

NatCen

Social Research that works for society

English Longitudinal Study of Ageing (ELSA)

Wave 6 nurse questionnaire

Archived Version 1 – June 2014

IMPORTANT INFORMATION ABOUT THE PAPER VERSION OF THE QUESTIONNAIRE

Variables omitted from the archived dataset

@ - This means that the variable has been omitted from the archived dataset (see User Guide for more information).

Textfills

^ - This annotation is shown before any textfills that were used in questions. The different options of the textfill are provided in square brackets e.g. [^him/her].

Program Checks

The CAPI instrument contains a number of checks to help ensure that the information entered by the nurse is accurate and consistent. The places where checks were used are indicated in this documentation. These are numbered and all have the prefix "N" (to indicate that they are in the nurse questionnaire): e.g.

[CHECK N1]

The routing and wording for the checks are in the appendix.

DEMOGRAPHICS MODULE

NAME @

NURSE: Enter the name of person number [^person number from Household Grid] from section 7 on the NRF.

String 20

[Don't Know and Refusal are not allowed]

SEX

NURSE: Code the sex of person number [^person number from Household Grid] from section 7 on the NRF.

1 Male

2 Female

[Don't Know and Refusal are not allowed]

AGE @

NURSE: Enter the age of person number [^person number from Household Grid] from section 7 on the NRF.

Range: 0..120

[Don't Know and Refusal are not allowed]

POC

NURSE: Enter the nurse status code for person number ^PNo from section 7 on the NRF.

1 Core member and agreed Nurse visit

2 Core member and refused nurse visit

4 Partner requested Nurse Visit"

[Don't Know and Refusal are not allowed]

IF (nurse status code for person number ^PNo from section 7 on the NRF [Core member and agreed Nurse visit, Core member and refused Nurse visit]) THEN Nurse status code := nurse status code for person number ^PNo from section 7 on the NRF. ELSEIF (nurse status code for person number ^PNo from section 7 on the NRF = Partner requested Nurse Visit) THEN nurse status code := Partner requested nurse visit [(POC IN [1,2]) THEN OC := POC. ELSEIF (POC = 4) THEN OC := 5]

OC

Nurse status code:

1 Agreed Nurse Visit (including partners)

2 Refused Nurse Visit

5 Partner requested Nurse Visit

6 Partner refused nurse visit"

[Don't Know and Refusal are not allowed]

END FILTER

MORE

NURSE: Is there anyone else in the household who agreed or refused to see you? (i.e. coded 1, 2 or 4 at section 7 on the NRF.)"

1 Yes

2 No

STRTNUR @

NURSE: Enter the start time of the interview in hours and minutes using the 24-hour clock (e.g 17:30).

[Don't Know and Refusal are not allowed]

IF Date of interview = EMPTY [NurDate = EMPTY]

DATEOK @

NURSE: Today's date according to the laptop is [^automatically recorded date of interview]. Is this the correct date?

1 Yes

2 No

[Don't Know and Refusal are not allowed]

IF Whether today's date is shown correctly = Yes [DateOK = 1]

ELSE IF Whether today's date is shown correctly = No [DateOK = 2]

NURDATE @

NURSE: Enter the date of this interview.

[Don't Know and Refusal are not allowed]

[Month of interview is recorded in variable VISMON and year of interview is recorded in variable VISYEAR]

END FILTER

[CHECK N1]

END FILTER

NDOBD @

Can I just check your date of birth?

NURSE: Enter day, month and year of [^Name of respondent]'s date of birth separately. Enter the day here.

Range: 1..31

NDOBM @

NURSE: Enter the code for the month of [^Name of respondent]'s date of birth.

01 January

02 February

03 March

04 April

05 May

06 June

07 July

08 August

09 September

10 October

- 11 November
- 12 December

NDOBY¹ @

NURSE: Enter the year of [^Name of respondent]'s date of birth.
Range: 1890..2100

***[Year of birth is recorded in variable DOBYEAR.
Respondents aged 90 or over are coded as -7]***

***[There are 2 age variables in the file:
HHAGE: Age derived from date of birth and date of nurse visit - used for
eligibility for measures throughout interview
CONFAGE: Actual age at nurse visit]***

[CHECKS N2 - N5]

DISPAGE @

CHECK WITH RESPONDENT: So your age is [^respondent's age (derived from
respondent's date of birth and today's date)]?

- 1 Yes
- 2 No

[CHECKS N6a – N6b]

¹ See variable Indoby in dataset for year of birth. Any respondent aged 90 or older is represented as 90+.

PRESCRIBED MEDICATIONS AND DRUG CODING

MEDCNJD

Are you taking or using any medicines, pills, syrups, ointments, puffers or injections prescribed for you by a doctor or a nurse?

NURSE: If statins have been prescribed by a doctor please code them here. If they have been bought without a prescription code at the Statins question.

- 1 Yes
- 2 No
- 3 Yes, but unable to code as name of drug(s) not available

IF respondent taking medication = Yes [MEDCNJD = 1]

| MEDINTRO@

| Could I take down the names of the medicines, including pills, syrups, ointments, puffers or injections, prescribed for you by a doctor or a nurse?

| NURSE: Including the contraceptive pill.

| Press <1> and <Enter> to continue."

| MEDBI@

| NURSE: Enter name of drug number. Ask if you can see the containers for all prescribed medicines currently being taken. If Aspirin, record dosage as well as name."

| STRING[50]

| MEDBIA

| Have you taken/used ^MedBI in the last 7 days?"

