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The GP Dementia Risk Reduction Education Project: Literature Review and Formative Research with General Practitioners

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Abstract
The Illawarra Division of General Practice (IDGP) has received funding from NSW Health to conduct the GP Dementia Risk Reduction Education Project. This project aims to educate general practitioners (GPs) and practice nurses (PNs) in general practice settings on the link between hypertension and dementia in the 45 years and over age group and to encourage the application of evidence-based blood pressure screening & management in general practice settings. The program aims to support the implementation of strategies with patients that seek to avoid or minimise the risk of hypertension (and therefore dementia) over the long term. The primary target group for the GP Dementia Risk Reduction Education Project is GPs and PNs/Managers in general practice settings within the Shoalhaven and Illawarra regions of local health network, with the secondary target group being their patients aged 45 and over. Along with other practice support activities, the IDGP is planning to run a series of educational events to inform GPs about dementia risk reduction, as well as the links between dementia and hypertension. In addition, the IDGP is planning to address key issues in regards to hypertension screening and management in a number of education workshops. To inform the content of educational workshops and complementary practice support activities, the IDGP has contracted the Centre for Health Initiatives (CHI) to conduct formative research in regards to the key issues in regards to hypertension screening and management that could be addressed within activities for this project. This literature review has been undertaken by CHI due to current difficulties being encountered in gaining the participation of local GPs and PNs in focus groups or interviews to inform the content of the ‘GP Dementia Risk Reduction Education Project’.

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The GP Dementia Risk Reduction Education Project

Literature Review and Formative Research with General Practitioners

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Contents

Background .............................................................................................................................. 7
Part 1 - Literature Review ...................................................................................................... 8
Methods.................................................................................................................................. 8
Results...................................................................................................................................... 9
  Issues in the Screening and Management of Hypertension in General Practice .......... 9
    GPs knowledge of guidelines for hypertension screening and management.............. 9
    GP attitudes and beliefs towards guidelines for hypertension screening and management................................................................................................................. 10
    GP Beliefs about screening and hypertension diagnosis........................................ 11
    GPs Beliefs and attitudes regarding treatments for hypertension ........................... 14
  Other evidence-based strategies to improve GP use of evidence based guidelines ................................................................................................................................. 21
      What has been shown to work? .............................................................................. 21
Discussion .............................................................................................................................. 22
  Knowledge and clinical audit.......................................................................................... 22
  Screening and classification ......................................................................................... 22
  Drug treatment................................................................................................................ 23
  Lifestyle Prescription..................................................................................................... 23
Conclusion .............................................................................................................................. 24
References ............................................................................................................................. 25
Part Two: Results from Focus Groups with Target Audience (45 to 64 years).............. 28
Method ................................................................................................................................... 28
Results...................................................................................................................................... 29
  Health Belief Model: Perceived Susceptibility........................................................... 29
    Perceived Susceptibility to Hypertension................................................................. 29
    Perceived Susceptibility to Dementia ...................................................................... 31
    Perceived Susceptibility: Hypertension and Dementia Link................................ 33
  Health Belief Model: Perceived Severity.................................................................. 34
    Perceived Severity of Hypertension......................................................................... 34
Perceived Severity of Dementia ............................................................... 34
Perceived Severity: Hypertension and Dementia Link .......................... 36
Health Belief Model: Perceived Benefits ............................................... 37
  Perceived Benefits: Hypertension Screening and Management ........... 37
  Perceived Benefits: Management of Hypertension to Control Dementia 37
Health Belief Model: Perceived Barriers ............................................... 38
  Perceived Barriers: Hypertension Screening ........................................ 38
  Perceived Barriers: Hypertension Screening for Preventing Dementia ... 40
Health Belief Model: Cues to Action .................................................... 40
  Cues to Action: Hypertension ............................................................ 40
  Cues to Action: Hypertension and Dementia Link ............................ 41
Discussion ............................................................................................ 42
Recommendations ................................................................................ 44
Conclusion .......................................................................................... 49
References .......................................................................................... 51
Part 3: Results from the GP and PN Survey .......................................... 53
  Methods .......................................................................................... 53
  Results ............................................................................................ 54
  Hypertension and dementia link ....................................................... 54
    Beliefs and attitudes ....................................................................... 54
    Promotion of the hypertension and dementia link .......................... 55
    Education and resource needs ...................................................... 56
    Summary: Hypertension and dementia link .................................. 57
  Qualitative comment ....................................................................... 59
  Awareness of the Heart Foundation Clinical Guidelines .................... 59
  Screening Diagnosis and Management of Hypertension ..................... 59
    Barriers to screening for hypertension .......................................... 60
    Access to home and ambulatory monitoring ................................... 61
    Resources to support screening .................................................... 61
    Summary: Barriers to screening .................................................... 62
    Classification of cardiovascular risk .............................................. 63
    Summary & Recommendations: Classification of cardiovascular risk 63
  Drug treatment for managing hypertension ..................................... 64
Summary: Drug treatment for managing hypertension ........................................... 65
Lifestyle modification for managing hypertension................................................. 65
Summary: Lifestyle modification for managing hypertension ............................... 68
Discussion and Recommendations........................................................................ 69
‘Dementia Risk Reduction – One more good reason to keep your patient’s blood pressure in check’ ................................................................. 69
Educational programs and materials................................................................... 69
Overcoming barriers to screening for hypertension............................................. 70
Supporting Lifestyle Modification ....................................................................... 71
Conclusion............................................................................................................. 71
References............................................................................................................ 73
**Glossary**

Note the use of the following acronyms used throughout this document.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>IDGP</td>
<td>Illawarra Division of General Practice</td>
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<td>CHI</td>
<td>Centre for Health Initiatives</td>
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<td>GPs</td>
<td>General Practitioners</td>
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<td>PNs</td>
<td>Practice Nurses</td>
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<td>HBM</td>
<td>Health Belief Model</td>
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<td>CHD</td>
<td>Chronic Heart Disease</td>
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<td>HT</td>
<td>Hypertension</td>
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<tr>
<td>BP</td>
<td>Blood pressure</td>
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Part 1

Literature Review
**Background**

The Illawarra Division of General Practice (IDGP) has received funding from NSW Health to conduct the GP Dementia Risk Reduction Education Project. This project aims to educate general practitioners (GPs) and practice nurses (PNs) in general practice settings on the link between hypertension and dementia in the 45 years and over age group and to encourage the application of evidence-based blood pressure screening & management in general practice settings. The program aims to support the implementation of strategies with patients that seek to avoid or minimise the risk of hypertension (and therefore dementia) over the long term. The primary target group for the GP Dementia Risk Reduction Education Project is GPs and PNs/Managers in general practice settings within the Shoalhaven and Illawarra regions of local health network, with the secondary target group being their patients aged 45 and over.

Along with other practice support activities, the IDGP is planning to run a series of educational events to inform GPs about dementia risk reduction, as well as the links between dementia and hypertension. In addition, the IDGP is planning to address key issues in regards to hypertension screening and management in a number of education workshops.

To inform the content of educational workshops and complementary practice support activities, the IDGP has contracted the Centre for Health Initiatives (CHI) to conduct formative research in regards to the key issues in regards to hypertension screening and management that could be addressed within activities for this project. This literature review has been undertaken by CHI due to current difficulties being encountered in gaining the participation of local GPs and PNs in focus groups or interviews to inform the content of the ‘GP Dementia Risk Reduction Education Project’.
Part 1 - Literature Review

Methods

CHI undertook a search of the academic literature across the health and medical databases indexed by ‘Summon’ (UOW, 2011). A combined key word search was utilised: ‘screening or management’; ‘blood pressure or hypertension or cardiovascular disease prevention’ and ‘general practitioner or physician or doctor or practice nurse or primary care’ and ‘issues or barriers or facilitators or promotion’. This resulted in the identification of 22 relevant articles that have been referenced in this review. Due to the lack of intervention studies identified, the review also references literature from the National Health and Medical Research Council’s, ‘Guide to the development, implementation and evaluation of clinical practice guidelines’ (NHMRC, 1999). However, this guide provides evidence in regards to interventions that have been shown to be more likely to support physician use of clinical guidelines (in general), rather than hypertension guidelines, specifically.

The review has been organised according to the main parts of the Guide to Management of Hypertension (National Heart Foundation of Australia, 2008-2010), which are the guidelines that are being promoting as part of the ‘GP Dementia Risk Reduction Education Project’. These guidelines define classifications for systolic and diastolic blood pressures, as well as recommendations for follow up, interventions and treatment targets people whose blood pressure readings fall within the various categories (p iii; Tables 5 and 6).

Articles identified have been thematically analysed and the results are discussed in terms of GP knowledge, attitudes and behaviours in regards to hypertension screening and management clinical guidelines. Practical issues that affect physician attitudes and behaviours are also highlighted. Whilst the studies examine GP knowledge, attitudes and behaviours in regards to hypertension guidelines, the nature of the guidelines may vary to some degree from those being recommended by the IDGP. That said, the articles still provide insight into the factors
influencing physician screening and management of hypertension, and specifically the issues influencing their use of clinical guidelines for this condition.

**Results**

**Issues in the Screening and Management of Hypertension in General Practice**

**GPs knowledge of guidelines for hypertension screening and management**

If GPs are to screen, diagnose and manage hypertension according to clinical guidelines, it is essential that firstly, they are aware of relevant guidelines, and that they have adequate knowledge of them.

Our search of the literature revealed only one study that had attempted to objectively measure GP knowledge of clinical guidelines for hypertension. In this survey of GPs in Germany, only 18.8% were judged as having adequate hypertension guideline awareness (Huse, Roht, Alpert, & Hartz, 2001). This study also showed that knowledge of guidelines was significantly less in GPs who had been in practice for more than 20 years compared to those in practice for less than 2 years. Two other studies were also identified that asked GPs to rate their own knowledge of hypertension guidelines (Oliveria, et al., 2002; Pinto-Sietsma, Hillege, & WM, 1999). In both these studies, most US physicians surveyed considered themselves to be very or somewhat familiar with the (JNC VI) guidelines for treating hypertension. Whilst the latter two studies were conducted in the US (Oliveria, et al., 2002; Pinto-Sietsma, et al., 1999), and the first in Germany (Huse, et al., 2001), comparison of results may reveal that, for some GPs, there may be a mismatch between their perception of their knowledge of clinical guidelines for hypertension and their evaluated levels of knowledge.

If the IDGP aims to address knowledge deficits, it is evident from this review that promotion of and contact with clinical guidelines is unlikely to be sufficient to influence doctors’ treatment of hypertensive patients (Iversen, Kristensen, Krager, Holmen, & Hetlevik, 1998). However, a systematic review regarding interventions
supporting application of clinical guidelines by physicians suggests that audit and clinical feedback on performance is one effective way to inform clinicians regarding their current practice and the congruence of that practice with the guideline being promoted (Oxman, Thomson, & Davis, 1995). Feedback obtained via clinical audit may also be useful to highlight to GPs any gaps that exist between their perceived knowledge and their actual knowledge of recommended guidelines.

**KNOWLEDGE OF HYPERTENSION GUIDELINES**

1. GPs may have inadequate knowledge of current hypertension clinical guidelines and may perceive their knowledge to be better than it is.
2. Promoting guidelines and awareness alone is likely to be insufficient to influence behaviour.

**Recommendation:** Consider accompanying awareness raising and education with clinical audit/feedback to highlight knowledge deficits.

**GP attitudes and beliefs towards guidelines for hypertension screening and management**

Behavioural theory suggests that people’s attitudes and beliefs inform their behavioural intentions, and as such ultimately their chosen behaviours (Fishbein, 2008). In this context, a GP’s beliefs and attitudes towards a set of clinical guidelines may impact significantly on their practice in the clinic, ultimately leading to a lack of translation of evidence into clinical practice.

