

Web Appendix Table I. POC tests that are either used or desired by at least 25% of respondents in Australia

Test	Percentage of respondents who indicate they currently use the test (n=298)	Percentage of respondents who indicate they would use the test if it were made available in their practice (n=298)	Frequency of current or desired use (whichever was higher) = % (number of GPs who use it or would use at that frequency / number of GPs who do use + would use)
1. Blood glucose	74%	1%	Once daily or more: 59% (132/224)
2. Urine pregnancy test	68%	4%	Weekly: 32% (68/216)
3. INR (international normalised ratio)	48%	21%	Once daily or more: 63% (130/207)
4. Troponin	14%	43%	Weekly: 36% (61/172)
5. Haemoglobin	10%	47%	Weekly: 32% (54/168)
6. Potassium	9%	33%	Weekly: 35% (43/124)
7. Sodium	9%	30%	Once daily or more: 41% (47/115)
8. Creatinine	8%	34%	Weekly: 31% (39/127)
9. Nose/throat swab for influenza	7%	43%	Weekly: 32% (48/148)
10. HbA1c	6%	52%	Once daily or more: 56% (97/173)
11. Quantitative Beta HCG (Human	6%	40%	Weekly and Monthly: 28% (39/138)
12. Throat swab for Group A	6%	35%	Weekly: 27% (33/122)
13. Faecal occult blood	6%	29%	Weekly: 34% (36/106)
14. BNP (B-type natriuretic peptide)	5%	28%	Monthly: 43% (41/96)
15. D-dimer	4%	41%	Monthly: 39% (52/133)
16. White cell count	4%	43%	Weekly: 28% (39/139)
17. Platelet count	4%	21%	Once daily or more: 50% (37/73)
18. Urine albumin:creatinine ratio	4%	39%	Once daily or more: 32% (40/128)
19. Total cholesterol	3%	33%	Once daily or more: 59% (63/107)
20. HDL/LDL cholesterol	3%	40%	Once daily or more: 60% (77/129)
21. Triglycerides	3%	27%	Once daily or more: 53% (47/89)
22. Calcium	3%	14%	Weekly: 28% (15/53)
23. CRP (C-reactive protein)	3%	38%	Weekly: 38% (46/120)
24. ESR (Erythrocyte sedimentation	3%	29%	Weekly: 23% (22/94)
25. Gonorrhoea	3%	34%	Monthly: 32% (35/108)

26. Uric Acid	2%	28%	Weekly: 34% (30/89)
27. TSH (thyroid stimulating hormone)	2%	32%	Weekly: 32% (33/103)
28. PSA (Prostate Specific Antigen)	2%	26%	Once daily or more: 37% (30/82)

Web Appendix Table II. POC tests that are either used or desired by at least 25% of respondents in Belgium .

Test	Percentage of respondents who indicate they currently use the test (n=319)	Percentage of respondents who indicate they would use the test if it were made available in their practice (n=319)	Frequency of current or desired use (whichever was higher) = % (number of GPs who use it or would use at that frequency / number of GPs who do use + would use)
1. Blood Glucose	87%	6%	Once daily or more 49% (145/296)
2. Urine leukocytes or nitrite	86%	5%	Weekly 46% (134/292)
3. INR (international	12%	77%	Once daily or more 55% (154/281)
4. Troponin	1%	85%	Monthly 43% (117/275)
5. D-dimer	1%	83%	Monthly 48% (129/268)
6. CRP (C-reactive protein)	3%	75%	Once daily or more 42% (103/248)
7. Urine Pregnancy test	61%	16%	Monthly 40% (99/245)
8. Quantitative Beta HCG	19%	56%	Monthly 46% (108/236)
9. White cell count (WBC)	1%	67%	Once daily or more 40% (85/215)
10. Chlamydia	2%	67%	Monthly 44% (95/214)
11. Creatinine	0%	41%	Weekly 46% (60/131)
12. Potassium	1%	47%	Weekly 48% (73/152)
13. Uric Acid	0%	40%	Weekly 36% (34/95)
14. BNP (B-type natriuretic	0%	51%	Monthly 44% (73/165)
15. HbA1c	2%	61%	Weekly 47% (94/201)
16. TSH (thyroid stimulating	1%	33%	Weekly 40% (43/107)
17. Haemoglobin	3%	47%	Weekly 36% (57/158)
18. Throat swab for Group A	4%	60%	Weekly 42% (84/202)
19. Influenza	1%	59%	Weekly 32% (61/190)
20. MRSA (Methicillin-	2%	39%	Monthly 45% (58/130)
21. Leukocyte differentiation	0%	50%	Once daily or more 42% (67/161)
22. <i>Helicobacter pylori</i>	0%	28%	Monthly 43% (39/91)
23. <i>Helicobacter pylori</i>	0%	45%	Monthly 41% (59/145)
24. BSE (Bovine spongiform	1%	55%	Weekly 39% (51/132)

Web Appendix Table III. POC tests that are either used or desired by at least 25% of respondents in the Netherlands.

