Implementation and Evaluation of Gestational Diabetes Care in General Practice: Development in “Beacon” General Practices

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ACKNOWLEDGEMENTS

This research is a project of the Australian Primary Health Care Research Institute, which is supported by a grant from the Australian Government Department of Health. The information and opinions contained in it do not necessarily reflect the views or policy of the Australian Primary Health Care Research Institute or the Australian Government Department of Health.

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<th>Description</th>
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<tr>
<td>ADIPS</td>
<td>Australasian Diabetes in Pregnancy Society</td>
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<tr>
<td>BGL</td>
<td>Blood Glucose Levels</td>
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<td>COAG</td>
<td>Council of Australian Governments</td>
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<tr>
<td>DoH</td>
<td>Department of Health</td>
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<td>DE</td>
<td>Diabetes Educator</td>
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<td>GP</td>
<td>General practitioner</td>
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<tr>
<td>GP PACE</td>
<td>General Practitioners as Health Planners, Advocates &amp; Community Educators</td>
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<td>GDM</td>
<td>Gestational Diabetes Mellitus</td>
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<td>GPwSI</td>
<td>GPs with a Special Interest</td>
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<td>HHSs</td>
<td>Hospital and Health Services</td>
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<td>HR</td>
<td>Human Resource</td>
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<td>HAPO</td>
<td>Hyperglycemia and Adverse Pregnancy Outcome study</td>
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<td>IADPSG</td>
<td>International Association of Diabetes and Pregnancy Study Groups</td>
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<tr>
<td>ICN</td>
<td>Intensive Care Units</td>
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<td>MMH</td>
<td>Mater Mother’s Hospital</td>
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<td>MMH ANC</td>
<td>Mater Mothers Hospital Antenatal Shared Care</td>
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<td>MGP</td>
<td>Midwifery group practice</td>
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<td>NDSS</td>
<td>National Diabetes Service Scheme</td>
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<td>NPG</td>
<td>Nutrition Practice Guidelines</td>
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<tr>
<td>OGTT</td>
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<tr>
<td>OPD</td>
<td>Outpatient Department</td>
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<td>PHN</td>
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<td>PHCAG</td>
<td>Primary Health Care Advisory Group</td>
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<td>PHI</td>
<td>Protected Health Information</td>
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<td>RANZCOG</td>
<td>Royal Australian and New Zealand College of Obstetricians and Gynaecologists</td>
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<td>SCN</td>
<td>Special Care Nursery</td>
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<td>SVD</td>
<td>Spontaneous vaginal delivery</td>
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<td>T2DM</td>
<td>Type 2 Diabetes Mellitus</td>
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<tr>
<td>UQ</td>
<td>University of Queensland</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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Background

Gestational Diabetes Mellitus (GDM) is a common pregnancy complication affecting 10-13% of pregnant women.\(^1\) It is the strongest single population predictor of type 2 diabetes mellitus (T2DM).\(^2\) GDM and T2DM are important and escalating problems worldwide. T2DM is presently the second highest contributor to the Australian burden of disease and poses an enormous economic burden projected to increase to almost A$7 billion by 2033.\(^3\) Women with a history of GDM are also at greater risk of a recurrence of GDM, cardiovascular disease and metabolic syndrome. Poor health outcomes extend to offspring of mothers with GDM due to increased risk of obesity and abnormal glucose metabolism during childhood, adolescence and adulthood.

A general practitioner (GP) has a key role in providing postpartum and long-term preventative health care to these at risk women. Women who have had GDM, and their infants, are even more likely to benefit from proactive care during this period and a number of guidelines cater to this group. International guidelines highlight the importance of lifestyle modification, breastfeeding, contraception and risk counselling to improve health outcomes for these women and their infants.

