

## Online supplement

### Online supplement DS1

#### Unique data identifier (UDI) codes

Features of bipolar disorder (type I)

Either: 4642 Ever manic/hyper for at least 2 days or 4653 Ever irritable/argumentative for at least 2 days, plus

At least 3 from 6156.01 (more active), 6156.02 (more talkative), 6156.03 (needed less sleep), and 6156.04 (more creative/more ideas), plus

5663 Duration of a week or more, plus

5674 Needed treatment or caused problems at work

Features of bipolar disorder (type II)

Either: 4642 Ever manic/hyper for at least 2 days or 4653 Ever irritable/argumentative for at least 2 days, plus

At least 3 from 6156.01 (more active), 6156.02 (more talkative), 6156.03 (needed less sleep), and 6156.04 (more creative/more ideas), plus

5663 Duration of a week or more

Single (probable) episode of major depression

EITHER:

4598 Ever depressed/down for a whole week, plus

4609 At least 2 weeks duration, plus

4620 Only one episode, plus

2090 Ever seen a GP or 2100 a psychiatrist for nerves, anxiety, depression

OR:

4631 Ever anhedonic (unenthusiasm/uninterest) for a whole week, plus

5375 At least 2 weeks, plus

5386 Only one episode, plus

2090 Ever seen a GP or 2100 a psychiatrist for nerves, anxiety, depression

Probable recurrent major depression (moderate)

EITHER:

4598 Ever depressed/down for a whole week, plus

4609 At least 2 weeks duration, plus

4620 At least two episodes, plus

2090 Ever seen a GP (but not a psychiatrist) for nerves, anxiety, depression

OR:

4631 Ever anhedonic (unenthusiasm/uninterest) for a whole week, plus

5375 At least 2 weeks, plus

5386 At least two episodes, plus

2090 Ever seen a GP (but not a psychiatrist) for nerves, anxiety, depression

Probable recurrent major depression (severe)

EITHER:

4598 Ever depressed/down for a whole week, plus

4609 At least 2 weeks duration, plus

4620 At least two episodes, plus

2100 Ever seen a psychiatrist for nerves, anxiety, depression

OR:

4631 Ever anhedonic (unenthusiasm/uninterest) for a whole week, plus

5375 At least 2 weeks, plus

5386 At least two episodes, plus

2100 Ever seen a psychiatrist for nerves, anxiety, depression

## Online supplement DS2

### Questions and answers used to assess mood disorder features

#### Bipolar features questions

- (a) Have you ever had a period of time lasting at least 2 days when you were feeling so good, 'high', excited or 'hyper' that other people thought you were not your normal self or you were so 'hyper that you got into trouble?' (4642) or 'Have you ever had a period of time lasting at least 2 days when you were so irritable that you found yourself shouting at people or starting fights or arguments?' (4653)  
Select: Yes, No, Don't know, Prefer not to answer
- (b) Please try to remember a period when you were in a 'high' or 'irritable' state and select which of the following apply  
Select:  
I was more active than usual (6156.01)  
I was more talkative than usual (6156.02)  
I needed less sleep than usual (6156.03)  
I was more creative or had more ideas than usual (6156.04)  
All of the above  
None of the above
- (c) What is the longest time period that these 'high' or 'irritable' periods have lasted? (5663)  
Select:  
At least 2 days, but less than a week  
Less than a week  
A week or more  
Do not know  
Prefer not to answer
- (d) How much of a problem have these 'high' or 'irritable' periods caused you? (5674)  
Select:  
No problems  
Needed treatment or caused problems with work, relationships, finances, the law or other aspects of life  
Do not know  
Prefer not to answer

#### Depressive features questions

- (a) Looking back over your life, have you ever had a time when you were feeling depressed or down for at least a whole week? (4598)  
Select: Yes, No, Don't know, Prefer not to answer
- (b) How many weeks was the longest period when you were feeling depressed or down? (4609)  
Participants asked to enter the number of weeks on the touchscreen.
- (c) How many periods have you had when you were feeling depressed or down for at least a whole week?  
Participants asked to enter the number of periods on the touchscreen.
- (d) Have you ever seen a general practitioner (GP) for nerves, anxiety, tension or depression? (2090) or Have you ever seen a psychiatrist for nerves, anxiety, tension or depression? (2100)  
Select: Yes, No, Don't know, Prefer not to answer

#### Anhedonia

- (a) Have you ever had a time when you were uninterested in things or unable to enjoy the things you used to for at least a whole week? (4631)  
Select: Yes, No, Don't know, Prefer not to answer
- (b) How many weeks was the longest period when you were uninterested in things or unable to enjoy the things you used to?  
Participants asked to enter the number of weeks on the touchscreen.
- (c) How many periods have you had when you were uninterested in things or unable to enjoy the things you used to for at least a whole week?  
Participants asked to enter the number of periods on the touchscreen.
- (d) Have you ever seen a general practitioner (GP) for nerves, anxiety, tension or depression? (2090) or Have you ever seen a psychiatrist for nerves, anxiety, tension or depression? (2100)  
Select: Yes, No, Don't know, Prefer not to answer