Results from this review of the literature highlight that whilst some GPs may be aware of guidelines, they may not always agree with them (and this may affect their clinical behaviours). For example, Iversen et al. (1998) found that, in some cases, GP attitudes towards hypertension management were more congruent with guidelines than their actual practice behaviours. Disagreement with guidelines may lead GPs to act only by monitoring rather than treating hypertension (Dean, Kerry, Cappuccio, & Oakeshott, 2007). Others may avoid the application of particular parts of guideline particularly if those parts are viewed as complex or problematic (Steenkiste, Stoffers, Weijden, & Grol, 2004).
To highlight some of the attitudinal barriers to GPs applying clinical hypertension guidelines, the literature is discussed according to the main parts of the National Heart Foundation Guidelines (2008-2010): screening, diagnosis, drug treatment and lifestyle management.

**GP Beliefs about screening and hypertension diagnosis**

At a basic level, there is evidence that Australian GPs have some underlying uncertainty in regards to whether they can trust the BP readings that they take for patients that they screen in their clinics (Howes, Hansen, Williams, & Nelson, 2010). According to Howes et al (2010) this relates to multiple factors including variability in readings, the reliability of automated machines and the ‘white coat effect’. This distrust tended to lead many GPs to ‘adjust down’ to what they believed would be a truer reading for the patient.

Also, whilst GPs may be aware of the various classifications, this does not automatically mean that they are in agreement with them. For example, Trilling and From (2000) and Wang (2004) found that some GPs do not agree with definitions for high BP contained within hypertension guidelines, tending to tolerate higher systolic blood pressure readings before considering the need for intervention. Such beliefs were also evident in an observational study conducted in the US, with GPs demonstrating a tendency to incorrectly classify patient’s blood pressure control as satisfactory, when in many cases patients BP readings consistently exceeded recommended guidelines (Oliveria, et al., 2002).

Another issue is that some GPs may place more importance on the diastolic BP reading than the systolic BP reading (Oliveria, et al., 2002). Olivera and colleagues (2002) postulate that this could occur either because GPs do not fully appreciate the risks associated with an elevated systolic BP (and are thus focusing on the diastolic reading), or that they may be knowledgeable about the risk, but do not incorporate this into their practice patterns for other reasons unknown.

**Practical issues**

Practical issues may also impact on the screening and diagnosis of hypertension. In the context of a busy workload, hypertension screening may not be a priority for GPs as they attempt to cope with increasing demand for appointments and pressure to reduce waiting times (McManus et al 2001). GPs may also believe
that recommended procedures, such as multi-dimensional risk interventions, are too
time-consuming too engage with (Iversen, et al., 1998). Competing medical
problems (Olivera 2002) were also cited as a barrier to diagnosis of hypertension i.e.
in the context of limited time, GPs are evaluating a patient in terms of a hierarchy of
medical issues. As such, hypertension may be judged to be low on that hierarchy,
within the context of that particular presentation to the clinic.

Lack of continuity of care is also a reported element in many contemporary
general practices and can lead to inadequate control on the part of the
practitioner and difficulties in responding to changing needs of patients (Howes, et
al., 2010; Inkster, Montgomery, Donnan, MacDonald, & Sullivan, 2005). GPs may also
not have the time or the required interpersonal and/or communication skills to
communicate complex risks in ‘patient language’ (Steenkiste, B, 2004).

No doubt, the diagnosis and management of hypertension is complex.
Murthy (2002) and Pater (2005) both highlight the high level of complexity involved
when screening, managing and making a decision in regards to whether to classify
a patient as hypertensive (and consequently make a decision to intervene, or not).
These include consideration of: the variability found in BP readings; consideration of
the patient’s other risk factors (Murthy, 2002; Pater, 2005); and the medical condition
for which they have presented (Murthy, 2002).

Some of these factors are acknowledged within the guidelines being
endorsed via the IDGP as part of the Dementia Risk Reduction Project (National
Heart Foundation of Australia, 2008-2010). For example, BP variability is
acknowledged, with recommendations that BP readings be taken over a number of
presentations as part of the diagnostic process. Guidelines also describe population
segments that require stricter criteria for BP control, including those with diabetes
mellitus, renal insufficiency and protein urea, where BP must be brought below the
levels deemed appropriate for the general population (National Heart Foundation
of Australia, 2008-2010). However, it is possible that adequate treatment of these
higher risk segments may be compromised due to practitioners not adhering to the
stricter criteria for BP control in these cases (Murthy, 2002).

The National Heart Foundation Guidelines also include ‘risk charts’ as an aid for
GPs in classifying hypertension in these high risk groups (National Heart Foundation
of Australia, 2008-2010). However, one study suggests that cardiovascular risk tables
within similar guidelines are perceived to be particularly problematic (Steenkiste, et al., 2004). In this paper Steenkiste et al. highlight that, in some cases, the complexity and requirement to calibrate complicated risk may cause some GPs to disengage with the guidelines, believing in the end that they are too complicated to apply.

Barriers raised in the literature suggest that it may prudent to assume that the use of risk tables (and the calibration of associated cardiac risk) may require supplementary education if factors are to be adhered. Interventions should consider moving beyond traditional didactic educational approaches to address GPs’ sense of efficacy to apply and use risk tables as part of their daily practice. Interventions to support the application and use of risk charts should also address ‘time-constraints’ as a perceived barrier to their application.

Australian GPs have suggested that increased access to more automated BP machines for home monitoring would be useful to overcome some of their time constraints (Howes, et al., 2010). Recommendations from studies conducted in Australia suggest models for supporting cardiovascular risk assessment should acknowledge the need for long consultation times, provide for some self-assessment by patients of their own risk and the prioritisation of it’s management, and the need for additional support from other practice staff for assessment (Wan, Harris, Zwar, & Vagholkar, 2008; Wan, Harris, Zwar, Vagholkar, & Campbell, 2010).

In the context of the ‘Dementia Risk Reduction GP Program’, the links between hypertension and the risks of developing dementia may also be promoted by the IDGP as a means of elevating the status of hypertension as a clinical priority.
Attitudes regarding diagnosis/classification

1: GPs may not accept current guidelines and classifications regarding hypertension

- May not accept risks associated with low – moderate BP
- May not accept the need for lower targets in patients with complex risk factors
- May accept higher blood pressure readings in their patients before intervening

2. Classification of cardiovascular risk and the use of risk tables within existing guidelines is particularly complex and has been highlighted as problematic by GPs

Recommendations

Programs should:

- Promote the links between hypertension and dementia risk to increase the priority of hypertension screening
- Address beliefs that reinforce current tolerance/acceptability for high patient systolic blood pressure
- Attempt to improve GP efficacy in regards to the use and application of ‘risk charts’
- Consider promotion of systems to support home monitoring of BP
- Take opportunity to provide support for strategies to address perceived

GPs Beliefs and attitudes regarding treatments for hypertension

Some GPs may perceive a tension between recommendations within hypertension guidelines and the reality of their daily clinical practice. Others also express low expectations of the outcomes of the interventions recommended in hypertension guidelines, feeling that despite their adherence to recommendations, the desired effects are unlikely to be achieved (Trilling & Froom, 2000). Others may be sceptical of the evidence in general underpinning hypertension management, and feel limited by system issues such as inadequate time to conduct comprehensive consultations and treatment plans (Howes, et al., 2010).
Medication efficacy/effects

Not only may GPs question the recommended diagnostic classifications for hypertension, but some also question accompanying recommendations in regards to when to initiate drug treatments. For example, a group of Chinese physicians believed that the lowest blood pressure for initiation of drug treatment is 155/95 mmHg, which is substantially above the recommendation of current guidelines (Wang, 2004). Trilling and From (2000) in their review paper also found that GPs may not agree with treatment recommendations contained within hypertension guidelines, tending to prefer higher systolic readings prior to implementing pharmacotherapy. However, in a study of physicians in the US, 76% of physicians indicated their agreement with guidelines treatment recommendations. Interestingly though, despite agreeing with guidelines treatment recommendations, only 14% of physicians surveyed reported that they “always” follow them when treating hypertensive patients (Oliveria, et al., 2002).

Some GPs may show a preference for the use of particular drug treatment regimen, which in some cases, may be inconsistent with guidelines recommendations. For example, some GPs expressed a preference for the use of single, rather than combination drug therapies (Heagerty, 2006; Murthy, 2002). This may result in the over reliance on, or increased doses of, one drug. This may occur in spite of evidence that combining low-dose drug therapies has been proven to be cost-effective whilst enhancing health outcomes. For example, in North America, a clear message was issued from the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC) regarding the use of B-blockers and diuretics as the first choice in the treatment of uncomplicated hypertension. However, it was found that despite this, there was still a tendency to prescribe the wrong classes of medications (Murthy, 2002).

If medications are used with hypertensive patients and are unsuccessful, some GPs may be reluctant to increase dosage or to use a combination of medications to improve effectiveness. Janssen et al (1999) suggest that some GPs may be reluctant to try new treatments in patients with elevated blood pressure. In their study of GP behaviours, despite two years of care, and many opportunities to increase antihypertensive medications, there was a tendency towards the maintenance of treatment status quo. Janssen and colleagues found no association between the
presence of elevated blood pressures at a previous visit and a subsequent decision to change the patient’s treatment regimen. Thus, although physicians may have been closely monitoring patients’ blood pressure, they tended to maintain current treatment, and blood pressure continued to be poorly controlled in many of the patients. A tendency to maintain treatment and management status quo (despite inadequate BP control) was also found in a longitudinal study of 560 patients being treated for HYPERTENSION in the UK (Inkster, et al., 2005). In this study, despite 49% of patients being defined as having inadequate control, 1 in 3 did not have any variation in their drug treatment during the study period. In Australia, this may also be an issue with a study utilising BEACH data finding that only 59% of patients being treated with hypertensive medications were achieving target BPs (Webster, et al., 2009).

Patient demographics may also influence whether GPs are willing to follow recommended management guidelines. Of particular concern in Australian GPs was the setting of low targets for the elderly (Howes, et al., 2010). In this study GPs believed that many elderly were at greater risk from factors associated with recommended hypertension treatments (e.g. falling over) than they were from their hypertension. Another Australian study also found that treatment rates for women with cardiovascular risk factors were lower than for men of the same age (Tumbull, et al., 2009).

Time poor clinical environments and a lack of continuity of care were also raised by these Australian GPs as factors influencing their clinical decision making. Howe et al (2010) also highlighted patient reluctance to take antihypertensive medication (in preference to a trial of lifestyle modification) as also raised as a barrier to use of pharmacotherapy.

It is possible that decisions regarding patient treatment may be informed by myths and misconceptions surrounding anti-hypertensive drugs. GPs may be reluctant to prescribe anti-hypertensives due to a belief that they will necessarily have negative side effects (Heagerty, 2006). ‘Aggressive treatments’ (combined therapies) have also been especially associated with poor quality of life for patients by physicians (Murthy, 2002). However, Pater (2005) also highlights that there is evidence of large variability in the efficacy and safety of the antihypertensive drugs. He believes that this factor is one cause of substantial debate in regards to the efficacy of clinical guidelines, and as such hesitancy in some practitioners to
change their usual practice in favour of guidelines recommendations. Pater also highlights that the possible influence of pharmaceutical industry messages on GP prescribing behaviour must also be considered.

