A novel hospital pharmacist role working with Aboriginal & Torres Strait Islander cardiac patients

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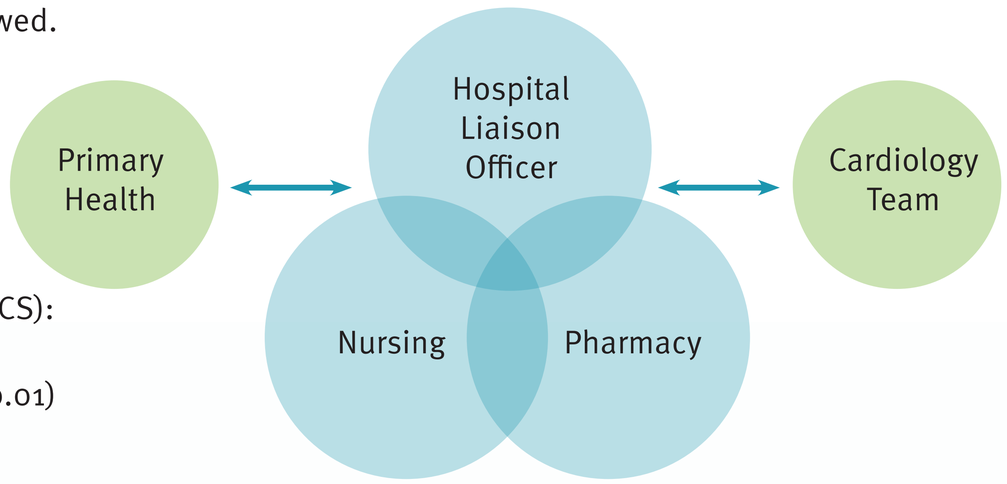
Background

Aboriginal and Torres Strait Islander (A&TSI) people continue to have a lower life expectancy than non-Indigenous Australians. As of 2012, the gap in life expectancy was 9.5 years for women and 10.6 years for men.[1] Cardiovascular disease is the largest contributor to this life expectancy gap and a major contributor to morbidity in this patient group.[2]

A multidisciplinary team project commenced at the Princess Alexandra Hospital in April 2015. The aim is to allow A&TSI cardiac patients to have better access, support, education, advocacy and cultural sensitivity for the entire patient journey from hospital to home. The Better Cardiac Care (BCC) team includes clinical nurse consultants, an A&TSI hospital liaison officer, an administration officer, a cardiologist and a pharmacist. The team identified that discharge medication supply was problematic for Closing The Gap (CTG) registered patients. A&TSI CTG patients were unable to receive subsidised medicines at the point of discharge under the current hospital system.

The team proposed a model whereby a seven day fully subsidised medication supply could be offered to A&TSI cardiac patients who were registered with the CTG program in the community. Hospital executive was consulted and provided with information regarding projected costs. The proposed model of medication supply was approved by the Executive Director of the Hospital and Health Service initially on a trial basis and has since been renewed.

Since commencement of the project a pharmacist has been an integral part of the BCC team. Funding for a part time BCC pharmacist was provided by the QLD A&TSI health branch.



Results

The BCC team achieved clinical successes in treating A&TSI patients with acute coronary syndrome (ACS):

1) Acute myocardial infarction: reduced from 6% to 2% (Hazard Ratio=0.33, p=0.04)
2) 90 Day unplanned cardiac readmission: reduced from 31% to 17% (Hazard Ratio=0.55, p<0.01)
3) 90 Day event free survival: reduced from 33% to 21% (Hazard Ratio=0.64, p=0.02)

Over the course of three years pharmacist involvement has led to four distinct phases:

Phase 1

CTG medication Trial: 7 day medication supply program
Commenced April 2015

Identification Process:

- **Identification** – Patient list generated daily by Hospital Liason Officer and distributed to project staff. Project staff notify pharmacist of eligible patients
- **Documentation** – Patient eligibility and summary of discharge process documented in patient chart and dispensing program
- **Dispensing** – Pharmacist offers patient option of seven day supply Prescription dispensed
- **Reporting** – Invoice is provided to pharmacist. Database is updated & maintained. Line of reporting to Executive regarding expenditure

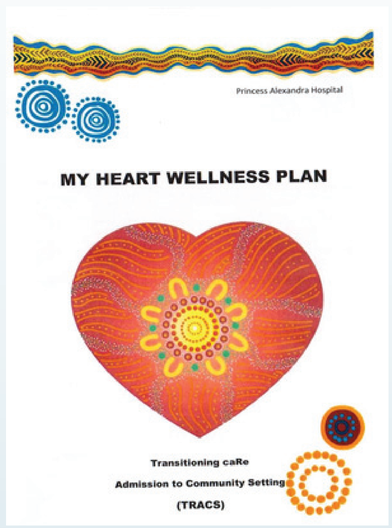
In the period from May 2015 to June 2018, 316 out of 599 (53%) patients have received a 7-day supply under the trial.