There is no agreement among current Australian guidelines on whether screening for diabetes should be offered to all women or only to women with risk factors.\(^4\) It is acknowledged that using the new WHO/IADPSG criteria has the potential to increase the diagnosis of gestational diabetes in Australia, with resource implications. However, calculations of the prevalence in particular populations may increase or decrease with changes to both testing criteria and uptake, as well as changes in population demographics. For example,

- A prospective study in Wollongong comparing the use of the previous ADIPS criteria with the WHO/IADPSG criteria found that prevalence varied between the public and private sectors — 8.6% vs 9.1% (public sector), 10.5% vs 16.2% (private sector) and 9.6% vs 13.0% (overall)\(^1\)
- An analysis of the HAPO sites in Australia using the WHO/IADPSG criteria found a prevalence of gestational diabetes of 13.2% in Brisbane and 13.6% in Newcastle\(^5\)
- An analysis of oral glucose tolerance test results from women in two Area Health Services in the Sydney area found that using the WHO/IADPSG criteria rather than the previous ADIPS criteria would increase rates of diagnosis and therefore affect the health service workload for management of gestational diabetes,\(^6\) and
- In a cohort of Aboriginal and Torres Strait Islander women in Far North Queensland, gestational diabetes prevalence increased threefold over two years due to enhanced testing practices, but prevalence would have been lower if the WHO/IADPSG criteria had been in place at the time.\(^7\)

Increased diagnosis also has implications for women. Gestational diabetes occurs across a continuum with a variety of potential threshold points. The risk of labelling a woman with gestational diabetes needs to be weighed against any potential benefits to the woman and baby, particularly if lifestyle advice is likely to be the first treatment option.

In 2011-2014, as part of the APHCRi Centre of Research Excellence in Primary Health Care Microsystems, we conducted research identifying the current practice among GPs for follow up care of women with prior GDM (extended to 12 months postpartum) including current knowledge and use of GDM evidence based guidelines \(http://aphcri.anu.edu.au/aphcri-network/research-completed/improving-quality-and-sustainability-integrated-phc-gestational\). This study identified,

- Southern Queensland GPs have excellent knowledge of the timing and practices around ordering follow-up Oral Glucose Tolerance Test (OGTT) for women with prior GDM, consistent with best practice guidelines. (OGTT between 6-12 weeks postpartum)
> A wide range of guidelines and sources informs follow up care of women. There is no single comprehensive Australian guideline. GPs most frequently identified the maternity hospital with which they collaborate as their main source of guidance.

> Chart audits demonstrated that GPs are knowledgeable of the guidelines for timing and type of diabetes test and this translated into practice.

> Other preventative health screening and advice for postpartum women was less consistent. GPs are more likely to regularly check contraception, blood pressure and infant feeding practices. However, screening for mental health status, diet and exercise are discussed less frequently.

> Majority of GPs surveyed used reminder systems to monitor postpartum women with prior GDM, although all used record systems with the capacity to set up reminders.

> Implementation of a comprehensive coordinated systems approach to the preventative health care of these at risk women is needed.

> Additionally the development of one comprehensive Australia wide guideline for the detection and management of GDM and T2DM prevention developed in partnership with key stakeholders and adopted by professional groups is recommended.

As the prevalence of GDM is expected to rise with the new criteria, and the GP has a key role in providing diabetes care to women in all forms, in 2015-2016 building on earlier research, we investigated the application of an established model of community care for complex diabetes to the growing GDM clinical need.

The ‘Beacon’ model uses a GPs with a special interest (GPwSI), an endocrinologist, and a diabetes educator (DE) team, working within a bespoke community general practice to deliver high quality, OPD- substitutable care with high efficiency.8,9

It is thus potentially highly relevant to a condition of increasing prevalence, where specialized care is required for significant numbers of women within tight timeframes. We piloted this approach for GDM management in Brisbane South, and described requirements for a nationally generalizable GDM Beacon.

This report includes results for the following deliverables,

> **Part 1:** To trial a ‘Beacon-type’ model of care for GDM in conjunction with a tertiary maternity hospital and make recommendations / learnings available to end-users.

> **Part 2:** To document requirements for a GDM ‘Beacon’, generalizable nationally.
Part 1: To trial a ‘Beacon-type’ model of care for GDM in conjunction with a tertiary maternity hospital and make recommendations / learnings applicable to end-users

IMPLEMENTATION AND EVALUATION OF GESTATIONAL DIABETES CARE IN GENERAL PRACTICE – DEVELOPMENT IN “BEACON” GENERAL PRACTICES

Aims
To develop, implement and evaluate a programme designed to provide high quality, well-supported care for women with GDM via a ‘Beacon’ approach.

