Putting Preventive guideline recommendations into general practice: an implementation trial

PEP rationale and aim

- Suboptimal implementation of chronic disease prevention guidelines in general practice

- Develop a practice based intervention to assist with the translation of preventive evidence
Aim of this presentation

- Overview of the study including trial method and intervention
- Provide initial results relating to risk factor recording, GP/PN confidence in assessing risk factors and GP/PN confidence in conducting brief interventions
PEP Trial Design

- 12 month pragmatic cluster RCT
- Recruitment
  - 32 practices across 4 states (GPs and PNs)
  - 160 patients from each practice (40-69yrs) without a diagnosis of cardiac disease, stroke or diabetes; regular attenders at the practice)
- Randomisation: stratified by state and practice size (1, 2-4, 5+ GPs)
- Allocation to PEP intervention or usual care with late intervention
- Protocol paper in Implementation Science
5As

Assess

Smoking
- Smoking status (every visit)
- Advise to quit. Consider pharmacotherapy

Advise/Agree

Nutrition
- Portions of fruit and vegetables per day (2yrs)
- Increase fruit and vegetables (2+5) and reduce dietary fat intake

Assist/Arrange

Alcohol
- Quantity and frequency of alcohol intake (3-4yrs)
- 2 standard drinks per day and 4 drinks on any one occasion

Physical activity
- Moderate PA (minutes/day and days/week) (2yrs)
- 30 minutes of moderate activity most days of the week (>2.5 hrs/wk)

Weight
- BMI waist circumference (x2 yearly)
- Individually including both physical activity and diet control

Refer to Quitline
- Arrange FU

Refer high risk pts to a dietitian or group diet program
- Arrange FU

Refer high risk pts to exercise professional or PA program. Arrange FU

Refer high risk patients to dietitian or diet program. Arrange follow up
PEP intervention

Audit
- Appropriate recording of risk factors and management measured against guidelines and peers

Education

Practice Facilitation

Links
PEP intervention

**Audit**
- Appropriate recording of risk factors and management measured against guidelines and peers

**Education**
- Guidelines
- Motivational Counseling on readiness to change
- Practice Improvement

**Practice Facilitation**

**Links**

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PEP intervention

Audit
- Appropriate recording of risk factors and management measured against guidelines and peers

Education
- Guidelines
- Motivational Counseling on readiness to change
- Practice Improvement

Practice Facilitation
- Review audit
- Organisational plan
- Prevention coordinator
- Target high risk

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# PEP intervention

## Audit
- Appropriate recording of risk factors and management measured against guidelines and peers

## Education
- Guidelines
- Motivational Counseling on readiness to change
- Practice Improvement

## Practice Facilitation
- Review audit
- Organisational plan
- Prevention coordinator
- Target high risk

## Links
- Referral services
- Education and health literacy resources

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Data collection and analysis

- **Clinical Audit**
  Baseline recording of risk factors and % change at 12 months

- **GP/PN Survey**
  GP/PN confidence in assessing risk factors
  GP/PNs confidence in assessing readiness for change and undertaking motivational interviewing
Baseline recording of risk factors

- CV...
- Smoking
- Alcohol
- BP
- Waist...
- BMI

% recorded

Control Baseline
Intervention baseline

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Impact on recording of risk factors

- CV risk data*
- Smoking*
- Alcohol
- BP
- Waist circumference*
- BMI*

* P<0.001

% change

<table>
<thead>
<tr>
<th>% change</th>
<th>Change control</th>
<th>Change intervention</th>
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<tbody>
<tr>
<td>-2</td>
<td></td>
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<tr>
<td>0</td>
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<tr>
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* P<0.001
Level of risk factors among patients 40-69

- CV risk 10%+
- Smoking
- At risk alcohol
- BP 140/90+
- Obese

% of patients

Control Baseline
Intervention baseline
Impact on risk factors

% change

-10 -5 0 5 10

-10 0 5

CV risk 10%+
Smoking
Alcohol
BP 140/90+
Obese

Change control  Change intervention

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### Baseline practitioner sample

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<thead>
<tr>
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<th>Intervention</th>
<th>Control</th>
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<tbody>
<tr>
<td>Practices</td>
<td>15 (n = 70 clinicians)</td>
<td>15 (n = 52 clinicians)</td>
</tr>
<tr>
<td>GPs</td>
<td>n = 23 (F)</td>
<td>n = 26 (M)</td>
</tr>
<tr>
<td>PNs</td>
<td>n = 20 (F)</td>
<td>n = 1 (M)</td>
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<tr>
<td>Full time</td>
<td>GP = 63%</td>
<td>PN = 23%</td>
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<tr>
<td>Part time</td>
<td>GP = 34%</td>
<td>PN = 76%</td>
</tr>
<tr>
<td>Yrs in general practice</td>
<td>Mean 12yrs</td>
<td>Mean 171yrs</td>
</tr>
<tr>
<td>Yrs in this practice</td>
<td>Mean 6yrs</td>
<td>Mean 12yrs</td>
</tr>
<tr>
<td>Practitioner level of confidence</td>
<td>Not at all confident</td>
<td>Minimally confident</td>
</tr>
<tr>
<td>---------------------------------</td>
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<td>---------------------</td>
</tr>
<tr>
<td>1. Assessing smoking</td>
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<tr>
<td>2. Assessing diet</td>
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<td>3. Assessing alcohol intake</td>
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<tr>
<td>4. Assessing physical activity</td>
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<td>5. Motivational interviewing</td>
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<td>6. Readiness to change</td>
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<td>7. Assessing Absolute cardiovascular risk</td>
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<td>8. Assessing diabetes risk</td>
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## ANOVA estimates: Confidence

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<th>Follow up</th>
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<tr>
<td></td>
<td>N</td>
<td>Mean (95% CI)</td>
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<tr>
<td>Intervention</td>
<td>69</td>
<td>30.3 (28.8-31.8)</td>
</tr>
<tr>
<td>Control</td>
<td>52</td>
<td>31.0 (29.5-32.6)</td>
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Paired samples (T-Test): Confidence

<table>
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<tr>
<th></th>
<th>Baseline</th>
<th>Follow up</th>
<th>P value</th>
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</thead>
<tbody>
<tr>
<td><strong>Mean (95% CI)</strong></td>
<td><strong>Mean (95% CI)</strong></td>
<td><strong>P value</strong></td>
<td></td>
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<tr>
<td><strong>Intervention</strong></td>
<td>29.8 (27.7-31.9)</td>
<td>31.2 (29.3 -33.2)</td>
<td>P=.004</td>
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<td><strong>Control</strong></td>
<td>33.2 (31.8-34.7)</td>
<td>30.5 (28.6 – 32.5)</td>
<td>P=.410</td>
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Conclusions

• Positive impact on:
  – the recording of risk factors
  – practitioner confidence in assessing risk

• No impact on risk levels of patients
Issues for implementation

• Context around why it does or doesn’t work
• Impact of ‘real world’ setting
• Relatively short duration/multi-component intervention
• Intervening at ‘arms length’ from patients
• Practices chose to focus on recording
Take home message

- It is possible to affect a positive change in relation to prevention in general practice.

- Facilitation interventions of shorter duration/lower intensity might be best targeted where they could achieve the greatest change.
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