Case-conference style consultations in GP practices with Specialist and Primary care teams: an efficient way to improve diabetes outcomes for our population

Shamasunder Acharya[1], Annalise Philcox[2], Margaret Lynch[3], Tracy Tay[1], Martha Parsons[1], Melissa Cromarty[3], Belinda Suthers[1,4], John Attia[1,4]

[1] Hunter New England Health, New Lambton, NSW, Australia, [2] Calvary Mater, Newcastle, NSW, [3] Primary Health Network, Newcastle, [4] Hunter Medical Research Institute, New Lambton, NSW, Australia

Introduction

To describe our positive experience in the Hunter region of using case-conference style consultations in General Practices together with an Endocrinologist, GP, Diabetes Educator, Practice Nurse and the patient with type 2 Diabetes.

Method

30 moderate to high risk (based on Joslin risk stratification scores) type 2 diabetes patients per practice were recruited from 20 general practices across the Hunter through an expression of interest. A 40 minute case-conference was conducted addressing lifestyle changes and treatment plans were made. The recommendations were then implemented by the primary care team without any follow-up by specialist team. Baseline, 3 month and 6 month data were collected.

Results

456 patients with Type 2 diabetes were seen over 14 months:

- mean age 63.5 ±11.7yrs.
- duration of diabetes 11 ±8yrs.
- mean HbA1c 63.3 ±16.2mmol/mol.
- 29% of patients with a BMI>35kg/m2 had not seen a dietitian.
- 12.5% did not have HbA1c levels checked in the preceding 12 months
- 33% patients had no records of urine microalbuminuria being ever tested

During case conference, 92% had medication changes recommended and good holistic general medicine was practised.

At 6 months, interim follow-up across 147 patients showed significant improvement in clinical parameters:

- HbA1c improved from 59.3 ±14.4 mmol/mol (or 7.6%) to 54.0±12.3mmol/mol (or 7.1%) (p=0.0006).
- weight improved from 98.3 ±20.8 to 97.0 ±21.3kg (p=0.015).
- total cholesterol 4.5 ±1.2 to 4.4 ±1.2mmol/l (p=0.04).
- systolic BP 136 ±18 to 133 ±17mmHg (p=0.015).

100% of involved clinicians felt the experience was "satisfying or very satisfying". Patients reported feeling involved, comfortable and supported as a result with 37% reporting improved knowledge and confidence in diabetes management using the validated Patient Activation Measure™ (PAM).

We are currently investigating whether the entire cohort of T2DM practice patients benefit from this model through enhanced GP and practice nurse knowledge.

Table 1. Comparison of existing diabetes model of care to the new integrated Hunter Alliance model.

Current model	Alliance model
Consultations at hospitals	Consultations close to patients at their GP practices
Recommendations made to GPs, may not be implemented by GPs (various factors)	During case-conference, GP takes ownership of recommendations and implements it
Little upskilling for primary care team (letters only)	Intense upskilling including practice nurses, 'live demonstrations'
Limited information for specialists, consultations slowed down for data collections (across multiple labs)	Full comprehensive information available with GP data base, saves time
Requires multiple follow-ups and develops dependency on specialist teams 'I have been coming for years' **More referrals to outpatients**	No routine follow-up from specialists, all follow-ups at GP practice from primary care team, liaise with specialist if any concerns **Less referrals to outpatients**
Limited partnership value	Excellent partnership, integration and communication
Limited follow-on effects	Potential to improve entire practice cohort

Table 2. Cost-benefits of new model of care compared to the existing model.

	Current model	Alliance model
Cost (Endo, educator, + dietitian)	$2016	$1608
Revenue	$1620	$2335
$$ difference	-$396	+$726
Space	3 hospital clinic rooms	1 GP consulting room
DNA rate	22%	2%
New/Review	25%	100% new
Follow-up appointments	2-3/patient	0

Future plans for our health district

- Develop a comprehensive GP practice based a regional diabetes registry for all 296 practices for monitoring and quality improvement
- Regular performance feedback on diabetes related outcomes and improve on annual cycles of care and reduce clinical inertia
- Case conference intervention for up to 40 GP practices per year

Conclusion

Intensive case-conference style consultations in general practices appears to be highly effective in improving diabetes related outcomes without burdening the specialist teams with endless follow-ups. This innovative model has added benefit of upskilling primary care clinicians with a potential to improve the outcomes for the rest of the patients in their practice through improved knowledge and skills.

We acknowledge all our passionate and dedicated staff who work continuously to improve our diabetes population outcomes .

Contact: Martha.Parsons@hnehealth.nsw.gov.au