- | 1 Yes
- | 2 No

| MEDBIC@

| NURSE CHECK: Any more drugs to enter?"

- | 1 Yes
- | 2 No

| *Repeat MEDBI, MEDBIA, MEDBIC for up to 40 drugs*

STATINS

Are you taking statins (drugs to lower cholesterol) bought over the counter from a pharmacist, without prescription from a doctor?

NURSE: Here are some examples of common statins, which may be bought over the counter:

Atorvastatin (Lipitor)

Fluvastatin (Lescol, Lescol XL)

Pravastatin (Lipostat)

Rosuvastatin (Crestor) and Simvastatin (Zocor)

- 1 Yes
- 2 No

IF taking statins bought over the counter = yes [STATINS=1]

| STATINA

| Have you taken/used statins in the last 7 days?"

- | 1 Yes
- | 2 No

BPTODAY

May I just check, have you taken any medication for your blood pressure today?"

- 1 Yes
- 2 No

IF taken medication for blood pressure today = yes [BPTODAY=1]

| BPHOUR

| When did you last take medication for your blood pressure?
| Was it... READ OUT...

- | 1 Less than 30 minutes ago
- | 2 More than 30 minutes but less than one hour ago
- | 3 More than one hour ago

NURSES HAD THE OPTION TO CODE THE DRUGS ENTERED AT A NUMBER OF STAGES DURING THE INTERVIEW. THIS WAS THE FIRST OPPORTUNITY.

| DrCod1@

| NURSE: To do the drug coding now, press <Ctrl Enter>, select Drug Code with the highlight bar and press <Enter>.
| Else, press <1> and <Enter> to continue>.

| *IF code drugs now selected*

| DRC1

| NURSE: Enter code for (name of drug)
| STRING 6

[CHECKS N7a-N7c]

IF first two digits of drug code = 02

|| YTAKE1

|| Do you take ^MedBI because of a heart problem, high blood pressure or for some other reason?

- || 1 Heart problem
- || 2 High blood pressure
- || 3 Cholesterol²
- || 4 Other reason

² This answer option was created retrospectively and coded from the open answers given at YTakeOth1

// IF take drug for another reason [YTake1 = 3]
||| **TAKEOTH1@**
||| NURSE: Give full details of reason(s) for taking ^MedBl.
||| Press <Esc> when finished.

BLOOD PRESSURE MODULE

BPMOD @

NURSE: Now follows the Blood Pressure module.

Press <1> and <Enter> to continue.

Range: 1..1

BPCONST³@

(As I mentioned earlier) We would like to measure your blood pressure. The analysis of blood pressure readings will tell us a lot about the health of the population.

NURSE: Does the respondent agree to blood pressure measurement?

- 1 Yes, agrees
- 2 No, refuses
- 3 Unable to measure BP for reason other than refusal

[Don't Know and Refusal are not allowed]

IF Whether respondent agrees to BP measurement = Yes [BPConst = 1]

CONSUBX

May I just check, have you eaten, smoked, drunk alcohol or done any [^BLANK / vigorous] exercise in the past 30 minutes?

CODE ALL THAT APPLY.

- 1 Eaten
- 2 Smoked
- 3 Drunk alcohol
- 4 Done [^BLANK / vigorous] exercise
- 5 (None of these)

[Don't Know and Refusal are not allowed]

[Multiple responses to CONSUBX are recorded in variables CONSUB1 to CONSUB3]

/ [Code maximum 4 out of 5 possible responses]

/ [CHECKS N8-N9]

OMRONNO @

NURSE: Record blood pressure equipment serial number.

Range: 1..999

CUFSIZE

NURSE: Select cuff and attach to the respondent's right arm.

Ask the respondent to sit still for five minutes.

READ OUT: 'I am going to leave you to sit quietly now for 5 minutes. During that you must not read and your legs are to remain uncrossed. After the 5 minutes, I will carry out 3 recordings with a minute between them. While I am doing these recordings I will not speak to you, and you must not speak to me. Once I have completed the recordings I will tell you what they are.'

Record cuff size chosen.

- 1 Child (15-22 cm)

³ See variable respbps and whynobp in dataset for information about measurements, attempts and refusals.

- 2 Adult (22-32 cm)
- 3 Large adult (32-42 cm)"

AIRTEMP

NURSE: Record the ambient air temperature.
Enter the temperature in centigrades to one decimal place.
Range: 0.0..40.0

[CHECKS N10 - N11]

BPREADY @

NURSE: During five minute wait, prepare documents for rest of Nurse Visit:
- Consent booklet
- Grip strength measurement card
- Measurement record card
If appropriate, prepare equipment for rest of Nurse Visit.
Once respondent has sat still for 5 minutes you are ready to take the measurements.
Ensure the Ready to measure symbol is lit before pressing the Start button to start the measurements.
Press <1> and <Enter> to continue.
String 1

REPEAT MEASUREMENT THREE TIMES (if SYS<>996) [LOOP FOR I:= 1 TO 3]

DrCod2@

NURSE: To do the drug coding now, press <Ctrl Enter>, select Drug Code with the highlight bar and press <Enter>.
Else, press <1> and <Enter> to continue>.

