

Inpatient care to community care: improving clinical handover in the private mental health setting

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In 2003, mental health disorders comprised 13.3% of the total burden of disease.¹ Chronic conditions provide challenges in communicating and coordinating care across multiple health providers and care settings.² In mental health, stigma, confidentiality and issues relating to competency for decision making further increase the complexity of discharge planning.³ Although there are robust governance practices for clinical procedures in the private hospital setting,⁴ there are often limited structures to leverage improvements in coordination and communication across care providers, particularly in smaller private facilities. In both acute and community settings, poor communication is increasingly being identified as a factor in adverse health events^{5,6} and diminished safety and quality of care.⁷

In spite of an emerging interest in issues associated with clinical handover,⁸⁻¹⁰ there is limited information on clinical handover from private mental health services to community practitioners.¹¹ A review of discharge practices at both study sites revealed a disparate approach to discharge documentation and communication, with most patients given only a nursing discharge summary and a medication list. Monthly audits of discharge letters from visiting medical officers (VMOs) revealed that the rate of mailing to the referring practitioner within 14 days of patient discharge was as low as 50%. A lack of consistency and coordination was evident, and local general practitioners expressed their concern about inadequate provision of timely and appropriate information. In response to the need for improved care coordination, the Revolving doors: effective communication in the handover of mental health patients to community health practitioners (CHOCYS) project has been funded as part of a clinical handover initiative by the Australian Commission on Safety and Quality in Health Care (ACSQHC). Using a quality improvement method,¹² the CHOCYS project sought to develop and test a standardised clinical handover strategy for improving information transfer between hospital and community-based providers.

ABSTRACT

Objectives: To develop and test a standardised clinical handover discharge strategy for improving information transfer between private mental health hospitals and community practitioners.

Design, setting and participants: A quality improvement intervention using collaborative, iterative methods to develop a standardised discharge and outcome assessment strategy. 150 patient participants were consecutively recruited from two private mental health care hospitals in New South Wales between April and September 2008. Opinions of community practitioners and patients on the discharge process and discharge documentation were solicited by written questionnaires and telephone interviews.

Main outcome measures: Community practitioner satisfaction; patient satisfaction; documentation of discharge date at least 48 hours before discharge; faxing of discharge summaries to community practitioners within 48 hours of discharge; proportion of patients receiving a follow-up telephone call within 7 days or 14 days of discharge.

Results: Both community practitioners and patients believed the intervention was positive. Between Cycle 2 and Cycle 3, documentation of the discharge date at least 48 hours before discharge remained unchanged at 50%; the proportion of discharge summaries faxed within 48 hours of discharge went from 0 to 82% in Cycle 2 and fell to 65% in Cycle 3. Telephone follow-up of patients within 7 days and within 14 days improved by 10% and 6%, respectively, between Cycle 2 and Cycle 3.

Conclusions: A standardised discharge communication strategy improved the timeliness, content, and format of information provided to community practitioners. The intervention was well accepted by patients and providers.

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METHODS

A collaborative approach was used to address issues relating to discharge planning. This involves executive support and clinical leadership to drive practice improvement within a time-limited process.¹³ It uses the plan-do-study-act (PDSA) cycle: *plan*: plan the change to be tested; *do*: carry out the test and implement the strategy; *study*: analyse the results, evaluate data from the trial and summarise the lessons learnt; *act*: adjust the strategy and plan the next cycle, or embed the new strategy and monitor.^{12,13}

Setting

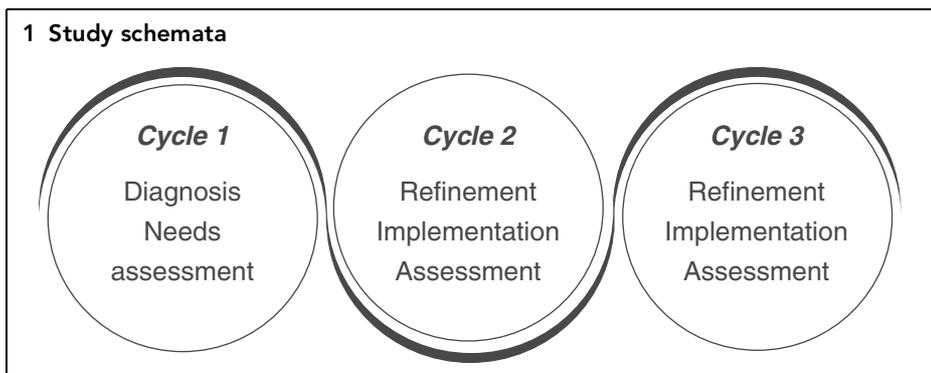
The project was implemented in two 86-bed private mental health hospitals in metropolitan New South Wales between April and September 2008. Both hospitals are not-for-profit facilities that run a number of innovative programs and academic mental health units. Patients are admitted to these hospitals under a designated psychiatrist. In

