

SAND abstract No. 166 from the BEACH program 2010–11

Subject: Hypertension, hypercholesterolaemia and diabetes

Organisation supporting this study: Sanofi-Aventis Australia Pty Ltd

Issues: The prevalence of hypertension, hypercholesterolaemia, diabetes and high cardiovascular risk among patients attending general practice; the prevalence of combinations of the morbidities; the types of medications being prescribed for these conditions; adjustment of glucose-lowering medication regimen at current encounter.

Sample: 2,789 respondents from 95 GPs; data collection period: 8/06/2010 – 12/07/2010.

Method: Detailed in the paper entitled 'SAND Method 2010–11' on this website: http://www.fmrc.org.au/publications/SAND_abstracts.htm. High cardiovascular risk was defined according the PBS, and a card with details of criteria was provided (see below).

Summary of results

The age–sex distribution of the respondents did not differ from the distribution at all BEACH encounters, with the majority of patients (58.0%) being female and patients aged 65 years and over accounting for 29.9% of the sample.

Among the 2,789 patients, prevalence of diagnosed: hypertension was 28.0% (95% CI: 24.6–31.3); hypercholesterolaemia was 20.0% (95% CI: 17.4–22.6); type 1 diabetes was 0.8%; type 2 diabetes was 8.0% (95% CI: 6.5–9.4). The proportion of patients with any of the conditions (except Type 1 diabetes) rose significantly through the age groups, with the highest rates among patients aged 65 years and over. More than one-third of patients (37.4%, 95% CI: 33.5–41.3) had at least one of the conditions, and 4.4% of patients (95% CI: 3.3–5.6) had hypertension, hypercholesterolaemia and diabetes, including 11.5% of those aged 65–74 years and 9.6% of those aged 75 or more. There were 12.2% of patients (95% CI: 9.4–15.0) who met the PBS criteria for high cardiovascular risk.

After adjustment for annual attendance patterns by age and sex of patients, prevalence was estimated among those who attended at least once in the year as: hypertension – 18.8% (95% CI: 16.3–21.4); hypercholesterolaemia – 14.1% (95% CI: 11.9–16.2); type 1 diabetes – 0.8% (95% CI: 0.4–1.1); type 2 diabetes – 5.5% (95% CI: 4.3–6.7); and high cardiovascular risk was present in 8.1% (95% CI: 6.2–9.9) of the attending population.

There were 2,730 respondents to the question about BP-lowering and lipid-lowering medications, and 869 of them (31.8%) were taking at least one of these medications. Of the 869 patients taking medication, 39.7% were taking lipid and BP-lowering medications, 16.2% were taking lipid medications only, and 44.1% were taking BP-lowering medications only. There were 1,599 medications recorded of which lipid-modifying agents accounted for 31.5%. Of the 1,599 medications, atorvastatin was the most common currently taken, accounting for 13.4%, followed by perindopril (8.0%).

Of the 243 patients with diabetes, 234 gave details about current medication, and 194 (82.9%) of these patients were taking a total of 316 glucose-lowering medications. Metformin was the most common of these (38.6%), followed by gliclazide (21.8%). There were 172 patients taking glucose-lowering medications for whom information was given on adjustment of regimen at the current encounter. Of these, 11.0% had medication added, changed or ceased at that encounter.

Correspondence to: Janice Charles, FMRC

High cardiovascular risk

Patients in any of the following high risk groups:

- Symptomatic coronary heart disease (CHD)
- Symptomatic cerebrovascular disease
- Symptomatic peripheral vascular disease
- Diabetes mellitus with microalbuminuria
- Diabetes mellitus in Aboriginal or Torres Strait Islander patients
- Diabetes mellitus in patients aged ≥ 60 years
- Family Hx CHD, symptomatic < 55 years in two or more first degree relatives
- Family Hx CHD, symptomatic < 45 years in one or more first degree relatives

If none of the above apply, patients in the following categories:

PATIENT CATEGORY	LIPID LEVEL
• Diabetes mellitus (not otherwise included)	TC > 5.5 mmol/L
• Aboriginal or Torres Strait Islander patients with hypertension	TC > 6.5 mmol/L or TC > 5.5 mmol/L and HDL- C < 1 mmol/L
• HDL-C < 1 mmol/L	TC > 6.5 mmol/L
• Familial hypercholesterolaemia • Family Hx CHD, symptomatic < 60 years in one or more 1° relatives • Family Hx CHD, symptomatic < 50 years in two or more 2° relatives	Patient aged < 18 yrs at Rx initiation: LDL-C > 4 mmol/L Patient aged ≥ 18 yrs at Rx initiation: LDL-C > 5 mmol/L or TC > 6.5 mmol/L or TC > 5.5 mmol/L and HDL- C < 1 mmol/L
• Men aged 35-75 years (not included elsewhere) • Post-menopausal women < 75 years	TC > 7.5 mmol/L or Trig > 4 mmol/L
• Patients not otherwise included	TC > 9 mmol/L or Trig > 8 mmol/L

Note: Family HX—family history, CHD—coronary heart disease; TC—total cholesterol; HDL-C—high density lipoprotein cholesterol; LDL-C—low density lipoprotein cholesterol; trig—triglyceride.