SYS

NURSE: Take three measurements from right arm.
Enter [^first / second / third] systolic reading (mmHg).
If reading not obtained, enter 999.
If you are not going to get any bp readings at all, enter 996.
Range: 1..999

[Responses to SYS are recorded in variables SYS1 to SYS3]

[CHECK N12]

DIAS

Enter [^first / second / third] diastolic reading (mmHg).
If reading not obtained, enter 999.
Range: 1..999

[Responses to DIAS are recorded in variables DIAS1 to DIAS3]

[CHECKS N13 - N14]

PULSE

Enter [^first / second / third] pulse reading (bpm).
If reading not obtained, enter 999.

| | Range: 1..999
| | **[Responses to PULSE are recorded in variables PULSE1 to PULSE3]**

| | **[CHECKS N15 - N23]**

| | **[CHECKS N24 - N25]**

| | END OF LOOP

| | *IF Number of valid BP readings = 0 [Reads = 0]*

| | **WHYNOBP**

| | NURSE: Enter reason for not recording any full BP readings.

- | | 1 Blood pressure measurement attempted but not obtained
- | | 2 Blood pressure measurement not attempted
- | | 3 Blood pressure measurement refused

| | END FILTER

| | END FILTER

| | **[Mean Arterial Pressure (MAP) readings are recorded in variables MAP1 to MAP3.
Whether each set of readings is complete is computed and recorded in variables
FULL1 to FULL3**

| | **Whether all BP measurements have been obtained is computed and recorded in
variable RespBPS]**

| | **RespBPS**

| | Number of BP measurements obtained

- | | 1 Three
- | | 2 Two
- | | 3 One
- | | 4 Tried
- | | 5 No Try
- | | 6 Refused

| | *IF (Response to BP measurements = [Two, one, tried, did not try, refused]) OR
(Whether respondent agrees to have blood pressure measured = No)*

| | *[(RespBPS = [2 - 6]) OR (BPConst = 2)]*

| | **NATTBPD**

| | NURSE: Record why [^only two readings obtained / only one reading obtained /
reading not obtained / reading not attempted / reading refused / unable to take
reading].

| | CODE ALL THAT APPLY.

- | | 1 Problems with PC
- | | 2 Respondent upset / anxious / nervous
- | | 3 Error reading
- | | 4 Problems with cuff fitting / painful
- | | 5 Problems with equipment (not error reading)

| 6 Other reason(s) (specify at next question)
| **[Multiple responses to NATTBPD are recorded in variables NATTBP1 to
| NATTBP2]**
| **[Code maximum 6 out of 6 possible responses]**

END FILTER

*IF (Reason why full set of BP measurements was not collected = Other) OR (Reason
why full set of BP measurements was not collected = [EMPTY, Other])
[(NAttBPD = 3) AND (CNattBPD = [EMPTY, 3])]*

| **OTHNBP @**
| NURSE: Enter full details of other reason(s) for not obtaining / attempting three BP
| readings.
| String 140

END FILTER

IF Response to BP measurements = [Three, two, one] [RespBPS = [1 - 3]]

| **DIFBPC**
| NURSE: Record any problems taking readings.
| CODE ALL THAT APPLY.
| 1 No problems taking blood pressure
| 2 Reading taken on left arm because right arm not suitable
| 3 Respondent was upset / anxious / nervous
| 4 Problems with cuff fitting / painful
| 5 Problems with equipment (not error reading)
| 6 Error reading
| 7 Other problems (specify at next question)
| **[Multiple responses to DIFBPC are recorded in variables DIFBPC1 to DIFBPC3]**
| **[Code maximum 3 out of 7 possible responses]**

| **[CHECK N26]**

END FILTER

IF Problem taking BP readings = Other [DifBPC = 7]

| **OTHDFIBP @**
| NURSE: Record full details of other problem(s) taking readings.
| String 140

END FILTER

IF Response to BP measurements = [Three, two, one] [RespBPS = [1 - 3]]

| **GPREGB @**
| Are you registered with a GP?
| 1 Yes
| 2 No

END FILTER

IF Whether respondent registered with GP = Yes [GPRegB = 1]

GPSEND @

May we send your blood pressure readings to your GP?

- 1 Yes
- 2 No

IF Whether results may be sent to GP = No [GPSEND = 2]

GPREFC @

NURSE: Specify reason(s) for refusal to allow BP readings to be sent to GP.
CODE ALL THAT APPLY.

- 1 Hardly / Never sees GP
- 2 GP knows respondent's BP level
- 3 Does not want to bother GP
- 4 Other (specify at next question)

[Code maximum 4 out of 4 possible responses]

*IF Reason why respondent does not want BP results sent to their GP = Other
[GPREfC = 4]*

OTHREFC @

NURSE: Give full details of reason(s) for refusal.

String 140

END FILTER

END FILTER

END FILTER

IF (Whether respondent registered with GP <> Yes) OR (Whether BP results may be sent to GP = No) [(GPRegB <> 1) OR (GPSEND = 2)]

Code022@

NURSE: Circle consent code 02 on the front of the Consent Booklet.

Explain the need for written consent and ask the respondent to print name, sign and date the Consent Form in the spaces provided at the bottom of page 5 of the Consent Booklet.

Nurse: Print your name, sign and date in the spaces provided at the bottom of page 5 of the Consent Booklet.

Press <1> and <Enter> to continue.

Record not consented for BP results to GP

Press <1> to continue.