Received CTG Supply	316	53%	Full CTG Supply of All Medications	120	20%
			Partial CTG Supply on Medications Not Available at Residence	196	33%
Not Receiving Supply	283	47%	Preferred Full PBS Safety Net Supply	7	1%
			Preferred Full PBS Supply	36	6%
			Not CTG Registered	31	5%
			DAMA	15	3%
			Nil Required	85	14%
			Script Taken Outside	10	2%
			Interhospital Transfer	16	3%
			Webster Pack	54	9%
			Deceased	5	1%
			Prisoner	17	3%
			Reason Unclear	7	1%

Phase 2

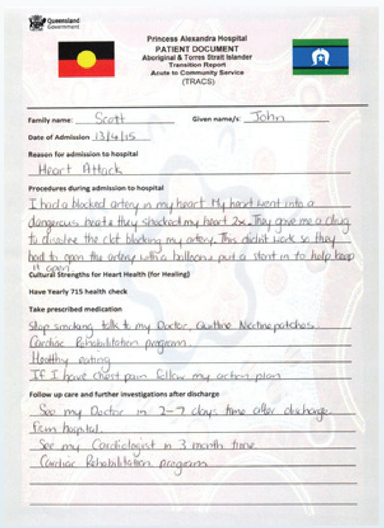
TRACS booklet + Briefing document
Commenced April 2016

The booklet is completed by the project clinical nurse consultant or pharmacist in consultation with the patient, enabling the content to be in the persons own words and reflective of their experience.


Princess Alexandra Hospital

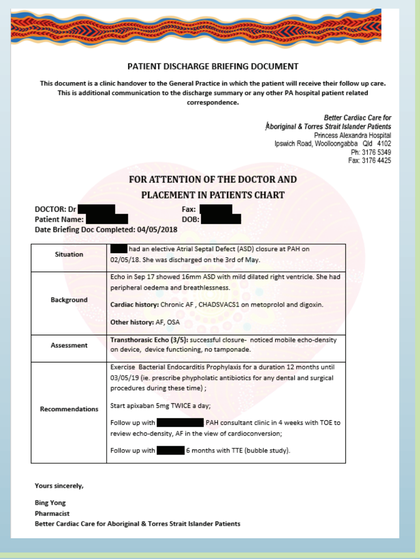
MY HEART WELLNESS PLAN

Transitioning caRe
Admission to Community Setting
(TRACS)


Princess Alexandra Hospital
PATIENT DOCUMENT
Aboriginal & Torres Strait Islander
Transition Report
Acute to Community Service
(TRACS)

Family name: Scott Given name/s: John
Date of Admission 13/4/15
Reason for admission to hospital
Heart Attack
Procedures during admission to hospital
I had a blocked artery in my heart. My heart went into a dangerous heata they stracked my heart 2x. They gave me a drug to dissolve the clot blocking my artery. This didnt work so they had to open the artery with a balloons put a stent in to help keep it open.
Cultural Strengths for Heart Health (for Healing)
Have Yearly 715 health check
Take prescribed medication
Stop smoking, talk to my Doctor, Quit the Nicotine patches.
Cardiac Rehabilitation programm.
Healthy eating
If I have chest pain follow my action plan
Follow up care and further investigations after discharge
See my Doctor in 2-7 days time after discharge from hospital.
See my Cardiologist in 3 month time
Cardiac Rehabilitation programm

To enhance communication with GP, a clinical handover tool (briefing document) is utilised to transition patients into the community from the acute health care setting.


PATIENT DISCHARGE BRIEFING DOCUMENT

This document is a clinic handover to the General Practice in which the patient will receive their follow up care. This is additional communication to the discharge summary or any other PA hospital patient related correspondence.

Better Cardiac Care for Aboriginal & Torres Strait Islander Patients
Princess Alexandra Hospital
Ipswich Road, Woolloongabba Qld 4102
Ph: 3176 5349
Fax: 3176 4425

FOR ATTENTION OF THE DOCTOR AND PLACEMENT IN PATIENTS CHART

DOCTOR: Dr [redacted] Fax: [redacted]
Patient Name: [redacted] DOB: [redacted]
Date Briefing Doc Completed: 04/05/2018

