

GUIDE TO ENGAGING A MULTIDISCIPLINARY QUALITY IMPROVEMENT PROJECT TEAM

MEDICATION RECONCILIATION TOOLKIT

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INTRODUCTION

“A new model of teamwork will be required to replace the old individual and independent ‘silos’ of professional care.”¹

Commissioner Garling saw the need for multidisciplinary teams to work together to provide good patient care. This vision of a multidisciplinary team is especially important when we start thinking about medication reconciliation, since so many different clinicians are involved in this part of patient care and are often not working together or communicating effectively.

Implementation of processes to improve medication reconciliation can be complex and requires careful planning. Involving the efforts of a multidisciplinary quality improvement project team will help promote the concept of teamwork and make sure that implementation is successful. It will also drive the concept of multidisciplinary care teams made up of the frontline clinicians who carry out patient care daily.

Ensuring the continuity of medication management is the responsibility of all clinicians. It is important that responsibility for each task is clearly allocated within the multidisciplinary team in order to reduce duplication of effort and to ensure that no steps in the process are missed.

Research has shown that an ‘inter-professional team approach’ is best for implementing processes to achieve continuity in medication management.²

In order to promote the proposed changes and encourage multidisciplinary care teams to participate in these changes, it is important that a multidisciplinary quality improvement project team is first engaged. This team will be critical in engaging frontline clinicians and driving the changes required.

This Guide has been developed to help form a multidisciplinary quality improvement project team. Specific steps in forming the team include:

- Identifying a project coordinator
- Engaging organisational support
- Engaging multidisciplinary members of the team
- Organisation of team meetings and project goals.

THE PROJECT COORDINATOR

Rationale

For every successful project, there needs to be a strong leader to both coordinate and manage the project team, and guide the quality improvement process. It is therefore paramount that the most appropriate project coordinator is selected to lead the necessary practice changes in each service.

Role of Project Coordinator

The project coordinator has a number of roles within the project team. These include:

- Leading and coordinating project team members
- Managing the project team, project schedules and task allocation
- Driving the quality improvement strategy
- Liaising with the Clinical Excellence Commission and improvement teams in other sites.

ENGAGING ORGANISATIONAL SUPPORT

Rationale

Obtaining support from organisational leaders is important, as it enhances the likelihood of project success. The executive sponsor and the clinical champion are the two team members who are most important in gaining the support needed from others within the organisation.

The Executive Sponsor

Qualities

An executive sponsor could be in the form of a:

- General Manager
- Director of Medical Services
- Director of Clinical Governance

This sponsor should have the influence to impact on the success of the project, be in a position to allocate resources where necessary, authorise guidelines to shape standardised processes, and empower frontline clinicians.

Role

The role of the executive sponsor is to:

1. Engage other hospital leaders
2. Place priority on the project service-wide
3. Remove implementation obstacles
4. Mobilise resources (where possible)

The executive sponsor should receive regular updates regarding project progression, attend some team meetings, and be an advocate of the project to other hospital leaders.

The Clinical Champion

Qualities

A Clinical Champion is a well-respected senior clinician within the service. This clinician often leads initiatives within a hospital and/or is person who provides opinion or direction to others. A specific interest in medicine use, medication safety or continuity of care is important.

Role

The engagement of a Clinical Champion will assist in engaging frontline clinicians and informing them of the project and the need for change.

The Clinical Champion should be more involved than the executive sponsor, by attending most team meetings and acting as an advocate of the project to both hospital leaders and frontline clinicians.

There may be more than one clinical champion that is identified and engaged, such as clinicians from various clinical specialities, for example an ED physician, Geriatrician, Surgeon etc. OR from clinical groups, for example a Senior Medical Officer and a Nurse Unit Manager.

How to Engage

In order to engage an executive sponsor and clinical champion(s), meetings should be set up to discuss the proposed project and the current state of practice.

Facts should be discussed regarding the current deficits and risks to patients, which can either be attained from literature (see Appendix 1), or local data obtained from studies and audits.

Some aspects for discussion that may be relevant to such members may include:

- Adverse drug events (ADE) in the service - particularly mention cases that involved a lack of continuity of medication management. This can be gained by reviewing local Incident Information Management System (IIMS) data, or by conducting an audit locally.
- Potential cost benefits to service associated with ADE reduction (see Appendix 2)
- Reduction in length of stay and associated costs
- Reduction in re-admission rates and associated costs
- Other organisational benefits, such as reduction of duplication of effort, improved patient care etc.

ENGAGING THE PROJECT TEAM

Rationale

As mentioned, the formation of a multidisciplinary project team is essential to implementation success and project uptake. Engaging such a team will drive change within the service and encourage the uptake of the proposed processes by frontline clinicians.

Forming a team with clinicians from different backgrounds and experiences broadens the perspective of the team, and allows them to view problems from different angles and identify workable solutions.

