Appendices

Appendix 1: BEACH methods

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In summary:

- each year BEACH involves a random sample of approximately 1,000 GPs
- each GP records details about 100 doctor–patient encounters of all types
- the GP sample is a rolling (ever-changing) sample, with approximately 20 GPs participating in any one week, 50 weeks a year
- each GP can be selected only once per quality assurance (QA) triennium (that is, once every three years)
- the encounter information is recorded by the GPs on structured paper encounter forms (Appendix 3)
- each GP participant also completes a questionnaire about themselves and their practice (Appendix 4).

Sampling methods

The source population includes all vocationally registered GPs and all general practice registrars who claimed a minimum of 375 general practice A1 Medicare items in the most recently available 3-month Medicare data period (which equates to 1,500 A1 Medicare claims a year). This ensures inclusion of the majority of part-time GPs while excluding those who are not in private practice but claim for a few consultations a year.

On a quarterly basis the Primary and Ambulatory Care Division of DoHA updates the sample frame from the Medicare records, leaving out of the sample frame any GPs already randomly sampled in the current triennium, and draws a new sample from those currently in the sample frame. This ensures the timely addition of new entries to the profession, and timely exclusion of those GPs who have stopped practising.

Recruitment methods

The randomly selected GPs are approached by letter posted to the address provided by DoHA.

- Over the following 10 days the telephone numbers generated from the Medicare data are checked using the electronic white and yellow pages. This is necessary because many of the telephone numbers provided from the Medicare data are incorrect.
- The GPs are then telephoned in the order they were approached and, referring to the approach letter, asked whether they will participate.

- This initial telephone contact with the practice often indicates that the selected GP has moved elsewhere, but is still in practice. Where forward address and/or telephone number can be obtained, these GPs are followed up at their new address.
- GPs who agree to participate are set an agreed recording date several weeks ahead.
- A research pack is sent to each participant about 10 days before the planned start date.
- Each GP receives a telephone reminder in the first days of the agreed recording period—this also provides the GP with an opportunity to ask questions about the recording process.
- GPs can use a 'freecall' (1800) number to ring the research team with any questions during their recording period.
- Non-returns are followed up by regular telephone calls for up to 3 months after the set recording time.
- Participating GPs earn Clinical Audit points towards their QA requirements through the Royal Australian College of General Practitioners (RACGP). As part of this QA process, each receives an analysis of his or her results compared with those of nine other de-identified GPs who recorded at approximately the same time. Comparisons with the national average and with targets relating to the National Health Priority Areas are also provided. In addition, GPs receive some educational material related to the identification and management of patients who smoke or consume alcohol at hazardous levels. Additional points can be earned if the participant chooses to do a follow-up audit of smoking and alcohol consumption among a sample of patients about 6 months later.

Data elements

BEACH includes three interrelated data collections: encounter data, GP characteristics and patient health status. An example of the form used to collect the encounter data and the data on patient health status is included in Appendix 3. The GP characteristics questionnaire is provided in Appendix 4. The data collected include the following:

- **Encounter data:** date of consultation, type of consultation (direct/indirect), up to three Medicare/Department of Veterans' Affairs (DVA) item numbers (where applicable) and other payment source (where applicable) (tick boxes).
- **Patient data:** date of birth, sex and postcode of residence. Tick boxes are provided for Commonwealth concession cardholder, holder of a Repatriation health card (from DVA), non-English-speaking background (patient self-report—a language other than English is the primary language at home), Aboriginal person (self-identification) and Torres Strait Islander person (self-identification). Space is provided for up to three patient reasons for encounter (RFEs).
- **The problems managed** at encounter (at least one and up to four). Tick boxes are provided to denote the status of each problem as new or continuing for the patient (if applicable).
- **Management of** each problem, including:
  - medications prescribed, supplied by the GP and advised for over-the-counter purchase including brand name, form (where required), strength, regimen, status (if new or continuing medication for this problem for this patient) and number of repeats

- other treatments provided for each problem including counselling, advice and education, and procedures undertaken; and if other treatment was provided by practice nurse (tick box)
- new referrals to medical specialists, allied health professionals and hospital
- investigations including pathology tests, imaging and other investigations ordered at the encounter.

- **GP characteristics:** age and sex, years in general practice, number of GP sessions worked per week, number of full-time equivalent GPs working in the practice, postcode of major practice address, country of graduation, postgraduate general practice training and Fellow of the RACGP status, after-hours care arrangements, use of computers in the practice, whether the practice is accredited, whether it is a teaching practice, work undertaken in other clinical settings and hours worked in direct patient care.

Supplementary Analysis of Nominated Data

A section at the bottom of each recording form investigates aspects of patient health or health care delivery in general practice not covered by the consultation-based data. These additional substudies are referred to as SAND, Supplementary Analysis of Nominated Data.

- The year-long data period is divided into 10 blocks, each of 5 weeks with three substudies per block. The research team aims to include data from about 100 GPs in each block.
- Each GP's pack of 100 forms is made up of 40 forms that ask for the start and finish times of the encounter, and include questions about patient risk factors: patient height and weight (used to calculate body mass index, BMI), alcohol intake and smoking status (patient self-report). The methods used in the SAND substudies for alcohol consumption, smoking status and BMI are reported in Appendix 2. The start and finish times collected on these encounters is used to calculate the length of consultation. The length of consultation for Medicare-claimable encounters is reported in Table 5.3.
- The remaining 60 forms in each pack are divided into two blocks of 30. Different questions are asked of the patient in each block and these vary throughout the year.
- The order of SAND sections is rotated in the GP recording pack, so that 40 patient risk factor forms may appear first, second or third in the pad. Rotation of ordering ensures there was no order effect on the quality of the information collected.

Abstracts for all SAND substudies from April 1999 to July 2006 inclusive were published in *Patient-based substudies from BEACH: abstracts and research tools 1999–2006*.[1] Abstracts of results and the research tools used in SAND substudies conducted between August 2006 and March 2007 were published in *General practice activity in Australia 2006–07*[2] and those conducted from April 2007 to January 2008 are in *General practice activity in Australia 2007–08*.[3]

Abstracts of results for all SAND substudies are also available on the Family Medicine Research Centre's (FMRC) website <www.fmrc.org.au/publications/SAND_abstracts.htm>.

The BEACH relational database

The BEACH relational database is described diagrammatically in Figure A1.1. Note that:

- all variables can be directly related to GP and patient characteristics, and to the encounter
- RFEs have only an indirect relationship with problems managed, as a patient may describe one RFE (such as 'repeat prescriptions') that is related to multiple problems managed, or several RFEs (such as 'runny nose' and 'cough') that relate to a single problem (such as upper respiratory tract infection) managed at the encounter.
- all types of management are directly related to the problem being treated.

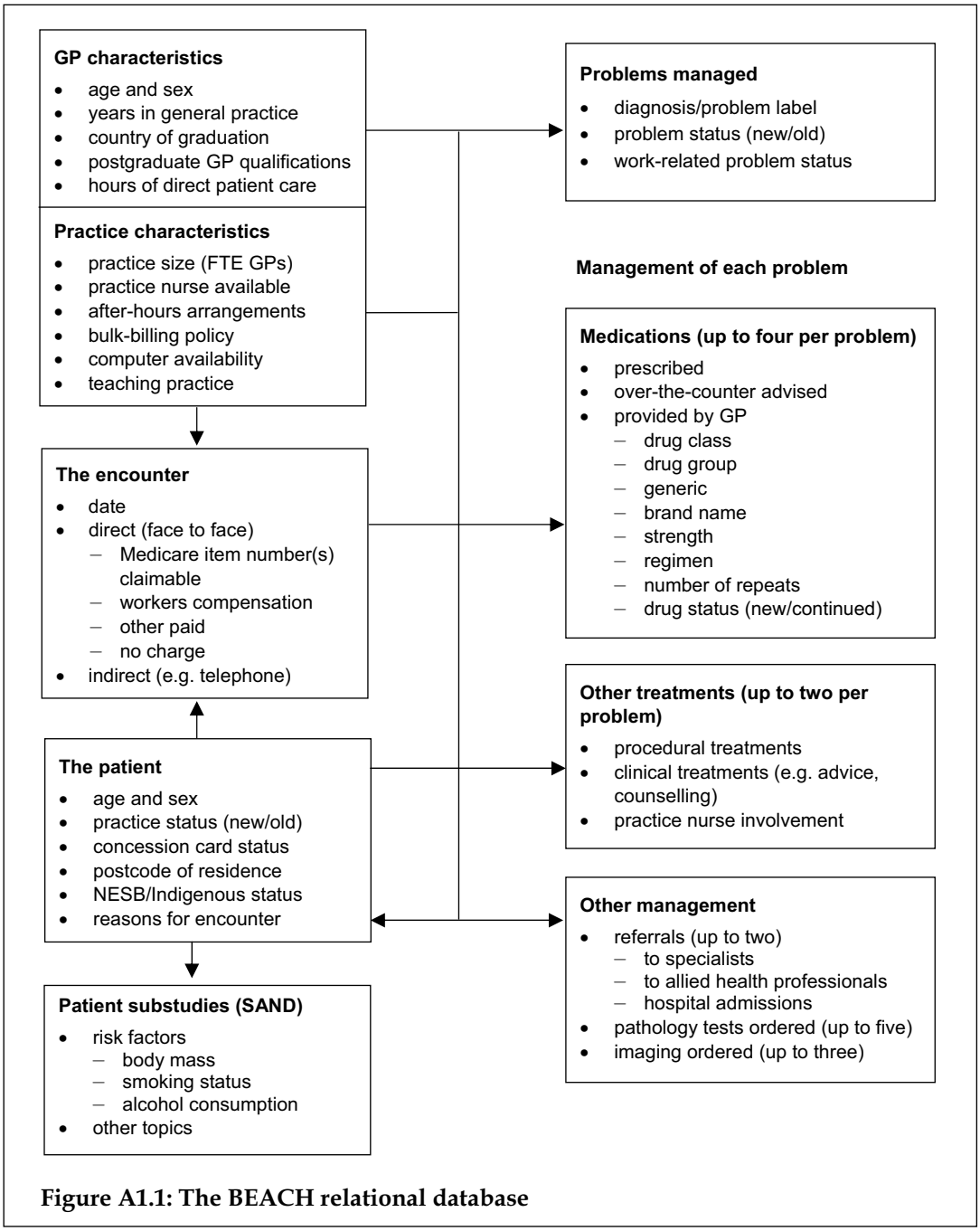

Figure A1.1: The BEACH relational database

Note: FTE—full time equivalent; NESB—non-English-speaking background; SAND—Supplementary Analysis of Nominated Data.