Test	Percentage of respondents who indicate they currently use the test (n=639)	Percentage of respondents who indicate they would use the test if it were made available in their practice (n=639)	Frequency of current or desired use (whichever was higher) = % (number of GPs who use it or would use at that frequency / number of GPs who do use + would use)
1. Blood Glucose	96%	2%	Once daily or more 9% (431/629)
2. Urine leukocytes or nitrite	96%	2%	Once daily or more 89% (555/621)
3. Urine pregnancy test	94%	2%	Weekly 42% (259/618)
4. Haemoglobin	58%	26%	Weekly 50% (268/539)
5. CRP (C-reactive protein)	48%	47%	Weekly 47% (282/607)
6. D-dimer	18%	70%	Monthly 54% (306/562)
7. Troponin	2%	65%	Monthly 44% (187/430)
8. BNP (B-type natriuretic peptide)	1%	62%	Monthly 47% (188/402)
9. Chlamydia	1%	60%	Weekly 47% (182/387)
10. INR (international normalised ratio)	1%	54%	Monthly 42% (147/353)
11. Gonorrhoea	1%	51%	Weekly 42% (140/330)
12. ESR (erythrocyte sedimentation rate)	21%	29%	Weekly 49% (154/316)
13. Faecal occult blood	2%	44%	Monthly 45% (132/292)
14. Quantitative Beta HCG (Human	22%	23%	Monthly 39% (113/287)
15. HbA1c	6%	37%	Once daily or more 47% (129/277)
16. White cell count (WBC)	1%	40%	Weekly 55% (144/262)
17. Influenza	0%	36%	Weekly 34% (78/234)
18. Throat swab for Group A Streptococci	1%	33%	Once yearly or less 35% (75/212)
19. Potassium	0%	33%	Weekly 44% (93/210)
20. MRSA (Methicillin-resistant <i>Staphylococcus aureus</i>)	3%	29%	Once yearly or less 55% (115/209)
21. Leukocyte differentiation	1%	28%	Weekly 51% (94/185)
22. Creatinine	0%	28%	Weekly 42% (74/177)
23. TSH (thyroid stimulating hormone)	0%	27%	Weekly 46% (80/173)
24. Uric Acid	0%	26%	Monthly 55% (91/167)

Web Appendix Table IV. POC tests that are either used or desired by at least 25% of respondents in the United Kingdom.

Test	Percentage of respondents who indicate they currently use the test (n=1109)	Percentage of respondents who indicate they would use the test if it were made available in their practice (n=1109)	Frequency of current or desired use (whichever was higher) = % (number of GPs who use it or would use at that frequency / number of GPs who do use + would use)
Urine leukocytes or nitrite	90%	8%	Once daily or more 78% (843/1086)
Urine pregnancy test	80%	15%	Weekly 48% (500/1051)
Blood glucose	69%	28%	Once daily or more 48% (515/1066)
INR (international normalised ratio)	43%	47%	Once daily or more 47% (465/993)
Total cholesterol	18%	46%	Once daily or more 52% (368/710)
ESR (Erythrocyte sedimentation rate)	18%	58%	Weekly 38% (326/849)
HDL/LDL cholesterol	17%	43%	Once daily or more 53% (346/658)
HbA1c	17%	61%	Once daily or more 43% (374/862)
Quantitative Beta HCG (Human chorionic gonadotropin)	17%	53%	Monthly 42% (324/779)
Chlamydia	17%	65%	Weekly 53% (486/913)
Urine albumin:creatinine ratio	17%	49%	Weekly 47% (339/724)
Triglycerides	16%	35%	Once daily or more 53% (298/568)
Haemoglobin	16%	72%	Once daily or more 48% (460/967)
Sodium	15%	51%	Once daily or more 52% (378/732)
D-dimer	15%	73%	Monthly 55% (532/977)
TSH (thyroid stimulating hormone)	15%	53%	Weekly 41% (308/748)
White cell count	15%	60%	Once daily or more 52% (426/825)
Platelet count	15%	51%	Once daily or more 50% (365/725)
CRP (C-reactive protein)	15%	61%	Once daily or more 41% (346/845)
Throat swab for Group A Streptococci	15%	53%	Weekly 40% (301/752)
Urine total protein	15%	31%	Weekly 44% (225/510)
Creatinine	14%	53%	Once daily or more 52% (389/751)
Potassium	14%	61%	Once daily or more 47% (394/839)
Calcium	14%	40%	Once daily or more 37% (223/599)
Uric Acid	14%	50%	Monthly 44% (308/701)
Free T4 or T3 (thyroid hormone)	14%	45%	Weekly 38% (249/652)
AST/ALT (aspartate aminotransferase- alanine aminotransferase ratio)	14%	38%	Once daily or more 49% (287/593)

Alkaline phosphatase	14%	36%	Once daily or more 50% (281/558)
Bilirubin	14%	42%	Once daily or more 46% (284/621)
Gamma GT (γ -glutamyltransferase)	14%	37%	Once daily or more 41% (231/571)
Albumin	14%	30%	Once daily or more 53% (259/492)
PSA (Prostate Specific Antigen)	14%	42%	Weekly 40% (246/621)
Vitamin B12	14%	32%	Weekly 41% (207/504)
Folate	14%	31%	Weekly 41% (199/492)
Urine protein:creatinine ratio	14%	35%	Weekly 46% (248/544)
Prothrombin time	13%	33%	Once daily or more 29% (151/513)
Rheumatoid factor	13%	29%	Monthly 43% (202/466)
Nasal swab for MRSA (Methicillin-resistant <i>Staphylococcus aureus</i>)	13%	28%	Monthly 52% (238/460)
Faecal occult blood	13%	38%	Monthly 41% (232/567)
Hepatitis B	12%	27%	Monthly 49% (211/435)
CA125	12%	35%	Monthly 51% (267/525)
Vitamin D	12%	29%	Monthly 33% (148/455)
BNP (B-type natriuretic peptide)	11%	66%	Monthly 53% (450/852)
Gonorrhoea	11%	58%	Weekly 47% (360/768)
HIV blood test	10%	28%	Monthly 44% (184/422)
Troponin	7%	69%	Monthly 52% (433/841)
Nose/throat swab for influenza	6%	55%	Monthly 37% (248/670)

Web Appendix Table V. POC tests that are either used or desired by at least 25% of respondents in the United States.