This project aimed to develop and evaluate a structured ‘Beacon’ model of care (with appropriate support from dietitians and DEs) which would enable women with GDM not requiring insulin or metformin therapy and without other major pregnancy complications, to be effectively managed in primary care. We planned to develop a model of GDM care that could be delivered in a wide range of ‘Beacon’ practices, but also to allow ongoing general antenatal care to be provided by the woman’s usual GP, to encourage continuity of care and postpartum evaluation and intervention.

Outcomes

Timeframe
Women newly diagnosed with GDM over a six-month trial period presented to the clinic on each Monday between 08.00am and 12.00 noon.

Criteria
Women diagnosed with GDM from 20 weeks gestation who were receiving their antenatal care in a GP share care or midwifery group practice (MGP) model were eligible to attend the GDM clinic for their diabetes education, dietetic advice and ongoing management with a GP. Women were excluded if they had other medical or obstetric complications or required an interpreter.

Education
Initial education was conducted in a group setting – one hour with Midwife, Credentialled DE 30 minutes with Accredited Practicing Dietitian

Management
All follow-up appointments were individual appointments with clinicians. Following initial education, women were reviewed one week later by Dr EC (General Practitioner with special interest in GDM), a dietitian and a credentialled DE at UQ Healthcare GDM Beacon clinic.

GDM care included assessment and evaluation of blood glucose levels (BGL data downloaded from meters), food intake and choices and physical activity levels. Dr C reviewed blood glucose 2 after the results were downloaded from the meters as well as conducting a general maternity assessment of wellbeing. An ultrasound was arranged if necessary to check fetal growth. Communication with maternity care clinicians was provided if there were any concerns. Outcomes were documented in the women’s pregnancy health record and Matrix.
Care was transferred back to Mater Mother's antenatal clinic if glycaemic control was inadequate and Metformin or Insulin therapy was required; or other medical or obstetric complications developed.

**Administration**

New referrals were faxed to UQ Healthcare and appointments were scheduled in systems at both sites. This ensured staff at MMH were aware of what appointments were booked. There were difficulties with appointment availability at MMH when a woman needed to be transferred back to ANC for ongoing care. There were no delays with appointments at UQ Healthcare GDM Beacon clinic, with all women being offered education within one week of diagnosis. Organisation and communication between administration staff at MMH ANC and GDM clinic was efficient.

**Dietetics**

Dietetic counselling provided to women at the GP PACE clinic followed the same model of care recently implemented and evaluated in the Mater Mothers’ Hospital GDM clinic. Women attended a 30-minute introductory nutrition session facilitated by the dietitian and designed to introduce the concepts of GDM and diet, and to answer initial questions.

Women were shown a 12-minute DVD produced by the dietitians outlining dietary and lifestyle principles for the management of GDM, risks associated with poor BGL control, as well as changes required longer term to decrease the risk of type 2 diabetes mellitus. Following the presentation, women had the opportunity to ask questions of the dietitian and were provided with written material to support this education. To allow individualised advice to be provided to women in subsequent sessions, women were asked to complete a comprehensive food and BGL diary for a week.

Women attended individual review appointments with the dietitian as per the MMH’s GDM schedule where they received specific dietary advice, tailored to their individual needs.

In the six-month trial period, 30 women attended an initial education session with the dietitian. Of these, 97%, 60% and 20% received 1, 2, and 3 reviews respectively. It should be noted that some of these reviews were attended at MMH rather than at the Beacon if women were commenced on medication or insulin to manage their BGLs.

**Diabetes education**

Initial education was provided in a group setting. Facilities were conducive for this style of education. A meeting room was used which was furnished with a large table and chairs which accommodated up to six women, their partners and other children if necessary. Audio-visual equipment and a whiteboard were also available.

Blood glucose meters provided by manufacturing companies were provided in line with the free meter program for women diagnosed with GDM offered by all companies. The first education session included the following,

- Overview of GDM and implications for mother and baby
- Use of blood glucose meter provided
- Use of lancet device
- Safe disposal of sharps
- Testing times and target ranges
- Interpretation of blood glucose levels
- BGL diary provided
- Benefits of physical activity as appropriate and recommended by RANZCOG
- National Diabetes Service Scheme (NDSS) registration
Demonstration of how to perform BGL monitoring and the opportunity to perform a test in the supportive environment was provided.