List of psychotropic medications

1 Mood stabilisers

lithium product  
 Priadel (lithium)  
 Camcolit (lithium)  
 sodium valproate  
 Epilim (sodium valproate)  
 Depakote (semisodium valproate)  
 valproic acid  
 carbamazepine product  
 carbamazepine  
 Tegretol (carbamazepine)  
 Teril (carbamazepine)  
 Teril retard (carbamazepine)  
 Timonil retard (carbamazepine)  
 Epimax (carbamazepine)

2 Antidepressant – selective serotonin

reuptake inhibitors  
 paroxetine  
 Seroxat (paroxetine)  
 fluoxetine  
 Prozac (fluoxetine)  
 citalopram  
 Cipramil (citalopram)  
 escitalopram  
 Cipralext (escitalopram)  
 sertraline  
 Lustral (sertraline)  
 fluvoxamine

3 Antidepressant – other

mirtazapine  
 Zispin (mirtazapine)  
 duloxetine  
 Cymbalta (duloxetine)  
 Yentreve (duloxetine)  
 venlafaxine  
 Efexor (venlafaxine)  
 amitriptyline  
 Elavil (amitriptyline)  
 Tryptizol (amitriptyline)  
 Lentizol (amitriptyline)  
 amitriptyline+perphenazine  
 Triptafen (amitriptyline+perphenazine)  
 amitriptyline+chlordiazepoxide  
 Limbitrol 10 (amitriptyline+chlordiazepoxide)  
 Limbitrol-5 (amitriptyline+chlordiazepoxide)  
 phenelzine  
 monoamine oxidase inhibitor – phenelzine  
 Nardil (phenelzine)  
 moclobemide  
 Manerix (moclobemide)  
 imipramine  
 Tofranil (imipramine)  
 trimipramine  
 Surmontil (trimipramine)  
 dothiepin  
 dosulepin  
 Prothiaden (dosulepin)  
 Thaden (dosulepin)  
 clomipramine  
 Anafranil (clomipramine)  
 lofepramine  
 Gamanil (lofepramine)  
 Lomont (lofepramine)  
 mianserin  
 Bolvidon (mianserin)  
 Norval (mianserin)

4 Antipsychotic – traditional

chlorpromazine  
 cpz-chlorpromazine  
 Largactil (chlorpromazine)  
 haloperidol  
 Haldol (haloperidol)  
 Serenace (haloperidol)  
 fluphenazine decanoate  
 fluphenazine  
 Modecate (fluphenazine)  
 Moditen tablet (fluphenazine)  
 Moditen enanthate (fluphenazine)  
 flupentixol  
 Flupenthixol (flupentixol)  
 Depixol (flupentixol)  
 Fluanxol (flupentixol)  
 zuclopenthixol  
 Clopixol (zuclopenthixol)  
 loxapine  
 Loxapac (loxapine)  
 droperidol  
 Droleptan (droperidol)  
 trifluoperazine  
 Stelazine (trifluoperazine)  
 thioridazine  
 Mellaril (thioridazine)

5 Antipsychotic – second generation

quetiapine  
 Seroquel (quetiapine)  
 risperidone  
 Risperdal (risperidone)  
 olanzapine  
 Zyprexa (olanzapine)  
 aripiprazole  
 Abilify (aripiprazole)  
 amisulpride  
 Solian (amisulpride)  
 clozapine  
 Clozaril (clozapine)

6 Sedatives and hypnotics

diazepam  
 diazepam product  
 Valium tablet (diazepam)  
 Valium syrup (diazepam)  
 Valium supp (diazepam)  
 temazepam  
 Normison (temazepam)  
 Euhypnos (temazepam)  
 zopiclone  
 Zimovane (zopiclone)  
 zaleplon  
 Sonata (zaleplon)  
 zolpidem  
 Stilnoct (zolpidem)  
 nitrazepam  
 Mogadon (nitrazepam)  
 Nitrados (nitrazepam)  
 Remnos (nitrazepam)  
 Somnite (nitrazepam)  
 Noctesed (nitrazepam)  
 Surem (nitrazepam)  
 Unisomnia (nitrazepam)  
 flunitrazepam  
 Rohypnol (flunitrazepam)  
 triazolam  
 Halcion (triazolam)