Test	Percentage of respondents who currently use the test (n=405)	Percentage of respondents who indicate they would use the test if it were made available in their practice	Frequency of current or desired use (whichever was higher) = % (number of GPs who use it or would use at that frequency / number of GPs who do use + would use)
Urine leukocytes or nitrite	88%	7%	Once daily or more 75% (289/385)
Throat swab for Group A Streptococci	86%	11%	Once daily or more 64% (252/393)
Urine Pregnancy Test	86%	10%	Weekly 40% (156/392)
Faecal occult blood	83%	10%	Once daily or more 50% (186/374)
Blood glucose	82%	13%	Once daily or more 81% (312/386)
Nose/throat swab for influenza	60%	33%	Once daily or more 56% (212/376)
Haemoglobin	50%	39%	Once daily or more 63% (227/361)
INR (international normalised ratio)	47%	43%	Once daily or more 62% (225/365)
Hb1AC	40%	50%	Once daily or more 79% (289/364)
Prothrombin time	29%	34%	Once daily or more 57% (147/258)
White cell count	28%	52%	Once daily or more 62% (204/327)
Platelet count	28%	40%	Once daily or more 63% (173/275)
Quantitative Beta HCG (Human chorionic)	28%	46%	Weekly 41% (122/299)
Total cholesterol	22%	45%	Once daily or more 79% (217/273)
Urine total protein	22%	31%	Once daily or more 39% (83/213)
Creatinine	21%	53%	Once daily or more 63% (190/300)
Potassium	21%	57%	Once daily or more 61% (193/319)
Sodium	21%	42%	Once daily or more 63% (161/256)
Urine albumin:creatinine ratio	21%	38%	Once daily or more 45% (107/236)
HDL/LDL cholesterol	20%	50%	Once daily or more 79% (224/285)
Triglycerides	20%	47%	Once daily or more 77% (211/273)
ESR (erythrocyte sedimentation rate)	20%	48%	Weekly 48% (131/273)
Calcium	18%	34%	Once daily or more 58% (120/207)
AST/ALT (aspartate aminotransferase-	18%	49%	Once daily or more 61% (167/272)
Bilirubin	18%	40%	Once daily or more 55% (128/233)
Alkaline phosphatase	17%	33%	Once daily or more 64% (129/201)

Albumin	16%	30%	Once daily or more 61% (114/186)
Nasal swab for MRSA (Methicillin-	16%	49%	Weekly 38% (102/263)
Chlamydia	16%	66%	Weekly 41% (137/333)
Gonorrhea	16%	65%	Weekly 41% (134/325)
Uric acid	15%	51%	Weekly 39% (104/266)
TSH (thyroid stimulating hormone)	15%	62%	Once daily or more 60% (189/312)
Urine protein:creatinine ratio	15%	34%	Once daily or more 38% (76/198)
Gamma GT (Υ-	14%	34%	Once daily or more 51% (99/192)
HIV blood test	13%	44%	Weekly 37% (87/233)
BNP (B-type natriuretic peptide)	12%	60%	Weekly 47% (128/291)
Free T4 or T3 (thyroid hormone)	12%	40%	Once daily or more 51% (108/211)
PSA (Prostate Specific Antigen)	12%	37%	Once daily or more 49% (97/196)
Vitamin D	12%	49%	Once daily or more 49% (121/244)
Hepatitis B	11%	38%	Weekly 37% (74/200)
Vitamin B12	11%	44%	Once daily or more 37% (83/221)
D-dimer	10%	62%	Monthly 44% (130/290)
Troponin	10%	59%	Monthly 40% (113/279)
CRP (C-reactive protein)	10%	45%	Weekly 46% (103/223)
Folate	10%	36%	Weekly 36% (69/188)
Rheumatoid factor	10%	39%	Weekly 41% (82/199)
ANA (anti-nuclear antibodies)	10%	38%	Weekly 42% (83/195)

Web Appendix VI. Survey (UK version)

POCT (POINT OF CARE TESTS) STUDY

Doctors.net.uk invites you to participate in a survey commissioned by an academic institution concerning usage of Point of Care Tests. The survey will take around 5 minutes to complete. All eligible members completing the survey will receive 1,000 eSR points. Please read the following text, which explains the intent of this research.

Doctors.net.uk would like to reassure you that:

- Doctors.net.uk will comply with all UK laws protecting your personal data and the British Healthcare Business Intelligence Association and Market Research Society guidelines
- Your responses will be used by us and the sponsoring academic institution for market research only. All information included is for research only.
- Your responses will be collated with other respondents and presented to the sponsor in aggregated or anonymised form
- Your responses will be confidential and will not be used for any other purposes or disclosed to any third party without your approval.