Statistical methods

The analysis of the 2007–08 BEACH data was conducted with Statistical Analysis System (SAS) version 9.1.3[4] and the encounter is the primary unit of inference. Proportions are used only when describing the distribution of an event that can arise only once at a consultation (for example, age, sex), or to describe the distribution of events within a class of events (for example, problem *A* as a percentage of total problems). Rates per 100 encounters are used when an event can occur more than once at the consultation (for example, RFEs, problems managed or medications).

Rates per 100 problems are also used when a management event can occur more than once per problem managed. In general, the results present the number of observations *(n)*, the rate per 100 encounters and the 95% confidence interval.

BEACH is a single stage cluster sample study design, each 100 encounters forming a cluster around each GP participant. In cluster samples, variance needs to be adjusted to account for the correlation between observations within clusters. We use procedures in SAS version 9.1.3 to calculates the intracluster correlation and adjust the confidence intervals accordingly.[4]

Classification of data

The following data elements are classified according to the International Classification of Primary Care—Version 2 (ICPC-2), a product of the World Organization of Family Doctors (Wonca)[5]:

- patient reasons for encounter (RFEs)
- problems managed
- clinical treatments (for example, counselling, advice)
- procedural treatments
- referrals
- investigations ordered (including pathology, imaging and other investigations).

The ICPC-2 is used in more than 45 countries as the standard for data classification in primary care. It is accepted by the World Health Organization (WHO) in the WHO Family of International Classifications[6], and is the declared the national standard in Australia for reporting of health data from general practice and patient self-reported health information.[7]

The ICPC-2 has a biaxial structure, with 17 chapters on one axis (each with an alphabetic code) and seven components on the other (numeric codes) (Figure A1.2). Chapters are based on body systems, with additional chapters for psychological and social problems. Component 1 includes symptoms and complaints. Component 7 covers diagnoses. These are independent in each chapter and both can be used for patient RFEs or problems managed.

Components 2 to 6 cover the process of care, and are common throughout all chapters. The processes of care, including referrals, other (non-pharmacological) treatments and orders for pathology and imaging, are classified in these process components of ICPC-2. Component 2 (diagnostic, screening and prevention) is also often applied in describing the problem managed (for example, check-up, immunisation).

The ICPC-2 is an excellent epidemiological tool. The diagnostic and symptomatic rubrics have been selected for inclusion on the basis of their relative frequency in primary care settings, or because of their relative importance in describing the health of the community.

It has approximately 1,370 rubrics and these are sufficient for meaningful analyses. However, reliability of data entry, using ICPC-2 alone, requires a thorough knowledge of the classification for correct classification of a concept to be ensured.

In 1995, recognising a need for a coding and classification system for general practice electronic health records, the FMRC (then the Family Medicine Research Unit) developed an extended vocabulary of terms classified according to the ICPC, now called ICPC-2 PLUS.[8] This is an interface terminology, developed by the FMRC from all the terms used by GPs in studies such as the Australian Morbidity and Treatment Survey 1990–91[9], the Morbidity and Therapeutic Index 1992–1998 (a clinical audit tool that was available to GPs) and BEACH 1998–2008 that together have included close to 1.5 million encounter records. These terms are classified according to ICPC-2 to ensure international standards for reporting. Readers interested in seeing how coding works can download the ICPC-2 PLUS Demonstrator at <www.fmrc.org.au/icpc2plus/demonstrator.htm>.

When the free-text data are received from the GPs, trained secondary coders (who are undergraduate students studying health information management or medical science) code the data in more specific terms using ICPC-2 PLUS. This ensures high coder reliability and automatic classification of the concept, and provides the ability to 'ungroup' such ICPC-2 rubrics as 'other diseases of the circulatory system', and select a specific disease from the terms within it.

	Chapters															
Components	**A**	**B**	**D**	**F**	**H**	**K**	**L**	**N**	**P**	**R**	**S**	**T**	**U**	**W**	**X**	**Y**	**Z**
1. Symptoms, complaints																	
2. Diagnostic, screening, prevention																	
3. Treatment, procedures, medication																	
4. Test results																	
5. Administrative																	
6. Other																	
7. Diagnoses, disease																	

A	General	L	Musculoskeletal	U	Urinary
B	Blood, blood-forming	N	Neurological	W	Pregnancy, family planning
D	Digestive	P	Psychological	X	Female genital
F	Eye	R	Respiratory	Y	Male genital
H	Ear	S	Skin	Z	Social
K	Circulatory	T	Metabolic, endocrine, nutritional		

Figure A1.2: The structure of the International Classification of Primary Care—Version 2 (ICPC–2)

Presentation of data classified in ICPC-2

Statistical reporting is almost always at the level of the ICPC-2 classification (for example, acute otitis media/myringitis—ICPC-2 code H71). However, there are some exceptions where data are grouped either above the ICPC-2 level or across the ICPC-2 level. These grouped morbidity, pathology and imaging codes are defined in Appendix 5, and chronic morbidity groups are provided in Appendix 6.

Reporting morbidity with groups of ICPC-2 codes

When recording problems managed, the GP may not always be very specific. For example, in recording the management of hypertension, they may simply record the problem as 'hypertension'. In ICPC-2, 'hypertension, unspecified' is classified as 'uncomplicated hypertension' (code K86). There is another code for 'complicated hypertension' (K87). In some cases the GP may simply have failed to specify that the patient had hypertension with complications. The research team therefore feels that for national data reporting, it is more reliable to group the codes K86 and K87 and label this 'Hypertension*'—the asterisk indicating that multiple ICPC-2 codes (as in this example) or ICPC-2 PLUS codes (see below) are included. A list of codes included in these groups are provided in Appendix 5.

Reporting morbidity with groups of ICPC-2 PLUS codes

In other cases a concept can be classified within (but be only part of) multiple ICPC-2 codes. For example, osteoarthritis is classified in ICPC-2 in multiple broader codes according to site, for example, L92—shoulder syndrome (includes bursitis, frozen shoulder, osteoarthritis of shoulder, rotator cuff syndrome). When reporting osteoarthritis in this publication, all the more specific osteoarthritis ICPC-2 PLUS terms are grouped within all the appropriate ICPC-2 codes. This group is labelled 'Osteoarthritis*'—the asterisk again indicating multiple codes, but in this case they are PLUS codes rather than ICPC-2 codes. A list of codes included in these groups are provided in Appendix 5.

Reporting chronic morbidity

Chronic conditions are medical conditions characterised by a combination of the following characteristics: duration that has lasted or is expected to last 6 months or more, a pattern of recurrence or deterioration, a poor prognosis, and consequences or sequelae that affect an individual's quality of life.

To identify chronic conditions, a chronic condition list[10] classified according to ICPC-2 was applied to the BEACH data set. In general reporting, both chronic and non-chronic conditions (for example, diabetes and gestational diabetes) may have been grouped together when reporting (for example, diabetes—all*). When reporting chronic morbidity, only problems regarded as chronic have been included in the analysis. Where the group used for the chronic analysis differs from that used in other analyses in this report, they are marked with a double asterisk. Codes included in the chronic groups are provided in Appendix 6.

Reporting pathology and imaging test orders

All the pathology and imaging tests are coded very specifically in ICPC-2 PLUS, but the ICPC-2 classifies pathology and imaging tests very broadly (for example, a test of cardiac enzymes is classified in K34—Blood test associated with the cardiovascular system; a CT scan of the lumbar spine is classified as L41—Diagnostic radiology/imaging of the musculoskeletal system). In Australia, the MBS classifies pathology and imaging tests in groups that are relatively well recognised. The team therefore re-grouped all pathology and imaging ICPC-2 PLUS codes into MBS standard groups. This allows comparison of data between data sources. These groups are marked with an asterisk, and inclusions are provided in Appendix 5.

Classification of pharmaceuticals

Pharmaceuticals that are prescribed, provided by the GP or advised for over-the-counter purchase are coded and classified according to an in-house classification, the Coding Atlas for Pharmaceutical Substances (CAPS).

This is a hierarchical structure that facilitates analysis of data at a variety of levels, such as medication class, medication group, generic composition and brand name.

Strength and regimen are independent fields that, when combined with the CAPS code, give an opportunity to derive the prescribed daily dose for any prescribed medication or group of medications.

CAPS is mapped to the Anatomical Therapeutic Chemical (ATC)[11] classification, which is the Australian standard for classifying medications at the generic level.

The ATC has a hierarchical structure with five levels. For example:

- Level 1: C—Cardiovascular system
- Level 2: C10—Serum lipid reducing agents
- Level 3: C10A—Cholesterol and triglyceride reducers
- Level 4:C10AA—HMG CoA reductase inhibitors
- Level 5: C10AA01—Simvastatin (the generic drug).

Use of the pharmaceutical classifications in reporting

For pharmaceutical data, there is the choice of reporting in terms of the CAPS coding scheme or the ATC. They each have advantages in different circumstances.

In the CAPS system, a new drug enters at the product and generic level, and is immediately allocated a generic code. Therefore, the CAPS classification uses a bottom–up approach.

In the ATC, a new generic may initially enter the classification at any level (1 to 5), not necessarily always at the generic level. Reclassification to lower ATC levels may occur later. Therefore, the ATC uses a top–down approach.

When analysing medications across time, a generic medication that is initially classified to a higher ATC level will not be identifiable in that data period and may result in under-enumeration of that drug during earlier data collection periods.

- When reporting the 2007–08 annual results for pharmaceutical data, the CAPS database is used in tables of the 'most frequent medications' (Table 9.4).
- When reporting the annual results for pharmaceuticals in terms of the ATC hierarchy, ATC Levels 1, 3, and 5 are used. The reader should be aware that the results reported at the generic level (Level 5) may differ slightly from those reported in the 'most frequent medication' tables for the reasons described above.