Oliveri et al (2002) found that perceived level of BP control and previous recommendation to increase the intensity of BP therapy were the only factors associated with increasing the intensity of hypertension treatment in patients with uncontrolled hypertension (Oliveria, et al., 2002). This outcome reinforces the importance of addressing the beliefs of GPs (not just their ‘knowledge’ of recommendations). For instance, in this study, despite all patients having documented uncontrolled hypertension, it is more likely that in those patients where GPs ‘perceive’ the level to be unsatisfactory that they will act. Also, these results suggest that once GPs do decide to change treatment, they also may be more likely to open to changing again if the outcome has been unsatisfactory. Physicians themselves have expressed a desire for more education around rigorously defining hypertension and more aggressive treatments for hypertensive patients with multiple risk factors compared to uncomplicated hypertension (Laupacis et al., 1997). This also indicates that they are open to further education addressing these complex issues. Other GPs in Australia suggest that easier access to specialist advice (addressing referral pathways, waiting times & cost) would also assist their management of complex cases of uncontrolled hypertension (Howes, et al., 2010).
Lifestyle

Whilst one study of 26 American GPs showed that they were more likely to recommend lifestyle modification (47%) than medication (38%) for treatment of hypertension in patients with high blood pressure (Oliveria et al., 2002), another US study found GPs more likely to counsel patients on medication adherence than lifestyle prescription (Bell & Kravitz, 2008). Overall, Murthy’s review of the literature (2002) suggests that the weight of the evidence indicates that many GPs may not appreciate the role of lifestyle changes and do not emphasize dietary changes, low salt intake, or weight loss and stress reduction techniques with hypertensive patients.

Attitudes towards Drug Treatment

1: Some GPs are reluctant to initiate drug treatment at the levels recommended in guidelines, with a tolerance for higher than recommend levels

2. When GPs do initiate drug treatment, they have a preferred drug treatment regimen and may be reluctant to increase or change medications (even if preferred treatments are ineffective)

3. GPs may associate the use of anti-hypertensive with negative patient side effects and decreased quality of life

Recommendations

Programs should:

1. Provide and promote evidence for the efficacy of drug treatments at levels recommended by guidelines

2. Address myths/misconceptions regarding negative side effects of medications (particularly combined therapies)

3. Engage with GP concerns regarding patient age and co-morbidity and a tendency to under treat women

4. Highlight local specialist referral pathways to support GP management of complex cases

5. Consider the use of clinical audit to highlight positive patient outcomes that result from changes in medication regimens in line with prescription
Cultural context may influence the degree to which medical practitioners value lifestyle modification as treatment approach for patients with hypertension. For example, only 21.4% of Chinese physicians provided regular advice or consultation on lifestyle changes to their hypertensive patients (Wang, 2004). Another factor that may influence lifestyle prescription for hypertension is inadequate patient adherence to recommendations on the part of patients. There was a general perception that GPs felt they were ineffective in their attempts support patients to change their behaviours. Health practitioners may believe patients have a low interest, and are unwilling or have not changed their health behaviours in response to previous interventions (Iversen, et al., 1998; Inkster, 2005). As such, physicians may feel less inclined to believe their effort to follow guidelines regarding lifestyle modification will be worthwhile.

Perceived time constraints may also prevent GPs from taking the time to explain the relevant lifestyle modifications necessary for effective reduction and/or prevention of hypertension (Howes, et al., 2010; Trilling & Froom, 2000). As such, whilst perceived shared decision making may be supported by GPs as an ideal ‘theoretical model’, some believe it is an ideal for which there is no time in the realities of daily practice (Steenkiste, et al., 2004). In light of this, GPs may benefit from working more closely from other health practitioners, such as pharmacists (Carroll, 2010), and practice nurses (Halcomb, Davidson, Yallop, Griffiths, & Daly, 2007) who may be in good position to be involved in monitoring and in reinforcing GPs’ recommendations regarding medication compliance and lifestyle issues.
Attitudes towards Lifestyle Prescription

1. Whilst some GPs may recommend lifestyle interventions they may have low expectations of the efficacy of strategies to reduce hypertension

2. Many GPs do not believe that patients will follow lifestyle advice, and thus may not bother with prescribing lifestyle recommendations

Recommendations

Programs should:

1. Provide and promote evidence for the efficacy of lifestyle interventions to aid blood pressure control
2. Attempt to improve GP efficacy in regards to their resources they have to support positive lifestyle changes
   a. Promotion of benefits of multidisciplinary care and development of models
   b. Promotion of local IDGP programs and other allied health supports
   c. Promotion of clinical audit/feedback & monitoring may help to provide evidence to GPs of the efficacy of evidence based lifestyle interventions
Other evidence-based strategies to improve GP use of evidence based guidelines

What has been shown to work?

Addressing beliefs and attitudes and changing physician behaviour can be a difficult task. Other evidence-based strategies that the IDGP may consider to support GPs in their application of clinical guidelines (in this case hypertension guidelines) are outlined below.

- **Ensuring clinician participation** - Interventions most likely to induce change are those that require the clinicians’ participation in the change process (Wise & Billi 1995).

- **Highlight the credibility of clinical guidelines** - guidelines that have been endorsed by professional groups such as colleges or the NHMRC are more likely to be taken up by clinicians.

- **Use opinion leaders and ‘champions’ in educational activities** (Lomas et al. 1991; Oxman et al. 1995; Davis et al. 1995).

- **Utilise effective academic detailing/practice visit strategies** - visits to practices should be conducted by influential (but independent) peers (Oxman et al. 1995). Visits should occur in a doctor’s own practice, provide specific advice about a particular matter (e.g. the prescription of a particular drug), with well prepared data, simple memory aids (May et al. 1993; Todd 1995).

- **Provide patients with parallel information and education**—Patient information and education can lead to improved outcomes when undertaken with other activities such as academic detailing and clinician education (EHCB 1994; Oxman et al. 1995).

- **Use computer-based simple reminders** to increase doctors’ compliance for single procedures (Iversen, et al., 1998).

- **Utilise audits and feedback** help improve GP adherence to guideline (Trilling & Froom, 2000).
Discussion

This review of the literature highlights multiple barriers to GPs applying evidence-based guidelines in their management of hypertension in the general practice settings. These include knowledge, attitudinal and behavioural issues that are likely to require a multi-pronged strategy (including and beyond the life of the ‘Dementia Risk Reduction Education Program’) for the IDGP to address.

Knowledge and clinical audit

In regards to knowledge, GPs may have inadequate knowledge of current hypertension clinical guidelines and may perceive their knowledge to be better than it is. Evidence from this review suggests that promoting guidelines and awareness alone is likely to be insufficient to influence behaviour change. In light of current evidence, we recommend that the IDGP consider accompanying awareness raising and education with clinical audit/feedback to highlight knowledge deficits, (as well as to provide feedback to assist in addressing numerous attitudinal issues) in relation to guidelines recommendations.

Screening and classification

Attitudinal barriers highlighted the fact that GPs may not accept current guidelines and classifications regarding hypertension. They also may not consider the risks associated with low - moderate BP to be very significant, and as such, may accept higher blood pressure readings in their patients before intervening. In this, the IDGP is well placed to promote the links between hypertension and dementia risk to local GPs as a means of increasing the priority of hypertension screening in the minds of physicians. Due to current local partnerships the IDGP could take advantage of resources developed specifically for local health professionals (and parallel resources developed for the local patient population) as part of the ‘Healthy Heart, Healthy Mind’ project. The IDGP may wish to extend this local campaign through their own program, via the targeted provision of these resources within General Practices who have enrolled in the program, and via targeted mail out to patients in the target group, prompting them to visit their GP to ‘Keep their Blood Pressure in
Check’ (see website for publically available resources www.healthyhearthealthymind.com.au).

In regards to the classification of cardiac risk, if the IDGP wishes to promote the use of risk tables within existing guidelines, strategies will need to address GP efficacy to use such charts and also perceived time constraints associated with their use. Research with Australian GPs also suggest that practical strategies such as the promotion of systems to support home monitoring of BP and the promotion of multidisciplinary monitoring and care models may also address perceived time constraints.

Drug treatment

Some GPs are reluctant to initiate drug treatment at the levels recommended in guidelines, with a tolerance for higher than recommend levels. When GPs do initiate drug treatment, they may have a preferred drug treatment regimen and may be reluctant to increase or change medications (even if preferred treatments are ineffective). GPs may also associate the use of anti-hypertensive with negative patient side effects and decreased quality of life. To address these barriers, the IDGP should consider emphasising and promoting evidence for the efficacy of drug treatments at levels recommended by guidelines. Educational strategies and practice support activities should specifically address myths/misconceptions regarding negative side effects of medications (particularly combined therapies). Once again, the use of clinical audit to highlight positive patient outcomes that result from changes in medication regimens in line with prescription recommendations. For difficult and complex cases, the IDGP should ensure the development and promotion of clear pathways to support GP referral to local hypertension specialists. Educational strategies should also consider engaging with GP concerns regarding patient age and co-morbidity and the beliefs which may lead to the under-treatment of hypertensive women.

Lifestyle Prescription

Whilst some GPs may recommend lifestyle interventions they may have low expectations of the efficacy of strategies to reduce hypertension. Many do not believe that patients will follow lifestyle advice, and thus may not bother with
prescribing lifestyle recommendations. To address these control factors, IDGP activities should consider the preparation of resources and educational activities which promote the evidence for the efficacy of lifestyle interventions to aid blood pressure control. Strategies should also aim to improve GP efficacy in regards to their resources they have to support positive lifestyle changes. Evidence based strategies from the literature include: promotion and support of multidisciplinary care and development of an acceptable local model; promotion of the role of PNs; and the promotion of local IDGP programs and other allied health supports. Also, again the use of clinical audit/feedback & monitoring may help to provide evidence to GPs of the efficacy of evidence based lifestyle interventions.

**Conclusion**

The aim of this review was to inform the content of educational workshops and complementary practice support activities in regards to the key issues in regards to hypertension screening and management that could be addressed within activities for this project. The review highlights multiple barriers to GPs applying evidence based guidelines in their management of hypertension in the general practice settings. Evidence suggests a multi-pronged strategy including clinical audit and feedback, a parallel patient education strategy and an educational program which addresses attitudinal as well as practical barriers will be most successful in improving adherence to current evidence based guidelines.
References


Part Two

Results from Focus Groups with Target Audience (45 to 64 years)
Part Two: Results from Focus Groups with Target Audience

(45 to 64 years)

To inform the content of ‘GP Dementia Risk Reduction Education Project’ activities, the IDGP has contracted the Centre for Health Initiatives (CHI) to conduct formative research to identify key issues in regards to hypertension screening and management that could be addressed within activities for this project. This report provides results from a series of focus groups that have been undertaken by CHI with the secondary target group (community members aged 45 to 64 years). The formative research with the 45-64 year old target market specifically sought to identify barriers to help seeking from GPs regarding dementia risk reduction, hypertension screening and support for modification of relevant lifestyle factors. The outcomes of this research will be used to provide emphasis on the issues of greatest priority to be addressed within the GP and PN activities, as well as to inform the production of supportive patient-focused campaign materials and messages.

Method

A convenience sample of community members (age range 45 to 64 years) was recruited via community networks and local media as part of the ‘Healthy Heart, Healthy Mind’ community campaign for participation in five focus groups. An additional three groups were conducted specifically for the ‘GP Dementia Risk Reduction Education Project’ and were recruited via internal university email lists. Overall, a total sample of 42 participants took part in the discussions. All groups were conducted on campus, and were audio recorded and transcribed. Transcripts were thematically analysed utilising the Health Belief Model (HBM) (Rosenstock, 1966; Janz and Becker, 1984), as a means of understanding the perspectives of the target audience regarding both hypertension and dementia. The HBM is a widely used conceptual model, accounting for both change and maintenance of health-related behaviours. The HBM is based on the theory that if an individual has both the desire to avoid a condition or get well (value) and the belief that a specific health
action would prevent an illness (expectation), then they are more likely to engage in personal action. In this way it is said to be based on a value-expectancy framework. Beliefs of personal susceptibility and severity of an illness or condition are also taken into account.