Please confirm that you have read and understood this information

Yes

No *CLOSE*

We would like to know about your use of, and opinions about, tests that could be delivered quickly in your practice – namely **Point of Care Tests (POCTs), which are also known as ‘near-patient tests’**.

By **Point of Care Tests (POCTs)** we mean tests that are done in a primary care setting with results becoming available during the clinic visit. We are asking you about POCTs on samples taken from the body, including blood, urine and other bodily fluids.

You will be familiar with some tests, and others will be unknown to you (and new POCTs are always being developed). We think it is important to find out which tests GPs use and would like to use.

You will be able to view this definition again later in the survey by mousing over “Point of Care Tests (POCTs),” in the text of questions that concern them.

If you would like any more information about this project then please contact Dr Jeremy Howick or Dr Caroline Jones at the Department of Primary Care Health Sciences, Oxford (Jeremy.howick@phc.ox.ac.uk; Caroline.jones@phc.ox.ac.uk).

Are you happy to proceed with the interview on this basis?

Yes

No *CLOSE*

Point of care tests are designed to give clinicians a rapid result to a test using blood, urine, respiratory samples or other body fluids. We would like you to tell us **in which CONDITIONS / ILLNESSES you feel that point of care tests (POCTs) would be most useful, in different situations** (diagnosis, monitoring, and reducing referrals).

Q1 Diagnosis

Please name up to 5 conditions for which a POCT could help you make a **DIAGNOSIS**. Please list the conditions irrespective of whether or not POCTS currently exist

- a) _____ (please specify)
- b) _____ (please specify)
- c) _____ (please specify)
- d) _____ (please specify)
- e) _____ (please specify)

- I do not believe POCTS would help me make a diagnosis

Open end; Must select "Open End a" or "I do not believe..." ; Open ends b-e are non-mandatory

Q2 Monitoring

Please name up to 5 conditions that a POCT could help you **MONITOR** or manage. Please list the conditions irrespective of whether or not POCTS currently exist

- a) _____ (please specify)
- b) _____ (please specify)
- c) _____ (please specify)
- d) _____ (please specify)
- e) _____ (please specify)

- I do not believe POCTS would help me monitor or manage conditions

Open end; Must select "Open End a" or "I do not believe..." ; Open ends b-e are non-mandatory

Q3 Reduction of referrals

Please name up to 5 conditions for which a POCT could help you **REDUCE REFERRALS for specialty care or hospital admission**. Please list the conditions irrespective of whether or not POCTS currently exist

- a) _____ (please specify)
- b) _____ (please specify)
- c) _____ (please specify)
- d) _____ (please specify)
- e) _____ (please specify)

- I do not believe POCTS would help me reduce referrals

Open end; Must select "Open End a" or "I do not believe..."; Open ends b-e are non-mandatory

Q4 POCTs used

Please select the answer that best matches your views about current or potential use of point of care tests (POCTs)

We are aware that this is a long list but this data is critical to the study and this is the longest question.

	This test is currently available as a point of care test (POCT) in my clinic		This test is not currently available as a point of care test (POCT) in my clinic	
	(1) I do use this test	(2) I do not use this test	(3) I would use this test	(4) I would not use this test
TESTS ON BLOOD				
Cardiovascular				
Creatinine				
Potassium				
Sodium				
Total cholesterol				
HDL/LDL				

cholesterols				
Triglycerides				
Calcium				
Uric Acid				
BNP (B-natriuretic peptide)				
D-dimer				
Troponin				
Endocrine				
Blood glucose				
HbA1c				
TSH (thyroid stimulating hormone)				
Free T4 or T3				
Haematology				
INR				
Haemoglobin				
White cell count				
Platelet count				
Prothrombin time				
Infection related				
CRP (C-reactive protein)				
Procalcitonin				
HIV blood test				
Hepatitis B				
Liver				
AST/ALT				
Alkaline phosphatase				
Bilirubin				
Gamma GT (γ -glutamyltransferase)				
Albumin				
Other (blood)				
ESR (<i>Erythrocyte sedimentation rate</i>)				
CA125				
PSA (Prostate Specific Antigen)				
Vitamin D				
Vitamin B12				
Folate				
Quantitative Beta HCG (Human chorionic gonadotropin)				

Rheumatoid factor				
ANA (anti-nuclear antibodies)				

	This test is currently available as a point of care test (POCT) in my clinic		This test is not currently available as a point of care test (POCT) in my clinic	
	(1) I do use this test	(2) I do not use this test	(3) I would use this test	(4) I would not use this test
RESPIRATORY SAMPLES				
Throat swab for Group A Streptococci				
Nasal swab for MRSA				
Nose/throat swab for influenza				
TESTS ON URINE OR GENITAL FLUIDS				
Urine pregnancy test				
Urine leukocytes or nitrite				
Chlamydia				
Gonorrhoea				
Urine albumin:creatinine ratio				
Urine total protein				
Urine protein:creatinine ratio				
TESTS ON FAECES				
Faecal occult blood				
Faecal calprotectin				
OTHER TESTS WE HAVE NOT LISTED HERE				