ELSE IF Whether BP results may be sent to GP = Yes [GPSEND = 1]

IF Response to BP measurements = [Three, two, one] [RespBPS = [1 - 3]]

BPOFFER @ [See Nurse project instructions for definitions of mildly, moderately and considerably raised BP]

NURSE: Offer blood pressure results to respondent.

	Systolic	Diastolic	Pulse
i)	[^Sys1]	[^Dias1]	[^Pulse1]
ii)	[^Sys2]	[^Dias2]	[^Pulse2]
iii)	[^Sys3]	[^Dias3]	[^Pulse3]

Enter these on [^Name of respondent]'s Measurement Record Card.

Tick the [^considerably raised / moderately raised / mildly raised / normal] box and read out to respondent:

[If BP is considerably raised:

^Your blood pressure is high today. Blood pressure can vary from day to day and throughout the day so that one high reading does not necessarily mean that you suffer from high blood pressure. You are strongly advised to visit your GP within 5 days to have a further blood pressure reading to see whether this is a once-off finding or not.

NURSE: If respondent is elderly, advise [^him / her] to contact GP within next 7 - 10 days. Please report this reading to the Survey Doctor when you get home.]

[If BP is moderately raised:

^Your blood pressure is a bit high today. Blood pressure can vary from day to day and throughout the day so that one high reading does not necessarily mean that you suffer from high blood pressure. You are advised to visit your GP within 2 weeks to have a further blood pressure reading to see whether this is a once-off finding or not.]

[If BP is mildly raised:

^Your blood pressure is a bit high today. Blood pressure can vary from day to day and throughout the day so that one high reading does not necessarily mean that you suffer from high blood pressure. You are advised to visit your GP within 2 months to have a further blood pressure reading to see whether this is a once-off finding or not.]

[If BP is normal:

^Your blood pressure is normal.]

Press <1> and <Enter> to continue.

String 1

END FILTER

CONSRM1 @

NURSE:

a) Ask respondent to read and initial 'Blood pressure to GP on page 2 of the Consent Booklet. Explain the need for written consent and ask the respondent to print name, sign and date the Consent Form in the spaces provided at the bottom of page 5 of the Consent Booklet.

Nurse: Print your name, sign and date in the spaces provided at the bottom of page 5 of the Consent Booklet.

| b) Check that GP name, address and phone no. are recorded on the front of the
| Consent Booklet.
| c) Check the name by which GP knows respondent.
| d) Circle consent code 01 on front of the Consent Booklet.
| Press <1> and <Enter> to continue.
|
END FILTER

GRIP STRENGTH MODULE

GRINT @

NURSE: Now follows the Grip Strength module.

Press <1> and <Enter> to continue.

Range: 1..1

MMGSWIL

Now I would like to assess the strength of your hand in a gripping action.

I will count up to three and then ask you to squeeze this handle as hard as you can, just for two or three seconds and then let go.

NURSE: Demonstrate.

READ OUT: I will take alternately three measurements from your right and your left hand.

Would you be willing to have your handgrip measured?

- 1 Yes
- 2 No
- 3 Unable to take measurement

IF Whether respondent is willing to have grip strength measured = [No, Unable]

[MMGSWil = [2, 3]]

|

MMGSWN @

NURSE: Give details why grip strength test not attempted.

String 60

|

ELSE

|

MMGSDOM

NURSE: ASK OR CODE : Which is your dominant hand?

- 1 Right hand
- 2 Left hand

|

MMGSSTA

Can I just check, have you had a recent hand injury or surgery to either hand within the last six months?

NURSE: If yes, do not attempt grip strength measure with affected hand(s).

If respondent cannot use hand(s) for this or any other reason, code below.

Record respondent status.

- 1 Respondent has the use of both hands
- 2 Respondent is unable to use [^left / right (dominant)] hand
- 3 Respondent is unable to use [^left / right (non-dominant)] hand
- 4 Respondent is unable to use either hand

|

END FILTER

*IF (Whether respondent is willing to have grip strength measured <> Yes) OR
(Whether respondent is able to use both, one or neither hands = unable to use either)*

[(MMGSWil <> 1) OR (MMGSSta = 4)]

|

| **MMGSSTP @**

| NURSE: Stop test, no handgrip measurement to be taken.

| Press <1> and <Enter> to continue with the next section.

| Range: 1..1

| ELSE

| **MMGSINT @**

| NURSE: Position the respondent correctly.

| Adjust gripometer to hand size by turning the lever and reset arrow at zero.

| Explain the procedure once again.

| Show the respondent how to do the test and let [^him / her] have a practice with one hand.

| Press <1> and <Enter> to continue.

| Range: 1..1

| *IF Whether respondent is able to use both, one or neither hands = [both, unable to use dominant] [MMGSSta = [1, 2]]*

| **MMGSN1**

| NURSE: [^Left / Right (Non-dominant)] hand, first measurement.

| Say: 'One, two, three, squeeze!'

| Enter the result to the nearest whole value.

| Range: 0..100

| END FILTER

| *IF Whether respondent is able to use both, one or neither hands = [both, unable to use non-dominant] [MMGSSta = [1, 3]]*

| **MMGSD1**

| NURSE: [^Left / Right (**Dominant**)] hand, **first** measurement.

| Say: 'One, two, three, squeeze!'

| Enter the result to the nearest whole value.