addition to the usual psychiatrists' arrangements, salaried career medical officers (CMOs) provide medical coverage during office hours. An on-call psychiatrist provides care after hours. Together with nursing and allied health staff, each site has a hospital pharmacy and a discharge coordinator who is a registered nurse with specialist qualifications in mental health.

Intervention

Implementation of the project was managed by a project team composed of hospital and community health care providers and patient representatives (on the steering committee). The PDSA model provided a structured and iterative process for developing a standardised discharge process and outcome assessment strategy.^{12,13}

The intervention was conducted in three cycles (see below). Schemata for the study, identifying key steps in the three cycles and the ongoing engagement with the practice



setting, are shown in Box 1. Under the specific cycles, details are provided to show how the process of consultation, implementation, reflection and measurement evolved to achieve the project objectives. A number of comparative clinical indicators (CCIs) were developed for the project from the information derived from Cycle 1.¹⁴

Ethics approval

The study was approved by the St John of God Human Research Ethics Committee, which also functions as a clinical ethics committee.

Cycles

Cycle 1. Needs assessment and planning

This phase involved a comprehensive needs assessment and diagnosis of the issues to be addressed. It is important to note that the directors of clinical services (SKW and AKC) applied on behalf of the study sites to be funded by ACSQHC in a competitive process. Therefore, there were clinical champions and an organisational climate supportive of quality improvement. The Steering Committee (made up of the two directors of clinical services, the medical director, a psychiatrist, a pharmacist, a GP, a Division of General Practice representative, a patient representative, a discharge coordinator [from both sites] and the project coordinator) provided the knowledge, skills and networks for reviewing current discharge clinical handover practice. An internal reference group consisting of senior clinical administrative executives, nursing and allied health representatives, pharmacists, CMOs and psychiatrists was set up. Community-based practitioners, including GPs, psychologists and psychiatrists, were surveyed for their needs relating to the discharge process (surveys were mailed, faxed, or handed out at continuing professional development seminars held at each site). Brief demographics of these participants are shown in Box 2.

During the planning stage of the communication strategy, it was agreed that clinical handover information should include:

- Medical diagnosis, physical findings and investigations that were new findings for the episode of care;
- Pharmacotherapy initiated; and
- Psychosocial transactions that formed part of patient care for the treatment episode.

The CCIs developed in consultation with the reference group are shown in Box 3.

Cycle 2. First action cycle

Cycle 2, the first action cycle, implemented the process developed and negotiated in Cycle 1. Ongoing promotion of the study was undertaken through letters to senior clinicians, reporting on the project at meetings, and dissemination of study materials (including posters in clinical areas). Initially, some CMOs were reticent to provide a definitive diagnosis on the discharge summary without consulting the specialist psychiatrist. This was overcome by providing

2 Community practitioner demographics, Cycle 1 (n = 46)

Characteristic	Number*
Sex	
Male	30
Female	16
Age range (years)	
No response	3
20–40	3
41–50	6
51–60	14
61–70	13
> 70	7
Years in practice	
Mean (SD)	29.0 (11.8)

* Figures represent number of practitioners, except where otherwise specified. ♦

clinicians with additional resources such as process flowcharts, checklists and posters listing DSM-IV (*Diagnostic and statistical manual of mental disorders*, fourth edition) categories.

To assess the impact of these strategies, patients at each hospital were recruited by the discharge coordinator. The project targeted prospective, consecutive patients aged 18 years and over who had been hospitalised for at least 48 hours, were able to give informed consent, and were accessible at the time of first approach by the study staff. For participants recruited to the study, a fax-back evaluation survey was included with the faxed discharge summary to be completed