Select one answer each row

Q4a Frequency of POCT usage ASK IF CODE 1 OR 3 IS SELECTED AT ONE ROW AT Q4

Below is a list of point of care tests (POCTS) you indicated that you would use or currently use in your practice. Please tell us how often you would use or do use these

Please select the answer that best matches your views

	More than once per day	Daily	Weekly	Monthly	Once per year or less
TESTS ON BLOOD					
Cardiovascular					
Creatinine					
Potassium					
Sodium					
Total cholesterol					
HDL/LDL cholesterol					
Triglycerides					
Calcium					
Uric Acid					
BNP (B-natriuretic peptide)					
D-dimer					
Troponin					
Endocrine					
Blood glucose					
HbA1c					
TSH (thyroid stimulating hormone)					
Free T4 or T3					
Haematology					
INR					
Haemoglobin					
White cell count					
Platelet count					

Prothrombin time					
Infection related					
CRP (C-reactive protein)					
Procalcitonin					
HIV blood test					
Hepatitis B					
Liver					
AST/ALT					
Alkaline phosphatase					
Bilirubin					
Gamma GT (γ -glutamyltransferase)					
Albumin					
Other (blood)					
ESR (<i>Erythrocyte sedimentation rate</i>)					
CA125					
PSA (Prostate Specific Antigen)					
Vitamin D					
Vitamin B12					
Folate					
Quantitative Beta HCG (Human chorionic gonadotropin)					
Rheumatoid factor					
ANA (anti-nuclear antibodies)					

	More than once per day	Daily	Weekly	Monthly	Once per year or less
RESPIRATORY					

SAMPLES					
Throat swab for Group A Streptococci					
Nasal swab for MRSA					
Nose/throat swab for influenza					
TESTS ON URINE OR GENITAL FLUIDS					
Urine pregnancy test					
Urine leukocytes or nitrite					
Chlamydia					
Gonorrhoea					
Urine albumin:creatinine ratio					
Urine total protein					
Urine protein:creatinine ratio					
TESTS ON FAECES					
Faecal occult blood					
Faecal calprotectin					
OTHER TESTS WE HAVE NOT LISTED HERE					

DISPLAY ANSWERS WHERE CODE 1 OR 3 WAS SELECTED AT Q4

Q5 Impact of Health Policy

Do you think current changes in health care or policy are likely to have any impact on the use of POCTs? If so, please explain.

Open end

Q6 Other comments

Please share any other comments, including benefits and concerns about POCTs.

Open end. Non-Mandatory

Finally we have a few questions about you

Q7 How many miles to your nearest emergency department that admits patients to hospital?

Numeric. Range =0-150

Q8 Gender

Please select your gender:

- Male
- Female

Q9 Length of time for blood test

How long does it typically take you to get results from a routine blood test, such as a full blood count?

- 1 day or more: ----- days
- Less than 1 day: ----- hours
- I already use a POCT for this test, so it is done immediately

Q10 Year of qualification

What year did you qualify as a doctor?

Drop down list. Range 1960-2011

Q11 Patients in practice

Approximately how many patients are registered in your practice?
Numeric box. Range 0-20000; 0dp

Q12GP role

Which of the following best describes your role in the practice?

- GP Partner/Principal
- Salaried GP
- Retainer GP
- Sessional GP
- GP Registrar/In training
- Locum GP
- Other (please specify) *Other specify*

Q13 Practice location

Is your practice based in a...

- Rural area
- Semi-rural area
- Urban area
- Suburban area

Q14Hours worked

How many hours per week do you work (on average)

Numeric box. Range 0-60; 0dp

Thank you very much for your help!

Web Appendix VII. Modified International Classification of Primary Care Codes

ICPC-2 Code	ICPC-2 Name
A01	Pain, general/multiple sites (including chronic general pain, multiple aches)
A03	Pyrexia of unknown origin (*NOT Glandular fever, which has it's own category)
A04	Weakness/tiredness, general (including chronic fatigue syndrome, exhaustion, fatigue, lassitude, lethargy, postviral fatigue)
A10	Bleeding/haemorrhage NOS
A70	Tuberculosis (including tuberculosis infection of any body site, late effect of tuberculosis)
A71	Measles (including complications of measles)
A72 / S70	Chickenpox (including complications of chickenpox) / Herpes zoster (including post-herpetic neuralgia, shingles, herpes zoster ophthalmicus)
A73	Malaria
A75/A77	Infectious mononucleosis (including glandular fever, M.Pfeiffer); Viral disease, other/NOS (including adenovirus, Coxsackie disease, dengue fever, Ross River fever)
A78.1	Infectious disease, other/NOS (including brucellosis, infection unspecified site, Lyme disease, mycoplasma, Q feber, rickettsial disease, scarlet fever, sexually transmitted disease NOS, thrus NOS, toxoplasmosis); and gonorrhoea (male and female) and chlamydia (male and female) (X71/Y71)
A78.2	Infectious disease, other/NOS (including brucellosis, infection unspecified site, Lyme disease, mycoplasma, Q feber, rickettsial disease, scarlet fever, sexually transmitted disease NOS, thrus NOS, toxoplasmosis)
A78.3	Infectious disease, other/NOS (including brucellosis, infection unspecified site, Lyme disease, mycoplasma, Q feber, rickettsial disease, scarlet fever, sexually transmitted disease NOS, thrus NOS, toxoplasmosis)
A91/T87	Abnormal result investigation NOS (including abnormal unexplained pathology/imaging test, electrolyte disorder, hyperglycaemia)
A92	Allergy/allergic reaction NOS (including allergic oedema, anaphylactic shock, angioneurotic oedema, food allergy)
B75	Neoplasm blood, benign/unspecified (including benign neoplasm blood, neoplasm blood not specified as benign or malignant/ when test is not available, polycythaemia rubra vera)