| Range: 0..100

| END FILTER

| *IF Whether respondent is able to use both, one or neither hands = [both, unable to use dominant] [MMGSSta = [1, 2]]*

| **MMGSN2**

| NURSE: [^Left / Right (**Non-dominant**)] hand, **second** measurement.

| Say: 'One, two, three, squeeze!'

| Enter the result to the nearest whole value.

| Range: 0..100

| END FILTER

| *IF Whether respondent is able to use both, one or neither hands = [both, unable to*

| use non-dominant] [MMGSSta = [1, 3]]

| **MMGSD2**

| NURSE: [^Left / Right (**Dominant**)] hand, **second** measurement.

| Say: 'One, two, three, squeeze!'

| Enter the result to the nearest whole value.

| Range: 0..100

| END FILTER

| *IF Whether respondent is able to use both, one or neither hands = [both, unable to use dominant] [MMGSSta = [1, 2]]*

| **MMGSN3**

| NURSE: [^Left / Right (**Non-dominant**)] hand, **third** measurement.

| Say: 'One, two, three, squeeze!'

| Enter the result to the nearest whole value.

| Range: 0..100

| END FILTER

| *IF Whether respondent is able to use both, one or neither hands = [both, unable to use non-dominant] [MMGSSta = [1, 3]]*

| **MMGSD3**

| NURSE: [^Left / Right (**Dominant**)] hand, **third** measurement.

| Say: 'One, two, three, squeeze!'

| Enter the result to the nearest whole value.

| Range: 0..100

| END FILTER

| **MMGSTP**

| NURSE: Record respondent's position.

- | 1 Standing without arm support
- | 2 Sitting without arm support
- | 3 Standing with arm support
- | 4 Sitting with arm support

| **[CHECKS N27 - N38]**

| **MMGSRES**

| NURSE CHECK: Code one only.

- | 1 All measures obtained
- | 2 Some measures obtained
- | 3 No measures obtained

| *IF Number of grip strength measurements obtained = All [MMGSRes = 1]*

| **MMGSPRX @**

| NURSE: Record any problems taking the grip strength measurement.

```

| | Press <Enter> if no problems encountered.
| | Press <Alt S> to close the text window and save your answer.
| | Open
| |
| | ELSE IF Number of grip strength measurements obtained = [some, none]
| | [MMGSRes = [2, 3]]
| |
| | MMGSPR
| | NURSE: Give reasons why no or only some measures were obtained.
| | CODE ALL THAT APPLY.
| | 1 Respondent refusal
| | 2 Respondent in pain in hand / joints / muscles
| | 3 Equipment failure
| | 95 Other (specify at next question)
| | [Multiple responses to MMGSPRB are recorded in variables MMGSPR1 to
| | MMGSPR2]
| | [Code maximum 4 out of 4 possible responses]
| |
| | IF Reasons why no or only some measures obtained = Other [MMGSPrB = 95)
| |
| | MMGSPRO @
| | NURSE: Give details of why no or only some measures obtained.
| | String 40
| |
| | END FILTER
| |
| | END FILTER
| |
| | END FILTER

```

BLOOD SAMPLE MODULE

BLINTRO @

NURSE: Now follows the Blood Sample module.

Press <1> and <Enter> to continue.

Range: 1..1

CLOTB

NURSE: Explain the purpose and procedure for taking blood.

READ OUT: May I just check, do you have a clotting or bleeding disorder or are you

currently on anti-coagulant drugs such as Warfarin or other blood thinning drugs?

(NURSE: Aspirin or other antiplatelet therapy is not a contraindication for blood sample.

If in doubt press F9 to check list of anticoagulant / antiplatelet drugs).

HELP <F9> DO NOT TAKE A BLOOD SAMPLE IF RESPONDENT IS TAKING: Warfarin
Sinthrome (Acenocoumarol) Phenindione Pradaxa (Dabigatran Etexilate) Xareloto
(Rivaroxaban).

TAKE A BLOOD SAMPLE IF RESPONDENT IS TAKING: Aspirin (Caprin; Nu-Seals)

Flamasacard Clopidogrel (Plavix) Dipyridamole (Persantin, Persantin Retard,

Asasantin Retard) Prasugrel (Efient) Eptifibatide (Inteligirin) Tirofiban (Aggrastat)

PRESS <Esc> TO CLOSE.

1 Yes

2 No

[CHECK N39]

IF Whether has a clotting disorder = No [ClotB = 2]

| FIT

| May I just check, have you ever had a fit (including epileptic fit or convulsion)?

| 1 Yes

| 2 No

END FILTER

IF Whether ever had a fit = No [Fit = 2]

| BSWILL

| Would you be willing to have a blood sample taken?

| 1 Yes

| 2 No

| [Don't Know and Refusal are not allowed]

IF Whether is willing to give blood sample = Yes [BSWill = 1]

| *IF respondent's age < 80 [PAge < 80]*

| FASTASK

| NURSE: Did you ask the respondent to fast?