The Members

A number of members are proposed to form a robust multidisciplinary quality improvement project team, with a number of up to 7 members. Please note this list is only a guide; not each of these need to be represented at each service, an (*) marks members that are strongly recommended.

Suggested Project Team Members (identify up to 7 members)

Project Leads
Project Coordinator*
Executive (Project) Sponsor*
Clinical Champion (respected senior clinician)*
Medical Clinical Group
Junior Medical Officer (JMO) Representative* (<i>unless holds role of Project Coordinator</i>)
Emergency Department Physician (staff specialist / trainee / registrar)
Geriatrician (staff specialist / trainee / registrar)
Other: Surgeon, Intensivist, Physician, Paediatrician (staff specialist / trainee / registrar)
Nursing Clinical Group
Nurse Representative* (<i>unless holds role of Project Coordinator</i>)
Nurse Unit Manager Representative
Clinical Nurse Consultant (CNC) Representative
Clinical Nurse Educator (CNE) Representative
Emergency Department Nurse
Aged Care Unit Nurse
Pharmacy Clinical Group
Pharmacist Representative* (<i>unless holds role of Project Coordinator</i>)
Emergency Department Pharmacist
Aged Care Unit Pharmacist
Discharge Liaison Pharmacist
Other
Discharge Planner
Quality and Safety Manager
Ward Clerk
Patient Safety Representative

The majority of these members are frontline clinicians. The importance of their input and support is paramount for the following reasons:

- Provide feedback on the practicality of the proposed changes
- Provide knowledge regarding current practices
- Minimise workflow disruptions
- Act as advocates/promote uptake of changes service-wide
- Facilitate change among their peers

Additional clinicians can be consulted by the project team to offer expert advice and valuable input.

Responsibilities of the Project Team

The Project Team is responsible for a number of different duties and tasks. Some of these may include:

1. Planning and scoping
This entails determining the scope of the project i.e. whether implementation will be aimed service-wide or only at specific patients and/or units. A detailed plan needs to be developed to suit each service, addressing the best approach to implementation and taking into account available resources and staff. If service-wide implementation is not decided upon, a time-frame of achieving this should be set.
2. Collecting Baseline Data
Initial baseline data should be collected to determine the current practices and processes within a service.
3. Engagement, Communication, and Education
A plan determining how frontline clinicians will be engaged and educated regarding the proposed changes needs to be completed. Who is responsible for this communication, and how best to carry it out needs to be determined.
4. Data Collection
The members responsible for collection of data need to be determined.
5. Review and Evaluation
The team should collectively review results and assess what improvements have been made, what further work needs to be undertaken, and what strategies have or have not worked well. The communication of results should be wide-spread throughout the service.
6. Formalisation of Processes
Determine who is responsible for formalising the proposed processes within the service in order to make them sustainable.

The Care Team

The care team is defined as the team of frontline clinicians who undertake daily care of the patient. These clinicians work on units/wards and share responsibility for patient care on a daily basis. The project team have the role of engaging these clinicians to uptake the proposed process changes into standard practice. They should also encourage a multidisciplinary approach to the uptake of processes.

This may indeed be the most difficult role of the project team. The project team must together determine how best to encourage these frontline clinicians to integrate the changes into their standard practice. This task also calls for members of the project team to act as project advocates, encouraging their peers of the benefits of the changes proposed. This highlights the importance of project team members to be clinicians of influence and ones highly regarded by their peers.

How to Engage

Two different approaches may be taken to engage the formation of the project team, or both methods used in unison:

1. Approach identified clinicians who have a keen interest in continuity of medication management, previous quality improvement experience and/or may drive change due to their influence and good reputation
2. Send out a service-wide expression of interest requesting nomination and/or participation on the project team by interested clinicians

The team members chosen should be committed, enthusiastic and able to implement and drive change amongst their peers.

TEAM RULES AND GUIDELINES

Rationale

It is vital to set rules and guidelines early on so that the team can work collaboratively and effectively to achieve the desired quality improvement outcomes. It is also necessary so that all members are respected and are able to contribute to the project.

Team Meetings

Ground rules should be established for team meetings to guide effective collaboration and create an environment where team members feel free to present their point of view.

Some examples of rules may include:

- Meetings to start and finish on time
- Members to attend meetings regularly
- Each team member can speak freely and in turn
- Each member must be heard – no one person should dominate
- Issues can be discussed and analysed, not team members

Additional rules should be added as deemed appropriate. These rules should be set by the project coordinator and proposed to all members.

Set Project Goals

A number of resources have been developed to assist project teams in assessing the current state of medication reconciliation processes and where they hope to be.

Project goals should be clearly defined and set by the project team, with short-term and long-term goals established.