**Table DS1** Logistic regression analysis of cardiometabolic disease associated with mood disorder

	Overall						Women						Men					
	Partially adjusted <sup>a</sup>		Fully adjusted <sup>b</sup>		Partially adjusted <sup>a</sup>		Fully adjusted <sup>b</sup>		Partially adjusted <sup>a</sup>		Fully adjusted <sup>b</sup>		Partially adjusted <sup>a</sup>		Fully adjusted <sup>b</sup>			
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P		
Cardiovascular disease any																		
Control	1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)			
Depression	1.29 (1.25–1.33)	<0.001	1.15 (1.12–1.19)	<0.001	1.21 (1.17–1.26)	<0.001	1.08 (1.03–1.12)	<0.001	1.40 (1.34–1.46)	<0.001	1.26 (1.20–1.32)	<0.001	1.26 (1.20–1.32)	<0.001	1.26 (1.20–1.32)	<0.001		
Bipolar	1.50 (1.34–1.68)	<0.001	1.28 (1.14–1.43)	<0.001	1.55 (1.32–1.83)	<0.001	1.36 (1.15–1.62)	<0.001	1.46 (1.25–1.69)	<0.001	1.19 (1.02–1.40)	<0.001	1.19 (1.02–1.40)	<0.001	1.19 (1.02–1.40)	<0.027		
Diabetes																		
Control	1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)			
Depression	1.29 (1.22–1.37)	<0.001	1.07 (1.03–1.13)	0.038	1.25 (1.15–1.36)	<0.001	1.03 (0.94–1.12)	0.554	1.32 (1.23–1.44)	<0.001	1.10 (1.01–1.20)	<0.001	1.10 (1.01–1.20)	<0.001	1.10 (1.01–1.20)	0.023		
Bipolar	1.37 (1.15–1.67)	0.002	1.01 (0.81–1.24)	0.960	1.17 (0.82–1.66)	0.399	0.88 (0.61–1.28)	0.506	1.48 (1.16–1.90)	0.002	1.09 (0.84–1.41)	0.002	1.09 (0.84–1.41)	0.002	1.09 (0.84–1.41)	0.527		
Hypertension																		
Control	1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)			
Depression	1.27 (1.23–1.31)	<0.001	1.15 (1.13–1.18)	<0.001	1.19 (1.14–1.24)	<0.001	1.07 (1.03–1.12)	0.002	1.39 (1.32–1.45)	<0.001	1.27 (1.21–1.34)	<0.001	1.27 (1.21–1.34)	<0.001	1.27 (1.21–1.34)	<0.001		
Bipolar	1.44 (1.29–1.61)	<0.001	1.26 (1.12–1.42)	<0.001	1.46 (1.24–1.73)	<0.001	1.32 (1.11–1.57)	<0.001	1.42 (1.22–1.66)	<0.001	1.20 (1.03–1.41)	<0.001	1.20 (1.03–1.41)	<0.001	1.20 (1.03–1.41)	0.022		
Myocardial infarction																		
Control	1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)			
Depression	1.38 (1.26–1.51)	<0.001	1.18 (1.08–1.30)	<0.001	1.29 (1.08–1.55)	0.005	1.05 (0.87–1.27)	0.580	1.41 (1.27–1.56)	<0.001	1.23 (1.11–1.37)	<0.001	1.23 (1.11–1.37)	<0.001	1.23 (1.11–1.37)	<0.001		
Bipolar	1.90 (1.44–2.51)	<0.001	1.45 (1.09–1.92)	0.011	1.37 (0.65–2.92)	0.409	0.93 (0.43–2.00)	0.855	2.02 (1.50–2.72)	<0.001	1.59 (1.17–2.16)	<0.001	1.59 (1.17–2.16)	<0.001	1.59 (1.17–2.16)	0.003		
Angina																		
Control	1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)			
Depression	1.49 (1.39–1.61)	<0.001	1.23 (1.14–1.33)	<0.001	1.43 (1.27–1.61)	<0.001	1.17 (1.03–1.32)	0.018	1.54 (1.40–1.69)	<0.001	1.28 (1.16–1.41)	<0.001	1.28 (1.16–1.41)	<0.001	1.28 (1.16–1.41)	<0.001		
Bipolar	1.69 (1.30–2.19)	<0.001	1.21 (0.93–1.58)	0.154	1.17 (1.30–2.90)	0.008	1.33 (0.84–2.11)	0.231	1.62 (1.18–2.22)	0.003	1.17 (0.54–1.61)	0.003	1.17 (0.54–1.61)	0.003	1.17 (0.54–1.61)	0.351		
Stroke																		
Control	1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)		1 (Reference)			
Depression	1.61 (1.46–1.78)	<0.001	1.26 (1.13–1.40)	<0.001	1.70 (1.47–1.97)	<0.001	1.38 (1.18–1.61)	<0.001	1.53 (1.33–1.76)	<0.001	1.15 (1.00–1.34)	<0.001	1.15 (1.00–1.34)	<0.001	1.15 (1.00–1.34)	0.058		
Bipolar	1.80 (1.27–2.54)	0.001	1.17 (0.82–1.67)	0.373	2.73 (1.69–4.41)	<0.001	1.85 (1.14–3.02)	0.013	1.29 (0.78–2.13)	0.317	0.81 (0.48–1.34)	0.317	0.81 (0.48–1.34)	0.317	0.81 (0.48–1.34)	0.317		

a. Partially adjusted for age, gender, deprivation and ethnicity.

b. Fully adjusted for age, gender, deprivation, ethnicity, body mass index, smoking status, alcohol consumption and psychotropic medication.