



# Pharmacy Services: chronic care management service

**Waikato DHB**

**Presenter: Grant Macdonald**

**Chronic Care Improvement Group (HRT1716)**

**Christchurch NZ, 30<sup>th</sup> August 2017**



# Key Problem

---

- Health system budgets are not growing fast enough to meet the increased need of the aging population and patients with multiple morbidities.
- Patients with chronic conditions, complex medication regimes, at high risk of medication error/ adverse event need to be managed appropriately.
- Polypharmacy leads to an increased likelihood of:
  - multiple prescribers
  - adverse drug reactions
  - drug interactions
  - patient confusion around medicines
  - increased preventable presentations and admissions to secondary care

# Aim of this innovation

---

- To improve communication between primary and secondary/tertiary care
- To improve patient outcomes
- Reduce the incidence of medicine related readmissions
- Reduction of medication error rate at admission and discharge
- Enhanced pharmacist service to high risk groups
- Education and counselling of patients
- Education of staff about medication safety and knowledge
- Build links with community groups to improve continuity of care
- Reduce health disparities among our Waikato population



# Baseline Data

---

- Research estimates that approx. 15% emergency department presentations are medicine related
- Medicine reconciliation was not routinely undertaken before the project
- We focussed on a smaller number of more complex patients
- It was felt this group could benefit greatest from the intervention
- We would assess the presentation/admission before and after the intervention to measure the success

# Key Changes Implemented

---

- A prioritised group of patients were selected based on CCM criteria which included:
  - Over 65 years (over 55 in Maori ethnicity)
  - At least one prioritised morbidities which included:
    - Smoking related COPD
    - Cardiovascular disease and stroke
    - Diabetes
    - Cancer
    - Severe mental health and addictions
  - Two or more co-morbidities
  - Use of five or more medicines per day
  - Significant changes to medicine regime or using high risk medicines
  - Complex medicine regimes
  - Barriers to communication
- Medicine reconciliation was undertaken at admission and discharge
- Education provided during admission and written information, as a medication card
- Any supports arranged such as blister packing or community pharmacist supports
- Identification of medicine related problems with patients medication record

# Outcomes so far up (for data up to 2013)

Comparison	Mean before	Mean after	Difference btwn means	p-value	Confidence interval
Thames Inpatients Total	2.80	2.51	-0.30	0.14	(-0.69, 0.1)
Thames Inpatients 0-6 months	1.98	1.31	-0.67	<0.001	(-0.91, -0.42)
Thames ED Total	3.02	2.08	-0.94	<0.001	(-1.27, -0.62)
Thames ED 0-6 months	2.08	0.99	-1.10	<0.001	(-1.3, -0.89)
Waikato Inpatients Total	2.45	1.78	-0.67	<0.001	(-0.77, -0.57)
Waikato Inpatients 0-6 months	1.85	0.92	-0.93	<0.001	(-0.99, -0.87)
Waikato ED Total	2.03	1.39	-0.65	<0.001	(-0.73, -0.57)
Waikato ED 0-6 months	1.55	0.66	-0.89	<0.001	(-0.95, -0.84)
All Hospitals Inpatients Total	2.47	1.83	-0.65	<0.001	(-0.71, -0.58)
All Hospitals Inpatients 0-6 months	1.86	0.95	-0.91	<0.001	(-0.96, -0.87)
All Hospitals ED Total	2.09	1.43	-0.67	<0.001	(-0.73, -0.61)
All Hospitals ED 0-6 months	1.58	0.68	-0.90	<0.001	(-0.95, -0.86)

Comparison of the difference between after and before between Thames and Waikato hospitals

Thames vs Waikato comparison	Thames mean difference	Waikato mean difference	Waikato - Thames mean difference	p-value	Confidence interval
Thames vs Waikato Inpatients Total	-0.30	-0.67	-0.37	0.07	(-0.77, 0.03)
Thames vs Waikato Inpatients 0-6 months	-0.67	-0.93	-0.26	0.04	(-0.51, -0.01)
Thames vs Waikato ED Total	-0.94	-0.67	0.28	0.08	(-0.06, 0.61)
Thames vs Waikato ED 0-6 months	-1.10	-0.89	0.20	0.06	(-0.01, 0.41)

# Lessons Learnt

---

- Pharmacy can make positive interventions and contribute to improving health outcomes
  - Pharmacy has a positive role to play in patient care especially at the transitional care between community and hospital.
  - Pharmacy can build links to improve information flow between primary and secondary care
- 
- For more information contact: Grant Macdonald
  - Tel: 021 243 5399



