| Participant | | Health Site | Hospital | Rotation No. | Service improvement project |
|---|---|---|---|---|---|
| Jayna-Lee | Garrett | Women and Newborn Health Service | KEMH | 2 | OPER-ATE: Overcoming the Problem with Elective surgery Rescheduling – Advancing Theatre Efficiency at KEMH |
| Chantelle | Ferreira | | KEMH | 3 | Don't Miss the Molar – Streamlining Molar Pregnancy Follow-up |
| Lucy | Walsh | | KEMH | 4 | Project Teardrop: Improving follow up for perinatal loss patients |
| Emily | Rice | Child and Adolescent Health Service | PCH | 2 | Little Lungs, Clear Futures: Developing a Parental Smoking Cessation Strategy for PCH |
| Tim | Robertson | | PCH | 2 | Liquid Gold – 'Decreasing Urine Contamination' |
| Karim | Johnson | | PCH | 3 | ReACT: Reducing the Allergy Challenge Wait Time |
| Charlene | Hwang | East Metropolitan Health Service | RPH | 2 | Drop the Drip – *Reducing unnecessary IV interventions in patients fasting pre-operatively for next day procedures* |
| Emily | Creegan | | RPH | 2 | SafeScript: Improving weekend discharge prescribing |
| Aditya | Mithanthaya | | RPH | 3 | Voice the Choice! Empowering and Voicing Patient Choice Made in Hospital |
| Sebastian | Derham | | RPH | 3 | Relieve the Pressure! Improving time to follow up in the glaucoma outpatient clinic |
| Jennifer | Alderson | | RPH | 4 | SuGAR – Surgical Glycaemic Assessment and Response |
| Shreya | Pal | | RPH | 4 | Perioperative Elective Joint Replacement Pathway |
| Sarah | Cole | North Metropolitan Health Service | SCGH | 2 | Operation Greenlight. Lighting the Path to elective surgery |
| Kate | Collins | | SCGH | 4 | Abdo-ED: Improving the ED Journey of Patients with Acute Abdomens at SCGH |
| Stephen | Lewin | | SCGOPHCG | 4 | House Call: Reviewing the G.R.O Service |
| Melissa | Koslow | South Metropolitan Health Service | FSH | 2 | TICK4TAC: Timely Access to CPET |
| Rosie | Viner | | FSH | 2 | Fixing the Induction of Labour (IOL) process at Fiona Stanley Hospital |
| Amro | Sehly | | FSH | 4 | Transplant CAVIAR: Cardiac Allograft Vasulopathy Intravascular Ultrasound Audit and Review |
| Selina | Cimenbicer | | FSH | 4 | DERMIS: Dermatology Referral Management and Improvement Scheme |
| Ariane | Tioke | | FH | 2 | CaSPR – *Ca*taract *S*urgical *P*athway *R*eview |
| Michael | Giles | | RGH | 2 | Goals of care decision making pre-ICU |
| Rohita | Reji | | RGH | 4 | AIM- ED: Ambulatory Infections management from ED |
| Ciara | Hennessy | St John of God | Midland | 2 | Sum it Up - Improving the completion rate and quality of mental health discharge information sent to continuing care providers |
| Lauren | Sharp | | Midland | 3 | ED-MATES: Emergency Department - Medical Administrative, Technology and Efficiency Scribes |
| Aaron | Bahadori | WA Country Health Service | BRH | 2 | Safe and Efficient Transfers |

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OPER-ATE

# OPER-ATE: Overcoming the Problem with Elective surgery Rescheduling- Advancing Theatre Efficiency at KEMH

Dr Jayna-Lee Garratt, King Edward Memorial Hospital

## The improvement process

A service improvement project was conducted using the DMAIC clinical service redesign methodology. A process mapping session was conducted with 21 staff to map the patient journey from the *decision to operate* to *arrival on the DOS*. Further process mapping was undertaken with 15 stakeholders to map the patient journey from *arrival on the DOS* to *surgical start*. To validate the process maps, a time-in-motion study was subsequently conducted in day of surgery admissions, day surgery unit and theatre. Key issues identified through process mapping include breakdown in communication between surgical teams and theatre staff; no standardised processes for booking cases; lack of a single "source of truth" with regards to theatre bookings; absence of core staff to coordinate the patient's preoperative journey; and insufficient time for perioperative optimisation (36% of patients seen in pre-admission clinic [PAC] <14 days prior to surgery). Root cause analysis identified patient social factors as the single root cause of patient-related cancellations, and in particular alluded to failure to identify patients with complex social backgrounds and lack of social work resources available for preoperative patients. This was supported by data showing that of the 71 gynaecology inpatients reviewed by social work over one year, only one patient had an outpatient episode of care prior to admission. Root causes for cancellations due to theatre lists overbooked or overrun included planning of theatre lists, surgical complexities, teaching and interruptions by emergencies. Data supported inadequate communication of patient comorbidities via current methods of booking theatre cases, with patient comorbidities completed on the theatre booking template for 44% of cases and on the waitlist form for 78% of cases. Estimated surgical time was also infrequently completed on the theatre booking template (31%) and waitlist form (65%).

## Project recommendations

1. **Perioperative RMO in all general gynaecology clinics to complete Perioperative Assessment for all patients booked for surgery**
   - Improve identification of patient comorbidities and complex social background to facilitate planning of lists, appropriate preoperative investigations and referral to anaesthetics and allied health
   - Maximise time for perioperative optimisation
   - Establish clear responsibility for follow up of preoperative investigations
   - Facilitate communication between surgical teams and theatre staff via Perioperative Assessment Summaries
2. **Gynaecology Multidisciplinary Team Meetings**
   - Improve interdisciplinary communication
   - Ensure appropriate referrals to allied health
   - Facilitate planning for patient complexities
   - Final checkpoint to confirm patient ready for surgery

## Future recommendations

1. **Electronic booking system**
2. **Review of PAC**
   - PAC appointment for all surgical patients to reduce *late starts* and *turn-around time*[3]
   - Facilitated by nurse led PAC with anaesthetics oversight and option for phone PAC
   - "Complex" nurse practitioner to coordinate patient journey
3. **Review of list allocation**
   - All theatre lists to be full day lists to maximise theatre utilisation[1]
   - Dedicated emergency theatre (19% elective gynaecology lists currently shared with emergency cases)
   - Ensure allocations match current workload[4] (up to 18% discrepancy in current allocations)
4. **Clarify estimation of surgical time and use in reviewing lists**

## Project Aim

To reduce day of surgery (DOS) cancellation of elective gynaecology cases at King Edward Memorial Hospital (KEMH).

## Rationale

KEMH is the tertiary women's hospital in Western Australia and performs >1000 elective general gynaecology procedures each year. Between April 2018 and March 2019 5.5% of elective general gynaecology cases were cancelled on the DOS, which exceeds the target DOS cancellation rate recommended by the Western Australian Auditor General.[1] DOS cancellations have significant emotional and economic effects on patients, impact on staff satisfaction and are costly for the organisation leading to non-utilised theatre time, preoperative rework and increased elective surgery waitlist.[2] At KEMH general gynaecology DOS cancellations occur as a result of patients cancelling or rescheduling surgery (41%), theatre lists that are overbooked or overrun (29%), and patient being unfit or unprepared for surgery (17%).