B78/80/81/82	Hereditary haemolytic anaemia/Iron deficiency anaemia/Anaemia, vitamin B12-folate deficiency/Anaemia other,unspecified
B83	Purpura/coagulation defect (including abnormal platelets, haemophilia, thrombocytopenia)
B90	HIV infectio/AIDS
B99	Blood/lymph/spleen disease, other (including complement defect, hypersplenism, immunodeficiency disorder, other/unspecified haematological abnormality, raise ESR, red cell abnormality, sarcoidosis, secondary polycythaemia)
D01/D02/D06	Abdominal pain/cramps, general (including abdominal colic, abdominal cramps/discomfort/pan NOS, infant colic); Abdominal pain, epigastric (including epigastric discomfort, fullness, stomach ache/pain); Abdominal pain, localised, other (including colonic pain)
D07	Dyspepsia/indigestion
D09/D10/D11	Nausea/Vomiting (including emesis/hyperemesis, retching)/Diarrhea(including frequent/loose bowel movements, watery stools)
D13	Jaundice
D16	Rectal bleeding
D70	Gastrointestinal infection (including gastrointestinal infection/dysentery with specified organisms including campylobacter, giardia, salmonella, shigella, typhoid, cholera)
D72	Viral hepatitis (including all hepatitis presumed viral, chronic active hepatitis)
D73	Gastroenteritis, presumed infection (including diarrhoea/vomiting presumed to be infective, dysentery NOS, food poisoning, gastric flu)
D86/D87	Peptic ulcer, other (including gastric/gastrojejunal /marginal ulcer, acute erosion, Zollinger-Ellison syndrome); Stomach function disorder (including acute dilation stomach, duodenitis, gastritis)
D88	Appendicitis (including appendix abscess/perforation)
D92	Diverticular disease (including diverticulitis/diverticulosis of intestine)
D93/D94.0	Irritable bowel syndrome (including mucous colitis, spastic colon), Chronic enteritis/ulcerative colitis (including Crohn's disease, endoscopic/imaging/histological findings)
D93/D94.1	Irritable bowel syndrome (including mucous colitis, spastic colon), Chronic enteritis/ulcerative colitis (including Crohn's disease, endoscopic/imaging/histological findings)

D97	Liver Disease NOS (including liver failure, alcohol hepatitis, cirrhosis, hepatitis NOS, portal hypertension)
D98	Cholecystitis/cholelithiasis (including biliary colic, cholangitis, gallstones)
D99.0	Disease digestive system, other (including abnormal adhesions, coeliac disease, dumping syndrome, food intolerance, allergic/toxic/dietetic gastroenteropathy, ileus, intestinal obstruction, intussusception, lactose intolerance, malabsorption syndrome, mesenteric vascular disease, pancreatic disease, peritonitis, secondary megacolon, sprue)
D99.1	Disease digestive system, other (including abnormal adhesions, coeliac disease, dumping syndrome, food intolerance, allergic/toxic/dietetic gastroenteropathy, ileus, intestinal obstruction, intussusception, lactose intolerance, malabsorption syndrome, mesenteric vascular disease, pancreatic disease, peritonitis, secondary megacolon, sprue)
F71/F79/F83/F93/F99	Conjunctivitis, allergic (including allergic conjunctivitis with/without rhinorrhea)
H70/H71/H72	Acute otitis media/myringitis (including acute suppurative otitis media, otitis media NOS, acute mastoiditis, acute tympanitis); Serous otitis media (including glue ear, otitis media with effusion (OME))
H86	Deafness (including congenital deafness, deafness on ear, partial/complete deafness both ears) and ear problems NOS (H82)
K70	Infection of circulatory system (including acute/subacute endocarditis, bacterial endocarditis, myocarditis, pericarditis (other than rheumatic))
K74/K75/K76	Acute coronary syndrome / myocardial infarction /Ischaemic heart disease / angina / Cardiac disease, cardiac disease NOS
K77	Heart failure (including cardiac asthma, congestive heart failure, heart failure NOS, left ventricular failure, pulmonary oedema, right ventricular failure)
K80	Cardiac arrhythmia NOS (including atrial/junctional/ventricular premature beats, bradycardia, bigeminy, ectopic beats, extrasystoles, premature beats, sick sinus syndrome, ventricular fibrillation/flutter)
K86/K87/K88	Hypertension, uncomplicated (including essential hypertension, hypertension NOS, idiopathic hypertension); Hypertension, complicated (including malignant hypertension)
K90	Stroke (including apoplexy, cerebral embolism/infarction/thrombosis/occlusion/stenosis/hæmorrhage, cerebrovascular accident (CVA), subarachnoid hæmorrhage)