**Results**

**Health Belief Model: Perceived Susceptibility**

**Perceived Susceptibility to Hypertension**

Perceived susceptibility refers to an individuals’ perceived level of personal risk of contracting or developing an illness or health condition.

For many participants, having previous ‘low blood pressure’ measurements in the past appeared to decrease their perceived lifetime susceptibility. In this sense, people talked about their blood pressure like a characteristic of their personhood, perceiving having low blood pressure as an unchanging personal feature, and not necessarily something that may change overtime, and therefore require monitoring.

“I actually have really low blood pressure... so I know not to get it checked” (Focus Group 6)

“I feel lucky to know I have low blood pressure...so it’s not an issue for me” (Focus Group 2)

However, some participants did perceive both demographic factors and lifestyle factors could make people more susceptible to developing high blood pressure. Older age was the demographic factor most commonly associated with increased susceptibility to developing hypertension. Seniors (or people over 60 years old) were considered the most likely group to experience the condition. It was also believed that the older age group were more likely to know if they had high blood pressure as they were more likely to have their blood pressure checked.

“If he’s 60 and he would have had his blood pressure tested quite a few times up until now; at 50 they don’t bother checking your blood pressure very much” (Focus Group 7)
"A 60 year old can relate to someone needing to have their blood pressure taken" (Focus Group 6)

The major lifestyle risk factor for hypertension identified by participants was stress. Other risk factors identified included having children, smoking, drinking alcohol, and unhealthy diet (including consumption of carbohydrates, fat, salt, processed foods and protein/red meat). Participants felt that other health conditions also contributed to higher susceptibility to hypertension such as being overweight, having a history of a heart attack, or having Type 2 diabetes.

The most frequently nominated protective lifestyle factor identified as being able to reduce susceptibility to hypertension was a healthy diet. This included consumption of vegetables, fruit, natural remedies, supplements, calcium, ‘good fats’, flaxseed oil and vitamin B. The second most frequently mentioned protective lifestyle factor was exercise. Other factors identified by participants included relaxation activities (such as meditation, yoga, massage, deep breathing), maintaining a healthy weight, maintaining a healthy work-life balance, socialising, counselling and spirituality. Having regular health checks, including monitoring blood pressure, was also identified as a means of reducing susceptibility to hypertension.

Interestingly, despite all groups identifying the links between lifestyle factors and susceptibility to hypertension, three groups expressed beliefs that hypertension was difficult to control and that, despite good behaviours, many people were still susceptible to developing high blood pressure. This tended to reflect an attitude that lifestyle interventions were not always very effective, and that in the end the development of hypertension was beyond the control of some people.

“My husband’s really fit but he still has to take medication for high blood pressure” (Focus Group 6)

“You can live really, really healthy as you say and eat, but you can still have, you know, high blood pressure” (Focus Group 5)

This lack of control in regards to the development of hypertension and the ability to protect one’s self against it was also evident in the ‘silence’ of hypertension.
“It’s a very silent thing, blood pressure, you could have it and you don’t know; silent killer, you may have it and you don’t know…and there is nothing you can do about it.” (Focus Group 6)

**Perceived Susceptibility to Dementia**

As for hypertension, participants commonly perceived older age groups as being more susceptible to dementia. In this, increasing age was correctly identified as a primary risk factor for dementia.

“60 plus but I realise it can affect other people younger than that; perceive it as an older person’s disease... And older I’d say is maybe 55 to 60 plus” (Focus Group 2)

“Old age; a common problem to you as you grow old; an old person’s disease” (Focus Group 6)

However, a few participants also recognised that dementia is not necessarily confined to older age groups:

“Can happen to younger people; age related sort of argument has disappeared a long time ago” (Focus Group 5)

Secondly, all groups correctly identified increased susceptibility associated with having a family history of dementia.

“...something in your genes or it’s genetic or neurological but something that the wires could switch” (Focus Group 2)

“When you see your parents progressing to that type of illness you start wondering, well is this going to happen to me?” (Focus Group 5).

However, a few participants did not believe there was a genetic risk and made statements to the contrary.

“I’m told it’s not hereditary” (Focus Group 3)

There were also wide-ranging opinions as to other possible causes of dementia, all potentially influencing perceptions of susceptibility. Some participants attributed the cause of dementia to other health conditions or incidents:
“My mother’s dementia, I believe, was triggered by anaesthesia” (Focus Group 3)

“...diabetes; diet related; depression; head injury” (Focus Group 5)

“I believe his Alzheimer’s was triggered by a traumatic event; you could have a stroke or a slight stroke and end up with dementia” (Focus Group 3)

However, many participants expressed lack of knowledge of the cause of dementia, while others recalled misinformation.

“The root cause of dementia to me is an unknown; I don’t know what causes dementia; what driving forces are behind it I’ve got no idea; it’s just a big can of worms” (Focus Group 4)

“It might be exposure to this or to that or to something else that increases your likelihood or probability of being a sufferer” (Focus Group 4)

“...fable that dementia was caused by using aluminium saucepans” (Focus Group 2)

Perhaps related to this lack of knowledge, others expressed fatalism in regards to the development of dementia, with comments that there was no control over who may develop dementia and little that could be done to prevent it:

“When you see people who’ve developed Alzheimer's or dementia, they’ve been really high powered people... they’re academics or whatever else, their whole life’s focused on remaining mentally active and yet they’ve developed dementia; Just to make it harder, it’s random; there are people that no matter what they do... it’ll happen” (Focus Group 5)

Participants did identify a range of lifestyle changes and strategies for prevention of dementia. The most common factor identified was keeping the brain active, and specific activities suggested included crosswords, reading, Sudoku, and personal development/study. Several participants also mentioned ongoing involvement in social activities.
“To try to stimulate your brain as much as you can” (Focus Group 3)

“Just keeping your mind as alert as possible; the brain being a muscle, yet if you stretch it and exercise it and look after it that it will look after itself” (Focus Group 8)

“A lot of contact with a variety of people; exposed to a variety of people, different age groups, that sort of thing, rather than just sort of staying in, you know, I think that sort of expands your mind” (Focus Group 5)

Other lifestyle factors that participants identified as being beneficial in preventing dementia included physical activity/exercise and diet (such as taking supplements, vitamins, fish oils, antioxidants, and drinking water) along with maintaining a healthy weight. Some participants also mentioned stress management, cholesterol management, and taking medications as methods to help prevent the onset of dementia.

**Perceived Susceptibility: Hypertension and Dementia Link**

Importantly, there were no participants who identified hypertension as linked to the development of dementia. As such, the link between hypertension and dementia was new knowledge, and challenged their existing beliefs, and for some their life experiences.

“My mother has... very high blood pressure... and she’s fine (fine regarding dementia); I just look at my mother, all the trouble she’s had all her life with her blood pressure and yet she’s spot on (regarding dementia)... I can’t put them together for that reason” (Focus Group 5)

“My mother had really low blood pressure, all her sisters did and they ended up with dementia” (Focus Group 8)

As such, there was some disbelief in regards to the proposed link between hypertension and dementia.

“I don’t know if that’s true or not; are there other causes of dementia and other things we can do to reduce our risk of dementia, not just blood pressure” (Focus Group 2)
Health Belief Model: Perceived Severity

Perceived severity refers to an individual’s perceived concern about the seriousness of a health condition. This includes perceptions about the risk associated with leaving it untreated, severity of the consequences of a condition (e.g.; pain, death, etc.) and possible social consequences.

Perceived Severity of Hypertension

One participant described hypertension as a ‘silent killer’ and others identified several health conditions associated with hypertension including overweight/obesity, having a history of a heart attack, and having Type II diabetes. However, for many the condition did not appear to be perceived as particularly severe. For example, they did not express particular fear in relation to developing it and were often quite general in relation to the consequences associated with high blood pressure.

“High blood pressure seems to have effects on your health in many ways” (Focus Group 2)

“It’s not all doom and gloom” (Focus Group 1)

Perceived Severity of Dementia

In contrast, participants expressed significant fear in regards to developing dementia and this theme was evident across all groups:

“...feelings of anxiety, concern, dread, fear; I always get a feeling of dread that I’m going to end up that way” (Focus Group 1)

“...something I fear of getting; very, very concerned about it”

(Focus Group 3)

Most participants alluded to the lack of quality of life for people suffering with dementia:

“...hope...that you pass before your brain gets to that point because it’s also about quality of life; no quality of life; towards the end and the
person can’t even remember, doesn’t even know how to breathe or feed” (Focus Group 4)

Participants identified the impact on social capacity and subsequent alienation of sufferers with dementia, as well as their inability to work or contribute to society:

“...withdrawing their contact and their communication with the rest of the world. I think they just shrink into themselves” (Focus Group 4)

“...unable to cope and so maybe then they are not in the work force... depending on how serious it is, you couldn’t then cope in the work force” (Focus Group 2)

Participants perceived loss of memory and personality changes that may occur with dementia to be of particular concern, such as feeling ‘lost’, being forgetful, confused, frustrated or aggressive, stressed, sad, afraid or unable to cope.

“Loss of self, the person that you were, are or will be is no longer an option” (Focus Group 5)

“Frightened because they can’t remember” (Focus Group 6)

“It’s not just about forgetting people’s names, because that’s pretty common, it’s forgetting how to do things” (Focus Group 5)

“Just not being in control” (Focus Group 5)

Participants also identified the risk of injury to self and others for people suffering with dementia as quite severe:

“You’d be dangerous or it could be dangerous to yourself or to others; a lot of things would have to be put in place to protect this person” (Focus Group 2)

“...no longer safe for them to drive, it’s no longer safe for them to cook” (Focus Group 4)

“It’s sort of a mental disease and I think there’s more stigma with mental diseases than physical diseases; I think there’s some sort of social stigma
with it”  
(Focus Group 2)

“Sometimes we might hide dementia. It might be something that you wouldn’t like people to know that your wife or partner or husband’s got it”  
(Focus Group 2)

Participants also perceived that a diagnosis of dementia equated with a considerable burden on others (especially family):

“...becoming a burden on others” (Focus Group 5)

“...put pressure on the rest of the family to sort of carry that burden”  
(Focus Group 3)

Poor treatment efficacy was also perceived for dementia, and this was contributed to the perceived severity of the diagnosis for participants.

“...It’s incurable” (Group 1)

“Dementia - it can’t be reversed” (Group 2)

“Non-reversible; I believe medication won’t cure it; death sentence”  
(Group 5)

**Perceived Severity: Hypertension and Dementia Link**

Within the focus group discussions, it appeared that the participants’ perceived the severity of hypertension to increase with the new knowledge that having high blood pressure increased the risk of developing dementia.

“...concern in regards to the potential of having high blood pressure and knowing that there’s a sort of smorgasbord of diseases and chronic diseases at that it’s linked to [dementia]” (Focus Group 1)

“Getting the blood pressure checked is the most important message in possibly reducing the risk of dementia... thinking high blood pressure can lead to dementia... it just stays in your mind...” (Focus Group 5)
“I didn’t know high blood pressure was a cause of dementia until now... I find it really shocking.” (Focus Group 6)

Health Belief Model: Perceived Benefits

Perceptions based on the efficacy of detection and management strategies to reduce risk or the impact of a condition, will contribute to the actions an individual takes. In other words, if an individual believes that taking a specific course of action will be effective in reducing the threat of a condition (i.e.; their perceived susceptibility and perceived severity), then they are more likely to take that course of action.