| 1 Yes

| 2 No, advised respondent was not safe to fast

```

3 Did not contact respondent prior to visit

IF Whether respondent was asked to fast = [yes, did not contact respondent prior
to visit] [FastAsk = [1, 3]]

DATELEAT @
When did you last have anything to eat or drink (excluding water)?
NURSE: Enter the date (dd / mm / yyyy).
Enter the time at a later question.
[Don't Know and Refusal are not allowed]

IF Date when last had anything to eat or drink = RESPONSE
[DateLEat = RESPONSE]

[CHECKS N40 – N41]

IF Date when last had anything to eat or drink = Date at start of Blood module
[DateLEat = BIDate]

DLEATC1@
NURSE: It seems that the respondent last ate ^whenate. Is this correct?
1 Yes
2 No

// // // // IF Whether time when respondent last ate is correct = No [Dleatc1 = 2]

DLEATC2@
NURSE: Please enter when the respondent last ate.
1 Today
2 Yesterday
3 Other answer (explain in a note)

END FILTER

// // // // IF Date last ate = Date at start of Blood module AND Whether time when
// // // // respondent last ate is correct = Yes) Or (Day last ate (if computer derivation
// // // // incorrect) = Today) [(DateLEat = BIDate AND Dleatc1 = 1) Or (Dleatc2 = 1)]

TIMELEAT @
NURSE: Enter the time in hours and minutes using the 24 hour clock
(e.g. 17:30).
[Don't Know and Refusal are not allowed]

END FILTER

IF Time when last had anything to eat or drink = RESPONSE [TimeLEat =
RESPONSE]

[CHECK N42]

IF Time when last had anything to eat or drink < = Time at start of

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| | | | | | Blood module[TimeLEat <= BTime]
| | | | | |
| | | | | | CHKDRK@
| | | | | | Have you been drinking water during this time?
| | | | | | 1 Yes
| | | | | | 2 No
| | | | | | [Don't Know and Refusal are not allowed]
| | | | | |
| | | | | | / / / / / / IF Time last ate <= Time at start of blood module [TimeLEat <= BTime]
| | | | | |
| | | | | | TLEATC1@
| | | | | | NURSE: It seems that the respondent last ate ^TimeAgo. Is this
| | | | | | correct?
| | | | | | 1 Yes
| | | | | | 2 No
| | | | | | [Don't Know and Refusal are not allowed]
| | | | | |
| | | | | | END FILTER
| | | | | |
| | | | | | END FILTER
| | | | | | / / / / / / IF (Nurse check when respondent last ate = No) OR (Time last ate > Time
| | | | | | at start of blood module) [(Tleatc1 = 2) OR (TimeLEat > BTime)]
| | | | | |
| | | | | | TLEATC2@
| | | | | | NURSE: Did the respondent eat less than 5 hours ago?
| | | | | | 1 Yes
| | | | | | 2 No
| | | | | | [Don't Know and Refusal are not allowed]
| | | | | |
| | | | | | / / / / / / IF (Whether last ate less than 5 hours ago = No) [Tleatc2 = 2]
| | | | | |
| | | | | | TLEATC3@
| | | | | | NURSE: Did the respondent eat less than 8 hours ago?
| | | | | | 1 Yes
| | | | | | 2 No
| | | | | | [Don't Know and Refusal are not allowed]
| | | | | |
| | | | | | END FILTER
| | | | | |
| | | | | | END FILTER
| | | | | |
| | | | | | FASTELIG
| | | | | | Eligible for a fasting sample? - based on when and what last ate
| | | | | | 1 Yes
| | | | | | 2 No
| | | | | |
| | | | | | / / / / / / IF ((Time last ate is more than 5 hours < Time at start of blood module)
| | | | | | AND (Nurse check when respondent last ate = Yes)) OR (Whether last ate
| | | | | | less than 5 hours ago = No) [((TimeLEat < BTime) AND (Tleatc1 =

```

| | | | | | 1)) OR (Tleatc2 = 2)]

| | | | | | **LIGHTEAT**

| | | | | | What did you have to eat?

| | | | | | NURSE: Only code 1 below if the respondent has followed the instructions on the appointment record card, that is either:

| | | | | | Afternoon appointment - a light breakfast only

| | | | | | Evening appointment - a light lunch and/or their usual breakfast only

| | | | | | 1 EITHER light breakfast OR light lunch &/ usual breakfast

| | | | | | 2 Anything else (specify at next question)

| | | | | | IF Type of meal last eaten = Other [LightEa = 2]

| | | | | | **WHATEAT @**

| | | | | | Did you have...

| | | | | | 1 ...a drink only

| | | | | | 2 ...a piece of fruit only

| | | | | | 3 ...a snack, such as a sandwich or crisps or a snack bar or biscuit or bar of chocolate only

| | | | | | 4 ...or a meal?

| | | | | | END FILTER

| | | | | | END FILTER

| | | | | | END FILTER

| | | | | | END FILTER

| | | | | | END FILTER

| | | | | | END FILTER

| | | | | | END FILTER

| | | | | | **[Whether the respondent is eligible to have a blood sample taken is computed and recorded in variable FastElig.**

| | | | | | **Variable FastElig indicates that the respondent is eligible for having a blood sample taken (value 1) IF ((DateLEat < BIDate) OR (LightEa = 1) OR (WhatEat = [1, 2]))]**

| | | | | | **BLREADY @**

| | | | | | NURSE: This respondent can give a blood sample now.

| | | | | | Remember to complete the Consent Forms.

| | | | | | Press <1> and <Enter> to continue.

| | | | | | Range: 1..1

| | | | | | **BSCONS @**

| | | | | | NURSE: Explain need for written consent:

| | | | | | 'Before I can take any blood, I have to obtain written consent from you.'

| | | | | | Press <1> and <Enter> to continue.

