Hunter Alliance Diabetes Integration Project

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Hunter Alliance Diabetes Integration Project: Background

▪ HNE – higher than average T2DM prevalence & complication rate
▪ Variation in care
▪ Potential for improvement in rate of completion of Diabetes Annual Cycle of Care
Hunter Alliance Diabetes Integration Project: Background

- Specialist workforce:
  - 85% endocrinologists and diabetes educators located within the Newcastle area
  - 3 FTE endocrinologists – seeing 1000 “new” patients per year (John Hunter Hospital)
  - 3000 follow up appointments then generated
  - 3 FTE private endocrinologists in Newcastle
  - 1 FTE private endocrinologist in Tamworth
  - Fly in fly out specialist service in Moree 1 day every 3 months
  - 12 diabetes educators employed across HNE LHD

- GP workforce:
  - 297 practices
  - 1032 GPs
Hunter Alliance Diabetes Integration Project: Aims

- Improve diabetes control
- Enhance patient self-management
- Support appropriate prescribing and monitoring
- Improve patient experience
- Increase GP team diabetes knowledge and skills
- Address recognised barriers to implementation of best practice diabetes management
- Reduce time taken by clinicians and patients to initiate or intensify treatment.
- GP patients with T2DM identified, and risk stratified, within practices.
- High risk patients x 30 per practice invited to a case conference at GP practice.
- Practice Nurses collect baseline data

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**Hunter Alliance Diabetes Integration Project: Implementation**

<table>
<thead>
<tr>
<th>Table 1. Diabetes Mellitus Disease Severity Index</th>
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</thead>
<tbody>
<tr>
<td><strong>Very High Risk</strong></td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Glycemic control</strong></td>
</tr>
<tr>
<td>Hyperglycemic severe/occasional</td>
</tr>
<tr>
<td><strong>Cardiovascular disease</strong></td>
</tr>
<tr>
<td>CHF: stable, no change in treatment</td>
</tr>
<tr>
<td>CAD</td>
</tr>
<tr>
<td>Use of HTN, lipids medications</td>
</tr>
<tr>
<td>Any 1 of the following risk factors (current smoking):</td>
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<tr>
<td>BMI ≥30 kg/m²;</td>
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<tr>
<td>HDL ≤35 mg/dL;</td>
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<tr>
<td>HDL ≤40-50 mm Hg</td>
</tr>
<tr>
<td>microalbuminuria/ proteinuria, PVD (ankle 1, 2, 3, and 4); IHW, autonomic neuropathy</td>
</tr>
</tbody>
</table>

Integrated Clinics in GP rooms with primary care staff - Upskilling

- Carer
- Pts own GP
- Endocrinologist
- Patient
- Practice nurse
- Diabetes educator
Hunter Alliance Diabetes Integration Project: Implementation

- Data collected populates a database which generates feedback reports to the practice.
Hunter Alliance Diabetes Integration Project: Results

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

- mean age $63.5 \pm 11.7$ yrs.
- duration of diabetes $11 \pm 8$ yrs.
- mean HbA1c $63.3 \pm 16.2$ mmol/mol (7.9%)

- 29% of patients with a BMI>35kg/m$^2$ had not seen a dietitian.
- 12.5% had no HbA1c level checked in the preceding 12 months
- 33% had no record of testing for urine microalbuminuria
Hunter Alliance Diabetes Integration Project: Results

- During case conference, 92% had medication changes recommended

- At 6 months, interim follow-up across 147 patients showed significant improvement in clinical parameters:
  - HbA1c improved from $59.3 \pm 14.4$ mmol/mol (or 7.6%) to $54.0 \pm 12.3$ mmol/mol (or 7.1%) ($p=0.0006$).
  - weight improved from $98.3 \pm 20.8$ to $97.0 \pm 21.3$ kg ($p=0.015$).
  - total cholesterol $4.5 \pm 1.2$ to $4.4 \pm 1.2$ mmol/l ($p=0.04$).
  - systolic BP $136 \pm 18$ to $133 \pm 17$ mmHg ($p=0.015$).
Hunter Alliance Diabetes Integration Project: Results

0.5% HbA1c reduction

Hunter Alliance project = Multi Million $$ drug trial
100% of involved clinicians felt the experience was "satisfying or very satisfying".

What do you feel are the most important skills and/or information that you have learnt during these clinics?

- "More confidence in pharmacological management"
- "Importance of applying a more thorough review of diabetic patients at each visit—not just focusing on their HbA1c"
- "Importance of identifying and planning what to do with my diabetic patients"
- "Would love to do it again"
- "Importance of stratifying treatment early and ceasing unnecessary tablets"
Hunter Alliance Diabetes Integration Project: Results

Clinic appointment experience

“Really good 2 Drs together with Nurses talking about my case and I could hear it, felt involved.”

“I thought I was going to get in trouble”

“I need LISTS, menu plans looking forward to seeing Dietician to get these.”

“Thought I may be attacked (not physically) bit of conflict within consulting team in regards to medication change etc.”

“Couldn’t wait to get there family history didn’t know how to manage”

“Cost issue - diabetes management with medication / insulin. Happy to reduce tablet number for cost issues”

- 37% of patients reported improved knowledge and confidence in diabetes management using the validated Patient Activation Measure™ (PAM).
# Hunter Alliance Diabetes Integration Project: Results

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

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

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

GP billing

**Item 743:** Organise and coordinate a case conference of at least 40 minutes.

Fee: $201.65  Benefit: 75% = $151.25  100% = $201.65
Hunter Alliance Diabetes Integration Project: What we don’t know yet

- Will the entire cohort of T2DM patients in a general practice benefit from this model?
- Will the positive outcomes to date be maintained over time?
- Will we start to see reduction in time taken by clinicians and patients to initiate or intensify treatment?
Hunter Alliance Diabetes Integration Project: What’s next?

- Develop regional diabetes registry of 290 GP practices with 60000 patients (gradually) partnership with NPS MedicineInsight
- 35-40 GP practices to receive intervention per year
- Each practice will get 3 days intervention with 30 new patients (moderate to high risk)
- Local GP practices will also ‘take back’ their stable patients who are attending JHH
Hunter Alliance Diabetes Integration Project: What’s next?

statistical

The profile
See key indicators of counties, hospitals or health centers.

The button
Choose from ready comparisons or develop their own customized statistics.

Annual Report
Conclusions in digital or downloadable format.

about the statistics
Indikatorlista
Which indicator categories are available in the NDR? Here you will find information about the effectiveness, averages and reporting frequencies.
Hunter Alliance Diabetes Integration Project:
What’s next?