Perceived Benefits: Hypertension Screening and Management

The procedure used to measure blood pressure was not perceived by participants as problematic.

“Blood pressure... it’s not a hard thing to do, you know, it’s pain free, it’s easy, just go down to your family doctor they’ll help you” (Focus Group 1)

“Very easy to do, so get your blood pressure checked, it’s no big deal. You can do it any time and if that reduces your risk” (Focus Group 5)

Perceived Benefits: Management of Hypertension to Control Dementia

Participants identified controlling hypertension to reduce the risk of dementia as an additional benefit of hypertension management. Participants felt it was important that the community understood the link between hypertension and dementia in order to increase potential control over their susceptibility to dementia and to reduce their fear.

“If people are educated and get enough information they mightn’t be fearful if they know there’s some form or some way of preventing it (dementia) and whether medication is the panacea or lifestyle, exercise, like so many other things that can make a difference to our health, mental and physical; if you can reduce your blood pressure it might be
better for you when you get older, then I think that’s information people should have” (Focus Group 6)

In this context, participants perceived that information about the link between hypertension and dementia was a positive message, giving hope that there was something that could be done to prevent dementia.

“The earlier that you know then you can start doing something about it. It’s not all doom and gloom, it’s like you know, so you can take preventative measures” (Focus Group 1)

However, there was evidence within group discussions that participants were still doubtful that dementia could be prevented, and tended to refer more to the belief that controlling hypertension may possibly delay the process:

“I don’t think it can be prevented... but I do think the onset of the disease can be delayed” (Focus Group 1)

“It’s just going to slow down the process... isn’t going to, I think, stop the process, the physical process” (Focus Group 4)

In this light, messages would benefit from providing convincing evidence of the link and be delivered by a credible source (e.g. a health professional).

Health Belief Model: Perceived Barriers

The perceived negative aspects of a particular health action can influence the likelihood of undertaking an action, such that if a person believes there are too many costs or negative consequences involved in taking a preventative or management actions then they are less likely to take that action.

Perceived Barriers: Hypertension Screening

Participants identified lack of awareness about when, and how often, they should be getting their blood pressure checked, and they expressed difficulty understanding blood pressure guidelines. Four groups raised similar issues, for example:
“How often should I be getting my blood pressure checked?; ...what numbers mean high blood pressure?... see whether I’m in that group or not because I’m not really sure whether I know what high blood pressure numbers are” (Focus Group 1)

“we don’t have the knowledge to know what we should be doing, so does a person in their, I don’t know, this age group, is it 45 plus, do people even know to get their blood pressure checked?; it’s 90-ish over 60-ish, 80-ish max, like 70-ish max; But I sort of know what low is and I think I’d sort of know what high is but what is normal?” (Focus Group 6)

Four groups raised issues with GPs as potential barriers to hypertension management. Some perceived a general lack of availability of service, while others identified trust or responsibility issues, or general lack of feedback/advice regarding blood pressure results.

“You need to make sure you have GPs available” (Focus Group 1)

“when you get vague responses like, oh that’s fine or it’s a little bit high, you know” (Focus Group 1).

“I have no medical qualifications at all, I’ve got to be assured that what the doctor’s saying to me is medically correct; we rely on the medical practitioner to change us if we need to be changed” (Focus Group 2)

Despite individuals perceiving the procedure of having their blood pressure checked as feasible, several groups raised the issue of barriers to visiting their doctors including personal lack of time, and the perceived lack of importance of hypertension screening as compared with other health issues.

“people, at least at 45, busy, homes, full-time job, whatever, wouldn’t just go and get a check-up unless they had to” (Focus Group 6)

“I mean I’m healthy so I only go to the doctor when I’m sick. I never go just to check my blood pressure; how many people, unless you’re ill ... go to the doctor” (Focus Group 6)
“But you don’t go to the doctor’s just to get your blood pressure checked; put off going to the doctor until they’re like dying” (Focus Group 8)

**Perceived Barriers: Hypertension Screening for Preventing Dementia**

Disbelief in regards to the proposed link between hypertension and dementia expressed in the groups is potentially a barrier to undertaking hypertension screening and management in order to reduce the risk of dementia:

“I don’t know if that’s true or not; are there other causes of dementia and other things we can do to reduce our risk of dementia, not just blood pressure” (Focus Group 2).

**Health Belief Model: Cues to Action**

Within the HBM, it is considered that if perceived threat of a health condition is high (i.e. high levels of perceived susceptibility and severity), then cues or reminders to undertake an action to reduce that threat can be very effective. These cues can move individuals from a state of ‘readiness’ to taking preventative or other health actions. Cues may include intrinsic signals (e.g. bodily symptoms) and environmental triggers (e.g. messages via media or publicity).

**Cues to Action: Hypertension**

Family history of high blood pressure was identified by participants as an important cue to hypertension screening:

“If it’s in your family to start with I would say right from the time they’re young... and keep track of it all the way along” (Focus Group 1)

Participants also commented on the growing awareness in the community of the benefits of blood pressure management.

“People have much more awareness of blood pressure being a problem”

(Focus Group 1)
“If you can reduce your blood pressure it might be better for you when you get older” (Focus Groups 6)

However, several participants also commented on the need for increased information and awareness to increase uptake of blood pressure monitoring and management. A range of sources of information were identified, including chemists, health funds, Medicare, and government departments:

“A chemist could give you good information; we go to the same chemist... So they know more about what we’re having as a family than our GP. They see all the scripts that are coming through. Yeah, I think they’d be a good source” (Focus Group 1)

“...health fund, if you’re a member... log onto their web site or you receive correspondence from them” (Focus Group 1)

**Cues to Action: Hypertension and Dementia Link**

Despite some disbelief, information regarding the link between hypertension and dementia was identified as an important cue to action for blood pressure screening. In all groups, participants expressed being shocked or surprised by this information:

“it’s new information to me; I think if there is that link, then I think that’s new information for the community” (Focus Group 1)

“I’m surprised; no one outside knows [what] high blood pressure is, like I didn’t know high blood pressure was a cause of dementia until now; I find it really shocking and I think that’s good. I was glad that it made me go like that because it caught my attention” (Focus Group 6)

“getting the blood pressure checked is the most important message in possibly reducing the risk of dementia; thinking high blood pressure can lead to dementia is like, it just stays in your mind” (Focus Group 5)
Discussion

Participants in the focus groups perceived hypertension to be a condition associated with increasing age, lifestyle factors and other health conditions. Their knowledge of risk factors - unhealthy diet, lack of exercise, alcohol consumption, smoking and salt intake - is consistent with evidence and current recommendations (Heart Foundation 2008). Most participants were also aware of the lack of symptoms of hypertension, and of the range of health conditions for which it is a risk factor.

However, there was also evidence of a belief that hypertension was asymptomatic and beyond the control of some individuals. This belief may contribute to a sense that lifestyle choices were often not sufficient to prevent many individuals from developing or controlling high blood pressure. As such, doctors may benefit from emphasising the efficacy of lifestyle interventions with their patients to counter this belief. The formalisation of supported lifestyle prescription, follow up and feedback regarding the outcomes associated with changed behaviour may also help to shift these beliefs in the target group.

There was also a perception that some may perceive blood pressure as a personal characteristic, and that they either have high blood pressure or don’t. This could indicate that blood pressure screening may be perceived differently to other screening behaviours (such as mammograms or pap smears) where people may be more aware that these conditions may ‘develop’ and thus require regular checking. This may indicate the need for communication with patients that blood pressure can change and, like other screening behaviours, regular blood pressure checking is essential to monitor any changes that may occur.

Whilst patients were aware of hypertension screening, and while they perceived having the procedure associated with having their blood pressure taken to be a simple and painless process, several perceived barriers to having this attended to in a general practice setting. These barriers included a lack of time to visit the doctor due to their busy lifestyle, or not perceiving the importance of screening to warrant the cost (time or money) to visit their GP. Potentially increasing the perceived importance of hypertension screening and management, as well as increasing accessibility of blood pressure screening, is required. In response, GP
practices could consider the use of patient reminders for hypertension screening (such as those used for pap smears or immunisations).

Respondents also identified increasing age as the main factor linked to susceptibility of developing dementia, and while evidence confirms that age is the biggest risk factor, dementia is not considered to be a normal part of ageing. There appeared to be diverse views regarding the aetiology and other risk factors for dementia within the focus groups. This is consistent with other research which shows that the general public’s knowledge concerning dementia prevention is not based on scientific evidence (Low and Anstey 2006). As such, this research confirms that the general public would benefit from general education in regards to dementia risk reduction. Specifically, this project represents an opportunity to improve public knowledge in regards to the fact that high blood pressure is a risk factor for dementia.

Many participants perceived that dementia had a genetic component, and others identified lifestyle factors as potential risk factors for dementia. Some participants thought that suffering accidents or experiencing other health conditions were linked to dementia, however hypertension was not identified as a risk factor. Of concern was that many participants held somewhat fatalistic attitudes toward dementia, with a perceived inevitability regarding who might develop the condition. Such beliefs were accompanied by perceptions that there was little that could be done to prevent or treat the condition. This is despite some cognisance of a link between lifestyle factors and reduced risk of dementia demonstrated by other participants, including a healthy diet, exercise, mental stimulation and social engagement.

A high level of fear was displayed by participants in relation to developing or being diagnosed with dementia, and this was coupled with a lack of perceived efficacy of dementia screening, treatment and support services. Many respondents commented that there is little that can be done once dementia develops. Participants were, however, able to identify some of the major impacts that developing dementia can have on an individual including the impact on quality of life, and the impact on an individual’s social functionality as well as burden on the family. Generally, respondents displayed perceptions of negative consequences associated with being diagnosed with dementia. Therefore, strong communication
regarding the importance of screening and the benefits of early intervention in dementia management is needed (as well as information on available treatment and support services).

However, participants in the focus groups were generally surprised when advised of the link between hypertension and dementia, and believed this was important information for the general community to motivate them towards hypertension screening and management. This link is currently being publicised as part of the local community based campaign in the Illawarra (‘Healthy Heart, Healthy Mind’). These communications would be enhanced if health professionals such as GPs and PNs also became a conduit for the message that ‘high blood pressure is a risk factor for dementia’, particularly given the evidence that some participants found it difficult to believe. Pharmacists and other health service providers such as health funds, were also identified as useful sources of information regarding hypertension screening and management, and could also be considered as potential communicators of a dementia risk reduction message.

**Recommendations**

**Practice Support Activities**

As part of the project, academic detailing about the link between hypertension and dementia will occur with both general practitioners and practice nurses. The content of these activities will be informed by Report 1 (Literature Review) and also by future consultation with GPs and PNs who are members of the IDGP. It is documented that academic detailing that provides clear, evidence-based messages within the general practice setting is successful in improving general practitioners’ knowledge, and a change in self-reported practice which potentially leads to overall improvement in patient outcomes (University of Queensland, 2004).

However, from these focus groups with the target audience it is also evident that the GP Dementia Risk Reduction Education Project presents a clear opportunity for GPs and PNs to address patient knowledge gaps in the target audience and
become a conduit of the dementia risk reduction message ‘High Blood Pressure is a Risk Factor for dementia’. There is evidence from the focus groups that this message may be a motivator to people in the target group to both have their blood pressure screened and to increase their perception of the seriousness of high blood pressure to their health. To build on the work of the local community campaign, the IDGP could consider targeting patients 45 to 64 years in participating surgeries with related campaign materials, as a means of increasing patient knowledge and promoting visits to the practice for blood pressure screening. This could be done via patient mail outs, or directly to patients in the waiting rooms and/or as a part of an educational strategy with GPs and PNs personally communicating and distributing patient information to patients as part of a consultation. A such, the IDGP should consider the provision of the use of these existing resources as part of their practice support activities.

