

# Addressing barriers and enablers to early insulin use in type 2 diabetes

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## Introduction

Current international guidelines advocate more aggressive treatment of type 2 diabetes, necessitating early introduction of insulin.<sup>1</sup> Changing practice can be difficult. A previous NPS educational intervention undertaken in 2005 identified significant barriers to early insulin use. Insight into these barriers are crucial to assist NPS in identifying focus areas and developing enablers when repeating the intervention.

## Methods

A 'barriers and enablers' analysis was used to identify reasons for poor uptake of early insulin use, and to help develop enablers and strategies when repeating the educational intervention.

### Techniques for identifying barriers

From the previous educational intervention undertaken in 2005:

- Perceived barriers recorded by educational visitors delivering the intervention (perception/reality mismatch)
- Results from a GP clinical audit (perception/reality mismatch)
- Results from a GP survey which evaluated the effectiveness of the program pre- and post-intervention (knowledge/attitudes)

Other techniques used:

- Key informant interviews with GPs and pharmacists prior to the new intervention (motivation for change and acceptability)
- Literature findings.

## Results

### Barriers identified

GP and patient barriers were identified ahead of the NPS 'Early use of insulin and oral antidiabetic drugs' program launch in February 2008 (Box 1).

### Clinical audit – baseline insulin use

- Involved 1733 GPs and 34576 patients' drug treatment of type 2 diabetes.
- Allowed GPs to audit glycaemic control in their patients.
- Found 3% and 9% insulin use as monotherapy, and with oral agents, respectively.
- Results were compared with the AusDiab study<sup>2</sup> (Table 1) and will be used as a benchmark for future audits undertaken.

Table 1. Treatment currently received for type 2 diabetes

Treatment for type 2 diabetes	NPS GP clinical audit 2005	AusDiab study <sup>2</sup>
Oral medications only	84%	83%
Insulin only	3%	9%
Insulin and oral medications	9%	5%
Other (herbal or alternative therapies)	4%	3%

Box 1. Barriers to early insulin use\*

GP barriers	Patient barriers
Perceive insulin initiation as a specialised role	Insulin therapy implies failure of therapy
Lack confidence, skills and/or interest to initiate	Insulin therapy implies disease progression
Ease of accessing specialist care and clinics	Risk of hypoglycaemia
Resource-heavy (time, staff, sample, devices)	Fear of injecting
Inadequate follow-up support for patients	Concerns about weight gain
Perceive need for specialist input to convince patients to use insulin	

\*Themes identified from educational visitors, key informant interviews, evaluation forms, surveys and literature findings.

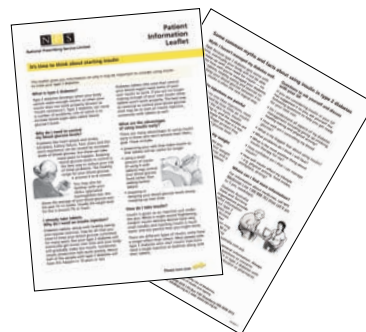
### GP recognition for early insulin use

- During the previous intervention lack of knowledge regarding the early use of insulin did not appear to be a barrier to use.
- Based on a clinical scenario posed in a survey conducted in 2005, recognition of the need for early insulin use increased from 42% to 58% (p= 0.003) in GPs surveyed pre- (n=515) and post- (n=367) intervention.
- However no significant changes were shown in GP rating of self-skills in: educating patients on the benefits of insulin therapy, training patients to self-monitor, and titrating insulin therapy.

### Enablers chosen to help facilitate early insulin use intervention

- Developed messages and tools on simple and safe ways to initiate insulin
- Produced chart showing insulin delivery devices
- Provided information on the advantages of early insulin use
- Promoted international consensus guidelines on proactive management of glycaemia<sup>1</sup>
- Developed a patient information leaflet on considering insulin use (Figure 1)
- Used opinion leaders in development of materials and key messages
- Used academic detailing which involves personal discussion of prescribers' concerns.

Figure 1. Insulin patient information leaflet



### Strategies chosen for the intervention

Several strategies were chosen for a multifaceted approach to increasing early insulin use in type 2 diabetes (Figure 2). These include:

- NPS News and Prescribing Practice Review (print material)
- Individual and small group case scenarios (individual/peer review)
- Educational visiting (academic detailing)
- Clinical audit (reflection and feedback review of prescribing).

## Conclusion

- A formal 'barriers and enablers' model allowed effective planning and development of material for a repeated intervention.
- Evaluation will be needed to assess the program's impact on behavioural change.

### References

1. Nathan DM, et al. Diabetes Care 2006;29:1963-72.
2. Dunstan D, et al. The Australian Diabetes, Obesity and Lifestyle Study (AusDiab) Melbourne: International Diabetes Institute, 2001.

Figure 2. NPS News, national case study, Prescribing Practice Review and Clinical Audit.