Source: Adapted from the PBS eligibility criteria for lipid-lowering medications 'General statement for lipid-lowering drugs prescribed as pharmaceutical benefits' Available at: www.pbs.gov.au, accessed 21/4/10

PLEASE READ CAREFULLY

The shaded section of the following forms asks questions about **HYPERTENSION, HYPERCHOLESTEROLAEMIA & DIABETES.**
 You may tear out this page as a guide to completing the following section of forms.

INSTRUCTIONS

Please answer the following questions for **ALL** of the **next 30 PATIENTS** in the order in which the patients are seen.

Please **DO NOT** select patients to suit the topic being investigated.

Hypertension, diabetes & hypercholesterolaemia

Please advise whether this patient has been diagnosed with **hypertension, hypercholesterolaemia, diabetes,** and/or is at **high cardiovascular risk (see card for definition).** Tick as many as apply.

If the patient **does not have** any of the listed conditions please **end the questions here for this patient.**

BP-lowering and lipid-lowering medications

Please write the **name** and **form** and regimen (i.e. **strength, dose and frequency**) of the **medication(s) currently** taken by the patient for **management of their blood pressure (BP) and/or lipid levels.**

Please include medication(s) taken to lower lipid levels or BP regardless of whether the patient has been diagnosed with hypertension or hypercholesterolaemia (i.e. for cardiovascular risk management).

If the patient is **not** currently taking a BP-lowering or lipid-lowering medication please tick the box labelled '**NONE**'.

Glucose-lowering medication

Please write the **name, form** and regimen (i.e. **strength, dose and frequency**) of the **medication(s) currently** (i.e. taken **prior to today's visit**) for **management of blood glucose levels.** Please include both oral medications and injected medications.

If the patient is **not currently taking a medication** for blood glucose management please tick the box labelled '**NONE**'.

Changes to glucose-lowering medication

Please advise whether the patient's glucose medication regimen **will change as a result of today's visit.**

If the medication(s) or regimen **will stop or change,** please **continue** with the questions:

- **Cease medication:** If a medication is to be **stopped,** please **circle a number** to indicate which medication(s) (from those listed in Q.3) will cease.
- **Change to medication or regimen** includes: **adding another** medication to those currently being taken; **changing a medication for a different one;** changing the **dosage** of a current medication, either by an **increase or decrease.**

If medication(s) or regimen is changing please **write the new medication(s) or regimen** in the space provided (i.e the medication to be added / changed to / dose changed). Only include the **additions/changes made today.**

- **No change:** If the medication(s) and regimen will **remain unchanged** you should **END the questions here.**

<p>Does this patient have:</p> <input type="checkbox"/> Hypertension <input type="checkbox"/> Hypercholesterolaemia <input type="checkbox"/> Type 1 diabetes <input type="checkbox"/> Type 2 diabetes <input type="checkbox"/> High cardiovasc. risk* <small>*see card</small> <input type="checkbox"/> None of the above End questions ←	<p>Current BP-lowering and/or lipid-lowering med(s):</p> <p><input type="checkbox"/> NONE</p> <table border="1"> <thead> <tr> <th>Name & Form</th> <th>Strength</th> <th>Dose</th> <th>Freq</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Name & Form	Strength	Dose	Freq																	<p>Current blood glucose medication (i.e. taken prior to this visit):</p> <p><input type="checkbox"/> NONE</p> <table border="1"> <thead> <tr> <th>Name & Form</th> <th>Strength</th> <th>Dose</th> <th>Freq</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td> </td><td> </td><td> </td></tr> <tr><td>2. _____</td><td> </td><td> </td><td> </td></tr> <tr><td>3. _____</td><td> </td><td> </td><td> </td></tr> <tr><td>4. _____</td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Name & Form	Strength	Dose	Freq	1. _____				2. _____				3. _____				4. _____				<p>From today's visit, the patient's glucose-lowering regimen changed as follows:</p> <input type="checkbox"/> NO CHANGE → End Qs <input type="checkbox"/> Cease medication - Please circle to indicate which med: ← 1 2 3 4 <small>(No.s correspond to previous Q)</small> <input type="checkbox"/> Add/change med'n or regimen
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