Range: 1..1

CODE03 @

NURSE: Ask the respondent to read and initial 'Blood Sample Consent part 1', on page 3 of the Consent Booklet. Explain the need for written consent and ask the respondent to print name, sign and date the Consent Form in the spaces provided at the bottom of page 5 of the Consent Booklet (if not done already).

Nurse: Print your name, sign and date in the spaces provided at the bottom of page 5 of the Consent Booklet.

- Circle consent code **03** on front of the Consent Booklet.

Press <1> and <Enter> to continue.

IF Whether respondent registered with GP <> RESPONSE

[GPRegB <> RESPONSE]

GPSAM @

NURSE CHECK:

- 1 Respondent registered with GP
- 2 Respondent not registered with GP

END FILTER

IF (Whether respondent registered with GP = Yes) OR (Whether respondent registered with GP = Registered) [(GPRegB = 1) OR (GPSam = 1)]

SENDSAMF @

May we send the results of your blood sample analysis to your GP?

- 1 Yes
- 2 No

[Don't Know and Refusal are not allowed]

IF Whether results of blood sample analysis may be sent to GP = Yes

[SendSam = 1]

BSSIGN @

NURSE: Ask the respondent to read and initial 'Blood Sample Consent part 2', on page 3 of the Consent Booklet. Explain the need for written consent and ask the respondent to print name, sign and date the Consent Form in the spaces provided at the bottom of page 5 of the Consent Booklet (if not done already).

Nurse: Print your name, sign and date in the spaces provided at the bottom of page 5 of the Consent Booklet.

- Circle consent code **05** on front of the Consent Booklet.

Press <1> and <Enter> to continue.

ELSE IF Whether results of blood sample analysis may be sent to GP = No

[SendSam = 2]

SENSAM @

Why do you not want your blood sample results sent to your GP?

- 1 Hardly / never sees GP

| | | 2 GP recently took blood sample
 | | | 3 Does not want to bother GP
 | | | 4 Other
 | | | **[Code maximum 4 out of 4 possible responses]**
 | | | *IF Reason why respondent does not want blood results sent to their GP = Other*
 | | | *[SenSam = 4])*
 | | | **OTHSAM @**
 | | | NURSE: Give full details of reason(s) for not wanting results sent to GP.
 | | | String 140
 | | | END FILTER
 | | | END FILTER
 | | | END FILTER
 | | | *IF (Whether respondent registered with GP = Not registered) OR (Whether results of*
 | | | *blood sample analysis may be sent to GP = No) [(GPSam = 2) OR (SendSam = 2)]*
 | | | **CODE06 @**
 | | | NURSE: Circle consent code **06** on front of the Consent Booklet.
 | | | Press <1> and <Enter> to continue.
 | | | Range: 1..1
 | | | END FILTER
 | | | **CONSTORB @**
 | | | May we have your consent to store any remaining blood for future analysis?
 | | | 1 Storage consent given
 | | | 2 Consent refused
 | | | [Don't Know and Refusal are not allowed]
 | | | *IF Whether consent granted for storing blood for future analysis = Yes*
 | | | *[ConStorB = 1]*
 | | | **CODE09 @**
 | | | NURSE: Ask the respondent to read and initial 'Blood Sample Consent part 3', on
 | | | page 3 of the Consent Booklet. Explain the need for written consent and ask the
 | | | respondent to print name, sign and date the Consent Form in the spaces provided
 | | | at the bottom of page 5 of the Consent Booklet (if not done already).
 | | | Nurse: Print your name, sign and date in the spaces provided at the bottom of
 | | | page 5 of the Consent Booklet.
 | | | - Circle consent code **09** on front of the Consent Booklet.
 | | | Press <1> and <Enter> to continue.
 | | | **CONSDNA @**
 | | | There is currently interest in genetic tests which use the DNA contained in blood
 | | | and you were given a separate leaflet by the interviewer explaining this.

Do you have any questions about this?

NURSE: Answer any questions by referring to the leaflet.

READ OUT: May we have your consent to extract DNA from your sample and store this DNA for future analysis?

- 1 DNA consent given
- 2 Consent refused

[Don't Know and Refusal are not allowed]

IF Whether consent granted for extracting and storing DNA for future analysis = Yes [ConsDNA = 1]

CODE11 @

NURSE: Ask the respondent to read and initial 'Genetics Consent', on page 4 of the Consent Booklet. Explain the need for written consent and ask the respondent to print name, sign and date the Consent Form in the spaces provided at the bottom of page 5 of the Consent Booklet (if not done already).

Nurse: Print your name, sign and date in the spaces provided at the bottom of page 5 of the Consent Booklet.

- Circle consent code **11** on front of the Consent Booklet.

Press <1> and <Enter> to continue.

ELSE IF Whether consent granted for extracting and storing DNA for future analysis = No [ConsDNA = 2]

CODE12 @

NURSE: Circle consent code **12** on front of the Consent Booklet.

Press <1> and <Enter> to continue.

Range: 1..1

If not eligible for DNA sample collection

CODE12B

NURSE: The respondent is not in the refreshment sample. Therefore they are not eligible for DNA sample collection. Circle consent code **12** on front of the Consent Booklet.

Press <1> and <Enter> to continue.

END FILTER

ELSE IF Whether consent granted for storing blood for future analysis = No [ConStorB = 2]

CODE10 @

NURSE: Circle consent code **10** on front of the Consent Booklet.