3 Comparative clinical indicators and targets

Comparative clinical indicators	Target
• Community practitioner satisfaction as assessed by survey	• 75% of respondents rate discharge process as "good" to "excellent" on five-point Likert scale
• Patient satisfaction as assessed by survey and telephone interview	• 75% of respondents rate discharge process as "good" to "excellent" on six-point Likert scale
• Estimated discharge date documented at least 48 hours before discharge on chart review	• 100% of patients have estimated discharge date written in medical chart at least 48 hours before discharge
• Length of time from patient discharge to dispatch of hospital interim discharge summary to community practitioner	• 100% of hospital interim discharge summaries are faxed to referring practitioner within 48 hours of discharge
• Time to follow-up call made by discharge coordinator	• 80% of patients receive follow-up telephone call within 7 days of discharge
• Time to follow-up call made by discharge coordinator	• 100% of patients receive follow-up telephone call within 14 days of discharge

4 Community practitioners' survey results for Cycle 1 (before intervention) and Cycles 2 and 3 (after intervention)*

Cycle 1 (n = 110)		Before intervention					
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No response	
Discharge summary should be available at first follow-up appointment	19	12	8	5	1	1	
Discharge summary meets my requirements	4	20	12	7	0	3	
Discharge medication list meets my management requirements	0	28	11	3	0	4	
Preferred method for receiving:		Via patient	Fax	Regular mail	Email	No response	
Hospital discharge summary		4	19	17	2	4	
VMO's discharge letter		0	14	22	2	8	
Cycle 2 (n = 50) and Cycle 3 (n = 20)		After implementation of intervention					
	Excellent	Very good	Good	Fair	Poor	No response	
Overall satisfaction with discharge process:							
Cycle 2	2	9	0	0	0	0	
Cycle 3	1	13	4	1	1	0	
Preferred method for receiving hospital discharge summary:		Via patient	Fax	Regular mail	Email	No response	
Cycle 2		1	6	2	1	1	
Cycle 3		3	14	0	2	1	
Preferred method for receiving VMO's discharge letter:							
Cycle 2		2	6	2	1	0	
Cycle 3		2	9	4	2	3	

VMO = visiting medical officer. * Figures represent number of responses.

by their community practitioner. A 50% non-random sample of patients recruited for this cycle (the first 25 patients who answered the follow-up phone call) were surveyed after discharge using a three-item telephone questionnaire developed by the investigators. The questions related to the respondents' overall satisfaction with the discharge process, their recommendations for improvement, and whether the new initiatives had had a positive effect on their care. Participants ranked their satisfaction with the discharge process on a six-point Likert scale (ranging from "poor" to "excellent").

Cycle 3. Second action cycle

Based on Cycle 2 data, refinements to discharge processes were made. These changes included expanding the use of the new documentation to all patients to minimise confusion between usual care and the care of study participants. This change may have also reflected the diffusion of practice and clinicians' favourable opinion of the new documentation and processes. In addition, a psychiatrist's discharge summary form was included, after requests by some psychiatrists to have the option of completing their discharge letter at or before discharge. In

this cycle, a further 50 patients were recruited from each hospital, of which 20% were sampled for adherence to CCIs.

RESULTS

Cycle 1

Overall findings of the study (based on a 42% response rate from community practitioners¹⁵) are summarised in Box 4. Practitioners' preferences for content and method of communication after discharge are shown in Box 5 and Box 6. Most respondents preferred the discharge summary to be sent via fax. Practitioners identified communication of diagnosis, medications and risk of self-harm as priorities.

Based on consultations with internal and external reference groups, needs analysis surveys and the preparatory literature review from Cycle 1, the Steering Committee identified a number of initiatives that it considered would facilitate the project objectives. The resulting strategy included (i) a flow chart outlining the roles and responsibilities for staff involved in the process; (ii) an interim clinical summary document (incorporating the medical, physical, psychosocial and pharmacotherapy aspects

of care) for the referring clinicians; (iii) a copy of the medications page and psychosocial summary page for the patient; and (iv) a medications page for the patient's community pharmacist. The findings relating to the process and outcome measures adapted for the study in Cycle 2 are reported below.