Quality assurance

All morbidity and therapeutic data elements were secondarily coded by staff entering key words or word fragments and selecting the required term or label from a pick list. This was then automatically coded and classified by the computer. A quality assurance program to ensure reliability of data entry includes ongoing development of computer-aided error checks ('locks') at the data entry stage and a physical check of samples of data entered versus

those on the original recording form. Further logical data checks are conducted through SAS on a regular basis.

Validity and reliability

A discussion of the reliability and validity of the BEACH program has been published elsewhere.[12] In this section we touch on some aspects of reliability and validity of active data collection from general practice that should be considered by the reader.

In the development of a database such as BEACH, data gathering moves through specific stages: GP sample selection, cluster sampling around each GP, GP data recording, secondary coding and data entry. At each stage the data can be invalidated by the application of inappropriate methods. The methods adopted to ensure maximum reliability of coding and data entry have been described above. The statistical techniques adopted to ensure valid analysis and reporting of recorded data are described above. Previous work has demonstrated the extent to which a random sample of GPs recording information about a cluster of patients represents all GPs and all patients attending GPs.[13] Other studies have reported the degree to which GP-reported patient RFEs and problems managed accurately reflect those recalled by the patient[14] and the reliability of secondary coding of RFEs[15] and problems managed.[9] The validity of ICPC as a tool with which to classify the data has also been investigated in earlier work.[16]

However, the question of the extent to which the GP-recorded data are a reliable and valid reflection of the content of the encounter must also be considered. In many primary care consultations, a clear pathophysiological diagnosis is not reached. Bentsen[17] and Barsky[18] suggest that a firm and clear diagnosis is not apparent in about half of GPs' consultations, and others suggest the proportion may be even greater.[19] Further, studies of general ambulatory medical practice have shown that a large number of patients presenting to a primary care practitioner are without a serious physical disorder.[20,21] As a result, it is often necessary for a practitioner to record a problem in terms of symptoms, signs, patient concerns, or the service that is requested, such as immunisation. For this reason, this report refers to patient 'problems' rather than 'diagnoses'.

A number of studies have demonstrated wide variance in the way a GP perceives the patient's RFE and the manner in which the GP describes the problem under management. In a direct observational study of consultations via a one-way mirror, Bentsen demonstrated differences in the way practitioners labelled problems, and suggested that clinical experience may be an important influence on the identification of problems within the consultation.[17] Two other factors that might affect GPs' descriptions of patient RFEs have been identified: while individuals may select the same stimuli, some label each stimulus separately whereas others cluster them under one label; individuals differ in the number of stimuli they select (selective perception).[22]

The extent to which therapeutic decisions may influence the diagnostic label selected has also been discussed. Howie[23] and Anderson[20] argue that, while it is assumed that the diagnostic process used in general practice is one of symptom → diagnosis → management, the therapeutic method may well be selected on the basis of the symptom, and the diagnostic label chosen last. They suggest that the selection of the diagnostic label is therefore influenced by the management decision already made.

Anderson has also pointed out that the therapeutic decision may be influenced by fashion, and, in turn, this affects the selection of the problem label. He gives the example of a rise in the occurrence of neurotic depression in parallel with a decrease in the use of menopause as a

diagnosis in the United Kingdom, and suggests this may be the result of a change in the preferred treatment from oestrogen therapy to antidepressants.[20] This should be remembered when considering the changes in general practice described in this report.

Alderson contends that to many practitioners 'diagnostic accuracy is only important to the extent that it will assist them in helping the patient'. He further suggests that if major symptoms are readily treatable, some practitioners may feel no need to define the problem in diagnostic terms.[24] Crombie stated that in the second and third national morbidity surveys in the United Kingdom there was 'enormous variability in the rates at which doctors perceive and record illnesses'. He concluded that the probable cause arose from the different ways in which GPs gave priority in their perceptions and recording of certain morbidities while discounting or ignoring others. He was unable to account statistically for this variation by the effect of geography, age, sex or class differences in the practice populations.[25] Differences in the way male and female GPs label problems also appear to be independent of such influences.[26]

These problems are inherent in the nature of general practice. Knottnerus argues that the GP is confronted with a fundamentally different pattern of problems from the specialist, the GP often having to draw up general diagnostic hypotheses related to probability, severity and consequences.[27] Anderson suggests that morbidity statistics from family practice should therefore be seen as 'a reflection of the physician's diagnostic opinions about the problems that patients bring to them rather than an unarguable statement of the problems managed'.[20] In any case, doctors base their actions on problems as they perceive them.

While these findings regarding limitations in the reliability and validity of practitioner-recorded morbidity should be kept in mind, they apply equally to data drawn from medical records, whether paper or electronic, as they do to active data collection methods.[28,29] There is as yet no more reliable method of gaining detailed data about morbidity and its management in general practice. Further, irrespective of the differences between individual GPs in their labelling of the problems, morbidity data collected by GPs in active data collection methods have been shown to provide a reliable overview of the morbidity managed in general practice.[30]

Other BEACH applications

The BEACH method can be applied in various health settings. In the past the AGPSCC has used the method to conduct a variety of studies in collaboration with other organisations. Examples of past studies are described below.

In 2004, a study was conducted in collaboration with Monash University and the Victorian Metropolitan Alliance. The BEACH methods were used to measure the experience gained by GP registrars during each stage of their training. The results will help to better define the areas in which registrars should receive training, and identify areas in which they are not gaining experience.

Another registrar study was conducted in 2003 as a consultancy for North Coast GP Training Ltd and the Institute of General Practice Education. This study looked at the clinical activities of registrars compared with those of their supervisors, to assess their education program in terms of actual practice.

A study in the Victoria Community Health Centres was done in 2004 in collaboration with the Victorian Department of Human Services. The project aimed to provide information about the clinical role of Community Health Service GPs and the characteristics of the

patients they see, and how these may differ from the 'average' GP in Australia. The department will use the results to help them plan future health services.

From 2002–04, the BEACH methods were used in the Alternative Pathway Program to assess the educational needs of each GP enrolled in the program. The Alternative Pathway Program was conducted by the National Consortium for Education in Primary Medical Care. The results for each GP were used in identifying specific educational needs and in planning an educational program for the individual practitioner.

In 2002–03, the Australian General Practice Statistics and Classification Centre conducted a longitudinal, matched, controlled trial of active computerised data collection compared with paper-based data collection in the western, north-western and south-western areas of Sydney. Software was developed that reflected the data elements collected in BEACH; the software did not interact with any clinical system being used by GPs. This study demonstrated that active GP computerised data collection in structured, stand-alone software does not provide a reliable and valid measure of GP activity and could not be adopted at this stage as an acceptable alternative to the paper-based data collection methods currently being used.[31]

As BEACH collects data nationally it is possible to analyse data at a level specific to local areas. For example, reports have been published comparing general practice in the different states and territories of Australia and investigating the differences between metropolitan and rural general practice. The research team has also developed Statistical Evaluation Areas (referred to as SEAs) that allow the provision of localised data for divisions of general practice.

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Appendix 2: Patient risk factor substudy methods

Body mass index

Patient BMI was investigated for a subsample of 40 of the 100 patient encounters. Each GP was instructed to ask the patient (or their carer in the case of children):

- What is your height in centimetres (without shoes)?
- What is your weight in kilograms (unclothed)?

Metric conversion tables (feet and inches; stones and pounds) were provided to the GP.

The BMI for an individual was calculated by dividing weight (kilograms) by height (metres) squared. The recent WHO recommendations[1] for BMI groups were used, which specify that an adult (18 years and over) with a BMI:

- less than 18.5 is underweight
- greater than or equal to 18.5 and less than 25 is normal
- greater than or equal to 25 and less than 30 is overweight
- of 30 or more is obese.

The reported height for adult patients was checked against sex-appropriate upper and lower height limits from the Australian Bureau of Statistics (ABS).[2] Encounters with adults whose reported heights were outside the sex-appropriate limits were excluded from the analysis.

The division between underweight and normal was, in reports published before 2006, set at a BMI of 20. In tables 14.1 to 14.3 patient BMI have been recalculated for all years and are reported according to the current WHO criteria.

The standard BMI cut-offs described above are not appropriate in the case of children. Cole et al. developed a method which calculates the age–sex-specific BMI cut-off levels for overweight and obesity specific to children aged 2–17 years.[3] There are three categories defined for childhood BMI: underweight/normal, overweight and obese. This method, based on international data from developed Western cultures, is applicable in the Australian setting.

The reported height of children was checked against age–sex-appropriate upper and lower height limits from the ABS.[2] In reports published before 2007, encounters with children whose reported heights were outside either of the age–sex-appropriate limits were not excluded from the analysis. In Table 14.1 the BMI of children have been recalculated and reported for all years excluding data from children whose reported heights were outside either of the age–sex-appropriate limits.

The BEACH data on BMI are presented separately for adults (aged 18 years and over) and children (aged 2–17 years). The standard BMI cut-offs have been applied for the adult sample, and the method described by Cole et al. has been used for defining overweight and obesity in children (aged 2–17 years).[3]

Smoking

GPs were instructed to ask adult patients (18 years and over):

- What best describes your smoking status?
  - Smoke daily
  - Smoker occasionally
  - Previous smoker
  - Never smoked

Respondents were limited to adults aged 18 years and over because there are ethical concerns about approaching the younger patient group to ask for information about smoking for survey purposes. In addition, the reliability of this information from patients aged less than 18 years may be compromised if a parent or carer is present at the consultation.

Alcohol consumption

To measure alcohol consumption, BEACH uses three items from the WHO Alcohol Use Disorders Identification Test (AUDIT)[4] , with scoring for an Australian setting.[5] Together, these three questions assess 'at-risk' alcohol consumption. The scores for each question range from zero to four. A total (sum of all three questions) score of five or more for males or four or more for females suggests that the person's drinking level is placing him or her at risk.[5]

GPs were instructed to ask adult patients (18 years and over):

- How often do you have a drink containing alcohol?
  - Never
  - Monthly or less
  - Once a week/fortnight
  - 2–3 times a week
  - 4+ times a week
- How many standard drinks do you have on a typical day when you are drinking?
  _____
- How often do you have six or more standard drinks on one occasion?
  - Never
  - Less than monthly
  - Monthly
  - Weekly
  - Daily or almost daily

A standard drinks chart was provided to each GP to help the patient identify the number of standard drinks consumed.