However, focus groups also highlighted that there are barriers for patients to engaging with GPs regarding blood pressure screening and management. Academic detailing works on the assumption that the target group will present to GP surgeries at which point they can be engaged with regards their blood pressure management, and receive lifestyle risk management education. The campaign will need to stimulate people to visit GPs regarding their blood pressure, by offering encouragement, stressing the importance of doing so, making clear that GPs will be happy to engage with patients on this issue, and offering flexible appointment times to fit in around busy lifestyles. Therefore, practice support should also focus strongly on the relationship between GPs and PNs, and patients. PNs may offer a suitable conduit to improving the patient experience when presenting for hypertension screening. If the target audience are to be encouraged to visit GP surgeries to measure their blood pressure and discuss their lifestyle and risk management strategies, it will be crucial that practices are suitably equipped to deal with the demand. Given the considerable existing burden on GPs in terms of workload, participating practices should be encouraged to consider how they might cope with increased patient demands. For some practices, PNs may be able to carry out much of the screening and advice to patients under some level of supervision from GPs in the practice environment. For others, the promotion of alternative screening services available in community health settings may also be appropriate.
Academic detailing will also include support for IM/IT (information management and information technology) – to ensure patient records are up to date, hypertension is accurately recorded and, importantly, all relevant practice staff are capable of using the software. The Division has experience in all clinical software used in practices (for example Medical Director and PENCAT) as well as the up-skilling and training practice staff how to use the system. Evidence from focus groups suggests that the IDGP should also consider how information about blood pressure results from screening, and their implications, are communicated with patients. Strategies should seek to address some of the patient complaints raised in regards to not knowing what high blood pressure is, not really knowing if their doctor thinks their blood pressure is high, and not knowing how often they should be having their blood pressure checked. Once again, the IDGP is well placed to consider the use of resources developed as part of the community ‘Healthy Heart, Healthy Mind’ campaign such as GP referral cards on which GPs can write down patients’ blood pressures for them, and recommend re-screening timelines based on clinical guidelines. Information brochures (also developed as part of the ‘Healthy Heart, Healthy Mind’ campaign) with detailed information about ‘What is High Blood Pressure’ could also be provided to assist with patient education activities.

**GP and PN Education**

While education will be initiated through the academic detailing process mentioned above, more formal education will be provided to general practitioners and practice nurses as part of the project. A minimum of two formal education sessions will be provided to GPs and PNs on the link between dementia and hypertension and also the provision of lifestyle risk management and patient self-management strategies. The content of this will be informed by Report 1 (Literature Review) & future formative research with GPs and PNs in the IDGP. Consideration should also be given to the production of GP and PN resources that are complementary to the patient resources, ensuring a continuity and complementarity of focus.

**Patient Self-Management Strategies**

Although there is evidence supporting the importance general practice places on chronic disease management, it is reported that less than half of all
Australian patients receive the optimal quality of care and outcomes. One of the key reasons cited for this is the restricted engagement between general practice and patient self-management education programs (Harris and Zwar, 2007). Patient self-management of hypertension will be an important aspect of this project. Current Australian guidelines recommend lifestyle modification as an important frontline strategy for the management of hypertension in the general practice setting (Huang, Daddo and Clune, 2009; Huang, Duggan and Harman, 2008). Evidence-based guidelines for the management of hypertension developed by the Heart Foundation (2008) will be provided to clinical staff involved in this project.

As part of the IDGP GP Dementia Risk Reduction Project, GPs and PNs will be supported to refer patients internally and/or externally to receive the appropriate lifestyle modification advice. Internal referral could include the placement of patients on a GP Management Plan (GPMP) and/or a Team Care Arrangement (TCA) which ensures patients receive focussed care and support for the self-management of their chronic condition. For some practices, this service is provided by a PN during a dedicated nurse led clinic. There are also specific chronic disease management Medicare Benefits Schedule item numbers available for both GPs and PNs to claim which will be promoted to practices. External programs for referral include the ‘Lifestyle Modification Program’ (run by IDGP) and Heart Foundation Walking Groups, both of which may assist patients to achieve the required change. Information from the concurrent ‘Hypertension and Dementia Public Awareness Campaign’ will be delivered to patients and where appropriate, information about the ‘Mind your Mind’ program from Alzheimer’s Australia will be provided to patients. To ensure patients receive holistic care in regards to lifestyle modification, both internal and external referrals will be encouraged.

However, to maximise this potential, the academic detailing should also include support for GPs to maximise patient adherence to lifestyle management strategies to reduce hypertension. The provision of lifestyle risk management education to GPs and PNs could assist them in educating patients about the need to change their lifestyle and reduce their risk of a number of conditions, including coronary heart disease, diabetes and dementia (Royal Australian College of General Practice, 2004). The focus groups with consumers identified that people are aware that lifestyle factors contribute to the risk of hypertension and dementia.
However, there was a sense that some did not really believe that lifestyle interventions were efficacious. As such, as part of the GP Dementia Risk Reduction Education Project the IDGP could consider providing GPs with patient resources which prescribe lifestyle interventions that are evidence based and can support more effective behaviour change.

Prescription of lifestyle interventions should be formalised and outcomes followed up as a means of monitoring the effectiveness of local lifestyle intervention programs. Monitoring and following up patients’ progress may also be important to underscore the importance of lifestyle programs for patients, who may currently doubt their efficacy to improve their blood pressure control.

The lack of awareness among participants about the cause of dementia and its risk factors, and the high level of perceived severity of the condition suggests that providing information and raising awareness is an important first step. There is also potential that generating awareness could help to reduce some of the stigma surrounding dementia in relation to the general attitude that development of stigma is out of personal control.

**Key points**

**In response to the community consultation, the IDGP should as part of the GP Dementia Risk Reduction Project, could:**

- Provide resources for GPs and PNs to be part of a strategy to raise community awareness of the link between dementia and hypertension.
- Provide resources for GPs and PNs to be part of a strategy to raise community awareness of what hypertension is, how often people should be screened for it, and how it can be managed and treated.
- Provide education and resources to improve communication with patients about the results of their blood pressure screening episodes and how and when they should present for re-screening.
- Accentuate the link between lifestyle choices and risk management and reduction. The HBM illustrates how doing so can result in improved outcomes.
- Tackle the misconceived fatalistic attitude towards the likelihood of developing dementia. Addressing perceptions of susceptibility to dementia could potentially be beneficial as predicted by the HBM.
Work with GPs and PNs with a strong focus on managing relationships with patients presenting for hypertension screening, encouraging people to present, offering a welcoming environment, providing good advice and feedback, and offering convenient appointments.

Consider utilising PNs to deliver some of the services associated with any increase in demand for hypertension screening and patient education and advice due to the campaign.

Consider how GP practices can provide more patient centred services that address patient barriers (e.g. convenient appointment times, desire for specific feedback and advice for patients who present).

Alternatively, address patient barriers via alliance partnerships to provide and promote the screening of hypertension in alternative settings such as workplaces, pharmacies or by health insurance agencies.

Include a process evaluation component to gather feedback from GPs and PNs regarding the Healthy Heart, Healthy Minds campaign.

**Conclusion**

The aim of the community focus groups was to explore awareness of the link between hypertension and dementia; cognisance of the risk factors for hypertension and dementia; to explore perceptions towards dementia, risk management and reduction; and barriers to dementia risk management and reduction. The groups identified that respondents were not generally aware of the link between hypertension and dementia, suggesting that this link needs to be publicised. The groups also revealed that whilst respondents were aware of the link between lifestyle factors and hypertension and dementia risk they were not always convinced they could control them.

A fatalistic attitude towards the likelihood of developing dementia was identified, and this needs to be challenged to encourage the target audience to manage their lifestyles and risk of developing dementia. The research also identified barriers to screening, risk management and reduction facilitated by GPs in surgeries.
Respondents cited issues such as lack of time, poor feedback or service quality from GPs, and a perception that blood pressure screening does not warrant a visit to a practice. Therefore, the GP Risk Reduction Project will need to consider how to address these perceptions and encourage the target audience to present for screening and advice on risk management and reduction. This could be achieved by targeting patients with education resources that highlight that GPs will be happy to engage with them on this issue, and would welcome the opportunity to screen for hypertension.

Furthermore, service provision will be required to be more patient centred, for example offering convenient appointment times, and useful feedback and advice for patients who present.

Importantly, the campaign should seek to include a process evaluation component, for example interviews or focus groups with health professionals working in practices, to assess how they are dealing with patients presenting for screening and seeking information and advice and gather feedback and suggestions to improve the process.
References


Royal Australian College of General Practice. (2004).

Report 3

Results from the GP and PN Survey
Part 3: Results from the GP and PN Survey

Part 3 of this report presents the results of a survey carried out with GPs and PNs in the Illawarra. The aim of the survey was to explore GP knowledge and awareness of the links between hypertension and dementia. As well, the survey aimed to improve understanding of the willingness for local GPs and PNs discussing dementia risk reduction with their patients. The survey also explored GP knowledge and agreement with Hypertension Clinical Guidelines (NHF, 2008) and sought to establish barriers to screening and engagement of the target market (45 + years) in HT lifestyle and drug management strategies.

The survey was carried out as an alternative to focus groups with GPs and PNs due to difficulties in recruiting participants for these activities. The outcomes of this research will be used to tailor educational materials, resources and activities that will be utilised as part of the IDGP GP Dementia Risk Reduction program (i.e. practice engagement, lectures and workshops, academic detailing) and the production of supportive campaign materials and messages.

Methods

Survey tool development

The survey was developed to enhance understanding of the primary issues raised within the Literature Review (Report 1 - Critical Issues in the Screening and Management of Hypertension in General Practice). Issues identified within the review were included in the survey as a means of establishing local priorities and context for common barriers and issues already identified within the literature. The first part of the survey asked questions to establish GP and PN knowledge and beliefs in relation to the link between dementia and hypertension, and their willingness to discuss the issue with patients. The remainder of the survey was structured according to the Guide to Management of Hypertension (National Heart Foundation of Australia 2008-2010). These are the guidelines that are being promoting as part of the ‘GP Dementia Risk Reduction Education Project’. Specifically, the survey asked questions to establish priorities for education and support materials for the relevant
The GP Dementia Risk Reduction Education Project: Combined Report

parts of the guideline i.e. screening for hypertension; classification of cardiovascular risk, lifestyle modification and drug treatment. The survey was promoted to members of the IDGP via their newsletter, email lists and also to participating practices via the project officer.

Results

Results are based on 21 responses to the survey. Of these, 12/21 (57.1%) were GPs and 9/21 (42.9%) were Practice Nurses. 38.1% (8/21) were male; and 61.9% (13/21) were female. 52.4% (11/21) were aged between 35 and 50 years; 38.1% (8/21) between 51 – 65 years and 9.5% (2/11) between 20 and 35 years.

Hypertension and dementia link

Beliefs and attitudes

This survey sought to understand the beliefs and attitudes of GPs and PNs regarding the link between hypertension and dementia and their willingness to promote the link with their patients. Participants were asked the extent to which they felt the evidence for a link between hypertension in midlife and the development of dementia in later life was convincing. While most were in agreement that there was a link between hypertension and dementia (78%, 14/18), some neither agreed nor disagreed (22%, 4/18) (see Figure 1). Qualitative comments reveal some questioning about the strength of the evidence, even if respondents indicated agreement. For example:

“I would like to see more evidence based research to come to a final conclusion, but it is evident there is a link in some cases.”
While most felt that treatment of hypertension in midlife was an effective strategy for reducing the risk of developing dementia (83%, 15/18), almost one fifth neither agreed nor disagreed (17%, 3/18).