## Improvement team

**Supervisors:**
Dr Louise Farrell
Dr Deeptha Kandadai

**Executive sponsor:**
Dr Meredith Arcus

**Supporters:**
Esther Dawkins
Brodene Straw
Devaki Wallooppillai
Dr Nic Tsokos
Dr Keith Allenby
Dr Jennifer Fier
Dr Jamie Salter
Jessica Pougnault
Jennifer Howe
Valda Duffield

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# Don’t Miss the Molar – Streamlining Molar Pregnancy Follow-up


## Dr Chantelle Ferreira, King Edward Memorial Hospital, North Metro Health Service


## The improvement process

The service improvement process was undertaken using DMAIC methodology. Process mapping from the time of diagnosis of gestational trophoblastic disease (GTD) to time of discharge was undertaken. Key issues identified were: Variations in practice of histopathology review following routine dilation and curettage, paucity of patient ownership within the general gynaecology department and knowledge deficit of frontline staff with subsequent poor compliance to local guidelines. Root cause analysis identified that the absence of clear ownership of patient with a diagnosis of gestational trophoblastic disease was the most significant contributor to adverse events. This was supported by data collected from audit and staff survey.

## Prject outcomes

- A multidisciplinary GTD working group has been established
- Financial modelling for a GTD service was completed in liaison with the KEMH Financial department. The modelling shows that a service is financially viable.
- Application for funding for the first 18 months of service from the NMHS Innovation grant currently pending.

## Recommendations

- Establishment of a Gestational Trophoblastic Disease Service moving care of this patient population from the emergency centre setting to an outpatient clinic setting with a dedicated clinical nurse.
- Implementation of a registry and electronic database. Software is currently available from the ‘Queensland Trophoblast Centre’ (QTC) and was custom built for surveillance and follow-up of women affected by GTD.
- Multidisciplinary review of all patients

### Project Aim

To streamline the follow-up of gestational trophoblastic disease to reduce adverse events.

### Rationale

WNHS are committed to its mission to improve, promote and protect the health and wellbeing of women, infants and their families through continuous improvement and innovation. This project aimed to identify solutions for safe and sustainable management of molar pregnancy.

This project will provide the opportunity to reduce adverse events associated with the diagnosis and management of molar pregnancy through streamlining the current processes for follow-up and referral of molar pregnancy. The primary goal of this project is to improve continuity of care and patients experience of GTD follow-up at King Edward Memorial Hospital.

### Improvement team members

Dr Chloe Ayres

Dr Jodi Graham

Dr Meredith Arcus

Prof Yee Leung

Dr Louise Farrell

Emergency Centre Medical, Midwifery and Nursing staff

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# Project Teardrop: Improving follow up for perinatal loss patients


## Dr Lucy Walsh, King Edward Memorial Hospital, WNHS


## The improvement process

Project Teardrop closely followed the DMAIC cycle methodology as suggested by WA Health Clinical Service Redesign Handbook. The project was defined through a process mapping session with key stakeholders, which mapped the patient journey, from identification as a perinatal loss patient to the time of discharge from the outpatient clinic. Data was collected and analysed which showed 33% of patients who did not attend were unaware of their appointment time and or reason for appointment. 50% of all non-English speaking patients did not attend their appointment. 15% of women with a perinatal loss between 14-20 weeks' gestation were not offered follow up in the clinic or elsewhere. Both root cause analysis sessions and solutions sessions were held with key clinical staff, before appropriate solutions were developed and implementation planning began.

## Project outcomes

- Implementation of Text Message Appointment Reminders
- Translation of Perinatal Loss Brochure (*'After the death of your baby: Information for parents'*) into Arabic, Hindi and Mandarin
- Initiation of Standard Resident Medical Officer (RMO) Teaching by Perinatal Loss Clinical Midwifery Specialist
- Set-Up of Dedicated Perinatal Loss Service Email for patients and update of perinatal loss clinic reminder letter.
- 'Mid-Trimester Pregnancy Loss Guideline update' and creation of follow-up flow chart for RMOs.

## Recommendations

Further investigation into how we could better serve the culturally and linguistically diverse population seen by the perinatal loss service (9% of all patients) is warranted.

### Project Aim

To increased attendance rates at the perinatal loss clinic and improve follow up for all women at KEMH who experience perinatal loss.

### Rationale

King Edward Memorial Hospital (KEMH) is the tertiary women's hospital for Western Australia and has a dedicated perinatal loss service (PLS) that cares for women and their families who have experienced a perinatal death or pregnancy loss. The PLS outpatient clinic sees women 6-8 weeks after their loss. Unfortunately, 20% of patients booked to the PLS clinic do not attend. This 'did not attend' (DNA) rate is significantly higher than the average DNA rate of 5% for other outpatient appointments at KEMH.

### Improvement team members

**Supervisors:**

Clinical supervisor: Dr Ruth McCuaig and Dr Shin Lee

Service improvement supervisor: Anne Wise

**Supporters:**

Project Champion: Sonya Criddle

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Little Lungs Clear Futures

# Little Lungs, Clear Futures: Developing a Parental Smoking Cessation Strategy for PCH


## Dr Emily Rice, Perth Children's Hospital, CAHS


## The improvement process

Ward 2B (General Paediatric and Respiratory Medicine) at PCH was involved in a Pilot trial to develop a process to identify and promote change in all smoking households. Key stakeholders were identified at the commencement of the project to guide both the objectives of the project and develop solutions. 52 Clinical staff and 25 families were surveyed to identify our current practice and barriers to routinely discussing smoking. At baseline, only one third of patients had household smoking status determined and no smoking households were offered support to quit. Survey themes were then discussed in small group sessions to identify root causes. A multidisciplinary stakeholder group was involved in a solutions generation session which developed solutions for implementation during the pilot trial. Feasibility and acceptability of the program was assessed using pre-and post-implementation surveys for both staff and families and file audits.

## Project outcomes

- Implementation of routine brief interventions for smoking households as part of standard care for patients admitted to ward 2B.
- Increased recognition of smoking households through standardised documentation.
- Availability of resources for both staff and parents, including quit packs, health fact sheets and referral templates.
- Increased staff confidence and communication skills in discussing risks of second-hand smoke with families.

## Recommendations

To further strengthen our commitment to be a smoke-free site several recommendations have been made including developing a working group to assist in implementation of the solutions in other clinical areas and to assess our current practices for assisting patients and staff to quit.

### Project Aim

To identify all patients living in a smoking household and to support families to quit smoking using evidence-based strategies. To increase staff confidence discussing smoking cessation and the risks of second-hand smoke exposure.

### Rationale

Second-hand smoke exposure in childhood results in poorer health outcomes, more frequent hospital presentations and increased likelihood of commencing smoking in adolescence. Cancer Council modelling estimated that in WA for those aged under 14, second-hand smoke exposure resulted in 7,614 hospital bd days per year ($10 million in preventable hospital costs).

### Improvement team members

**Supervisors:**

Clinical Supervisor: Dr Andrew Martin

Service Improvement Supervisor: Jess Neal & Jaynie Kirkpatrick

**Supporters:**

Ward 2B Team & CNM Judy Mathews

Cancer Council WA

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LIQUID GOLD
decreasing urine contamination

Medical Service Improvement Program
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# Liquid Gold – 'Decreasing Urine Contamination'


## Dr Tim Robertson, Perth Children's Hospital, Child and Adolescent Health Service


## The improvement process

The first step was a prospective audit that was completed over 5 weeks in the PCH ED. Clinical staff completed case report forms when sending off a urine sample for microscopy and culture. Data from 150 urine specimens was collected and subsequently analysed. The data revealed the current contamination rate and a number of potential areas of improvement. A root cause analysis and solutions generation workshop was completed with ED clinical staff. Four key solutions materialized after assessing feasibility, sustainability and critical to quality requirements of the project. These solutions included male urinary catheter training for ED clinical staff, adjustment of current guidelines, education health facts sheet for parents/patient and introduction of a new non-invasive collection technique. After a period of implementation, a repeat prospective audit will be completed to assess the impact of the solutions.