Respondents were limited to adults aged 18 years and over because there are ethical concerns about approaching the younger patient group to ask for information about alcohol consumption for survey purposes. In addition, the reliability of this information from patients aged less than 18 years may be compromised if a parent or carer is present at the consultation.

The wording of the responses to the first and third questions was changed from 2001–02 onwards to reflect exactly the AUDIT instrument from which the responses are derived. This update, along with a data entry change enabling more specific entry for the second question, slightly increased the rates of at-risk drinking. The data collected from 2001–02 onwards are a more accurate reflection of the alcohol consumption of general practice patients and these are the years compared in this report.

References: Appendix 2

1. World Health Organization 2006. Global database on body mass index. Viewed 4 September 2008, <www.who.int/bmi/index.jsp?introPage=intro_3.html>
2. Australian Bureau of Statistics 1998. National Nutrition Survey: nutrient intakes and physical measurements, Australia 1995. Canberra: ABS.
3. Cole TJ, Bellizzi MC, Flegal KM, Dietz WH 2000. Establishing a standard definition for child overweight and obesity worldwide: international survey. BMJ 320(7244):1240–3.
4. Saunders JB, Aasland OG, Babor TF, de la Fuente JR, Grant M 1993. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption—II. Addiction 88(6):791–804.
5. Centre for Drug and Alcohol Studies 1993. The alcohol use disorders identification test. Sydney: Royal Prince Alfred Hospital and the University of Sydney.

Appendix 3: Example of a 2007–08 recording form

BEACH (Bettering the Evaluation And Care of Health) - Morbidity and Treatment Survey - National DOC ID

Encounter Number

Date of encounter	Date of Birth	Sex	Patient Postcode
___/___/___	___/___/_ _ _ _	M ☐ F ☐	

	Yes / No
New Patient	☐ ☐
Health Care/Benefits Card	☐ ☐
Veterans Affairs Card	☐ ☐
NESB	☐ ☐
Aboriginal	☐ ☐
Torres Strait Islander	☐ ☐

PATIENT SEEN BY GP ☐
PATIENT NOT SEEN BY GP ☐

Medicare Item Nos: (if applicable)
1. _____
2. _____
3. _____

Workers comp paid ☐
State Govt/Other paid ☐
No charge ☐

START Time ___ : ___ AM / PM (please circle)

Patient Reasons for Encounter
1.
2.
3.

Diagnosis/ Problem ① : **Problem Status** New ☐ Old ☐ Work related ☐

Drug Name AND Form for this problem	Strength of product	Dose	Frequency	No. of Rpts	OTC	GP Supply	Drug status New	Drug status Cont.
1.								
2.								
3.								
4.								

Procedures, other treatments, counselling this consult for this problem
1. Prac Nurse? ☐ 2. Prac Nurse? ☐

Diagnosis/ Problem ② : **Problem Status** New ☐ Old ☐ Work related ☐

Drug Name AND Form for this problem	Strength of product	Dose	Frequency	No. of Rpts	OTC	GP Supply	Drug status New	Drug status Cont.
1.								
2.								
3.								
4.								

Procedures, other treatments, counselling this consult for this problem
1. Prac Nurse? ☐ 2. Prac Nurse? ☐

Diagnosis/ Problem ③ : **Problem Status** New ☐ Old ☐ Work related ☐

Drug Name AND Form for this problem	Strength of product	Dose	Frequency	No. of Rpts	OTC	GP Supply	Drug status New	Drug status Cont.
1.								
2.								
3.								
4.								

Procedures, other treatments, counselling this consult for this problem
1. Prac Nurse? ☐ 2. Prac Nurse? ☐

Diagnosis/ Problem ④ : **Problem Status** New ☐ Old ☐ Work related ☐

Drug Name AND Form for this problem	Strength of product	Dose	Frequency	No. of Rpts	OTC	GP Supply	Drug status New	Drug status Cont.
1.								
2.								
3.								
4.								

Procedures, other treatments, counselling this consult for this problem
1. Prac Nurse? ☐ 2. Prac Nurse? ☐

NEW REFERRALS, ADMISSIONS — Problem(s)
1. _____ 1 2 3 4
2. _____ 1 2 3 4

IMAGING/Other tests — Body site — Problem(s)
1. _____ - _____ 1 2 3 4
2. _____ - _____ 1 2 3 4

PATHOLOGY — Problem(s)
1. _____ 1 2 3 4
2. _____ 1 2 3 4
3. _____ 1 2 3 4

PATHOLOGY (cont) — Problem(s)
4. _____ 1 2 3 4
5. _____ 1 2 3 4

Patient reported
Height: ___ cm
Weight: ___ kg

To the patient if 18+:
Which best describes your smoking status?
Smoke daily ☐
Smoke occasionally ☐
Previous smoker ☐
Never smoked ☐

To the patient if 18+:
How often do you have a drink containing alcohol?
Never ☐
Monthly or less ☐
Once a week/fortnight ☐
2-3 times a week ☐
4+ times a week ☐

How many 'standard' drinks do you have on a typical day when you are drinking? ___

How often do you have 6 or more standard drinks on one occasion?
Never ☐
Less than monthly ☐
Monthly ☐
Weekly ☐
Daily or almost daily ☐

FINISH Time ___ : ___ AM / PM (please circle)

BA10

Appendix 4: GP characteristics questionnaire, 2007–08

The University of Sydney
at Westmead Hospital

Australian General Practice Statistics and Classification Centre

a collaborating unit of the
Australian Institute of Health and Welfare

Doctor Identification Number

Please fill in boxes or circle answers

1. Sex ..... **Male / Female** *(please circle)*

2. Age.....

3. How many years have you spent in general practice?.....

4. How many GPs (full time equivalents) work at this practice (including yourself)?
(Practice = shared medical records)

5. Postcode of major practice address ..

6. In which GP Division is this practice

_____

7. Year of graduation .....

8. Place of graduation *(primary medical degree)*:
- Aust 1
- NZ 2
- Asia 3
- UK / Ireland..... 4
- Other: (specify) 5

9. Do you conduct any of your consultations in a language other than English?
- No..... 1
- Yes - <25%..... 2
- Yes - 25 to 50%..... 3
- Yes - >50%..... 4

10. Are you a GP registrar (i.e. in training)?... **Yes / No**

11. Do you hold FRACGP ?..... **Yes / No**

12. Is your major practice accredited ?..... **Yes / No**

13. Is there a practice nurse at your major practice address ?..... **Yes / No**
If yes, how many full time equivalents?

14. Number of general practice sessions you usually work per week?
(1 session = ~4 hrs eg a morning session) ....

15. Direct patient care hours worked per week?
(Include hours of direct patient care, instructions, counselling etc and other services such as referrals, prescriptions, phone calls etc.) .....

16. Over the past four weeks have you provided any patient care ....*(Circle all that apply)*
- As a locum 1
- In a deputising service 2
- In a residential aged care facility 3
- As a salaried/sessional hospital medical officer..... 4
- None of the above 5

17. What are the normal after-hours arrangements for your practice? *(Circle all that apply)*
- Practice does its own.....1
- Co-operative with other practices 2
- Deputising service.....3
- Referral to other service (eg A&E) 4
- Other 5
- None 6

18. Do you bulk bill ALL patients?..... **Yes / No**
If No, which groups are bulk billed?

(Tick those that apply)	**All**	**Some**
Pensioner/Healthcare Card holders ...	☐	☐
Children <16 years.....	☐	☐
Selected other patients		☐

19. To what extent are computers used -

(i) at your major practice?	(ii) by you (at work)?
Not at all 1	Not at all 1
Billing.....2	Test ordering 2
Prescribing.....3	Prescribing 3
Medical Records.....4	Medical Records 4
Other Admin.....5	Internet 5
Internet / Email.....6	Email 6

(iii) Prescribing / Health record software used is —

_____

20. Is your major practice site a teaching practice?
(Circle all that apply)
- for undergraduates..... 1
- for GP registrars..... 2
- No..... 3

21. Did any of your BEACH consultations take place in an Aboriginal Community Controlled Health Service (ACCHS)?
- No.....1
- Yes - all.....2
- Yes - some (which dates?) _____ 3

Thank you for participating in the ***BEACH PROGRAM.***

AGPSCC, Acacia House, Westmead Hospital, WESTMEAD, 2145.
Ph: 02 98458151 fax: 02 98458155 email: janc@med.usyd.edu.au Web http://www.fmrc.org.au

Appendix 5: Code groups from ICPC-2 and ICPC-2 PLUS

Table A5.1: Code groups from ICPC-2 and ICPC-2 PLUS

Group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Reasons for encounter and problems managed			
Abdominal pain	D01		Pain/cramps; abdominal general
	D06		Pain; abdominal localised; other
Abnormal test results	A91		Abnormal result investigations NOS
	B84		Unexplained abnormal white cells
	U98		Abnormal urine test NOS
	X86		Abnormal cervix smear
Anaemia		B78002	Anaemia; sickle cell
		B78003	Anaemia; hereditary haemolytic
		B79001	Anaemia; congenital
		B79004	Anaemia; hereditary
	B80		Iron deficiency anaemia
	B81		Anaemia; vitamin B12/folate deficiency
	B82		Anaemia; other/unspecified
Anxiety	P01		Feeling anxious/nervous/tense
	P74		Anxiety disorder/anxiety state
Arthritis—all	L88		Rheumatoid/seropositive arthritis
	L89		Osteoarthrosis of hip
	L90		Osteoarthrosis of knee
	L91		Osteoarthrosis, other
		L70009	Arthritis; pyogenic
		L70010	Arthritis; viral
		L70021	Arthritis; septic
		L81003	Arthritis; traumatic
		L81015	Haemarthrosis
		L83010	Arthritis; spine cervical
		L83011	Osteoarthritis; spine; cervical
		L84003	Arthritis; spine
		L84004	Osteoarthritis; spine
		L84009	Osteoarthritis; spine; thoracic
		L84010	Osteoarthritis; spine; lumbar
		L84011	Osteoarthritis; lumbosacral
		L84012	Osteoarthritis; sacroiliac
		L92006	Arthritis; shoulder