K93/K94	Pulmonary embolism (including pulmonary (artery/vein) infarction, thromboembolism, thrombosis); Phlebitis/thrombophlebitis (including superficial/deep vein thrombosis, phlebothrombosis, portal thrombosis)
K99	Cardiovascular disease, other (including aortic aneurism, arteriovenous fistula, arteritis, lymphoedema, oesophageal varices, other aneurysm, polyarteritis nodosa, vasculitis, varicose veins of sites other than lower extremities)
L02	Back symptom/complaint (including backache NOS, thoracic back pain); Low back symptom/complaint (including lumbar/sacroiliac), coccydynia, lumbago, lumbalgia)
L18	Muscle pain (including fibromyalgia, fibrositis, myalgia, panniculitis, rheumatism)
L70	Infection of musculoskeletal system (including infective tenosynovitis, osteomyelitis, pyogenic arthritis)
L88/L89/L90/L91.0	Rheumatoid arthritis /Osteoarthritis of hip / Osteoarthritis of knee / Osteoarthritis,other (including arthritis NOS)
L99.0	Polymyalgia Rheumatica
L99.1	Musculoskeletal disease, NOS (including arthrodesis, chronic internal derangement of knee, contractures, costochondritis, dermatomyositis, disorder of patella, mal-union/non-union of fracture, myositis, Paget's disease of bone, pathological fracture NOS, polymyalgia rheumatica, psoriatic arthritis (code also S91), Reiter's disease, scleroderma, Sjogren's syndrome, spontaneous rupture tendon, systemic lupus erythematosus)
L70/L88/L89/L90/L99.0	Musculoskeletal inflammation and infection (including rheumatic disease)
L88/L89/L90/L99.1	Rheumatoid arthritis Drug Monitoring
N71	Meningitis/encephalitis
N89/N90/N95	Migraine (including vascular headache with/without aura); Cluster headache; Tension headache
N93	Carpal Tunnel Syndrome (including loss/impairment of superficial sensation affecting the thumb, index and middle finger, that may or may not split the ring finger. Dysaesthesia and pain worsen usually during the night, and may radiate to the forearm)
N99	Neurological disease, other (including cerebral palsy, dystonia, motor neuron disease, myasthenia gravis, neuralgia NOS) also including abnormal involuntary movements (N08), vertigo/dizziness (N17), head injury other (N80), multiple sclerosis (N86), epilepsy (N88)
P06	Sleep disturbance (including insomnia, nightmares,

	sleep apnoea, sleepwalking, somnolence), also including abnormal involuntary movements (N08), vertigo/dizziness (N17)
P15/P16	Chronic alcohol abuse (including alcohol brain syndrome, alcohol psychosis, alcoholism, delirium tremens); Acute alcohol abuse (including drunk)
P17	Tobacco abuse (including smoking problem)
P19	Drug abuse
P70	Dementia (including Alzheimer's disease, senile dementia)
P73	Affective psychosis (including bipolar disorder, hypomania, mania, manic depression)
P99	Psychological disorder, other (including autism, neurosis NOS), and also schizophrenia (P72), depression (P76) suicide/suicide attempt (P77), post-traumatic stress disorder (P82)
R02	Shortness of breath/dyspnoea (including orthopnoea)
R05/R78	Acute bronchitis/bronchiolitis (including chest infection, acute lower respiratory infection NOS, bronchitis NOS, chest infection NOS, laryngotracheobronchitis, tracheobronchitis); Cough; Pneumonia (R81), Pleurisy/pleural infusion (R82)
R71	Whooping cough (including parapertussis, pertussis)
R72	Strep throat (including proven streptococcal pharyngitis/tonsillitis); also including R76/R90
R74	Upper respiratory tract infection, acute (including acute rhinitis, coryza, head cold, nasopharyngitis, pharyngitis, URTI/URI)
R75	Sinusitis acute/chronic (including sinusitis affecting any paranasal sinus)
R80	Influenza (including influenza-like illness, para-influenza)
R83	Respiratory infection, other (including chronic nasopharyngitis, chronic pharyngitis, chronic rhinitis NOS, diphtheria, empyema, epiglottis, fungal respiratory infection, lung abscess, protozoael infection (without pneumonia)
R95/R96	Chronic Obstructive Pulmonary Disease (including chronic obstructive airways (COAD), lung (COLD), pulmonary (COPD disease, chronic airways limitation (CAL), emphysema; Asthma (including reactive airways disease, wheezy bronchitis)
R98	Hyperventilation syndrome (including symptoms related to hyperventilation and relieved by rebreathing expired air)
R99	Respiratory disease, other (including aspiration pneumonia, bronchiectasis, deviated nasal septum, lung