## Project outcomes

- Assessment of the current urine contamination rates in the PCH Emergency Department
- Development of an updated UTI management guideline flowchart
- Update of the urine collection health facts sheet available for parents + patients
- Access to male urinary in out catheter training for clinical staff in the ED – doctors and nurses
- Teaching tools for a new non-invasive urine collection method

## Recommendations

All these tools have the potential to be embodied across the health service if the pilot trial in the Emergency Department provides positive results. A recommendation of the project would be to increase the level of education surrounding invasive urine collection procedures for medical officers, both theoretical and practical skills.

### Project Aim

To reduce urine contamination rates in the Emergency Department.

### Rationale

In practice, urine contamination leads to repeat investigation, misdiagnoses and unnecessary admissions/re-presentations. By decreasing these contamination rates, it will provide improved patient outcomes, financial gains and workplace efficiency. The project aims to improve the emergency department's current contamination rate by improving current best practice, teaching of new collection techniques and increasing education across staff and consumers.

### Improvement team members

**Supervisors:**

Dr Tom Snelling - Clinical supervisor

Jaynie Kirkpatrick - Service improvement supervisor

**Supporters:**

Dr Meredith Borland – Head of Emergency Department

Jess Neal – Project Management Office

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# ReACT: Reducing the Allergy Challenge Wait Time


## Dr Karim Johnson, Perth Children's Hospital, CAHS


## The improvement process

After defining the project aims and scope, a process mapping session was held to outline the steps from when a food challenge request is made to when the food challenge commences. A prospective audit undertaken prior to the commencement of the rotation was analysed to reveal a cancellation/DNA rate of 50% and identified principal reasons for this. Parent surveys were undertaken to further evaluate this. A root cause analysis and solutions generation session was held with DTU and immunology staff to address this issue. Fifteen solutions were generated and following assessment a decision made to pursue twelve (see some detailed below). After a period of implementation, a repeat prospective audit will be completed to assess the impact of the solutions.

## Project outcomes

- Establishment of SMS notification and reminder of appointment
- Development of criteria for a short-term cancellation list
- Instigation of process to improve PCH Immunology website
- Development of revised food challenge Health Facts information sheet utilising parent feedback
- Development of updated food challenge request forms
- Submission of business requirements for improved IT solution to remove inefficiencies, reduce errors and reduce waste in food challenge pathway

## Recommendations

The focus of this project was on cancellations and DNAs to the PCH Day Therapy Unit. Further work is required focussing on similar issues for challenges in the outpatient clinic. In addition, many of the solutions were initiated in this project and will require continued input to become fully implemented.

### Project Aim

To optimise the number of children undergoing oral food challenges safely at Perth Children's Hospital (PCH) by reducing the impact of cancellations and 'did not attends' to the Day Therapy Unit (DTU).

### Rationale

The gold standard for diagnosis of food allergy is an oral food allergen challenge. Currently, PCH is the only location in Western Australia where children routinely undertake high-risk food challenges. The number of families who cancelled or 'did not attend' (DNA) their child's oral food challenge has been noted to be much higher than other outpatient clinics. These cancellations and DNAs have a significant impact on the number of children undergoing challenges and further increase the waiting time for this important test.

### Improvement team members

**Supervisors:**

Dr Tracy Markus, Clinical supervisor

Mariette Luitjens & Jaynie Kirkpatrick, Service improvement supervisors

**Supporters:**

Val Noble & Immunology team

Jenni Stewart & Admin team

Michelle Clark & DTU team

Dr Kavitha Vijayalakshmi & PCH Executive

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# Drop the Drip – *Reducing unnecessary IV interventions in patients fasting pre-operatively for next day procedures*

**Dr Charlene Hwang, Royal Perth Hospital**
**East Metropolitan Heath Service**

## The improvement process

The *Drop the Drip* project employed the DMAIC framework for clinical service redesign. Issues were identified through the process mapping session, conducted with 3 main groups of stakeholders – the surgical junior medical offers (JMOs), after-hours team and nursing staff. These issues centred around lack of knowledge and information about the guidelines, difficulty assessing need for intravenous hydration (IVH), and poor documentation and communication regarding patients' needs and indications for IVH.

A root cause analysis found that the main reasons for the above were**:**

1. Lack of education; poor dissemination of policies and guidelines
2. Prevailing misinformation and ward culture
3. Misleading terminology used → FFM (fasting from midnight)
4. Poor documentation of indications when giving IVH

Solutions were then generated based on the above root causes.

## Project outcomes

1. Rebranding of fasting guidelines
   a. Change of terminology from FFM to WAM6 → Water and Medications before 6
   b. Using rebranding as an opportunity to remarket and reintroduce current fasting policies and guidelines
   c. Encouraging nursing staff to give morning medications with a glass of water at 0600 hours as part of pre-operative routine, which will form the patient's last dose of oral hydration
2. Proposal to include 'indications' column on IV fluids chart as a form of documentation and communication of this information

## Recommendations

1. Gatekeeping requests via Clinical CARPS
   a. Pop-up prompts to remind requestor of guidelines
   b. Indications for IVH to be a mandatory field
2. Assessment tool to help identify patients who may need IVH

### Project Aim

To standardize pre-operative hydration practices and only perform intravenous (IV) interventions when they are clinically indicated.

### Rationale

Pre-operative hydration practices were largely varied, with low adherence to guidelines available. Patients were being exposed to unnecessary risks such as risk of infection due to increased IV cannula dwell time, and risk of fluid and electrolyte imbalance from unnecessary IV fluids.

This project aims to maximise patient comfort and reduce unnecessary risks by eliminating unnecessary IV interventions. Though this, efficiency in the use of resources can also be achieved by means of reduction in cost of and time wasted performing these interventions, while ensuring patients are well hydrated prior to their procedures.

### Improvement team members

Clinical supervisor
Dr Tim Bowles

Service improvement supervisor
Katherine Birkett

Executive sponsor;
Dr Sumit Sinha-Roy

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# SafeScript: Improving weekend discharge prescribing


## Dr Emily Creegan, Royal Perth Hospital, East Metropolitan Health Service


## The improvement process

The General Surgery department was identified as a focus for the project due to the high volume of weekend discharge prescriptions. A joint process mapping session was conducted with key stakeholders including representatives from pharmacy, nursing and medical staff. The process of medication management was mapped from admission to discharge, with issues and variations identified. Issues raised during this session centred primarily around inpatient medication management, discharge planning and discharge analgesia. In addition to data measurement around these areas, the voice of staff, patients and the organisation were considered to generate 'critical to quality' requirements against which potential solutions were evaluated. A root cause analysis session was conducted prior to a session to develop potential solutions which were then evaluated and implemented.