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Reasons for encounter and problems managed (continued)			
Arthritis—all (continued)		L92007	Osteoarthritis; shoulder
		L92011	Humeroscapular periarthritis
		S91002	Arthritis; psoriatic
		T99063	Arthritis; crystal (excluding gout)
Back complaint	L02		Back symptom/complaint
	L03		Low back symptom/complaint
	L86		Back syndrome with radiating pain
Cardiac check-up			See Check-up—ICPC chapter, Cardiovascular
Check-up—all	–30		Medical examination/health evaluation, complete
	–31		Medical examination/health evaluation, partial
	X37		Pap smear
Check-up—ICPC chapter	A30; A31		General
	B30; B31		Blood
	D30; D31		Digestive
	F30; F31		Eye
	H30; H31		Ear
	K30; K31		Cardiovascular
	L30; L31		Musculoskeletal
	N30; N31		Neurological
	P30; P31		Psychological
	R30; R31		Respiratory
	S30; S31		Skin
	T30; T31		Endocrine
	U30; U31		Urology
	W30; W31		Prenatal/postnatal
	X30; X31; X37		Female genital
	Y30; Y31		Male genital
	Z30; Z31		Social
Depression	P03		Feeling depressed
	P76		Depressive disorder
Diabetes—non-gestational	T89		Diabetes; insulin-dependent
	T90		Diabetes; non-insulin-dependent
Diabetes—all	T89		Diabetes; insulin-dependent
	T90		Diabetes; non-insulin-dependent
	W85		Gestational diabetes
Female genital check-up			See Check-up—ICPC chapter, Female genital

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Reasons for encounter and problems managed (continued)			
Fracture	L72		Fracture; radius/ulna
	L73		Fracture; tibia/fibula
	L74		Fracture; hand/foot bone
	L75		Fracture; femur
	L76		Fracture; other
		L84019	Fracture; compression; spine
		L99017	Fracture; non-union
		L99018	Fracture; pathological
		L99019	Fracture; malunion
		L99095	Fracture; stress
		N54005	Decompression; fracture; skull
		N80012	Fracture; skull (base)
		N80013	Fracture; skull
		N80014	Injury; head; fracture
Gastroenteritis	D70		Gastrointestinal infection
	D73		Gastroenteritis, presumed infectious
General check-up			See Check-up—ICPC chapter, General
Hypertension/high BP (RFEs)	K85		Elevated blood pressure (without hypertension)
	K86		Hypertension; uncomplicated
	K87		Hypertension; complicated
		W81002	Hypertension; pre-eclamptic
		W81003	Hypertension in pregnancy
Hypertension (problems)	K86		Hypertension; uncomplicated
	K87		Hypertension; complicated
		W81002	Hypertension; pre-eclamptic
		W81003	Hypertension in pregnancy
Immunisation/vaccination—all	A44		Preventive immunisation/medication; general/unspecified
	D44		Preventive immunisation/medication; digestive
	N44		Preventive immunisation/medication; neurological
	R44		Preventive immunisation/medication; respiratory
Ischaemic heart disease	K74		Ischaemic heart disease with angina
	K76		Ischaemic heart disease without angina
Menstrual problems	X02		Pain; menstrual
	X03		Pain; intermenstrual
	X05		Menstruation; absent/scanty
	X06		Menstruation; excessive
	X07		Menstruation; irregular/frequent

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Reasons for encounter and problems managed (continued)			
Menstrual problems (continued)	X08		Intermenstrual bleeding
	X09		Premenstrual symptom/complaint
	X10		Postponement of menstruation
Oral contraception	W10		Contraception; postcoital
	W11		Contraception; oral
	W50		Medication; reproductive system
Osteoarthritis		L83011	Osteoarthritis; spine; cervical
		L84004	Osteoarthritis; spine
		L84009	Osteoarthritis; spine; thoracic
		L84010	Osteoarthritis; spine; lumbar
Osteoarthritis		L84011	Osteoarthritis; lumbosacral
		L84012	Osteoarthritis; sacroiliac
		L89001	Osteoarthritis; hip
		L90001	Osteoarthritis; knee
		L91001	Osteoarthritis; degenerative
		L91003	Osteoarthritis
		L91008	Heberdens nodes
		L91015	Osteoarthritis; wrist
		L92007	Osteoarthritis; shoulder
Pregnancy	W01		Question of pregnancy
	W78		Pregnancy
	W79		Unwanted pregnancy
Pre/postnatal check-up			See Check-up—ICPC chapter, Prenatal/postnatal
Prescription—all	–50		Medication prescription/request/renewal/injection
Rash	S06		Rash; localised
	S07		Rash generalised
Rheumatoid arthritis	L88		Rheumatoid/seropositive arthritis
Sprain/strain		L19014	Strain; muscle(s)
	L77		Sprain/strain; ankle
	L78		Sprain/strain; knee
	L79		Sprain/strain; joint NOS
		L83023	Sprain; neck
		L83024	Strain; neck
		L84020	Sprain; back
		L84021	Strain; back

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Reasons for encounter and problems managed (continued)			
Swelling (skin)	S04		Lump/swelling; localised
	S05		Lump/swelling; generalised
Test results	–60		Results tests/procedures
	–61		Results examination/test/record/letter other provider
Tonsillitis	R76		Tonsillitis; acute
	R90		Hypertrophy; tonsils/adenoids
Urinary tract infection	U70		Pyelonephritis/pyelitis
	U71		Cystitis/urinary infection other
Clinical treatments			
Advice/education		A45002	Advice/education
		B45002	Advice/education; blood
		D45002	Advice/education; digestive
		F45002	Advice/education; eye
		H45002	Advice/education; ear
		K45002	Advice/education; cardiovascular
		L45002	Advice/education; musculoskeletal
		N45002	Advice/education; neurological
		P45001	Advice/education; psychological
		R45002	Advice/education; respiratory
		S45002	Advice/education; skin
		T45002	Advice/education; endocrine/metabolic
		U45002	Advice/education; urology
		W45004	Advice/education; reproductive
		X45002	Advice/education; genital; female
		Y45002	Advice/education; genital; male
		Z45002	Advice/education; social
Advice/education—medication		A45015	Advice/education; medication
		A45032	Advice/education; Dosette box
		A45033	Advice/education; Webster pack
		A48003	Review; medication
		A48005	Increased; drug dosage
		A48006	Decreased; drug dosage
		A48007	Change (in); drug dosage
		A48008	Stop medication
		A48009	Recommend medication (not new)
		A48010	Change (in); medication

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Clinical treatments (continued)			
Advice/education—medication (continued)		A48011	Medication; request; refusal
		A48012	Review; immunisation
		A50010	Medication; given
Advice/education—treatment		A45016	Advice/education; treatment
		A45019	Advice; time off work
		A45020	Advice; rest/fluids
		A45021	Advice; naturopathic treatment
		A45030	Advice/education; first aid
		A48004	Review; treatment
		L45004	Advice/education; RICE
		R45004	Advice/education; asthma
		T45004	Advice/education; diabetes
		T45009	Advice; home glucose monitoring
Counselling/advice—alcohol		P45005	Advice/education; alcohol
		P58009	Counselling; alcohol
Counselling/advice—drug abuse		P45006	Advice/education; illicit drugs
		P58010	Counselling; drug abuse
		P58020	Rehabilitation; drug
		P58021	Rehabilitation; alcohol
Counselling/advice—exercise		A45004	Advice/education; exercise
		A58005	Counselling; exercise
Counselling/advice—health/body		A45005	Advice/education; health
		A45009	Health promotion
		A45010	Information; health
		A45011	Health promotion; injury
		A45018	Advice/education; body
		A45026	Advice/education; hygiene
		A58006	Counselling; health
		A98001	Health maintenance
Counselling/advice—lifestyle		P45008	Advice/education; lifestyle
		P58012	Counselling; lifestyle
Counselling/advice—nutrition/weight		A45006	Advice/education; diet
		T45005	Advice/education; nutritional
		T45007	Advice/education; weight management
		T58002	Counselling; weight management

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Clinical treatments (continued)			
Counselling/advice—pregnancy		W45009	Advice/education; pregnancy
		W58004	Counselling; prenatal
		W58006	Counselling; pregnancy
Counselling/advice—prevention		A45025	Advice/education; immunisation
		A58007	Counselling; prevention
		X45004	Advice/education; breast self-exam
		X45007	Advice/education; Pap smear
		X45008	Advice/education; mammography
		Z45005	Advice/education; environment
Counselling/advice—relationship		Z45006	Advice/education; parenting
		Z45007	Advice/education; mothering
		Z45008	Advice/education; fathering
		Z58001	Counselling; conjugal (partner)
		Z58003	Counselling; marriage/relationship
		Z58006	Counselling; parenting
		Z58007	Counselling; mothering
		Z58008	Counselling; fathering
		Z58009	Counselling; family
		Z58011	Counselling; conflict resolution
Counselling/advice—relaxation		P45007	Advice/education; relaxation
		P58011	Counselling; relaxation
		P58017	Counselling; stress management
Counselling/advice—smoking		P45004	Advice/education; smoking
		P58008	Counselling; smoking
Counselling/advice—STDs		A45012	Advice/education; STD
		A58008	Counselling; STDs
		X58004	Counselling; STDs; female
		Y58004	Counselling; STDs; male
Counselling—problem		A58002	Counselling; problem
		A58003	Counselling; individual
		B58001	Counselling; problem; blood
		D58001	Counselling; problem; digestive
		F58001	Counselling; problem; eye
		H58001	Counselling; problem; ear
		K58001	Counselling; problem; cardiovascular
		L58001	Counselling; problem; musculoskeletal
		N58001	Counselling; problem; neurological