Cycle 2

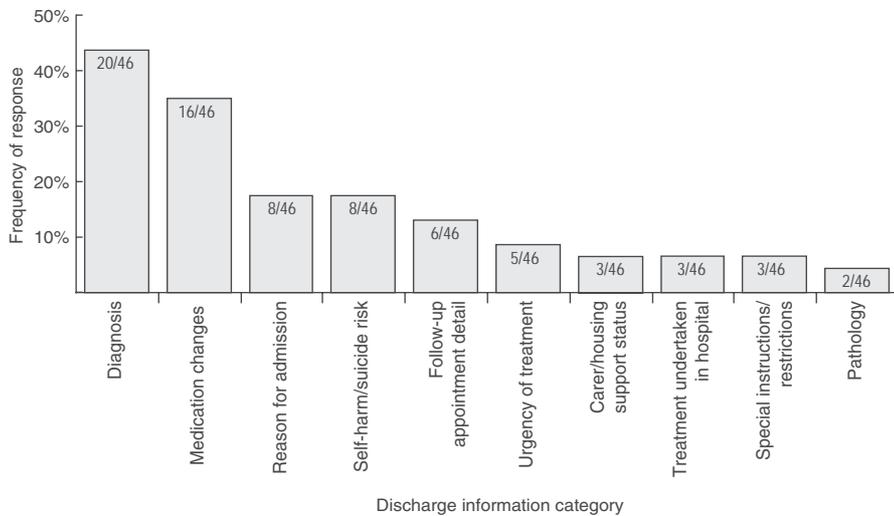
Survey for health care providers appended to discharge summary

Eleven out of 50 evaluation surveys sent to community practitioners were returned (a 22% response rate). No attempt was made to follow up non-responders. Respondents were overwhelmingly complimentary about the revised discharge process. Discussion with participants revealed a strong preference for receiving a discharge letter in a timely fashion from the specialist psychiatrist as well as the hospital discharge summary.

Patient survey

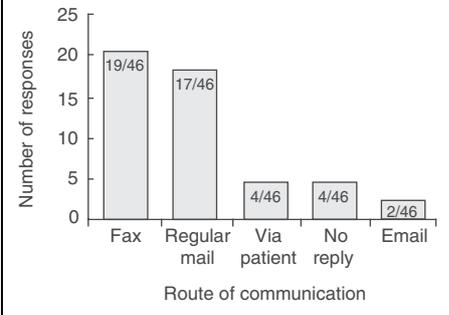
Fourteen patients responded to the follow-up telephone survey conducted by the discharge coordinators (a 56% response rate). For the purposes of the study, no more than two attempts were made to contact participants. Almost a third of the respondents did

5 Priorities of community practitioners (n = 46) with respect to discharge information categories*



* Providers were asked to number the categories from 1 to 10, with 1 being their highest priority.

6 Post-discharge route of communication preferred by community practitioners (n = 46)



remember the interaction surrounding the discharge process. The 13 patients (65%) who could recall this interaction expressed a high degree of satisfaction with the overall process.

not recall the interaction surrounding the discharge process, despite the fact that 84% of patients signed their completed discharge summary.

Cycle 3

As of September 2008, 20% of participants' data were available and were analysed for patient and provider satisfaction. Improvements in meeting the CCIs were noted across both cycles, although there was slippage in the rate of faxing discharge summaries as the transition occurred from the project phase to usual care processes. Adherence and compliance are expected to improve in the future with revised organisational policies.

Results of the process CCIs for Cycle 2 and 3 are shown in Box 7. Each indicator was analysed to determine barriers and facilitators to implementation. The Steering Committee resolved that the project documentation had been sufficiently refined to become the standard procedure. However, some issues are yet to be resolved regarding sustainability of the gains achieved. For example, contact with community pharmacies was considered to be an important element in encouraging medication concordance and safety. Over 50% of patients agreed to have their community pharmacist contacted if necessary, and criteria were developed to identify patients at risk of medication error, overdose, or polypharmacy/drug interaction, but this process requires further refinement to meet its potential.

Survey appended to discharge summary for health care providers

Community practitioners in Cycle 3 reaffirmed their overall satisfaction with the discharge process, with the project achieving its target of 75% of respondents rating it "good" to "excellent" on a five-point Likert scale. In this cycle, the main theme of practitioners' feedback was their request for more detailed information, the nature of which was more appropriate for inclusion in the specialist's discharge correspondence.