## Project outcomes

- Amendment of pharmacy junior doctor general surgery orientation.
- Provision of existing discharge analgesia guidelines to ensure easy access for prescribers at point of care.
- Provision of explicit feedback by pharmacy when requesting clarification or amendment of discharge prescriptions to develop competency in prescribers.
- Amendment of junior medical officer rosters for weekend staff.
- Pharmacy participation in Friday discharge board meetings to highlight possible discharge medication issues prior to weekends.

## Recommendations

- Participation in the 'Stand up for Safety program' to improve inpatient prescribing.
- Review of the post-operative discharge analgesia guideline document by the pain service and amendment of the document metadata to ensure it is readily accessible to prescribers.
- Development of departmental discharge medication templates to provide decision making support for prescribers and to improve the efficiency of completion of discharge prescriptions with consideration of the adoption of the NaCS medication template function when available.

### Project Aim

The goal of the project was to reduce the proportion of weekend discharge scripts requiring pharmacy intervention prior to dispensing.

### Rationale

Problem discharge prescribing over weekends has been identified as a medication safety issue by the RPBG Medication Safety Committee. Incorrect or incomplete discharge prescribing can impact on patient safety, contributing to potential adverse patient outcomes. The process of pharmacy intervention to clarify or amend discharge scripts contributes to significant delays in dispensing, which can in turn delay patient discharge. The extra burden on pharmacy staff also slows dispensing for all patients, further delaying discharges across the hospital. The time involved in clarifying or resolving errors contributes to heavy workloads for limited weekend medical, nursing and pharmacy staff which can in turn further impact on patient care and outcomes.

### Improvement team members

**Supervisors:**

Dr Richard Alcock (Clinical Supervisor)

Katherine Birkett (MSI Supervisor)

**Supporters:**

Ros Jones (Executive Sponsor)

Dr Sumit Sinha-Roy (Mentor)

Esther Dawkins (Institute for Health Leadership)

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# Voice the Choice!

# Dr Aditya Mithanthaya, Royal Perth Hospital, East Metropolitan Health Service

## The improvement process

This is a 10 week project aimed at improving our communication of Goals of Patient discussions in hospital and on discharge. We held a process mapping session which noted 54 different issues in our current processes. The Root Cause Analysis session revealed that Education of clinicians was the reason why only 23% of Goals of Patient Care (GOPC) forms captured the patient's values. To address this we held a Solution Generating Session from which we were able to develop 9 different solutions which address the root causes and the critical-to-quality requirements. We have managed to implement some of the quick wins noted below and are currently working on implementing the remaining solutions in the upcoming future.

## Project outcomes

- Replaced previous Discharge Envelopes on AMU, 10A and 7A with a new Discharge Envelope Performa which prompts staff to photocopy GOPC forms on transfer via Ambulance to Nursing Homes.
- St John Ambulance incorporating in their handover prompt to request copy of GOPC/Advanced Care Plan (ACP)/Advanced Health Directive (AHD) on transfers to and from hospital.
- Liaised with Hall & Prior Nursing homes creating a new Admission Transfer Envelope which will incorporate GOPC/AHD copy on transfers to hospital. Furthermore, a new Nursing Home policy to keep a copy of the latest GOPC in file and provide it on transfer to hospital.
- NACS BUG meeting request to amend NACS template to capture GOPC/Advanced Care Planning within hospital for communication on discharge – now on high priority for change, expected to be completed early 2020.
- Involving Allied Health teams to document into NACS summaries to capture comprehensive patient social history for prognostication.

## Recommendations

- We are currently looking at how we can integrate patient value discussions within our current teaching for Medical, Nursing and Allied Health staff.
- Concurrently, we are also liaising with Choosing Wisely at RPBG and East Metropolitan Health Service to improve our communication within RPBG as well as the broader health sector.

### Project Aim

The aim of this project is to improve how we communicate Goals of Patient Care discussions in hospital and also with the broader health care community.

### Rationale

Currently we are completing 75% of GOPC forms but with only 23% being appropriately filled. Also we are only communicating 16% of these discussions on discharge. The benefit of improving this communication would be more transparent patient wishes so we can provide tailored care to patient in community and in hospital. This is in keeping with the revised National Quality Healthcare Standard 5, published April 2019.

### Improvement team members

**Supervisors:**

Katherine Birkett (MSI Supervisor)

**Supporters:**

Dr Sumit Sinha-Roy (Executive Sponsor)

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# Relieve the Pressure

## Dr Sebastian Derham, RPH, East Metro Health Service

### The improvement process

The Ophthalmology department in conjunction with the Medical Service Improvement team employed Six-Sigma and Lean principles to address the over-boundary action list. Extensive stakeholder engagement and multiple departmental meetings yielded comprehensive identification of root causes. These root causes were validated by qualitative and quantitative data. The stakeholders then applied their combined knowledge to develop targeted, effective and sustainable solutions.

Through this process we identified that no appointment was being generated from the follow-up action list. Any patient who had a preferred follow-up date of longer than four-months was placed on this list and would not receive an appointment unless they actively called and requested one. This was quantified using the outpatient clinic dashboard. On July 1st 2019 the dashboard showed that there were six-hundred-and-thirty-one patients awaiting a follow-up appointment with the RPH glaucoma clinics. Four-hundred-and-eighteen of these patients were already past their preferred follow-up date.

### Project outcomes

The multifactorial nature of the root causes identified did not tend toward a single solution. This is reflected in the number and diversity of potential solutions. All proposed solutions were assessed against a matrix to ensure that the suite of solutions proposed would target multiple areas as well as work in conjunction with each other.

Quick Wins – A standardised order of patient review in clinic, increasing the utility of the current workforce, and implementing a new booking system for expediting patient flow.

### Recommendations

Currently underway is the training of an Optometry workforce to review follow-up patients under the supervision of the consultant clinic. Concurrently a change to the clinic model where the consultant provides a supervisory role is being trialled. We further recommend a discharge pathway for patient review outside the tertiary centre be explored.

### Project Aims

1. Decrease the time patients spend in outpatient clinic.
2. Optimise the patient follow-up pathway; including the decision to follow-up a patient and extending to the time at which that follow-up occurs.
3. Investigate alternative models for safe patient follow up.

### Rationale

Increasing pressure on the Glaucoma clinic shows 631 patients are awaiting a follow up appointment and 418 of these are past the preferred appointment date. New referrals to the clinic have increased by 200% in the last 2 years. The service has been at full capacity for some time but there has been no change to process or personnel in recent memory.

### Improvement team members

**Supervisors:**

Clinical supervisor – Dr Jean-Louis deSousa

Service improvement supervisor – Katherine Birkett

**Supporters:**

Roslyn Jones

Kim Hill

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# SuGAR – Surgical Glycaemic Assessment and Response


## Dr Jennifer Alderson, Royal Perth Hospital, EMHS


## The improvement process

The SuGAR Project looked at the current processes for fasting patients with diabetes before emergency surgery. A process mapping session was conducted which identified several key issues, centred around access to guidelines and communication between staff and patients. Data was collected through an audit and staff survey, followed by a root case analysis session with key stakeholders. Solutions were developed based on the root causes identified, ensuring that they fit into current workflows and were supported by all staff.