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Clinical treatments (continued)			
Counselling—problem (continued)		R58001	Counselling; problem; respiratory
		S58001	Counselling; problem; skin
		T58001	Counselling; problem; endocrine/metabolic
		U58001	Counselling; problem; urology
		W58003	Counselling; problem; reproductive
		X58001	Counselling; problem; genital; female
		X58003	Counselling; sexual; physical; female
		Y58001	Counselling; problem; genital; male
		Y58003	Counselling; sexual; physical; male
		Z58002	Counselling; problem; social
Counselling—psychological		P45013	Anger management
		P58001	Counselling; psychiatric
		P58002	Psychotherapy
		P58004	Counselling; psychological
		P58005	Counselling; sexual; psychological
		P58006	Counselling; individual; psychological
		P58007	Counselling; bereavement
		P58013	Counselling; anger
		P58014	Counselling; self-esteem
		P58015	Counselling; assertiveness
		P58018	Therapy; group
		P58019	Cognitive behavioural therapy
		P58022	Counselling; body image
Family planning		A98002	Counselling; genetic female
		A98003	Counselling; genetic male
		W14002	Family planning; female
		W45006	Advice/education; preconceptual
		W45007	Advice/education; contraception; female
		W45008	Advice/education; family planning; female
		W58001	Counselling; abortion
		W58005	Counselling; terminate pregnancy
		W58007	Counselling; preconceptual
		W58012	Counselling; sterilisation; female
		W58013	Counselling; family planning; female
		Y14001	Family planning; male
		Y45006	Advice/education; family planning; male
		Y45007	Advice/education; contraception; female
		Y58005	Counselling; sterilisation; male
		Y58006	Counselling; family planning; male

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2/ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Clinical treatments (continued)		
Observe/wait	A45001	Observe/wait
	B45001	Observe/wait; blood
	D45001	Observe/wait; digestive
	F45001	Observe/wait; eye
	H45001	Observe/wait; ear
	K45001	Observe/wait; cardiovascular
	L45001	Observe/wait; musculoskeletal
	N45001	Observe/wait; neurological
	P45002	Observe/wait; psychological
	R45001	Observe/wait; respiratory
	S45001	Observe/wait; skin
	T45001	Observe/wait; endocrine/metabolic
	U45001	Observe/wait; urology
	W45003	Observe/wait; reproductive
	X45001	Observe/wait; genital; female
	Y45001	Observe/wait; genital; male
	Z45001	Observe/wait; social
Other admin/document	–62 (excluding A62008 and A62014)	
Reassurance, support	A58010	Reassurance/support
Sickness certificate	A62008	Admin; certificate; sickness
	A62014	Admin; certificate; workers' compensation
Procedures		
Incision/drainage/flushing/aspiration/ removal body fluid	–51	
Excision/removal tissue/biopsy/ destruction/debridement/cauterisation	–52	
Repair/fixation–suture/cast/prosthetic device (apply/remove)	–54	
Local injection/infiltration	–55	
	A50007	Injection; allergy
	A50008	Injection; desensitisation
	B50001	Injection; iron
	B50007	Injection; blood
	D50006	Injection; digestive
	F50006	Injection; eye
	H50006	Injection; ear
	K50006	Injection; cardiovascular
	L50007	Injection; musculoskeletal

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2/ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Procedures (continued)		
Local injection/infiltration (continued)	N50005	Injection; neurological
	P50006	Injection; psychological
	R50005	Injection; respiratory
	S50006	Injection; skin
	T50006	Injection; endocrine/metabolic
	T50007	Injection; vitamin; B12
	T50008	Injection; hormone
	T50009	Injection; vitamin
	U50006	Injection; urological
	X50006	Injection; genital; F
	Y50005	Injection; genital; M
Dressing/pressure/compression/tamponade	–56	
Physical medicine/rehabilitation	–57	
Other procedures/minor surgery NEC	–59	
	A50009	Chemotherapy
	A50011	Refill; Dosette box
	A50012	Refill; Webster pack
Check-up—practice nurse	–31 (excluding A31015)	Medical examination/health evaluation, partial
Clinical measurements		
Diagnostic endoscopy	–40	
Electrical tracings	–42	
Glucose test	T34005	Test; glucose
INR test	B34025	Test; INR
Other diagnostic procedures	–43	
	A31015	Assessment; ADL
Other preventive procedures/high-risk medication	–49	
	A31027	Assessment; physical fitness
	X31001	Exam; breast
	X31005	Check-up; breast
	Y31003	Check-up; prostate
Pap smear	X37001	Pap smear
	X37003	Test; cytology; genital; female
	X37004	Vault smear
	X37005	Pap smear; thin prep
Physical function test	–39	

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2/ICPC-2 PLUS code	ICPC-2/ICPC-2 PLUS label
Clinical measurements (continued)		
Urine test	A35001	Test; urine
	A35002	Urinalysis
	B35001	Test; urine; blood
	D35001	Test; urine; digestive
	P35001	Test; urine; psychological
	T35001	Test; urine; endocrine/metabolic
	U35002	Test; urine; urology
	W35001	Test; urine; reproductive
	X35001	Test; urine; genital; female
	Y35001	Test; urine; genital; male
Referrals		
Allied health services	–66	Referral to other provider/nurse/therapist/ social worker
	–68 (excluding A68011; Z68003;Z68004; Z68007 and Z68008)	Other referrals NEC
	Z67002	Referral; respite care
Specialist	–67 (excluding A67010; A67011; A67022; A67015; P67005 and Z67002)	Referral to physician/specialist/clinic/hospital
	A68009	Referral; oncologist
Emergency department	A67011	Referral; accident and emergency
Hospital	A67010	Referral; hospital
	A67015	Referral; hospice
	A67022	Admission; hospital
	P67005	Referral; hospital; psychiatrist
Other referrals	A68011	Referral
	Z68003	Referral; financial/legal services
	Z68004	Referral; police
	Z68007	Referral; women's shelter
	Z68008	Referral; Centrelink
Pathology test orders (MBS groups)		
Chemistry		
Amylase	D34004	Test; amylase
B12	B34015	Test; B12
	D34009	Test; Schillings
C reactive protein	A34005	Test; C reactive protein
Calcium/phosphate	A34006	Test; calcium
	A34013	Test; phosphate
	A34024	Test; calcium phosphate

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Cardiac enzymes	D34005	Test; aspartate aminotransferase
	K34003	Test; cardiac enzymes
	K34004	Test; creatine kinase
Chemistry; other	A33023	Test; alpha fetoprotein
	A33026	Test; cancer antigen 125
	A33027	Test; cancer antigen 15.3
	A33028	Test; cancer antigen 19.9
	A33029	Test; carcinoembryonic antigen
	A33041	Test; cancer antigen
	A34015	Test; protein
	A34018	Vitamin assay
	A34019	Test; lead
	A34020	Test; blood gas analysis
	A34022	Test; mineral
	A34023	Test; zinc
	A34025	Test; DHEAS
	A34030	Test; biochemistry
	A34031	Test; blood alcohol
	A34032	Test; prolactin
	A34033	Test; testosterone
	A34037	Test; Glutathione S-transferase
	A34038	Test; magnesium
	A34040	Test; renin
	A35004	Test; urine sodium
	A35007	Test; urine; albumin
	A35008	Test; albumin creatine ratio
	B34023	Test; transferrin
	D34002	Test; alanine aminotransferase
	D35002	Test; 5-HIAA
	K34001	Test; blood; digitalis
	K34006	Test; amino acids
	K34007	Test; troponin
	N34001	Test; blood; phenylhydantoin
	P34003	Test; methadone
	T34018	Test; androgens
	T34019	Test; insulin
	T34021	Test; C peptide
	T34029	Test; aldosterone

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Chemistry; other (continued)	T34030	Test; parathyroid hormone
	T34035	Test; lipase
	T35002	Test; catecholamines
	W34008	Test; PAPPA
	W38002	Amniocentesis
Drug screen	A34002	Drug assay
	A34026	Blood drug screen
	A34027	Blood screen
	A35003	Drug screen
	A35005	Urine drug screen
	K34005	Test; digoxin
	N34003	Test; phenytoin
	N34004	Test; valproate
	N34005	Test; carbamazepine
	P34002	Test; lithium
EUC	A34007	Test; chloride
	A34008	Test; electrolytes
	A34010	Test; EUC
	A34014	Test; potassium
	A34017	Test; sodium
	A34029	Test; U&E
	A34034	Test; E&C
	U34002	Test; creatinine
	U34003	Test; urea
HbA1c	T34010	Test; HbA1c
	T34017	Test; fructosamine
	T34022	Test; HBA1
Ferritin	B34016	Test; ferritin
	B34019	Test; iron studies
Folic acid	B34017	Test; folic acid
	B34024	Test; folate
Glucose/tolerance	T34005	Test; glucose
	T34009	Test; glucose tolerance
	T34023	Test; glucose (fasting/random)
	T34025	Test; glucose; fasting
	T34026	Test; glucose; random

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Hormone assay	A34003	Hormone assay
	D33015	Test; anti gliadin antibody
	T34007	Test; cortisol
	T34034	Test; ACTH
	W34005	Test; HCG
	W34006	Test; B HCG level (titre/quant)
	X34002	Test; LH
	X34003	Test; progesterone
	X34004	Test; oestradiol
	X34005	Test; FSH
	X34006	Test; SHBG; female
	X34007	Test; free androgen index; female
	Y34004	Test; SHBG; male
	Y34005	Test; free androgen index; male
Lactose intolerance	D38002	Test; lactose intolerance
Lipids	T34001	Check-up; cholesterol
	T34004	Test; lipids profile
	T34006	Test; cholesterol
	T34011	Test; cholesterol HDL
	T34013	Test; cholesterol LDL
	T34016	Test; triglycerides
	T34020	Test; free fatty acids
	T34024	Test; cholesterol/triglycerides
Liver function	A34004	Test; albumin
	D34003	Test; alkaline phosphatase
	D34006	Test; bilirubin
	D34007	Test; gGT
	D34008	Test; liver function
	T34012	Test; LDH
Multi-biochemical analysis	A34012	Test; multi-biochemical analysis
	A34021	Test; E & LFT
Prostate specific antigen	Y34002	Test; acid phosphatase
	Y34003	Test; prostate specific antigen
Thyroid function	T34015	Test; thyroid function
	T34027	Test; thyroxine
	T34028	Test; TSH
Urate/uric acid	U34004	Test; urate/uric acid