Individual follow-up appointments were scheduled as follows,

- One week after initial education session
- Weeks 36-40 of pregnancy to book and discuss postnatal glucose tolerance test and follow-up
- As required depending on glycaemic management
- To commence medications (Metformin or Insulin) if prescribed

A phone consultation was scheduled at eight weeks postpartum to discuss results of oral glucose tolerance test and ongoing screening and lifestyle interventions between pregnancies and to reduce future risk of developing Type 2 diabetes.

Insulin therapy education included,

- Type of insulin ordered and action of insulin
- Timing of injections
- Dose prescribed
- Use of insulin delivery device
- Needle attachment
- Self-injection technique
- Injection sites and rotation
- Recognition and treatment of hypoglycaemia
- Safe driving
- Storage and handling of insulin
- Travelling

Metformin education included:

- Use of Metformin
- Starting dose and titration
- Recognition of side effects to Metformin (Gastro intestinal upsets)
- Timing of dose to assist in preventing GI side effects

Phone follow-up was provided at three days post commencing medication to monitor effects of insulin or Metformin.

Follow-up appointments were made at MMH ANC and communication with administration staff and the DE was carried out so that appointments could try and be scheduled within an appropriate time frame – within one week.

The DE was notified of the woman’s return to MMH for ongoing care.
Results

CLINIC SUMMARY

- 30 women received care at UQ PACE clinic
- 8 women required Metformin
- 6 women required Insulin
- 1 woman required both Insulin and Metformin
- 1 woman was transferred back to MMH due to poor attendance at UQ PACE clinic

BIRTHS

The Table below presents a summary of the childbirth delivery methods for the 30 participating women.

Table 1: Summary of the childbirth delivery methods for the 30 participating women

<table>
<thead>
<tr>
<th>Spontaneous vaginal delivery (SVD)</th>
<th>Ventouse (vacuum-assisted vaginal delivery)</th>
<th>Emergency caesarean section (CS)</th>
<th>Elective caesarean section (CS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>3</td>
<td>6</td>
<td>1</td>
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</tbody>
</table>

- Birth weights ranged from 2858g – 4092g
- Gestation at birth: 34.1 weeks to 41.3 weeks
- Seven babies required admission to Intensive Care Units (ICN) / special care nursery (SCN)
- One maternal complication (Postpartum haemorrhage)

Postpartum Oral Glucose Tolerance Test (OGTT)

- 14 women had a normal Oral Glucose Tolerance Test (OGTT)
- 16 had no OGTT or were unable to be contacted in the postpartum period
- Follow-up rate of 46.6%

The rate of uptake of the postnatal OGTT was disappointing despite the education provided in the latter stages of the pregnancy about the importance of following up with this test post birth.

The GPwSI noted that working in the GDM PACE clinic provided the opportunity to work with a multidisciplinary team and increase her knowledge about Gestation diabetes care. Use of medications was supervised by Dr DM providing further education opportunities. Skill, knowledge
and confidence were increased. Identified the need to provide obstetric assessment to determine maternal and fetal wellbeing as well as assessing GDM management.

A request from MMH clinicians involved in the GDM PACE clinic was made but no feedback was provided.

TAKE LEARNINGS AND APPLY TO END-USERS

The implementation of the GDM Beacon clinic did provide an opportunity to investigate the feasibility and practicalities of running a low risk GP based model of care for women diagnosed with GDM. However, the total number of women referred to the clinic unexpectedly was small. There were issues identified with delayed referrals and the reliance on clinicians’ individual decisions about the choice to refer women even when a woman met the criteria for referral.

Including women diagnosed before 20 weeks gestation would also have provided increased referrals and although these women may be considered to be higher risk for GDM management, early lifestyle interventions and counselling may provide the opportunity to prevent or delay the need for Insulin or Metformin.