## Project outcomes

- Update to the current perioperative diabetes guidelines and release hospital wide
- Improved ward staff and junior doctor confidence in managing patients with diabetes in the pre-operative period through education and access to resources
- Changes to the surgical admission proforma with more prompts to think about diabetes and fasting plans
- Introduction of a fasting sticker that will be placed in the patient notes at the time of decision to fast with tasks that need to be completed before the patient goes to theatre
- Improved communication between the ward and theatre by enhancing the 'Preoperative Check' form and modifying the planned new theatre booking system at RPH

## Recommendations

Future areas of focus:

- Develop anaesthesia referral guidelines
- Pathways to improve the management of medical issues in surgical patients

### Project Aim

Standardise the treatment of patients with diabetes who are fasting while awaiting emergency surgery.

### Rationale

Diabetes is an increasingly common condition, currently affecting up to 30% of surgical inpatients. These patients are at a higher risk of postoperative complications, which leads to longer hospital stays and increased mortality. It is important to identify this cohort early in the admission to help improve glycaemic control and minimise risks to patients.

### Improvement team members

**Supervisors:**

Dr Seng Khee Gan & Dr Gerard Chew (Clinical Supervisors)

Ms Katherine Birkett (Service Improvement Supervisor)

**Supporters:**

Dr Tomás Corcoran (Anaesthetist)

Dr Sumit Sinha-Roy (Executive Sponsor)

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EJR PATHWAY

# Perioperative Elective Joint Replacement Pathway


## Dr Shreya Pal, Royal Perth Hospital, EMHS


## The improvement process

This MSI project followed the six sigma DMAIC methodology. A multidisciplinary process mapping session mapped the patient journey - from decision to waitlist for an elective arthroplasty to being reviewed by an anaesthetist at PAAS, through to their DOS. Root cause analysis demonstrated that many of the systemic issues stemmed from there being a lack of a standardised and streamlined perioperative patient optimisation pathway. A solution generation session informed the development of the perioperative elective joint replacement pathway.

## Project outcomes

- Identification of a validated screening tool which is already embedded in the electronic Patient Health Questionnaire (ePHQ)
- Development of a pathway for perioperative medical and physical optimisation of patients undergoing an elective joint replacement
- Establishment of the Perioperative Medical Clinic (POM Clinic) which is run by geriatricians and serves to medically optimise patients prior to their PAAS appointment
- Establishment of a prehabilitation pathway which serves to outsource external physiotherapy services to physically optimise patients
- Quick win: perioperative patient education video in PAAS
- Quick win: elimination of task duplication by re-allocating the orthopaedic intern from PAAS
- Long-term: “Patient Surgical Journey Passport” – an integrated & comprehensive document which tracks the patient’s surgical journey & includes all relevant clinical information from multidisciplinary teams for all parties to access, thus reducing duplicated patient assessments

## Recommendations

The above solutions are in various stages of implementation. An Action Plan has been developed that has allocated leads to each outcome. Outcomes will be audited in the future to assess the success and utility of the implemented solutions.

### Project Aim

Reduce the rate of week or day of surgery cancellations which occur as a result of patients being unfit for surgery.

### Rationale

Numerous studies in the literature have identified a strong link between preoperative modifiable risk factors and reductions in the delays to surgery. 265 category 2 and 3 elective arthroplasty procedures over a 12 month period were exported from EBS. The data demonstrated that cat 2 and 3 patients wait an average 44 - 91 days respectively between being placed on the waitlist and being seen in PAAS and an average 30 - 34 days respectively between their initial PAAS appointment and their DOS. 53% of hospital initiated cancellations were due to patients being deemed medically unfit by an anaesthetist, with 71% of cancellations occurring late in the patient journey at PAAS. Majority of these cancellations were for preventable medical issues thereby, demonstrating a missed opportunity for patient optimisation & education in the 44-91 day period *prior* to the initial PAAS appointment.

### Improvement team members

**Supervisors:**

Clinical supervisors: Dr Sapna Samida & Mr Alan Prosser

Service improvement Supervisor: Katherine Birkett

**Supporters:**

Dr Helen Daly, Dr Mayura Iddagoda, Mr Nic Frost, Roslyn Jones

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OPERATION GREENLIGHT
LIGHTING THE PATH TO ELECTIVE SURGERY

Medical Service Improvement Program
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# Operation Greenlight

## Dr Sarah Cole, Sir Charles Gairdner Hospital, NMHS

### The improvement process

The DMAIC methodology was used in the Operation Greenlight to identify specific problem areas in PAC, and areas for potential improvements. Three themes emerged in the process: timing of appointments; coverage of the pre-existing PAC appointment triaging tool; and adequacy of access to patient information during their appointment. It was found that:

- More than half of all PAC appointments occur within 7 days of the planned elective surgical date. This interval did not change meaningfully when split into Urgency Categories 1, 2 and 3.
- Of all patients currently booked for elective surgery at SCGH, only 37% had a completed and returned Patient Health Questionnare (PHQ) on file. The PHQ is the primary means by which patients are triaged into, and out of, PAC.
- The majority of anaesthetists (76%) find themselves reviewing patients in PAC without the necessary information to conduct their assessments.

### Project outcomes

- Development of new booking practices around PAC appointments to prioritise earlier reviews.
- Development of the ‘Surgical Booking Pack’ for use in the Surgical Outpatient Department to encourage greater hand-out and return rates of the PHQ.
- Formal integration of the GP into the elective surgical process to encourage earlier assessment and medical optimisation
- Redevelopment of information disseminated and available to patients prior to their PAC appointment, including creation of new SCGH webpages.

### Recommendations

- Ongoing review of the PAC booking processes as the new booking practices are piloted and implemented.
- Exploration of an electronic PHQ format, and integration into the pre-existing surgical booking program.

### Project Aim

To optimise the triaging and booking processes for Pre Admission Clinic (PAC), and to improve access to relevant medical records at the time of appointments.

### Rationale

PAC is the main avenue by which patients are assessed and medically optimised before they undergo elective surgery at Sir Charles Gairdner Hospital (SCGH). Concerns from staff in PAC prior to this project touched on the timing of these PAC appointments in relation to date of surgery – often staff felt they had inadequate time to correct the necessary medical issues prior to surgery. It was also felt that there was a high volume of repeated and duplicated (and unnecessary) investigations being performed, when patients presented without recent blood results or private investigation results.

### Improvement team members

**Supervisors:**

Dr Kate Wessels - Clinical supervisor

Russi Travlos - Service improvement supervisor

**Executive sponsor:**

Dr Damien Wallman

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# Abdo-ED: Improving the ED Journey of Patients with Acute Abdomens at SCGH


## Dr Katherine Collins, SCGH


## The improvement process

Utilising the DMAIC methodology and prospective data from 44 patients we were able to identify delays in the patient journey with acute abdomens in SCGH ED. The following root causes were validated as significant reasons for the delays.

1. CT scans significantly prolong the patients ED LOS. There is currently no clear process or pathway in place for CT scans in the ED.
2. Only 1/3 patient patients are being discussed with ED medical team leader within 30 minutes of junior doctor review. Delaying this discussion by 30 minutes can increase a patient's length of stay by 90 minutes.

## Project outcomes

**The '30 minute to discussion policy':** An education campaign was developed with the support of ED consultants to increase adherence to an existing policy. Junior doctors must discuss patient cases with the ED team leader within 30 minutes.

**Developing a New CT Pathway in ED:** CARPS implementation in SCGH ED is imminent, providing an opportunity to green map an effective transfer process to CT incorporating LEAN principles. This transfer process will be implemented for all CT transfers in the emergency department when CARPS is rolled out.

**Clarification of nursing transfer policy in ED:** Patients were receiving unnecessary nursing transfers to CT. The new nursing transfer policy was clarified with all nursing staff, reducing waste of nursing resources.