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Cytopathology		
Cytology	A37002	Test; cytology
	B37003	Test; cytology; blood
	D37002	Test; cytology; digestive
	F37002	Test; cytology; eye
	H37002	Test; cytology; ear
	K37002	Test; cytology; cardiovascular
	L37002	Test; cytology; musculoskeletal
	N37002	Test; cytology; neurological
	R37002	Test; cytology; respiratory
	R37003	Test; sputum cytology
	S37002	Test; cytology; skin
	T37002	Test; cytology; endocrine/metabolic
	U37002	Test; cytology; urology
	W37002	Test; cytology; reproduction
	Y37002	Test; cytology; genital; male
Pap smear	X37001	Pap smear
	X37003	Test; cytology; genital; female
	X37004	Vault smear
	X37005	Pap smear; thin prep
Haematology		
Blood grouping & typing	B33001	Test; Coombs
	B33002	Test; blood grouping & typing
	B33009	Test; blood group
	B33013	Test; blood; cross match
Blood; other	A33042	Test; lymphocyte type & count
	A34035	Test; blood film
	A34036	Test; blood thick film
	B33003	RH; antibody titre
	B34005	Test; blood; platelets
	B34007	Test; blood; sickle cell
	B34021	Test; reticulocyte count
	B34031	Test; haemoglobin epg
	B34032	Test; packed cell volume
	B34033	Test; blood; blood
	B37001	Exam; bone marrow

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Coagulation	B34003	Test; coagulation time
	B34006	Test; part thromboplastin time
	B34009	Test; prothrombin time
	B34014	Test; APTT
	B34022	Test; thrombin time
	B34025	Test; INR
	B34026	Test; fibrinogen
	B34028	Test; bleeding time
	B34029	Test; coagulation screen
	K34008	Test; D-Dimer
ESR	A34009	Test; ESR
Full blood count	A34011	Test; full blood count
Haemoglobin	B34018	Test; haemoglobin
Tissue pathology (Histopathology)		
Histology; skin	S37001	Test; histopathology; skin
Histology; other	A37001	Test; histopathology
	B37002	Test; histopathology; blood
	D37001	Test; histopathology; digestive
	F37001	Test; histopathology; eye
	H37001	Test; histopathology; ear
	K37001	Test; histopathology; cardiovascular
	L37001	Test; histopathology; musculoskeletal
	N37001	Test; histopathology; neurological
	R37001	Test; histopathology; respiratory
	T37001	Test; histopathology; endocrine/metabolic
	U37001	Test; histopathology; urology
	W37001	Test; histopathology; reproductive
	X37002	Test; histopathology; genital; female
	Y37001	Test; histopathology; genital; male
Immunology		
Anti-nuclear antibodies	L33004	Test; anti-nuclear antibodies
Immunology; other	A32001	Test; sensitivity
	A33005	Test; immunology
	A33011	Test; HLA
	A33024	Test; bone marrow surface mark
	A33025	Test; serum electrophoresis
	A33051	Test; immune status
	A33052	Test; skin patch

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Immunology; other (continued)	A38004	Test; DNA
	B33005	Test; immunology; blood
	B33007	Test; immunoglobulins
	B33011	Test; IgE
	B34027	Test; FBC for surface markers
	B34030	Test; intrinsic factor
	D32001	Test; sensitivity; digestive
	D33004	Test; immunology; digestive
	D33014	Test; endomysial antibody
	D33028	Test; mitochondrial antibodies
	D33031	Test; anti-tissue transglutaminase
	D34010	Test; transglutamase
	F33002	Test; immunology; eye
	H33002	Test; immunology; ear
	K33002	Test; immunology; cardiovascular
	K33003	Test; ANCA
	L33003	Test; immunology; musculoskeletal
	L34001	Test; lupus erythematosus; cell prep
	N33002	Test; immunology; neurological
	R32004	Test; sensitivity; respiratory
	R33004	Test; immunology; respiratory
	S32001	Test; sensitivity; skin
	S33002	Test; immunology; skin
	T33002	Test; immunology; endocrine/metabolic
	U33003	Test; immunology; urology
	W33007	Test; immunology; reproductive
	X33002	Test; immunology; genital; female
	Y33002	Test; immunology; genital; male
RAST	A34016	Test; RAST
Rheumatoid factor	L33001	Test; rheumatoid factor
Infertility/pregnancy	W33002	Test; pregnancy
	W34002	Test; blood; pregnancy
	W34003	Test; antenatal
	W34007	Test; pregnancy screen
	Y38002	Test; sperm count
	Y38003	Test; semen examination

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Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Microbiology		
Antibody	A33003	Test; antibody
Cervical swab	X33004	Test; cervical swab M,C&S
Chlamydia	A33006	Test; chlamydia
	A33034	Test; chlamydia direct immunofl
	X33006	Test; viral culture; genital; female
Ear swab and C&S	H33003	Test; ear swab M,C&S
Faeces M,C&S	D33002	Stool(s); culture
	D33008	Test; faeces M,C&S
	D36001	Test; faeces; cyst/ova/parasite
Fungal ID/sensitivity	A33008	Test; fungal ID/sensitivity
	A33030	Test; skin scraping fungal M,C&S
Hepatitis serology	D33005	Test; hepatitis A serology
	D33006	Test; hepatitis B serology
	D33007	Test; hepatitis C serology
	D33013	Test; hepatitis serology
	D33018	Test; hepatitis A antibody
	D33019	Test; hepatitis B antibody
	D33020	Test; hepatitis D antibody
	D33021	Test; hepatitis E antibody
	D33022	Test; hepatitis A antigen
	D33023	Test; hepatitis C antigen
	D33024	Test; hepatitis D antigen
	D33025	Test; hepatitis E antigen
	D33026	Test; hepatitis antibody
	D33027	Test; hepatitis antigen
HIV	A33021	Test; cytomegalovirus serology
	B33006	Test; HIV
	B33008	Test; AIDS screen
	B33012	Test; HIV viral load
H pylori	D33009	Test; H Pylori
Microbiology; other	A33004	Test; microbiology
	A33007	Test; culture and sensitivity
	A33012	Test; mycoplasma serology
	A33013	Test; parvovirus serology
	A33015	Test; Barmah forest virus
	A33016	Test; Antistreptolysin O Titre
	A33017	Test; herpes simplex culture

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Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Microbiology; other (continued)	A33019	Test; herpes simplex serology
	A33020	Test; toxoplasmosis serology
	A33033	Test; swab M,C&S
	A33035	Test; serology
	A33036	Antibodies screen
	A33038	Test; rapid plasma regain
	A33039	Test; viral swab M,C&S
	A33040	Test; viral serology
	A33043	Test; HPV
	A33044	Test; Brucella
	A33045	Test; fungal M,C&S
	A33046	Test; measles virus antibodies
	A33047	Test; Rickettsial serology
	A33053	Test; Bartonella
	A33054	Test; MC&S
	A34028	Test; blood culture
	A34039	Test; Q fever
	B33004	Test; microbiology; blood
	B33010	Test; serum immunoglobulins
	D33003	Test; microbiology; digestive
	D33010	Test; hepatitis D serology
	D33011	Test; hepatitis E serology
	D33012	Test; rotavirus
	D33016	Test; hepatitis C antibody
	D33017	Test; hepatitis B antigen
	F33001	Test; microbiology; eye
	F33003	Test; eye swab M,C&S
	H33001	Test; microbiology; ear
	K33001	Test; microbiology; cardiovascular
	L33002	Test; microbiology; musculoskeletal
	N33001	Test; microbiology; neurological
	R33001	Culture; tuberculosis
	R33002	Culture; throat
	R33003	Test; microbiology; respiratory
	R33009	Test; influenza serology
	R33010	Test; Legionnaires antibodies
	R33011	Test; RSV
	S33001	Test; microbiology; skin

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Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Microbiology; other (continued)	S33005	Test; varicella zoster serology
	S33006	Test; varicella zoster culture
	S33007	Test; nail M,C&S
	T33001	Test; microbiology; endocrine/metabolic
	U33002	Test; microbiology; urology
	W34004	Test; antenatal serology
	W33006	Test; microbiology; reproductive
	X33001	Test; microbiology; genital; female
	X33003	Culture; gonococcal; female
	Y33001	Test; microbiology; genital; male
	Y33003	Culture; gonococcal; male
	Y33004	Test; viral culture; genital; male
	Y33005	Test; urethral/penile swab
Monospot	A33002	Test; monospot
	A33014	Test; Paul Bunnell
	A33031	Test; Epstein Barr virus serology
	A33032	Test; Epstein Barr virus
Nose swab C&S	R33008	Test; nose swab M,C&S
Pertussis	R33007	Test; pertussis
Ross River fever	A33009	Test; Ross River Fever
Rubella	A33001	Test; rubella
Skin swab C&S	S33003	Test; skin swab M,C&S
Sputum C&S	R33005	Test; sputum M,C&S
Throat swab C&S	R33006	Test; throat swab M,C&S
Urine M,C&S	U33001	Test; culture; urine
	U33004	Test; urine M,C&S
Vaginal swab and M,C&S	X33005	Test; vaginal swab M,C&S
Venereal disease	A33010	Test; venereal disease
	A33022	Test; syphilis serology
	A33057	STI screen
Simple basic tests	B35001	Test; urine; blood
	D36003	Test; occult blood
	R32001	Test; Mantoux
	R32002	Test; tuberculin
	W33001	Test; urine; pregnancy
	W35003	Test; urine; HCG

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Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Other NEC		
Blood test	A34001	Test; blood
Urine test	A35001	Test; urine
Urinalysis	A35002	Urinalysis
Faeces test	A36001	Test; faeces
Other pathology test NEC	A35006	Test; urine; FWT
	A38001	Test; other lab
	A38002	Pathology
	A38003	Test; genetic
	A38005	Test; disease screen
	B38001	Test; other lab; blood
	D34001	Test; blood; digestive
	D35001	Test; urine; digestive
	D36002	Test; faeces; digestive
	D38001	Test; other lab; digestive
	F34001	Test; blood; eye
	F38001	Test; other lab; eye
	H34001	Test; blood; ear
	H38001	Test; other lab; ear
	K34002	Test; blood; cardiovascular
	K38001	Test; other lab; cardiovascular
	L34003	Test; blood; musculoskeletal
	L38001	Test; other lab; musculoskeletal
	N34002	Test; blood; neurological
	N38001	Test; other lab; neurological
	P34001	Test; blood; psychological
	P35001	Test; urine; psychological
	P38001	Test; other lab; psychological
	R34001	Test; blood; respiratory
	R38001	Test; other lab; respiratory
	S34001	Test; blood; skin
	S38001	Test; other lab; skin
	T34002	Test; blood; endocrine/metabolic
	T35001	Test; urine; endocrine/metabolic
	T38001	Test; other lab; endocrine/metabolic
	U34001	Test; blood; urology
	U35002	Test; urine; urology
	U38001	Test; other lab; urology
	W34001	Test; blood; reproductive