Women and their Share Care GP or midwife were satisfied that they could continue providing maternity care to their patients and the diagnosis of GDM did not mean an instant referral back to the tertiary setting. Communication via email, phone, matrix and letters ensured optimum correspondence with all members of the health care team.

Waiting times were minimal, the environment was comfortable and parking was provided free of charge under the PACE building.

As the diagnosis of GDM increases in frequency, it is important to investigate alternate low risk models of care within the community to alleviate the burden on tertiary maternity facilities. This model may be feasible with the introduction of lower cut-offs for GDM currently being adopted nationally.

The dietitians and credentialed DEs who provided care at the Beacon clinic were satisfied with the opportunity to provide continuity of care within the community model. Case conferencing was conducted weekly following the clinic and attending by members of the team at the clinic.
Recommendations
The model requires a greater patient load to deliver a viable business model. Further discussions with local general practices, the Mater Mother’s Hospital, and local Primary Health Network should proceed to look at further development, with the projected increase in women eligible for diagnosis and treatment. In particular, the pilot highlights the importance and challenges of a communication strategy to alert busy clinicians of new models of care and referral processes.

Report prepared by
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Part 2: To document requirements for a GDM ‘Beacon’,
generalizable nationally

BACKGROUND

Australia’s health care system is facing reform on almost all fronts – primary care\textsuperscript{10}, Medicare payment \textsuperscript{11}, Protected Health Information (PHI)\textsuperscript{12} and eHealth \textsuperscript{13} – in response to the growing number of people living with chronic disease, the unsustainably high cost of service delivery, and the drive to establish more patient-centred models of care.

Better integrated clinical models of care with close cooperation between hospital-based specialists and GPs is fundamental to this care, particularly for patients with complex chronic disease. When specialist outreach is provided as part of a multifaceted intervention comprising active collaboration with, and up-skilling of, primary care practitioners and other health professionals, clinical outcomes are improved and non-adherence to guideline concordant care is reduced\textsuperscript{14}. Simple ‘shifted outpatients’ styles of specialist outreach have been shown to improve access, but there is little evidence of impact on health outcomes. Specialist outreach as part of more complex multifaceted interventions involving collaboration with primary care, education or other services however has been associated with improved health outcomes, more efficient and guideline-consistent care, and less use of inpatient services.

A recent systematic review from our team identified six elements common to successful models of integrated primary-secondary care,

\begin{itemize}
  \item interdisciplinary teamwork
  \item communication and information exchange
  \item shared care guidelines or pathways
  \item training and education
  \item access and acceptability for patients, and
  \item viable funding model\textsuperscript{15}
\end{itemize}

This case study identifies a highly successful model of integrated complex diabetes care which meets these elements, and describes the challenges and key success factors required for its sustainability and promulgation.

THE BEACON MODEL

The ‘Beacon’ model of complex diabetes care was designed as a co-created, small-scale, primary-secondary integrated model of outpatient substitution in outer urban Brisbane in 2007.

Complex diabetes management (traditionally referred to the hospital diabetes OPD) was provided within a community practice, involving a multidisciplinary team consisting of an Endocrinologist, 2-3 GPwSIs, and a credentialed DE. GPwSIs were experienced local GPs who had undertaken additional postgraduate education in Advanced Diabetes Care via the UQ Master of Medicine program. The model builds the capacity and efficiency of the primary care sector by allowing the DE and GPwSIs to offer care to their full scope of practice, with the Endocrinologist supervising and co-consulting, as a source of expert advice to the patient and clinical team. Patients undertake a comprehensive screening assessment by the DE prior to the team clinic, when the patient is subsequently assessed by one of the GPwSIs. Together with the patient, they then draft a management plan addressing glycaemic, blood pressure, and lipid control; lifestyle and diabetes complication management, usual-care GP role, and patient priorities. The plan is discussed with
the attending Endocrinologist, who briefly co-consults with the patient and GPwSI in planning finalisation. The patient’s GP is kept closely informed and is involved in all care management. Patients are reviewed as required until they are discharged back to their GP. The GP is advised to continue the usual cycle of care and is given parameters for future re-referral / review if required.\textsuperscript{16}