## Recommendations

A dedicated radiology transfer nurse can be developed from existing nursing FTE, reducing the delay caused by a lack of nursing availability for patient transfers to CT.

### Project Aim

Reduce the ED length of stay for patients who present with acute abdomens.

### Rationale

Patients with acute abdomens were failing to meet the WEAR targets in SCGH ED. Currently only 45% pf patients were being discharged form ED within 4 hours. Patients report that the length of time spent in ED was a significant determinant of their overall satisfaction with their ED experience. This project provided an opportunity to rectify significant delays within this patient journey.

### Improvement team members

**Supervisors:**

Clinical supervisor: Prof Naunton Morgan

Service improvement supervisor: Jennifer Francis

**Supporters:**

Dr Matthew Anstey

Dr Thomas Cassidy

Dr James Rippey

Peter Muir

Megan Rayner

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House Call
Reviewing the G.R.O Service

Medical Service Improvement Program
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# House Call: Reviewing the G.R.O Service


## Dr Stephen Lewin, SCGH & OPH, NMHS


## The improvement process

The House Call project started with a comprehensive current state assessment of how the Geriatrician Residential Outreach (G.R.O) Service was functioning. From there we conducted a process mapping session and identified issues around communication, visibility and underutilisation. We gather and analysed data around these topics and developed strategies for improving the effectiveness of the G.R.O service.

## Project outcomes

- We undertook a targeted networking, educational and promotional drive at two chosen facilities that were high presenters to SCGH ED
- Their referral rates to G.R.O increased 3-fold and 8-fold during the project
- We modernised the Service by advertising on the OPH webpage, creating an email referral mailbox and gained access to facilities IT systems so that Geriatricians could document their visits directly into internal databases for greater transparency
- We developed a business case which seeks extra funding to expand G.R.O, in order to service the projected increased referral numbers over the next year

## Recommendations

- Expansion of the G.R.O Service (increasing FTE of Geriatrician and Clerical staff)
- Formal integration with nursing outreach services like Residential Care Line
- Utilisation of telehealth for review appointments with high volume referring Care Facilities
- Eventual addition of rapid response capability (same day reviews of acutely unwell patients)

### Project Aim

To assess and improve the effectiveness of the G.R.O Service as a hospital avoidance strategy.

### Rationale

WA's older adult population is projected to rise by 50% in the next 10 years. Over the last decade, WA has experienced the highest increase in ED utilisation in comparison to all states. The G.R.O service aims to reduce ED presentations and hospitalisations of residents of Aged Care Facilities. The Sustainable Health Review recommends we implement models of care in the community for groups of people who frequently present to hospital, like RACF residents. There is an opportunity to expand the G.R.O service and reduce the need of these elderly patients to travel to hospital to receive care.

### Improvement team members

#### Supervisors:

Clinical supervisors: Dr Chermaine Chua & Dr Brendan Foo

Service improvement supervisor: Russi Travlos

Executive sponsor: Dr Clare Matthews

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# TICK4TAC: Timely Access to CPET


## Dr Melissa Koslow, Fiona Stanley Hospital, SMHS


## The improvement process

Through the DMAIC process, TIC4TAC sought to identify inefficiencies within the ERAS pathway for Head and Neck cancer patients specifically related to Cardiopulmonary Exercise Testing (CPET) referrals. Following extensive process mapping and baseline data collection several issues were identified across four main areas: 1) lack of role certainty and unknown process 2) e-referral information missing or incomplete 3) competing staff demands/funding and 4) communication. Root cause analysis and solution generation were conducted with a multidisciplinary team including anaesthetists, ENT doctors, nurses, exercise physiologist and clinic staff to produce the solutions outlined below.

## Project outcomes

1. E referral: the process was completely redesigned. Solutions included creating a new referral performer, adding a dropdown box labelled 'CPET' for easier identification and educaton to Anaesthetics department.
2. Updating the Enhanced Recovery After Surgery for Head and Neck Cancer patients clinical pathway (ERAS): new referral process written into this pathway, including indications / contraindications and result interpretation for CPET.
3. Updating patient clinic information. The clinic letter was redesigned to include a checklist for CPET appointment, minimising jargon and to provide a transparent tick sheet to better prepare patients and reduce duplication of information.
4. Rostering and funding. Anaesthetic roster redesigned to have clear 'ENT Anaesthetist' designation to attend MDT and funding was secured.

## Recommendations

There are many opportunities for further quality improvement and clinical service re-design projects through the ERAS protocol.

### Project Aim

To optimise and streamline the referral process to CPET, one of the first steps in the ERAS pathway, for high-risk head and neck cancer patients.

### Rationale

The new ERAS clinical pathway has had a gradual implementation since 2018. CPET, combined with MDT decision making, has vastly helped the risk assessment pathway and has changed surgical management. It has provided a global objective assessment of pulmonary, cardiovascular, haematological and metabolic systems under stress. Replaces measures of individual organ systems, including stress Echo and pulmonary function testing (PFT).

### Improvement team members

**Supervisors:**

- Dr Mei Mei Westwood, Clinical Supervisor: ENT Anaesthetist.
- Nerinda Bradshaw, Non-Clinical Supervisor

**Supporters:**

- Andrew Maiorana, Exercise Physiology Head of Department

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FIXIOL

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# Fixing the Induction of Labour (IOL) process at Fiona Stanley Hospital


## Dr Rosie Viner, Fiona Stanley Hospital, SMHS


## The improvement process

- DEFINE - My Process Mapping identified 50 'Issues' along the IOL journey. The voice of the staff, patient and organisation illustrated a strong motivation to provide excellence in evidence based medicine that was individualised to the woman and decreased the discomforts and apprehensions experienced by her during the inpatient stay at FSH.
- MEASURE - The area for improvement was identified as the average time to commence induction ~ 4.5hours equating to 18-20 wasted admission hours/day.
- ANALYSE – We identified 17 root causes with the common theme being the competing demands of midwives and doctors, lack of training and the ill-defined process.
- IMPROVE - We generated solutions from the vision of: "Women undergoing IOL at Fiona Stanley Hospital are admitted with a draft plan for IOL, are seen by both a midwife and a doctor within the hour and have their induction commenced within 3 hours"
- CONTROL - My desired state (right) was devised from the stakeholder solutions of:

  1. Co-located patients
  2. Dedicated Team with IOL Midwife
  3. Clear Policy

## Project outcomes

- This led to the creation of a dedicated 'IOL Suite' with a rostered IOL midwife on 12 hour shifts that come together with the Birth Suite Medical Team to make long term individualised care plans for IOL patients that will be documented on a clear admission Proforma and dynamic whiteboard (schematic right). This will open at FSH in July 2019.

### Project Aim

The aim of my project was to streamline the process between booking a woman for an Induction of Labour and the actual intervention commencing.

### Rationale

30% of women who birth at Fiona Stanley hospital undergo an Induction of Labour (IOL), equating to a large component Maternity Department workload. These women are often complex, high risk and require multiple resources in order to achieve the end goal of a safe and satisfactory labour and recovery. Currently the Induction of Labour process involves multiple disorganized stages.