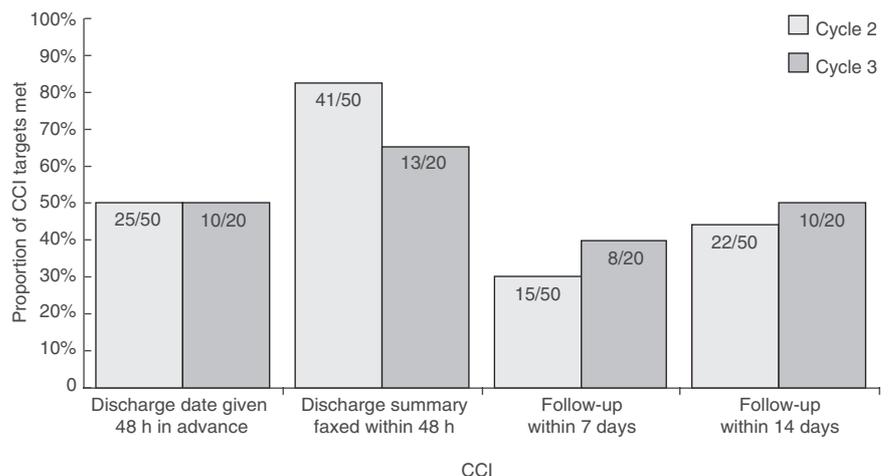
Patient data

Characteristics of patients recruited for the intervention are shown in Box 8. On follow-up, seven patients (35%) still did not

DISCUSSION

This CHOCYS project collaboratively developed and implemented a strategy to streamline communication at discharge. The team is currently entering Cycle 4, focusing on sustainability of the process and quality of the information provided. Promoting and sustaining effective communication strategies is likely to improve patient safety, quality of care, medication outcomes and community practitioner and patient satisfaction. Our study revealed that clinical handover needs to be more than a discursive reflection and stringing together of ad-hoc processes. It requires a defined purpose, structure, delegation of responsibility, and appraisal of outcomes.⁹ Organisational commitment,

7 Comparative clinical indicator (CCI) (process) results for Cycle 2 (n = 50) and Cycle 3 (n = 20)



8 Patient demographics,* Cycle 2 (n = 50) and Cycle 3 (n = 20)		
	Cycle 2	Cycle 3
Sex		
Male	24	8
Female	26	12
Mean age in years (SD)	46.3 (14.3)	44.9 (10.5)
Axis 1 DSM-IV top five diagnoses on discharge:		
Major depressive disorder (MDD)	15	7
Substance use disorder	13	3
Post-traumatic stress disorder	6	4
MDD — postpartum onset	4	1
Schizophrenic disorder	4	3
Other	8	2
Mean length of stay in days (SD)	24.8 (11.9)	21.5 (13.7)

DSM-IV = *Diagnostic and statistical manual of mental disorders*, fourth edition. * Figures represent number of patients, except where otherwise specified. ◆

executive support, and active representation and participation of key stakeholder groups contributed to the success of the project. It will be important to keep monitoring the outcomes of the process in the longer term to ensure sustained and continued practice improvement. Instituting the practice changes in organisational policy will facilitate this process.

Barriers identified were the need to obtain support and endorsement in policy review and implementation from a range of providers. Further, in a private setting, engaging the support of VMOs in the process was challenging, particularly in ensuring timely notification of discharge dates and diagnoses. These factors improved over the course of the project.

Our study achieved a number of important goals: it delineated the process outcomes and challenged many of the barriers perceived to be associated with inter- and intra-provider communication in mental health; it demonstrated the feasibility of collaboration and engagement within a private health care model; it empirically and systematically devised a set of CCIs appropriate to the mental health setting; and it showed the capacity to implement best practice within a quality improvement framework. The importance of executive support, clinical leadership and key stakeholder engagement for driving projects of this kind cannot be overemphasised.¹⁶

Our study had several limitations. Non-random sampling was used to solicit responses from health care providers and patients. Response rates to the surveys were

fairly low, although comparable to those for other surveys of this type.¹⁵ Context-specific factors, such as the presence of salaried CMOs and an on-site pharmacy, would need to be considered in applying these findings to other settings. It is also important to note that this was a quality improvement project, focusing on the day-to-day elements of clinical practice, which differentiates this type of data collection from traditional experimental designs.¹⁷ These caveats should be considered when interpreting our study findings.

Over the course of the project, we learnt valuable lessons; in particular, that many obstacles can be overcome through collaboration and negotiation. The key facilitators to the processes were executive commitment, organisation-wide focus on risk management, dedication by the multi-disciplinary team to meeting their responsibilities in a timely manner, and the appointment of an experienced nurse as discharge coordinator. In addition, we found that aligning the regular reporting of discharge-related outcomes (CCIs) with organisational quality and safety key performance indicators supports sustainability and continued improvement.