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Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Pathology test orders (continued)		
Other pathology test NEC (continued)	W35001	Test; urine; reproductive
	W38001	Test; other lab; reproductive
	X34001	Test; blood; genital; female
	X35001	Test; urine; genital; female
	X38001	Test; other lab; genital; female
	Y34001	Test; blood; genital; male
	Y35001	Test; urine; genital; male
	Y38001	Test; other lab; genital; male
	Z38001	Test; other lab; social
Imaging test orders (MBS groups)		
Diagnostic radiology	A41001	Radiology; diagnostic
	A41002	X-ray; chest
	A41006	X-ray; abdomen
	A41007	Imaging other
	A41010	Radiology
	A41014	Test; imaging; contrast/special
	B41001	Radiology; diagnostic; blood
	D41001	GI series
	D41003	Radiology; diagnostic; digestive
	D41006	X-ray; oesophagus
	D41007	X-ray; biliary ducts
	D41008	X-ray; digestive tract
	D41009	X-ray; mouth
	D41012	X-ray; dental
	D41015	Barium enema
	D41016	Barium meal
	D41017	Barium swallow
	F41001	Radiology; diagnostic; eye
	F41002	X-ray; eye
	H41001	Radiology; diagnostic; ear
	H41002	X-ray; ear
	K41002	Radiology; diagnostic; cardiovascular
	K41003	Cardiogram
	K41005	Angiography; coronary
	K41006	Angiography; femoral
	K41007	Angiography; cerebral
	K41011	Angiogram

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Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Imaging test orders (continued)		
Diagnostic radiology (continued)	K41012	Angiogram; coronary
	K41013	Angiogram; cerebral
	K41014	Angiogram; femoral
	L41001	Arthrogram
	L41003	X-ray; bone(s)
	L41004	Plain x-ray; bone(s)
	L41005	Radiology; diagnostic; musculoskeletal
	L41013	X-ray; elbow
	L41014	X-ray; hand
	L41015	X-ray; wrist
	L41016	X-ray; knee
	L41017	X-ray; hip
	L41018	X-ray; neck
	L41019	X-ray; pelvis
	L41020	X-ray; shoulder
	L41021	X-ray; lumbosacral
	L41022	X-ray; cervical
	L41023	X-ray; thoracic
	L41024	X-ray; spinal
	L41025	X-ray; joint(s)
	L41026	X-ray; foot/feet
	L41027	X-ray; ankle
	L41028	X-ray; leg
	L41029	X-ray; ribs
	L41030	X-ray; face
	L41032	X-ray; arm
	L41033	X-ray; spine; lumbar
	L41034	X-ray; spine; sacrum
	L41035	X-ray; spine; coccyx
	L41036	X-ray; finger(s)/thumb
	L41037	X-ray; toe(s)
	L41038	X-ray; heel
	L41039	X-ray; tibia/fibula
	L41040	X-ray; femur
	L41041	X-ray; radius/ulna
	L41042	X-ray; clavicle
	L41043	X-ray; humerus
	L41044	X-ray; jaw

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Treatment group	ICPC-2 PLUS code	ICPC-2 PLUS label
Imaging test orders (continued)		
Diagnostic radiology (continued)	L41045	X-ray; temporomandibular joint
	L41060	X-ray; spine; cervicothoracic
	L41061	X-ray; spine; sacrococcygeal
	L41062	X-ray; spine; thoracolumbar
	L41063	X-ray; back
	L41064	X-ray; back lower
	L41065	X-ray; forearm
	L41066	X-ray; leg lower
	L41067	X-ray; metacarpal
	L41068	X-ray; metatarsal
	L43003	Test; densitometry
	N41001	Radiology; diagnostic neurological
	N41004	X-ray; skull
	P41001	Radiology; diagnostic; psychological
	R41001	Radiology; diagnostic; respiratory
	R41002	X-ray; sinus
	R41003	X-ray; nose
	S41001	Radiology; diagnostic; skin
	T41001	Radiology; diagnostic; endocrine/metabolic
	T41003	X-ray; endocrine/metabolic
	U41001	Pyelogram; intravenous
	U41002	Pyelogram; retrograde
	U41005	Radiology; diagnostic; urology
	U41007	X-ray; urinary tract
	U41008	X-ray; kidney/ureter/bladder
	W41002	Radiology; diagnostic; reproductive
	W41003	X-ray; uterus
	X41001	Mammography; female
	X41002	Mammography; request; female
	X41003	Thermography; breast
	X41005	Radiology; diagnostic; genital; female
	X41007	X-ray; breast; female
	Y41001	Radiology; diagnostic; genital; male
Ultrasound	A41012	Ultrasound
	A41015	Ultrasound; abdomen
	A41017	Ultrasound; chest
	A41021	Ultrasound; inguinal
	A41022	Ultrasound; abdomen; upper
	A41023	Ultrasound; abdomen; lower

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Group	ICPC-2 PLUS code	ICPC-2 PLUS label
Imaging test orders (continued)		
Ultrasound (continued)	B41002	Ultrasound; spleen
	D41013	Ultrasound; gallbladder
	D41014	Ultrasound; liver
	K41001	Echocardiography
	K41016	Ultrasound; cardiac
	K43003	Test; Doppler
	K43004	Test; Doppler carotid
	K43005	Scan; duplex
	L41046	Ultrasound; neck
	L41047	Ultrasound; pelvis
	L41048	Ultrasound; shoulder
	L41049	Ultrasound; spine
	L41050	Ultrasound; knee
	L41051	Ultrasound; elbow
	L41070	Ultrasound; wrist
	L41071	Ultrasound; ankle
	L41072	Ultrasound; groin
	L41073	Ultrasound; back
	L41074	Ultrasound; back lower
	L41075	Ultrasound; hand/finger(s)
	L41076	Ultrasound; foot/toe(s)
	L41078	Ultrasound; arm
	L41079	Ultrasound; leg
	N41005	Ultrasound; brain
	N41007	Ultrasound; head
	T41004	Ultrasound; thyroid
	U41009	Ultrasound; renal tract
	U41010	Ultrasound; kidney
	W41004	Ultrasound; obstetric
	W41005	Ultrasound; nuchal translucency
	X41009	Ultrasound; breast; female
	X41011	Ultrasound; uterus (not pregnant)
	Y41005	Ultrasound; prostate
	Y41006	Ultrasound; scrotum
	Y41008	Ultrasound; breast; male

(continued)

Table A5.1 (continued): Code groups from ICPC-2 and ICPC-2 PLUS

Group	ICPC-2 PLUS code	ICPC-2 PLUS label
Imaging test orders (continued)		
Computerised tomography	A41013	CT scan
	A41016	CT scan; abdomen
	A41018	CT scan; chest
	A41019	CT scan; abdomen; upper
	A41020	CT scan; abdomen; lower
	D41018	CT scan; liver
	K41017	CT scan; cardiac
	L41052	CT scan; neck
	L41053	CT scan; pelvis
	L41054	CT scan; spine
	L41055	CT scan; spine; cervical
	L41056	CT scan; spine; thoracic
	L41057	CT scan; spine; lumbar
	L41058	CT scan; spine; lumbosacral
	L41059	CT scan; spine; sacrum
	L41069	CT scan; spine; thoracolumbar
	L41077	CT scan; spine; cervicothoracic
	L41080	CT scan; leg
	N41006	CT scan; brain
	N41008	CT scan; head
	R41004	CT scan; sinus
	X41010	CT scan; breast; female
	Y41007	CT scan; breast; male
Nuclear medicine	A41009	Nuclear medicine
	A41011	Isotope scan
	K41015	Scan; thallium heart
	L41002	Scan; bone(s)
	R41005	Scan; VQ (lung)
Magnetic resonance imaging	A41008	MRI

Notes

1. NOS—not otherwise specified; STD—sexually-transmitted disease; NEC—not elsewhere classified; MBS—Medicare Benefits Schedule; EUC—electrolytes, urea and creatinine; LDL—low-density lipoprotein; HDL—high-density lipoprotein; ESR—erythrocyte sedimentation rate; M,C&S—microscopy, culture and sensitivity; HIV—human immunodeficiency virus.

2. '–code'—signifies that the concept includes all of the specified code across all chapters of ICPC-2 (excluding the Z social chapter). Codes listed in this appendix are only those currently active within ICPC-2 PLUS.

Appendix 6: Chronic code groups from ICPC-2 and ICPC-2 PLUS

Table A6.1: Chronic code groups from ICPC-2 and ICPC-2 PLUS

Group	ICPC-2 rubric	ICPC-2 PLUS code	ICPC/ICPC-2 PLUS label
Chronic problems managed			
Acne (chronic)		S96007	Acne
		S96003	Acne; conglobulate
		S96002	Acne; vulgaris
Anaemia (chronic)	B81		Anaemia, vitamin B12/folate deficiency
	B82		Anaemia, other/unspecified
Arthritis (excl osteoarthritis and rheumatoid arthritis)		L83010	Arthritis; spine cervical
		L84003	Arthritis; spine
		L84023	Arthritis; spine thoracic
		L84024	Arthritis; spine lumbar
		L84025	Arthritis; lumbosacral
		L84026	Arthritis; sacroiliac
		L89004	Arthritis; hip
		L90004	Arthritis; knee
		L91007	Arthritis; degenerative
		L91009	Arthritis
		L91010	Arthritis; acute
		L91011	Arthritis; allergic
		L91012	Polyarthritis
		L91013	Arthritis; hands/fingers
		L91014	Arthritis; wrist
		L92006	Arthritis; shoulder
		S91002	Arthritis; psoriatic
Diabetes (non-gestational)	T89		Diabetes, insulin dependent
	T90		Diabetes, non-insulin dependent
Hypertension (non-gestational)	K86		Hypertension, uncomplicated
	K87		Hypertension, complicated

Note: Excl—excluding. The code groups listed in Appendix 6 are those which differ from other code groups used in the report (see Appendix 5), limiting analysis to only chronic conditions (see Glossary).

Appendix 7: Dissemination of results from the BEACH program

A full list of BEACH publications is also available from the Family Medicine Research Centre website: <http://www.fmrc.org.au/publications/>.

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