**Promotion of the hypertension and dementia link**

Participants were asked whether the evidence for a link between hypertension and dementia was a cue for them to promote screening in the 45+ age group. While 70.6% (12/17) agreed or strongly agreed, others neither agreed nor disagreed (17.6%, 3/17) or disagreed/strongly disagreed (11.8%, 2/17). Qualitative responses indicate that those who disagreed were already screening for HT as a regular part of their practice or as part of the 45+ health check. The majority of participants (82%, 14/17) indicated agreed or strongly agreed they would be willing to promote the link between hypertension and dementia to their patients in the 45 yrs + age group, whilst 18% (3/17) neither agreed nor disagreed that they would personally promote the link. Almost half of the participants (47%, 8/17) also agreed or strongly agreed that they would be willing to discuss the use of direct mail with colleagues in my practice as a strategy to promote the link between hypertension and dementia to our patients. However, 18% (3/17) indicated they would not be willing to discuss this
option. A large proportion of participants (35%, 6/17) were undecided. These results are depicted in Figure 2.

Figure 2: Agreement with the statement ‘I would be willing to discuss the use of direct mail with colleagues in my practice as a possible strategy to promote the link between hypertension and dementia to our patients.’

**Education and resource needs**

All participants (21/21) indicated that they would like to receive further information in regards to the link between hypertension and the risk of dementia for themselves. The highest preference was for an A4 fact sheet summarising the evidence (82%, 14/17) and (29.4%; 5/17) as a ‘discussion paper’ detailing the evidence. 41.2% (7/17) indicated that they would like to receive this information via practice support visits, and 23.5% (4/17) via a formal lecture or workshop or by email alert. A summary table regarding this topic, and others asked about in the survey regarding preferred formats and communications channels for educational resources can be seen in Table 1.

For patients, the most requested resource for promoting the link between HT and dementia was an A4 fact sheet (What is dementia, How do I reduce my risk) (82.4%, 14/17), followed by BP cards – to record BP numbers and prompt timeframe for follow up appointment (70.6%, 12/17).
Summary: Hypertension and dementia link

Most participants were in agreement that there is a link between hypertension and dementia (and that treatment of hypertension in midlife is an effective strategy for reducing the risk of developing dementia). However, a small segment remains unsure about the link, and a number were neither in agreement or disagreement with beliefs regarding the evidence. These results combined with qualitative comments highlight some uncertainty amongst GPs and PNs about the strength of the evidence. Perhaps as a result, the overwhelming majority expressed a desire for further information regarding the evidence of a causal link.

Recommended Actions: The IDGP should ensure all participating GPs receive appropriate materials which underscore the evidence of the link between hypertension and dementia.

Due to the hesitancy in some regarding the strength of the evidence, campaign messages should reinforce that dementia risk reduction is ‘one more good reason to keep your blood pressure in check’ rather than the only reason to promote blood pressure screening and management.

The most requested resources for GPs and PNs were for an A4 sheet which summarised the evidence for the link between HT and dementia. In order of preference, communication channels for receiving this information were via practice support visits, at formal lectures or via email alert. For patients, the most desired resources were an A4 fast fact sheet on dementia risk reduction and BP cards. The IDGP should provide these resources to participating practices and evaluate their use and distribution. If BP cards are used within practices, the efficacy of these to promote follow up screening should be evaluated. In willing practices, the IDGP could explore the efficacy of direct patient mail out to promote campaign messages and prompt screening within the GP setting.
Table 1: Summary table of educational topics, preferred formats and communications channels for GP and PN resources

<table>
<thead>
<tr>
<th>Topics</th>
<th>Agree of Strongly agree they would like more information</th>
<th>Preferred format</th>
<th>Preferred communication channel (1)</th>
<th>Preferred communication channel (2)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence for link between hypertension and dementia</td>
<td>100%</td>
<td>A4 fast fact sheets (80%)</td>
<td>Practice support visit (41.2%)</td>
<td>Email alert (23.5%) or Lecture/Workshop (23.5%)</td>
<td></td>
</tr>
<tr>
<td>Effective support of lifestyle modification</td>
<td>86.6%</td>
<td>A4 fast fact sheets (86.7%)</td>
<td>Lecture/Workshop (33.3%)</td>
<td>Email alert (33.3%)</td>
<td>GPs report least efficacy for smoking and alcohol behaviours</td>
</tr>
<tr>
<td>Drug treatment for uncontrolled hypertension</td>
<td>73.3%</td>
<td>A4 fast fact sheets (80%)</td>
<td>Practice support visits (40%)</td>
<td>Email alerts (33.3%)</td>
<td></td>
</tr>
<tr>
<td>Classifying cardiac risk and use of risk tables</td>
<td>66.6%</td>
<td>A4 fast fact sheets (80%)</td>
<td>Email alert (33.3%)</td>
<td>Practice support visit (20%)</td>
<td></td>
</tr>
</tbody>
</table>
### Table 2: Summary table of educational topics, preferred formats for patient education and resources

<table>
<thead>
<tr>
<th>Topics</th>
<th>Agree of Strongly agree they would like more information</th>
</tr>
</thead>
<tbody>
<tr>
<td>A4 fact sheet 'What is dementia? How do I reduce my risk?'</td>
<td>82.4% (14/17)</td>
</tr>
<tr>
<td>BP cards - to record BP numbers and prompt timeframe for follow up appointment</td>
<td>70.6% (12/17)</td>
</tr>
<tr>
<td>A4 fact sheet 'What is high blood pressure? How do I keep my blood pressure in check?'</td>
<td>64.7% (11/17)</td>
</tr>
<tr>
<td>Postcard - 'What is dementia? How do I reduce my risk?'</td>
<td>47.1% (8/17)</td>
</tr>
<tr>
<td>Postcard - 'What is high blood pressure? How do I keep my blood pressure in check?'</td>
<td>47.1% (8/17)</td>
</tr>
<tr>
<td>Public health campaign regarding link between HT and dementia</td>
<td>Qualitative comment</td>
</tr>
</tbody>
</table>

### Awareness of the Heart Foundation Clinical Guidelines

If GPs and PNs are to screen, diagnose and manage hypertension according to clinical guidelines, it is essential they are aware and agree with evidence based clinical guidelines. Participants in this survey were asked about their awareness and use of the Heart Foundation Guide to Management of Hypertension. 40% (6/15) of the respondents to this survey were either not sure or disagreed that they were aware of the guidelines, and the same proportion neither agreed nor disagreed with the guidelines (6/15).

**Recommendations:** Participants expressed a desire to receive more information and resources to assist them in treating patients at risk of hypertension and potentially dementia. The IDGP should be sure to provide all participating practices with the Heart Foundation Guidelines, and could also provide GPs and PNs with opportunities to discuss their recommendations e.g. via the practice support officer, or via a hypertension special interest group or email list serve group.

### Screening Diagnosis and Management of Hypertension

The remainder of the survey asked GPs various questions about the screening, diagnosis and management of hypertension. The following results have been
structured according to the relevant parts of the guideline being promoted by the IDGP as part of this project.

**Barriers to screening for hypertension**

From the literature review (Report 1) there were a number of barriers identified to screening and diagnosis of hypertension in general practice. These included hypertension screening not being a priority for GPs as they cope with increasing demand for appointments and pressure to reduce waiting times (McManus and Mant 2001). GPs may also believe that recommended procedures, such as multi-dimensional risk interventions, are too time-consuming to engage with (Iversen, Kristensen et al. 1998). Competing medical problems (Oliveria, Lapuerta et al. 2002) have also been cited as a barrier to diagnosis of hypertension i.e. in the context of limited time, GPs are evaluating a patient in terms of a hierarchy of medical issues. As such, hypertension screening may be judged to be low on that hierarchy, within the context of that particular presentation to the clinic.

In this survey, participants were asked about the barriers identified within the literature review in regards to their experience of conducting hypertension screening in their local practice. While most disagreed that it was difficult to prioritise hypertension screening for patients in the 45+ age group (60%, 9/15), participants did identify a number of other barriers to screening. These are given in Figure 4 below. Results reveal that competing medical problems were nominated as the most significant barrier, followed by patients in the target group infrequently attending the GP surgery.

![Figure 4: Barriers to screening for hypertension in the 45+ age group](image)

29/06/2011
Access to home and ambulatory monitoring

Home and ambulatory monitoring of blood pressure was identified in the literature review (Report 1) as important aid in diagnosing hypertension. This was confirmed in the IDGP survey with the majority of participants either agreeing (40%, 6/15) or strongly agreeing (40%, 6/15) that the use of home monitoring and ambulatory blood pressure monitoring are important aids in diagnosing hypertension. However, almost half of the participants reported some barriers to the use of these aides, with both a lack of access and cost identified by 47% (7/15) of participants.

Resources to support screening

Participants were asked an open ended question regarding how they could be best supported to increase screening rates in the 45+ age group. The main suggestion was the need to educate patients about the importance of having their BP checked. Respondents felt this could be achieved by a public education campaign or promoted via patient resources (fact sheets). Two participants believed the 45+ health checks should be promoted to patients, and that they should be made more appealing and more available to patients. Others asked for further information to be available for themselves (20%, 3/15) and two participants suggested automated recall or reminder tools to prompt them regarding when patients were due for hypertension screening. One participant suggested setting up a system so that nurses can check BP before they see the GP and another suggested making health checks available outside work hours for people in this age group.
Summary: Barriers to screening

The main barriers to screening for hypertension in the 45+ age group for the participating PNs and GPs were competing medical problems and rare attendance to general practice. Both indicate that screening programs that rely only on attendance by the GP within the general practice setting may be problematic. Community consultations (Report 2) also highlighted that making screening of blood pressure a patient priority may also prove to be a challenge.

Recommendations:

The IDGP project could consider supporting the piloting of complementary alternatives to GP/patient consultations for promoting screening within the target group. Evidence would suggest that nurse managed clinics which incorporate self-measurement training can be effective in hypertensive patient populations (Ulma, Huntgeburth et al. 2010), as are nurse led telemonitoring interventions (Bosworth HB, BJ et al. 2011). Alternative partnerships with other community groups or organisations which promote screening opportunities could also be considered, for example local pharmacies (McManus and Mant 2001). ‘Outreach’ screening programs such as those utilised within the ‘Healthy Heart, Healthy Mind’ project (www.healthyhearthepathymind.com.au) could also be supported by the IDGP.

Screening programs should also consider how they may address the cost and access barriers raised in regards to home monitoring of blood pressure. Loan systems linked with patient education within GP settings could be trialled for feasibility, acceptability and efficacy.

GPs and PNs also expressed a desire for patient fact sheets in various sizes and blood pressure cards to record patient BP scores and provide advice on the timeframes for follow up.

The IDGP could explore available ‘auto-alert’ options within existing GP software e.g. medical director) to prompt screening of those patients in the target group that do attend the GP surgery. Where these exist they should be promoted to participating GPs.
Classification of cardiovascular risk

Hypertension is often assessed within a framework of overall cardiovascular risk. From the literature review (Report 1), a study conducted with GPs in the Netherlands by van Steenkiste and colleagues (2004) identified that GPs may experience a number of barriers to the use of cardiovascular risk tables in routine practice. In particular, the study noted barriers around lack of knowledge and poor communication skills of the GP along with pressure of work and demanding patients.

In the IDGP survey, participants were asked about their views of cardiovascular risk assessment. In contrast to the literature, only one participant felt that the classification of cardiovascular risk was complex and problematic for them in their clinical practice. Of the nine participants who were aware of the Heart Foundation Guide to Management of Hypertension guidelines, regarding the classification of hypertension, two thirds (6/9) indicated that they agreed with the recommendations in the guidelines and one third (3/9) neither agreed nor disagreed with the recommendations. These results were consistent for classification of risk for patients with no co-morbid conditions and those with co-morbid conditions.

