Routine HbA1c testing in the Emergency Department

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Understanding geographical inequities in diabetes: Multilevel evidence from 114,755 adults in Sydney, Australia

Thomas Astell-Burt, Xiaoqi Feng, Gregory S. Kolt, Mark McLean, Glen Maberly

Diabetes Research and clinical practice 106 (2014) e68–e73
Case finding study (2014)

- 6 week study
- 4580 presentations
- HbA1c measured if BSL ≥ 5.5 mmol/L
- Letters to patient and LMO

Diabetes case finding in the emergency department, using HbA1c: an opportunity to improve diabetes detection, prevention, and care

Diabetes 39%
Pre-diabetes 27%
No known diabetes 34%

- 2 in 5 with diabetes
- 1 in 3 unaware of diagnosis

N = 1267
Diabetes Detection and Management Strategy (DDMS) – Routine HbA1c testing (2016)

1. HbA1c measurement
2. Daily Reports
3. Inpatient Diabetes Management Service (IDMS)
4. Treatment initiated and follow-up organised

Notification letters and Get Healthy referral sent to Patient and GP
Demographics

Patients by age and gender

Number of patients

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<tr>
<th>Age</th>
<th>Female</th>
<th>Male</th>
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Results of HbA1c measurements

- Diabetes 17%
- Pre-Diabetes 28%
- Normal 55%

- 20,700 tested
- 9300 at risk
- ADA criteria for Pre-diabetes (HbA1c 5.7-6.4%)
Glycaemic status by age

Age Group

- Normal
- Pre-Diabetic
- Diabetic

Percentage of individuals
Glycaemic status by gender

- Normal
- Pre-Diabetic
- Diabetic

Female:
- Normal: 60%
- Pre-Diabetic: 20%
- Diabetic: 0%

Male:
- Normal: 50%
- Pre-Diabetic: 30%
- Diabetic: 20%
Economic indicators

Average cost of stay by diabetes status and language

- Normal
- Pre-Diabetic
- Diabetic

Cost (AUD)

Average length of stay by diabetes status and language

- Normal
- Pre-Diabetic
- Diabetic

Time in hospital (Hours)
Diabetes Detection and Management Strategy (DDMS) – Routine HbA1c testing (2016)

- HbA1c measurement
- Daily Reports
- Inpatient Diabetes Management Service (IDMS)
- Treatment initiated and follow-up organised

Notification letters and Get Healthy referral sent to Patient and GP

DDMS Support Nurse confirmation of follow-up
Support Nurse – Early data (Dec 2016)

• 2308 with abnormal HbA1c
• 368 contacted to date (16% of population)
  ▪ 20% with previous diagnosis
  ▪ 28% followed up with GP post intervention
  ▪ 48 patients agreed to enrol in GetHealthy
  ▪ 48 patients requesting additional information
Summary

• Large burden of diabetes in our LHD
• Routine testing – different approach to management
• CALD population is an important factor
• Important role of the support nurse