### Improvement team members

**Supervisors:**

Jon Oldham – Service Improvement Supervisor

Dr Emma Higgisson - Service improvement supervisor

Dr Gargeswari Sunanda – Clinical Supervisor

**Supporters:**

Amanda Bath –Midwifery Champion

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Transplant CAVIAR

# Transplant CAVIAR


## Dr Amro Sehly, Fiona Stanley Hospital, SMHS


## The improvement process

A process mapping sessions was held with key stakeholders to map the patient journey from discharge following cardiac transplant to their first anniversary clinic appointment. The key flaws in the process and delays were noted, particularly a lack of a clear cut protocol for booking this angiogram and significant delays with other repetitive and duplicated tasks. An audit was conducted looking at duration to angiogram for transplant patients, clinical markers for CAV risk factors, and the time spent by the advanced heart failure unit doing repetitive or duplicated tasks. Following this, a root cause analysis session was held to identify key causes of the noted findings. We found key causes to be delays in IT, failures in the booking system, excessive filling of forms, a lack of a clear cut CAV screening protocol. Additionally, the clinical audit revealed poor lipid management. A solution generation session was held with key stakeholders and key solutions for improvement were implemented.

## Project outcomes

- Implemented new booking protocol for 1st year angiogram for transplant patients
- Improved outpatient clinic proforma to prompt improved management of CAV risk factors and booking.
- Improved patient education of CAV with creation of patient information sheet.
- Improved communication between angiography and advanced heart failure unit.
- Fostered culture of improvement in advanced heart failure unit.
- Reduced time spent on repetitive tasks and duplication through the optimisation of IT systems.
- Audited clinical outcomes of transplant patients in their first year post-transplant.

## Recommendation

- The implementation of a transplant health care plan for improved patient ownership of their medical issues.
- Creation of patient education geared towards transplant care.

### Project Aim

To assess and improve the monitoring and risk factor management for cardiac allograft vasculopathy (CAV) for patients post-cardiac transplant.

### Rationale

Cardiac transplant represents a large financial burden on the healthcare system. CAV is a common complication of heart transplant recipients that can lead to graft failure. It is screened for with an angiogram at 1 year post-transplant and managed with immunosuppression change and risk factor management. No systems exist to ensure adequate and consistent adherence to these standards. The current systems in place have not been formally assessed and reviewed.

### Improvement team members

#### Supervisors:

**Clinical Supervisor:**

Dr Peter Dias

**Service Improvement Supervisors:**

Dr Ian Jacob

Nerinda Bradshaw

#### Supporters:

**Cardiac Transplant Nurse Practitioner:**

Clare Fazackerley

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DERMIS
DErmatology Referral Management and Improvement Scheme

# DERMIS

# Dr Selina Cimenbicer, Fiona Stanley Hospital South Metropolitan Health Service

## The improvement process

The existing process for Dermatology's Outpatient Clinic was mapped in a collaborative process-mapping workshop that led to the identification of four key areas of improvement. This guided data collection and analysis, with data accrued through the hospital's tableau program. Additionally, 50 referrals were individually examined to assess their quality through the e-Referral program. The data was presented back to stakeholders and formed the basis of a root causes analysis session, where stakeholder input validated the true causes of the delays found within the clinic.

A solutions generation session was subsequently conducted which identified opportunities to improve discharge planning and follow up practices across the department, reduce unnecessary referrals to Dermatology and improve the overall quality of referrals. These solutions were gradually implemented towards the end of the term and will be monitored with repeat data collection in three, six and twelve months time.

## Project outcomes

The DERMIS project was able to implement the following changes to the Dermatology department:

1. Creation of an inclusion and exclusion criteria for referrals received by the Central Referral Service and the triaging Dermatology registrar
2. Clear follow-up and discharge guidelines for e-referrals and GP referrals to the department
3. Creation of a referral proforma for all in-hospital E-referrals to the department
4. New outpatient clinic codes to better monitor individual clinic performance
5. Creation of generic responses to GP's when triaging advising of waitlist times for CAT3 referrals
6. Catchment area lanyards provided to all triaging registrars

### Project Aim

To reduce patient's waiting time to be seen by the Dermatology Department's Outpatient Clinic.

### Rationale

Analysis revealed that less than half of patients referred as an outpatient to the FSH Dermatology Department were seen within the recommended review times for their category of urgency.

There are also a significantly larger number of new referrals received versus new referrals seen over the past financial year. The number of open referrals currently far exceeds the number that the department are able to reasonably see with existing staffing and clinic resources.

Discharge rates for the department were also half the rate of the hospital outpatient average and half the rate of another tertiary hospital's with identical resources.

### Improvement team members

**Supervisors:**

Dr Alan Donelly (HoD)

Dr Ian Jacobs

Jonathon Oldham

Esther Dawkins

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CaSPR
CATARACT SURGICAL PATHWAY REVIEW

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# CaSPR – *Ca*taract *S*urgical *P*athway *R*eview

## Dr Ariane Tioke, Fremantle Hospital
## South Metropolitan Health Service

### The improvement process

The CaSPR stakeholders identified three areas of concern through a process mapping session: referral quality, waitlist/Eye Clinic booking processes and preoperative assessment. Data was collected to validate these issues and key findings included poor referral information in 51% of referrals, 9% of waitlisted patients required urgent clinic appointments, and 5% of salaried time of the Ophthalmology RMO time was spent performing clerical tasks, in addition to Registrars locating hard copy records preoperatively. The root cause analysis session found that a lack of standardised cataract pathway and referral guidelines, no electronic access to these guidelines for staff and referrers and finally, hard copy medical records had stringently prioritised locations were driving these inefficiencies. As a results four solutions were developed to address these root causes.

### Project outcomes

- *Cataract Pathway and Clinical Guideline:* Awaiting final approval. When fully implemented will standardise the patient journey from referral to day of surgery and reduce urgent preoperative clinic appointments.
- *Cataract Referral Guideline and Pro forma:* aimed at improving the quality of referrals and appropriate triage of patients. Awaiting formal approval. First referral guideline for Western Australia.
- *Web & intranet presence:* now live, providing a platform to communicate both the above solutions, in addition to future department documents, with staff and the wider community (including referrers and patients).
- *Back scanning of hard copy medical records to the electronic record 'BOSSnet":* performed for the Ophthalmic Surgical Waitlist to ensure information was available rapidly and reduce clerical tasks carried out by Ophthalmology junior doctors.

### Recommendations

- A Western Australian Referral Guideline be developed to adequate referrals are received for Ophthalmic Services throughout the state.
- Work towards a dedicated "Cataract Clinic" and theatre list to facilitate the patient journey through their assessment and management.

### Project Aim

To identify inefficiencies and improve service delivery for cataract patients from the time of referral for surgery until the day of surgery.

### Rationale

Fremantle Hospital (FH) is the ophthalmic service provider for the South Metropolitan Health Service catchment area. Each year it conducts 13,300 Eye Clinic appointments and 1,300 ophthalmic surgeries, of which 52% were for cataracts. Multiple issues arose due to a lack of formal cataract pathway and impacting on patients' journey and outcomes.

