Overcoming the Barriers to Treating Illicit Drug Users in Primary Care:

Investing the attitudes of GPs towards the treatment of illicit drug users in Primary Care (PC)

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Problem

• Rise in number of illicit drug users presenting in primary care

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• Resistance from GPs to expand their involvement with drug dependent patients

• WHY?
Objective

• To investigate and quantify the factors and barriers considered influential in the treatment decisions of GPs toward drug dependent patients.
Hypotheses

• Barriers:
  – Patient characteristics
    • drug dependency characteristics
  – GP characteristics
    • age, training
  – GP Practice/Locality characteristics
    • practice location, size
A Discrete Choice Experiment (DCE) was used to determine the importance patient (drug dependent) characteristics:

- STEP 1: Identifying relevant effects.
- STEP 2: Assigning levels to these effects.
- STEP 3: Valuing relevant effects.
- STEP 4: Data Analysis.
Identifying Relevant Effects

- Preliminary Questionnaire sought responses from (926) GPs on:
  - ‘factors influencing the treatment of drug dependency’

- Factor analysis used to identify recurrent themes

- Drug dependent patient characteristics:
  - injecting behaviour
  - nature of drug use
  - attitude/behaviour of patient
  - safety
Assigning Levels to these Effects

- **Injecting Behaviour**
  - ‘never injected’
  - ‘occasional injecting’
  - ‘regular injecting’

- **Nature of Drug Use**
  - ‘opiates only’
  - ‘chaotic poly-drug user’

- **Attitude/Behaviour of Patient**
  - ‘not demanding’
  - ‘very demanding’

- **Safety**
  - ‘perceived safe’
  - ‘safety risk’
Valuing Relevant Effects

- Gives rise to \((3^1 \times 2^3)\) 24 hypothetical patients
  
  1st: referral option
  - refer
  - not refer

  2nd: treatment option
  - A: treat with methadone maintenance
  - B: treat offering a range of specialist services
  - C: do not treat the drug dependency but provide general medical services
Example

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<tbody>
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<td>e.g.</td>
<td>Regular</td>
<td>Opiates only</td>
<td>Not demanding</td>
<td>Safety risk</td>
<td>✓</td>
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Methods (2)

• **Standard questionnaire format used to collect:**
  
  – **GP characteristics**
    • gender, length of time in practice, training for the treatment of drug dependent patients, payment practice.
  
  – **Practice/Locality characteristics**
    • health board area, practice site, practice size, practice policy, payment policy, access to specialist centres and waiting time for referral
Methods (3)

- Sample 1:4 GPs in Scotland (926) stratified according to:
  - gender, age, practice size

- Postal Questionnaire

- Data analysed: STATA 7
  - Multinomial logit regression model clustered according to a reference identifier
Data Analysis (1)

Treatment Options

- REFER
  - Treat A methadone maintenance
    - 1
  - Treat B range specialist options
    - 1
  - Do Not Treat C
    - 2

- DO NOT REFER
  - Treat A methadone maintenance
    - 3
  - Treat B range specialist options
    - 3
  - Do Not Treat C
    - 4
Data Analysis (2)

Preference for treatment option (1, 2, 3 or 4) =

\[ f \left( \text{Patient Characteristics} + \text{GP Characteristics} + \text{Practice / Locality Characteristics} \right) \]
Data analysis (3)

- **Frequencies**
  - treatment action, access to treatment centres

- **Wald test for significant variables**
  - significant effects on treatment action strategy

- **Discrete changes / marginal effects**
  - largest effects on treatment action strategy

- **Predicted probabilities**
  - prediction of treatment action by altering/holding variables
Results (1)

- Top 6 significant effects (in magnitude) on treatment action resulting from a discrete change:
  - training
  - membership of a shared scheme
  - access to a treatment centre
  - whether payment is received
  - safety risk of patient
Results (2)

- Average GPs will prefer to refer to a specialist centre but not provide any interim treatment over treating in PC/GP

  - Factors that will improve the probability of GPs switching from referring (strategy 2) to treating in PC/GP (strategy 3) are:
    - receiving specialist training
    - receiving payment for the treatment of DD patients
    - encountering only non-difficult patients
Conclusions

- Application of DCEs in modelling decision-making

- Example:
  - identify important factors in treatment decision-making
  - identify and quantify the factors that influence changes in practice (or the barriers that prevent change)
  - influence, adapt, create policies and incentives to change practice