Education resources on classification of cardiac risk

Most participants (64%, 10/15) indicated that they would like to receive further information in regards to classifying cardiac risk and the use of risk tables. For information on cardiac risk, participants would prefer to receive ‘fast fact’ sheets summarising the evidence about classifications of cardiac risk (80%, 12/15) (see Table 1). Email alerts (33%, 5/15) and individual journal articles (27%, 4/15) were also seen as useful by some.

Summary & Recommendations: Classification of cardiovascular risk

Most of the participants who were aware of the Heart Foundation Guide to Management of Hypertension agreed with their recommendations regarding the classification of hypertension and only one participant felt that the classification of cardiovascular risk was complex and problematic for them in their clinical practice.
Despite this, almost two thirds of participants (66.6%) still indicated that they would like to receive further information in regards to classifying cardiovascular risk and the use of risk tables. The preferred format again was for an A4 ‘fast fact’ sheet summarising the evidence (80%), with the most popular communication channel via email alert (33.3%).

Drug treatment for managing hypertension

The literature review (Report 1) suggested that GPs may encounter issues when it comes to providing effective drug treatments for patients with hypertension. These included: not following recommended guidelines, preference for treatment regimes that are inconsistent with guidelines, reluctance to try new treatments even when current treatments are ineffective, and a reluctance to provide drug treatments for certain groups including the elderly and women.

In the IDGP survey, (46.7%, 7/15) were not aware of the Heart Foundation guidelines for initiation of drug treatment in hypertension. Of these participants, 7 agreed with the recommendations found in the guidelines whilst 8/15 neither agreed nor disagreed (perhaps due to not knowing what the recommendations are).

Participants were asked about difficulties in accessing specialist advice on drug treatment for hypertension. Opinions were mixed showing that some do find it difficult (40%, 6/15), some don’t find it difficult (27%, 4/15) and others neither agreed nor disagreed that they had any difficulties (33%, 5/15).

Most participants said that they would like to receive further information on drug treatments for patients with hypertension (73%, 11/15). Preferred format again was for fast fact sheets (A4) summarising the evidence (12/15), with a preference for delivery via informal practice support visits (40%; 6/15) or email alerts (33.3%; 5/15).
Summary: Drug treatment for managing hypertension

Almost half of the participants were unaware of the Heart Foundation guidelines for initiation of drug treatment for hypertension. Some participants also indicated difficulties in accessing specialist advice on drug treatment for hypertension.

Most participants would like to receive further information on drug treatments preferably as an A4 fast fact sheet via a practice visit or email alert.

Almost two fifths of GPs expressed some difficulty in accessing specialist advice regarding drug treatment.

Recommendations

- Provision of fast fact sheets via practice support visits or email alerts.
- Utilising the practice support officer to identify with participating GPs the nature of any ‘difficulties’ they experience (e.g. waiting times? lack of local specialists? Other?).
- The establishment and/or promotion of local specialist referral pathways to participating GPs.
- Promoting networking opportunities for GPs and cardiac specialists could also be incorporated as part of their education calendar.
- GP Social Networking sites could be promoted. For example, CHI is aware of network being developed by Dr Stephen Barnett (UOW) and CCG Training Ltd where special topics are discussed and GPs can ask for specialist advice on difficult cases.

Lifestyle modification for managing hypertension

Lifestyle modification can be an effective way of managing hypertension for some patients. However, decisions about when and for whom lifestyle modification advice is given may be affected by cultural context, time constraints and a lack of adherence by patients (see Report 1). In the IDGP survey, participants were asked to rank health behaviours (smoking, alcohol, diet and physical activity) according to
their perceived importance as risk factors for the development of hypertension. Results were varied which suggests that each GP has his or her own view of what are the most and least important risk factors for the development of hypertension. Overall, diet was seen as the greatest risk factor for the development of hypertension (36%, 5/14) and most participants were in agreement that alcohol was the least important risk factor (5%, 8/14).

For each of the main lifestyle risk factors, participants were asked whether they agreed that modifying these behaviours would be an effective strategy for managing hypertension in their patients. The majority of participants either always or mostly agreed that managing smoking, alcohol, diet and physical activity behaviours were effective strategies. Only one participant disagreed that modifying smoking behaviours, alcohol behaviours and that modifying diet were effective strategies.

![Figure 6: Agreement with the statement 'Modification of patient health behaviours is an effective strategy in the management of hypertension' for each risk factor.](image)

Participants in the survey were also asked whether they believed patients were likely to follow their advice if they prescribed a lifestyle modification. While most agreed that their patients would follow their advice for modification of smoking (53%, 8/15), alcohol (53%, 8/15), diet (73%, 11/15) and physical activity (80%, 12/15), almost half (47%, 7/15) indicated that patients may not follow their advice on smoking and alcohol (see Figure 4).
Figure 7: Agreement with the statement ‘Patients with hypertension are likely to follow my advice if I prescribe lifestyle modification’ for each risk factor.

The majority of participants (73%, 11/15) agreed with the statement, ‘Patients with hypertension would be more likely to follow my lifestyle advice if they knew it would also decrease their risk of dementia’ (see Figure 5). No participants disagreed with this statement, however 27% (4/15) indicated they neither agreed nor disagreed.

Figure 8: Agreement with the statement ‘Patients with hypertension would be more likely to follow my lifestyle advice if they knew it would also decrease their risk of dementia’.
The GP Dementia Risk Reduction Education Project: Combined Report

Education and resource needs - The majority of participants (87%, 13/15) agreed or strongly agreed that they would appreciate receiving further information about how to more effectively support lifestyle modifications in patients with hypertension. In order to support them to give lifestyle modification advice to their patients, most participants would prefer to receive ‘fast fact’ sheets (A4) summarising the evidence about behavioural risk factors (87%, 13/15) (see Table 1 for summary). Preferred communications channels were via email alerts (33%, 5/15), lectures or workshops (33%, 5/15), and practice support visits (27%, 4/15) and educational resources for patients (27%, 4/15).

Summary: Lifestyle modification for managing hypertension

Lifestyle modification for managing hypertension: Participants had varied views about lifestyle risk factor for hypertension and would like to receive more information on lifestyle modification treatments. Whilst diet was ranked the highest in terms of association with hypertension, GP self efficacy for prescribing effective lifestyle advice was lowest for alcohol and smoking behaviours.

Recommendations:

The IDGP could consider the production (or sourcing and dissemination) of resources to assist GPs to improve lifestyle adherence in patients (particularly for smoking and alcohol). Evidence based programs to support patient interactions and referral to support patient lifestyle change (particularly for smoking and alcohol) should be identified and promoted.
Discussion and Recommendations

‘Dementia Risk Reduction - One more good reason to keep your patient’s blood pressure in check’

Whilst most GPs agreed there was a link between hypertension and the development of dementia, there may still be some doubt around the strength of the evidence. Due to this we recommend that IDGP program build on GP confidence in other reasons for screening and managing hypertension. Messages should reinforce that dementia risk reduction is ‘one more good reason to keep your blood pressure in check’ rather than the only reason to promote blood pressure screening and management. Interestingly, 73.3% of GPs were also in agreement that patients would be more likely to follow lifestyle advice if they knew it would decrease their risk of dementia. This is a message that could also be promoted, particularly as almost half of all participants indicated that patients were unlikely to follow recommendations to alter health their behaviours.

Educational programs and materials

GPs expressed a strong agreement in regards to their desire for further information and educational resources for themselves in regards to many of the relevant topics. Overwhelmingly, the preferred format for these was A4 ‘Fast Fact Sheets’ which summarised the evidence. The two most preferred topics were for evidence for link between hypertension and dementia and regarding effective support of lifestyle modification.

In regards to communication channels GPs and PNs preferred informal contact with the practice support officer or email alerts. If the IDGP were considering further lectures or workshops, the two most desired topics were for evidence for link between hypertension and dementia, followed by effective support for lifestyle modification.

Whilst preference for receiving information via the practice officer was high, the use of email alerts should also be considered. Email distribution method would be efficient and could be combined with promotion of the other program activities and
The authors of this report suggest the establishment of an ‘email list serve’ group could also provide opportunities for members to provide responses to an interested ‘practice group’ about materials and information posted, and could be encouraged to share other articles or questions of interest to the group. We suggest such an activity could begin the building of a ‘community of interest’ or a ‘community of practice’ of GPs and PNs with an interest in this area and that the moderation of such a list could be performed by the practice support officer.

For patients, the most desired resources were BP cards (to record BP numbers and prompt timeframe for follow up) and supporting information about dementia risk reduction. GPs also believed there is a need for public education. This may explain possible support by half of the participants to explore the use of patient mail outs within their practices. The feasibility, desirability and efficacy of this strategy as a means of increasing public awareness and promoting screening within the target group within the GP setting could also be pursued within willing practices.

The IDGP should also ensure that participating GPs are informed about the recent Healthy Hearts, Healthy minds’ project within the Illawarra Shoalhaven Local Health District. The public website created by this program, and which still exists could also be promoted to GPs and patients during this project.

Overcoming barriers to screening for hypertension

Strategies to overcome barriers to screening for hypertension in general practice should also be addressed. Recommendations include:

- Supporting the establishment of alternative screening programs within general practices that are participating in the program (e.g. Nurse led clinics)
- Support of a home monitoring scheme which addresses access to equipment, cost and knowledge barriers (perhaps as an integrated part of the nurse led clinic (See (Ulma, Huntgeburthb et al. 2010).
- Survey participants also suggested that such alternative clinics could be run outside traditional work hours to cater for the particular needs of the target group
GPs expressed some difficulty with accessing to specialist advice particularly in regards to issues involving drug treatment. Possible options to address this issue include:

- Utilising the practice support officer to identify with participating GPs the nature of any ‘difficulties’ they experience (e.g. waiting times? lack of local specialists? Other?).
- Establishing and promoting local referral pathways to participating GPs.
- Networking opportunities for GPs and cardiac specialists could also be incorporated as part of their education calendar.
- GP Social Networking sites could also be promoted. These were not popular with GPs and PNS who responded to this survey. However, this could be due to a lack of awareness, rather than a lack of interest. CHI is aware of network being developed by the Graduate School of Medicine (UOW) and CCCT Training Ltd where special topics are discussed and GPs can engage with specialists for advice around difficult cases.

**Supporting Lifestyle Modification**

The IDGP should also consider promoting evidence based programs to support GP patient interactions and referral to lifestyle change programs, particularly for smoking and alcohol. As the creation of specific programs to support lifestyle modification is not feasible as part of this program, the IDGP should consider the benefits of identifying and promoting clear referral pathways to evidence based lifestyle modification programs in the Illawarra region for participating GP practices.

**Conclusion**

Current activities being undertaken by the IDGP as part of the Dementia Risk Reduction Project could be enhanced by focusing on the provision of materials which support increasing GP knowledge and impact on beliefs regarding the evidence of a link between hypertension and dementia. Visits by the practice support officer should be utilised to disseminate this information along with the use of email alerts and some targeted education lectures or workshops for topics as
indicated. Promoting screening in the target audience within the general practice setting is likely to require greater change at the practice level. There is a need to address GP and patient barriers to screening within the GP consultation. Nurse led clinics and/or support of home monitoring could be trialled as part of the IDGP program for to explore their feasibility and desirability to deal with these issues. Direct mail out to patients via general practices could also be trialled to promote screening within the target group. Local referral pathways should be promoted to improve access to specialist advice and also to promote support for GP/patient interactions to improve lifestyle prescription for risk behaviours, particularly, but not exclusively for smoking.