Summary of outcomes

Since 2009, the model has been thoroughly evaluated. A prospective controlled trial of the Inala pilot showed that patients receiving care with the ‘Beacon’ model, compared to usual care at a hospital-based outpatient service, had highly significantly improved HbA1c concentrations, blood pressure and total cholesterol,\textsuperscript{16} and valued the accessibility and supportive interpersonal care provided by the multidisciplinary integrated care team\textsuperscript{17}. Cost of Beacon care was much less than that delivered via hospital OPD\textsuperscript{16} and ‘Beacon’ patients were nearly half as likely to be hospitalised with a potentially preventable diabetes-related diagnosis than their usual care counterparts.\textsuperscript{9}

Funding for an NHMRC Centre for Research Excellence in 2011 allowed the expansion of the model to other sites, using a randomised controlled trial design. This expansion has identified significant challenges. This paper describes these and offers potential solutions, utilised by our team, relevant to other innovative models of integrated care looking to expand their local impact, or effect policy change.

Critical success factors

It is now widely accepted that the context in which health care innovations take place is hugely important.\textsuperscript{18,19} Effectiveness and efficiency research must be aligned with real world health care policy and practice contexts if they are to be successfully disseminated and implemented. Tomoaia-Cotisel and colleagues\textsuperscript{18} described an emergent contextual framework for primary care practice transformation. Three levels of context are identified:

- the practice setting
- the larger organisation, and
- the external environment.

In this section, we draw on Tomoaia-Cotisel and colleagues framework to develop our commentary on the critical success factors for broad implementation of the ‘Beacon’ model.

THE PRACTICE SETTING

Vision

The ‘Beacon’ practice has a particular vision. It supports and extends the capacity of local general practices around it in areas of important population need, and works to improve integration with local secondary and other state-funded health care. It does this by supporting local primary care both inside and external to the practice; delivers expanded clinical models of relevant complex care; has a governance style that welcomes system integration to meet the specific needs of the community it serves; and has the technical and physical infrastructure to deliver an expanded scope of practice. It is these characteristics that enable a ‘Beacon’ practice to realise its integrated care potential.\textsuperscript{20} Such a vision requires innovation, flexibility and long-term planning and commitment, and an understanding that the practice by definition will welcome external clinicians and broader care models. Whilst this was a ‘ground-up’ approach for the pilot practice, emblazoned in its Strategic Plan, it required significant discussion and variable acceptance in the subsequent practices – a dissemination process that we learnt cannot be rushed and requires buy-in from the entire practice.
Employee mix

Also by definition, the Beacon will regularly house a team greater than its general practice staff, including clinicians from externally-funded sources, working within their own Human Resource (HR) frameworks and requirement. Whilst requiring of negotiation and sensitivity, this allows the practice to offer a greater range of service to its community and build community capacity. Again, this requires the acceptance and commitment of the entire practice to proceed smoothly. The practice must also be committed and able to undertake ongoing monitoring of patient clinical and safety outcomes and to share this information with its local health network partners.

Clinician demographics

Each diabetes Beacon practice required three trained GPwSIs to support the clinic endocrinologist, two to run each clinic and a third to stand-in when required, covering staff on leave. As the training period for each GPwSI was of several months, this required proactive planning and rostering. In a busy general practice, this could sometimes be overlooked.

Attitude and training

A 23-hour online Advanced Training for GPwSIs must be completed by all GPwSIs to be accredited for the clinic. In addition, all staff working within a Beacon practice must see the practice as a contributor to community capacity beyond that of the single general practice. External clinicians need to be viewed as important members of the team, and a practice culture which values this is key to success. The change management and commitment required to achieve this is significant and ongoing, and from our perspective the greatest challenge in transforming existing practices to this model.

The Beacons also needed to emphasise to patients that they should continue to see their regular GP and that the service is an adjunct to their GP’s care NOT a substitute. This worked successfully in all settings but required regular reinforcement. Beacons also needed to emphasise to patients that they would only be seen at the Beacon until clinical targets were met or for up to 12 months, not over many years as many had experienced via traditional OPD.

Patient panel size and characteristics

As an OPD substitution model, it is critical that the Beacon have sufficient patients to justify and fill its clinics. Results of scenario analyses showed that the optimal setting for a ‘Beacon’ clinic is a 4-hour weekly clinic with approximately 14 patients, two GPwSIs and a 0.6 full-time equivalent DE. Some sites required fortnightly rather than weekly clinics to achieve this efficiency.