The scant literature relating to handover in the private mental health care setting¹¹ means there is a limited basis for comparison of our results with those of other studies. However, a recent report by Kripalani and colleagues identifies communication failure and inadequate information transfer at discharge as contributing to adverse health care.¹⁸ Their study recommends the

use of standardised processes. Additional research is required to demonstrate the impact of the CHOCYS project on longer-term outcomes, such as adverse health events and concordance with recommended treatment strategies.

Our project allowed the development and testing of a negotiated, evidence-based communication strategy designed to promote patient safety and quality of care. This re-engineering of systems and processes happened without investment in expensive information systems, although the business processes and systems were developed to allow easy migration to e-health systems at a later stage.¹⁹ Integral to the process has been determining practitioners' and patients' satisfaction with the clinical handover communication strategy with respect to timeliness, content and format. The number of patient participants who found it difficult to recollect the discharge process is of concern, and identifying people at higher risk of rehospitalisation, relapse, self-harm or non-concordance⁷ is an important factor to be considered in further iterations of this project.

In mental health, a coordinated approach focusing on community-based care is critical. Further, communication has been shown to be a strong predictor of quality and safety across care settings. Our study demonstrates that a standardised clinical handover strategy can facilitate communication. Promoting and sustaining effective communication strategies is likely to improve patient safety, quality of care, medication outcomes and the level of satisfaction of community practitioners and patients with the process.

COMPETING INTERESTS

None identified.

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REFERENCES

- 1 Begg S, Vos T, Barker B, et al. The burden of disease and injury in Australia 2003. Canberra: Australian Institute of Health and Welfare, 2007.
- 2 Rothman A, Wagner E. Chronic illness management: what is the role of primary care? *Ann Intern Med* 2003; 138: 256-261.
- 3 Corrigan JM. How stigma interferes with mental health care. *Am Psychol* 2004; 59: 614-625.
- 4 Australian Private Hospitals Association. Summary and recommendations of submission from the Australian Private Hospitals Association to the National Health and Hospitals Reform Commission. 2008. <http://www.apha.org.au/publications.html> (accessed Feb 2009).
- 5 Cook RI, Render M, Woods DD. Gaps in the continuity of care and progress on patient safety. *BMJ* 2000; 320: 791-794.
- 6 Kohn LT, Corrigan JM, Donaldson MS. To err is human: building a safer health care system. Washington, DC: National Academy Press, 2000.
- 7 Owen C, Rutherford V, Jones M, et al. Psychiatric rehospitalization following hospital discharge. *Community Ment Health J* 1997; 33: 13-24.
- 8 Patterson E, Roth E, Woods D, et al. Handoff strategies in settings with high consequences for failure: lessons for health care operations. *Int J Qual Health Care* 2004; 16: 125-132.
- 9 Strategies to improve hand-off communication: implementing a process to resolve questions. *Jt Comm Perspect Patient Saf* 2005; 5 (7): 11.
- 10 Sharing information at transfers: proven technique to aid handoff communication. *Jt Comm Perspect Patient Saf* 2005; 5 (12): 9-10.
- 11 Wong M, Yee K, Turner P. Clinical handover literature review. Hobart: eHealth Services Research Group, University of Tasmania, 2008.
- 12 Deming WE. Out of the crisis. Cambridge, Mass: Massachusetts Institute of Technology, 1986.
- 13 Øvretveit J, Bate P, Cleary P, et al. Quality collaboratives: lessons from research. *Qual Saf Health Care* 2002; 11: 345-351.
- 14 Huw D, in consultation with the Scottish Research Network on Health Care Management. Measuring and reporting the quality of health care: issues and evidence from international research literature. Edinburgh: NHS Quality Improvement Scotland, 2006.
- 15 Buchan T, Boldy D. Improving mental health services in a local area: an exploratory study. *Aust Health Rev* 2004; 28: 292-300.
- 16 Newton P, Halcomb E, Davidson P, et al. Barriers and facilitators to the implementation of the collaborative methodology: reflections from a single site. *Qual Saf Health Care* 2007; 16: 409-414.
- 17 Speroff T, James BC, Nelson EC, et al. Guidelines for appraisal and publication of PDSA quality improvement. *Qual Manag Health Care* 2004; 13: 33-39.
- 18 Kripalani S, LeFevre F, Phillips C, et al. Deficits in communication and information transfer between hospital-based and primary care physicians: implications for patient safety and continuity of care. *JAMA* 2007; 297: 831-841.
- 19 Dracup K, Morris P. Passing the torch: the challenge of handoffs. *Am J Crit Care* 2008; 17: 95-97.

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