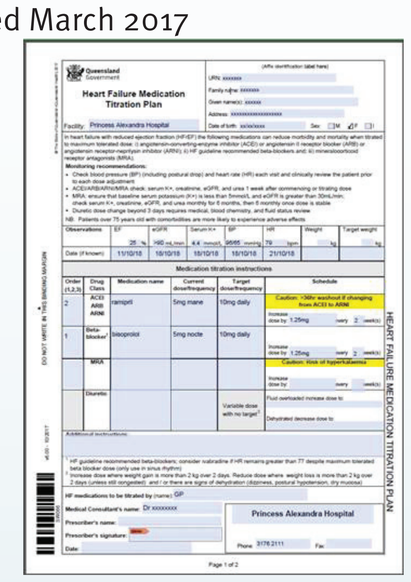
Situation	[redacted] had an elective Atrial Septal Defect (ASD) closure at PAH on 02/05/18. She was discharged on the 3rd of May.
Background	Echo in Sep 17 showed 16mm ASD with mild dilated right ventricle. She had peripheral oedema and breathlessness. **Cardiac history:** Chronic AF , CHADSVACS1 on metoprolol and digoxin. **Other history:** AF, OSA
Assessment	**Transthorasic Echo (3/5):** successful closure- noticed mobile echo-density on device, device functioning, no tamponade.
Recommendations	Exercise Bacterial Endocarditis Prophylaxis for a duration 12 months until 03/05/19 (ie. prescribe phypholatic antibiotics for any dental and surgical procedures during these time) ; Start apixaban 5mg TWICE a day; Follow up with [redacted] PAH consultant clinic in 4 weeks with TOE to review echo-density, AF in the view of cardioconversion; Follow up with [redacted] 6 months with TTE (bubble study).

Yours sincerely,

Bing Yong
Pharmacist
Better Cardiac Care for Aboriginal & Torres Strait Islander Patients

Phase 3

Heart failure medication titration plans
Commenced March 2017


Heart Failure Medication Titration Plan

Facility: Princess Alexandra Hospital

Monitoring recommendations:
- Check blood pressure (BP) (including postural drop) and heart rate (HR) each visit and clinically review the patient prior to each dose adjustment
- ACEI/ARB/ARNI/MRA check serum K+, creatinine, eGFR, and urea 1 week after commencing or titrating dose
- MRA: ensure that baseline serum potassium (K+) is less than 5mmol/L and eGFR is greater than 30mL/min; check serum K+, creatinine, eGFR, and urea monthly for 6 months, then 6 monthly once dose is stable
- Diuretic dose change beyond 3 days requires medical, blood chemistry, and fluid status review

NB: Patients over 75 years old with comorbidities are more likely to experience adverse effects

Observations: BP | eGFR | Serum K+ | HR | Weight | Target weight

Date (if known): 11/10/18 | 18/10/18 | 15/10/18 | 18/10/18 | 21/10/18

Medication titration instructions

Order (1,2,3)	Drug Class	Medication name	Current dose/frequency	Target dose/frequency	Schedule
2	ACEI/ ARB/ ARNI	ramipril	5mg mane	10mg daily	Caution: <3Mr washout if changing from ACEI to ARNI Increase dose by 1.25mg every 2 week(s)
1	Beta-blocker	bisoprolol	5mg nocte	10mg daily	Increase dose by 1.25mg every 2 week(s)
	MRA				Caution: Risk of hyperkalaemia Increase dose by every week(s)
	Diuretic			Variable dose with no target	Fluid overloaded increase dose to: Dehydrated decrease dose to:

Additional Instructions:

HEART FAILURE MEDICATION TITRATION PLAN

HF guideline recommended beta-blockers: consider ivabradine if HR remains greater than 77 despite maximum tolerated beta blocker dose (only use in sinus rhythm)
Increase dose where weight gain is more than 2 kg over 2 days. Reduce dose where weight loss is more than 2 kg over 2 days (unless still congestion), and / or there are signs of dehydration (dizziness, postural hypotension, dry mucosa)

HF medications to be titrated by (name): GP
Medical Consultant's name: Dr xxxxxxxx
Prescriber's name:
Prescriber's signature:
Date:
Princess Alexandra Hospital
Phone: 3176 2111 Fax:

Page 1 of 2

From March 2017 to June 2018, heart failure medication titration plans have been done for 27 patients.

The plan guides GP to up-titrate patient ACEI/ARB or beta-blocker to the maximum tolerated dose in the community.

Phase 4

Smoking cessation support + Diabetes optimisation
Commenced June 18

In June & July 2018, 15 smokers received smoking cessation support from pharmacist. The pharmacist encourages Nicotine Replacement Therapy use, make referral to Quitline, tobacco treatment specialist and Aboriginal community quit smoking program. Nine patients had diabetes recommendations who are likely pre-diabetes or with suboptimal HbA1c within the same period.

Conclusion

A dedicated pharmacist can make important contributions to a multidisciplinary team working with A&TSI cardiac patients.

References

1. Australian Bureau of Statistics. Life Tables for Aboriginal and Torres Strait Islander Australians 2010-2012. Canberra: ABS; 15/11/2013. Cat no. 3302.0.55.003
2. Australian Institute of Health and Welfare. Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011. Canberra: AIHW; 2011. Australian Burden of Disease Study series no. 6. Cat. No. BOD 7.

We care about you

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Poster produced by Patient Safety & Quality Unit, Princess Alexandra Hospital, 2018

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