Ownership

Whilst the GPwSI and endocrinologist team is only present at the weekly clinic, the DE is at the practice working up or following up complex patients at least half the week. They need to be specifically skilled in the case co-ordination focus of the role, comfortable in the practice team, and able to work independently between clinics. Thus new sites have suggested DE employment by the ‘Beacon’ practice itself or local PHN rather than the Hospital and Health Service.

Leadership

The models require leadership skills in both clinical and organisational governance. Ideally, this should involve endocrinologist and GP clinical leads and the practice manager / leader meeting regularly to troubleshoot and grow the service.

Structural capabilities

Smaller general practices without adequate infrastructure would struggle to host a ‘Beacon’ practice. Four consulting rooms / weekly clinic and available booking staff would represent a minimum requirement for the care model.
A viable business/funding model is crucial to success. Our experience with the pilot Beacon model utilised a mixed funding model with MBS billing meeting GPwSI clinic salaries, and state health funding meeting DE and endocrinology salaries and room lease. Whilst patient DNA rates were significantly less than an hospital OPD, they still severely disadvantaged GPwSIs receiving a percentage of the MBS billings. Our strong recommendation is to retain a salaried arrangement for all GPwSIs. We also recommend a Protocol for minimising and addressing DNAs should be developed. The expanded Beacons had different approaches which impacted their efficiency. SMS reminders at seven days and 24 hours allowed proactive list management and substitution.

THE LARGER ORGANISATION

We agree with Tomoaia-Cotisel and colleagues that competing priorities, the degree of intervention integration, contractual arrangements, leadership style, and financial incentives were key elements in underpinning the teamwork and reformed service model for each Beacon. In addition, effective communication regarding the changed service processes to busy clinicians and managers in both the community and hospital were challenging and required ongoing attention. As new Beacon practices are established local GPs and specialists need to be informed and where possible included – especially any changes or clarifications regarding existing referral practices. This was supported via communication strategies developed in collaboration with local PHN and HHSs. The process involved adhering as much as possible to existing approaches, e.g. all referring GPs continued to use the central referral hub from which all complex diabetes referrals were distributed. GPs were also invited to regular educational events and updated via the local PHN newsletter.

THE EXTERNAL ENVIRONMENT

The political environment, level of co-ordination/involvement with the community, and potential change in payment models for chronic disease, has had a major impact on Beacon uptake and dissemination.

The heavy recent policy focus on better integrating care for people with chronic disease via state governments, the DoH and COAG has leveraged significant interest in the Beacon, and identified solutions to some of the impediments to dissemination – particularly the silos of funding and human resource management between hospital and community. The Federal Minister’s response to the PHCAG recommendations on 31 March 2016 identified trials of bundled payment for integrated chronic disease management from 2017, and the 1 April COAG statement identified the importance of shared culture with a joint commitment to pooled funding, enabling infrastructure and governance arrangements to deliver better outcomes for patients with chronic and complex conditions (COAG April 2016 Schedule 2).²¹

LESSONS FOR POLICY AND PRACTICE

Despite the use of varied methodologies to translate research into practice, embedding new practices/models of care broadly across health systems is extremely challenging.

The heavy recent policy focus on better integrating care for Australians with diabetes via state governments, the Department of Health (DoH) and Council of Australian Governments (COAG) has leveraged significant interest in the Beacon, and identified solutions to some of the impediments to dissemination – particularly the silos of funding and human resource management separating hospital and community care.

Increasingly integrated framework for shared care between community and hospital providers should allow models such as the GDM Beacon to increase in viability and appeal.

This case study highlights the various levels of system delivery which must support and maintain the change to ensure sustainability, and the areas, energy and resourcing necessary to achieve it. It also highlights the importance of the external environment in creating the framework to allow
effective adoption of health system innovation. It is hoped that this description of the diabetes ‘Beacon’, supported by challenges faced and key factors for success, will assist primary care practices, clinicians and hospitals in creating and sustaining innovative models of care for Australians with chronic disease.
References