	complication of other disease, mediastinal disease, nasal polyp, other disease of larynx; pneumoconiosis, pneumothorax, pneumonitis due to allergychemicals/dust,fumes/mould, pulmonary collapse, respiratory failure)
S11	Skin infection, post-traumatic (including infected post-traumatic wound/bite), including skin infection, other (S76) and impetigo (S84)
S20	Corn/callosity
S72	Scabies/other acariasis
S74	Dermatophytosis (including fungal skin infection, onychomycosis, pityriasis, versicolor, ringworm, tinea); also including infected finger/toe
S77	Malignant neoplasm of skin (including basal cell carcinoma, malignant carcinoma, rodent ulcer, squamous cell carcinoma of skin); also including moles (S82)
S99	Skin disease, other (including dermatitis artefacta, discoid lupus erythematosus, erythema multiforme, erythema nodosum, folliculitis, granuloma, granuloma, granuloma annulare, hyperkeratosis NOS, keloid, keratoacanthoma, lichen planus, neurodermatitis, onychogryphosis, rosacea, pigmentation, rhinophyma, scar, seborrhoeic or senile warts, striae atrophicae, vitiligo); also including rash (S06) and bruise (S16) and chronic skin ulcer (S97) and dermatitis (S87)
T11	Dehydration (including water depletion)
T81/T85/T86/T99	Goitre (including non-toxic goitre, thyroid nodule)/Hyperthyroidism/thyroidtoxicosis (including Grave's disease, toxic goitre)/Hypothyroidism/myxoedema
T89/T90.0	Diabetes insulin dependent/ Diabetes, non-insulin dependent (including Diabetes NOS)
T89/T90.1	Diabetes (glucose)
T89/T90.2	Diabetes (DKA)
T89/T90.3	Diabetes (urine)
T89/T90.4	Diabetes (ACR)
T89/T90.5	Diabetes NOS
T91	Vitamin/nutritional deficiency (including beri-beri, dietary mineral deficiency, iron deficiency without anaemia, malnutrition, marasmus, scurvy)
T92	Gout
T93	Lipid disorder (including abnormality of lipoprotein level, hyperlipidaemia, raised level of cholesterol/triglycerides, xanthoma)

T99	Endocrine/metabolic/nutritional disease, other (including acromegaly, adrenal/ovarian/pituitary/parathyroid/testicular/other endocrine dysfunction, amyloidosis, crystal arthropathy, Cushing's syndrome, cystic fibrosis, diabetes insipidus, Gilbert's syndrome, hyperaldosteronism, osteomalacia, porphyria, precocious/delayed puberty, pseudo-gout, renal glycosuria, thyroiditis)
U06	Haematuria (including blood in urine)
U14	Kidney symptom/complaint (including kidney pain, kidney trouble, renal colic); and Unirinary calculus (U95)
U28/U99	Urinary disease, other (including bladder diverticulum, hydronephrosis, hypertrophic kidney, obstruction bladder neck, renal failure, urethral caruncle, urethral stricture, ureteric reflux, uraenemia)
U70/U71	Pyelonephritis/pyelitis (including infection of kidney, renal/perinophric abcess) / Cystitis/urinary infection, other (including lower urinary tract infection, urinary tract infection NOS) and Dysuria
U88	Glomerulonephritis/nephrosis (including acute glumerulonephritis, analgesis nephropathy, chronic glomerulonephritis, nephritis, nephropathy, nephrosclerisos, nephrotic syndrome)
U98	Abnormal urine test NOS (including glycosuria, proteinuria, pus in urine, pyuria)
W05 (+D09/D10, D11)	Pregnancy vomiting/nausea (including hypermesis, morning sickness in confirmed pregnancy)
W15/Y10	Infertility/subfertility, female (including sterility, primary and secondary); Infertility, male (including failure of conception after 2 years of trying)
W80	Ectopic Pregnancy
W81	Toxaemia of pregnancy (including eclampsia, hypertension, oedema and proteinuria in pregnancy, pre-eclampsia)
W82	Abortion, spontaneous (including abortion threatened/complete/incomplete/missed/habitual, miscarriage) and disorder of pregnancy (W99)
X06/X08	Menstruation excessive (including menorrhagia, pubertal bleeding); Intermenstrual bleeding (including breakthrough bleeding, dysfunctional uterine bleeding, metorrhagia, ovulation bleeding, spotting)
X11	Menopausal symptom/complaint (including atrophic vaginitis, menopause syndrome, symptom/complaint related to menopause, senile vaginitis)
X14	Vaginal discharge (including fluor vaginalis, leukorrhoea), and genital candidasis (X72) and vaginosis (X84)

X21	Breast symptom/complaint female, other (including mastitis (non-lactating), mastopathy, galactorrhoea)
X71/Y71	Gonorrhoea female (including gonorrhoea any site); Gonorrhoea male (including gonorrhoea any site)
X74	Pelvic inflammatory disease (including endometritis, salpingitis)
X84	Vaginosis/vulvitis NOS (vaginosis, gardnerella)
X99/Y99	Genital disease, female, other (including Bartholin cyst/abcess, endometriosis, genital tract fistula female, pelvic congestion syndrome, physiological ovarian cyst) Genital disease, male, other (including other disease of male breast, epidymal cyst, spermatocele, torsion of the testis)
XX00 (not ICPC code)	INR / anticoagulation
XX01 (not ICPC code)	Rare endocrine disorders
XX02 (not ICPC code)	Urea and Electrolytes
XX03 (not ICPC code)	Dysphagia
XX04 (not ICPC code)	Neutropenia
XX05 (not ICPC code)	Hypoxia
XX06 (not ICPC code)	Arterial/Venous Ulcer
XX07 (not ICPC code)	Cancer (All)
XX08 (not ICPC code)	Pregnancy
XXX (not ICPC code)	Uncodable (because it is a test for several conditions, or is ambiguous)
XXX.0 (not ICPC code)	OTHER
Y05	Scrotum/testis symptom/complaint, other
Y06	Prostate symptom/complaint, other (including prostatism)
Y29	Genital symptom/complaint male, other