### Improvement team members

#### Supervisors:

Dr Steve Colley (Clinical supervisor)

Erin Furness (Service improvement supervisor)

#### Supporters:

*Ophthalmology:* Tricia Lyle (Nurse Manager), Kerri-Anne Nichols, Dr Tiki Ewing, Dr Rav Phagura, Dr Geoff Chan, Dr Avenell Chew, Dr Mark Ireland, Dr Yashwent Gupta, Tihana Sharp; *Outpatients:* Jessie Parmenter; *PIMS:* Bianca Lovett, Nick Leather, Angela Federico; *Elective Waitlist:* Mandy Dobson, Rachel Pether

#### Sponsors

*Executive Sponsor:* Dr Paul Mark (FSFHG Director Clinical Services)

*Solution Sponsor:* Dr Hannah Seymour (Service Co-director)

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# Go for Goals

## Dr Michael Giles, Rockingham General Hospital, South Metropolitan Health Service

### The improvement process

A process mapping session was conducted by stakeholders mapping the patient journey admission to ICU. A number of issues raised during this session and data was collected to assess these. The root causes session findings were validated by audit and surveys. Solution Generation session produced a large number of solutions across multiple domains. These solutions were investigated and discussed among stakeholders and are pending approval and implementation.

### Project outcomes

- Medical Education Workshops Consultants and Registrars
- Multimedia information package on RkPG Hub
- Goals of Patient Care forms included as tear-off from RGH Admission Performa
- Goals of Patient Care as a formal part of Registrar Admission handover (Prompt on RGMR1H – Medical Registrar Acceptance and Handover Form)
- Digital Whiteboards for clinical handover areas
- Discharge Procedures: Recording GoPC in summary & Endorsement: Section 4

### Progress

- Culture shift: 25% improvement in Goals of Patient Care snapshot audit rates on ACRU and 16% Medical since project initiation.

### Recommendations

The remainder 2019 should be utilised to implement solution strategies and consolidate shared ownership of Goals of Patient Care at Rockingham Hospital

- There is consensus that consultants should remain the Champions of Goals of Patient Care at RGH.
- The medical education committee should invest in formal interactive workshops for consultants to refine communication skills to promote appropriate and consistent modelling of GoPC for junior doctors.
- Registrar involvement and education to normalise GoPC within the patient journey and not as a reaction to clinical deterioration.
- Integration of solutions with other research GoPC projects currently underway at RGH.
- Repeat audit in 3-6 months to review rates of GoPC on wards and at admission to ICU.

### Project Aim

To improve the culture and quality of Goals of Patient Care (GoPC) discussions in the pre-ICU setting at Rockingham General Hospital.

### Rationale

Goals of Patient Care forms replaced DNR forms across Australia are under-utilised at RGH. Audit data demonstrates 82% of patients do not have GoPC discussion before being admitted to ICU. Goals of Patient Care duties lay with senior medical staff including Registrars and Consultants. 7 of MET calls occur out of hours when treating teams are not readily available. An audit of patients arriving in ICU without GoPC discussions showed that 52% should have GoPC discussions prioritised according to RPGH and SMHS policies.

GoPC capture the values and beliefs of the patient, informs them and allows them to be part of shared and informed decision making regarding their care. GoPc ultimately leads to more appropriate and accepted patient care.

### Improvement team members

#### Supervisors:

Dr Prasad Bheemasenacher (Medical Co-director)

Dr Ravi Sonawane (ICU Head of Department)

Kerri-Anne Martyn (Project Manager)

Dr Chris Wilson (Medical AT)

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# AIM- ED: Ambulatory Infections management from ED


## Dr Rohita Reji, Rockingham General Hospital, South Metropolitan Health Service


## The improvement process

A process mapping session conduced with key stakeholders was conducted to map the patient journey from presentation with cellulitis to discharge from hospital. The issues identified during the mapping session were further explored with a root cause analysis session which revealed lack of awareness of existing Silver Chain pathways, lack of understanding of exclusion and inclusion criteria and perception that a large amount of paperwork required were the key causes of poor uptake. The solution generation session resulted in the formation of a new clinical pathway from the Emergency Department to the existing Urgent Care Clinic whereby patients can be assessed and then referred for Silver Chain HATH services as appropriate.

## Project outcomes

- New UCC-Infections pathway from ED to Urgent Care Clinic to allow assessment and referral to outpatient antibiotic services
- Development of clear exclusion and inclusion criteria
- Improved use of existing clinical services
- Reduced paperwork requirements for ED juniors
- Readily available and clearly identified referral pathways for Silver Chain HATH available for UCC staff

## Recommendations

Further recommendations include broadening scope of the UCC Clinic to see other infections, merging the geriatric and general medicine outpatient services at RGH to facilitate creation of an all-encompassing ambulatory service and potentially opening the UCC 7 days a week.

### Project Aim

To increase uptake of home intravenous antibiotic service Silver Chain HATH for simple infections.

### Rationale

An audit revealed that 55% of admissions for cellulitis during office hours would be potential candidates for discharge from ED with outpatient therapy. It also found 30% of all cellulitis related admissions could be avoided with a rapid access clinic review. Data showed there were 583 total presentations with cellulitis over a 12 month period with 45% of patients admitted and 34% of admitted patients spending less than 48 hours in hospital. It is expected that a large number of these admissions can be avoided with improved uptake of home intravenous antibiotic services.

### Improvement team members

**Supervisors:**

Dr Helen Thomas

Kerri-Anne Martyn

Nicole Slavin

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ED-MATES
Emergency Department – Medical Administrative, Technology and Efficiency Scribes

# ED-MATES: Emergency Department - Medical Administrative, Technology and Efficiency Scribes


## Dr Lauren Sharp
## St John of God Midland Public and Private Hospitals


## The improvement process

This project followed a non-standard service improvement format as it involved a solution wanting to be trialled (i.e. the use of scribes) before the issue trying to be improved was clearly identified. As a result, the project involved 2 mini-projects running simultaneously – a pilot study implementation project, and a DMAIC-model project looking to justify or disprove the pilot study as the best solution.

'Time-in-motion' studies following senior doctors (i.e. consultants and registrars) in the emergency department (ED) were conducted in order to understand how senior doctors used their time and how often they documented in patient notes. Issues surrounding senior doctor documentation were explored through the use of online staff surveys, affinity mapping at an issues-surfacing workshop, and through a solutions generation meeting, where solutions other than scribes were also explored. Concurrently, a scribe training program was developed and a scribe handbook was produced. The scribes (2x Curtin University 3rd year medical students) undertook 2 weeks of training and 4 weeks of being trialled as scribes for senior doctors in the ED.

## Project outcomes

- Awareness of how senior doctors spend their time in the ED.
- Recognition of the scope of departmental documentation challenges and the barriers that limit adequate documentation.
- Scribe Pilot Study conducted in the ED.
- Multiple issues identified that would need to be overcome in order to implement scribes.

## Recommendations

If an extended trial of scribes in the ED was to occur, a number of IT modifications would be needed. Scribes would also require a longer training period in order to meet senior doctor expectations. Senior staff would also require training in how best to utilise their scribes.

### Project Aim

1) To improve the quality and timeliness of senior doctor documentation in the Emergency Department.
2) To conduct a scribe pilot study in the emergency department.

### Rationale

Highly trained ED physicians spend a considerable amount of time away from patients in order to use IT and complete documentation. Senior ED doctors at teaching hospitals also responsible for a team of juniors and monitoring patient flow. These competing priorities can lead to delays, inconsistencies and incompleteness in documentation. This then can contribute to delays in patient care and flow, affect hospital funding, and negatively impact staff morale. Medical scribes have successfully been implemented in EDs in the USA and on the east coast of Australia.

### Improvement Team Members

Clinical supervisors:

Dr Michele Genevieve

Dr Matthew Summerscales

Service improvement supervisors:

Zoe Francis

Jemma Hogan

**This document can be made available in alternative formats on request for a person with a disability.**