These goals should be 'SMART'

- Specific
- Measurable
- Aspirational
- Realistic
- Timely

The scope of project implementation should also be discussed and established, that is, will the focus be on implementation for high-risk patients only, specific wards/units or at certain points of care i.e. admission only (phased implementation), or will service-wide implementation take place? If a narrow scope of implementation or phased implementation is chosen initially, service-wide implementation should be set as a long-term goal within a dedicated time schedule.

Data Reports and Analysis

The collection and analysis of data should be carried out by dedicated team members as determined during initial team meetings.

There are a number of audit tools available from the CEC that can assist with data analysis and aid in data reporting and benchmarking comparisons.

Data reports should be discussed by the project team to determine the stage of implementation and what work needs further development. It is also beneficial to periodically report to the service on any developments that have been made and the current areas of success and deficit. Who should communicate and how this is best communicated should be established by the project team.

APPENDICES

Appendix 1 - Literature Facts and Figures

"In up to two thirds of patients there are variances between the medicines they take prior to admission and the medication ordered at the point of admission"¹

"10-67% of medication histories contain at least once error"¹

"Incomplete medication histories at the time of admission have been cited as the cause of at least 27% of prescribing errors"²

"The most common error is the omission of a regularly used medicine"³

"Around half of the medication errors that happen in hospital occur on admission or discharge"⁴

"30% of these errors have the potential to cause harm"^{3,5}

"At least one in six patients have had one or more clinically significant medication differences on transfer, for example on transfer from intensive care to a general ward"⁶⁻⁸

"15% of medications intended for continuation were omitted on discharge prescriptions"⁹

"12% of patients had one or more errors in their medication prescriptions"¹⁰

"Patients with one or more medications omitted from their discharge summary have 2.31 times the usual risk of readmission"¹¹

"At discharge, patients often did not know what medications were prescribed, when their follow-up appointments should take place and, in some cases, why they were hospitalised in the first place"¹²

"Patients who have a clear understanding of their post-discharge care plan, including how to take their medicines, were 30% less likely to be readmitted or present to an emergency department than patients who lacked this information"¹³

"Patients prescribed medications for chronic diseases were at risk for potentially unintentional discontinuation after hospital admission. Admission to the ICU was generally associated with an even higher risk of medication discontinuation."¹⁴

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Appendix 2 - Time and Cost Benefits

Time Savings

Rozich JD et al. Medication Safety: one organisations approach to the challenge. J Clin Outcomes Manag 2001; 8(10):27-34.

Implementing a systemic approach to reconciling medications found to decrease:

- Nursing time at transfer by 20 minutes per patient
- Pharmacist time at hospital discharge by more than 40 minutes per patient.

To calculate approx. time benefit:

- Nursing time: (20 minutes) x (approx. number of transfers per day)
- Pharmacist time: (40 minutes) x (approx. number of discharges per day).

This time saving benefit can be resources to other areas of need, used to improve patient care and/or reduce the time constraints currently experienced by many hospital clinicians.

Cost Savings to Health Care System

Karapinar-Carkit F et al. Effect of medication reconciliation on medication costs after hospital discharge in relation to hospital pharmacy labor costs. Ann Pharmacother. 2012 Mar;46(3):329-38.

- Correcting hospital formulary changes saved €1.63 per patient in medication costs at 1 month after discharge and €9.79 at 6 months
- Optimising pharmacotherapy saved €20.13 per patient in medication costs at 1 month and €86.86 at 6 months
- The associated labour costs for performing medication reconciliation were €41.04 per patient
- Medication cost savings from correcting hospital formulary-induced changes and optimising of pharmacotherapy (€96.65 per patient) outweighed the labour costs at 6 months extrapolation by €55.62 per patient.

Cost Savings to Service

Medications at Transitions and Clinical Handoffs (MATCH) Toolkit for Medication Reconciliation. Chapter 1:
Build the Project Foundation: Gaining Leadership Support Within the Organization.

Financial model developed by Steven B. Meisel, PharmD, Director of Medication Safety at Fairview Health Services in Minneapolis, Minnesota.

Number of discrepancies per patient

- x Number of patients per year that one person can reconcile
- x Percent of patients with discrepancies that would result in an adverse drug event
- x Percent effectiveness of process
- x Cost of an average adverse drug event
 - = Annual gross cost savings
 - Salary of employee
 - = Annual net savings

Example:

1.5 (discrepancies per patient admitted)

- x 6000 patients (average of 20 minutes per patient to complete medication reconciliation)
- x 0.01 (1% of admissions experience discrepancies that would result in an adverse drug event)
- x 0.85 (85% of discrepancies avoided through medication reconciliation process)
- x \$2500 (conservative cost of an adverse drug event)
 - = \$191 250 annual gross savings
 - \$45 000 (salary and benefits)
 - = \$146 250 annual net savings

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