Press <1> and <Enter> to continue.

Range: 1..1

END FILTER

TAKESA1 @

NURSE:

- Check that the respondent has initialled all applicable boxes.

Take the samples in order of priority:

First the 1.8ml citrate tube (blue)

then the 6ml plain tube (red)

[^BLANK / then the 2ml fluoride tube (grey)]

[^then the 2ml EDTA tube (light purple) / then two 4ml EDTA tubes (dark purple)].

Press <1> and <Enter> to continue.

Range: 1..1

TAKESA2 @

NURSE:

- Check that you have the correct sheet of barcode labels for the respondent.

- Check with respondent their name and date of birth on the label sheet.

- Stick one barcode label on each tube.

Press <1> and <Enter> to continue.

Range: 1..1

SAMPF1 @

NURSE: Code if the plain **red** tube was filled (include partially filled tube):

1 Yes

2 No

[Don't Know and Refusal are not allowed]

SAMPF2 @

NURSE: Code if the citrate **blue** tube was filled (include partially filled tube):

1 Yes

2 No

[Don't Know and Refusal are not allowed]

IF Whether eligible for a fasting sample based on when and what last ate = Yes

[FastElig = 1]

SAMPF3 @

NURSE: Code if the fluoride **grey** tube was filled (include partially filled tube):

1 Yes

2 No

[Don't Know and Refusal are not allowed]

END FILTER

SAMPF4 @

NURSE: Code if the 2ml EDTA **LIGHT purple** tube was filled (include partially filled tube):

1 Yes

2 No

[Don't Know and Refusal are not allowed]

IF Whether consent granted for extracting and storing DNA for future analysis

= Yes [ConsDNA = 1]

SAMPF5 @

NURSE: Code if the first EDTA **DARK purple** tube was filled (include partially filled tube):

1 Yes

2 No

[Don't Know and Refusal are not allowed]

SAMPF6 @

NURSE: Code if the second EDTA **DARK purple** tube was filled (include partially filled tube):

1 Yes

2 No

[Don't Know and Refusal are not allowed]

END FILTER

[Whether a blood sample was obtained is computed and recorded in variable SampTak.

Variable SampTak indicates that a blood sample was obtained (value 1)

IF ((SAMPF1 = 1) OR (SAMPF2 = 1) OR (SAMPF3 = 1) OR (SAMPF4 = 1) OR (SAMPF5 = 1) OR (SAMPF6 = 1))]

IF Blood sample outcome (derived) = Sample obtained [SampTak = 1]

SAMPARM @

NURSE: Code from which arm the blood was taken.

1 Right arm

2 Left arm

[Don't Know and Refusal are not allowed]

SAMDIF

NURSE: Record any problems in taking blood sample.

CODE ALL THAT APPLY.

1 No problem

2 Incomplete sample

3 Collapsing / poor veins

4 Second attempt necessary

5 Some blood obtained, but respondent felt faint/fainted

6 Unable to use tourniquet

7 Other (specify at next question)

[Multiple responses to SAMDIFC are recorded in variables SAMDIF1 to SAMDIF4]

[Code maximum 6 out of 7 possible responses]

[CHECKS N43 - N44]

IF (Problems taking blood sample = Other [SamDifC = 7]

OTHBDIF @

NURSE: Give full details of other problem(s) in taking blood sample.

String 140

END FILTER

IF Whether eligible for a fasting sample based on when and what last ate = Yes
[FastElig = 1]

BREAKFAST @

NURSE: Encourage the respondent to have something to eat now, [^he / she] should not feel faint for the physical performance measures.

Press <1> and <Enter> to continue.

Range: 1..1

END FILTER

SNDRSAM @

Would you like to be sent the results of your blood sample analysis?

1 Yes

2 No

[Don't Know and Refusal are not allowed]

IF Whether respondent would like to be sent the results of the analysis = Yes
[SnDrSam = 1]

CODE07 @

NURSE: Circle consent code 07 on front of the Consent Booklet.

Press <1> and <Enter> to continue.

Range: 1..1

ELSE IF Whether respondent would like to be sent the results of the analysis = No
[SnDrSam = 2]

CODE08 @

NURSE: Circle consent **code 08** on front of the Consent Booklet.

Press <1> and <Enter> to continue.

Range: 1..1

END FILTER

ELSE IF Blood sample outcome (derived) = Sample not obtained [SampTak = 2]

NOBSM

NURSE: Code reason(s) no blood obtained.

CODE ALL THAT APPLY.

1 No suitable or no palpable vein / collapsed veins

2 Respondent was too anxious / nervous

3 Respondent felt faint / fainted

4 Other

[Multiple responses to NOBSM are recorded in variables NOBSM1 to NOBSM2]

[Code maximum 4 out of 4 possible responses]

IF (Reasons for not obtaining blood sample = Other) [NoBSM = 4]

```

| | |
| | | OTHNOBSM @
| | | NURSE: Give full details of reason(s) no blood obtained.
| | | String 140
| | |
| | | END FILTER
| | |
| | | CODE10A @
| | | NURSE: Cross out consent codes 03, 05, 07, 09, and 11 if already circled on
| | | the front of the Consent Booklet.
| | | Replace with consent codes 04, 06, 08, 10, and 12 on the front of the Consent
| | | Booklet.
| | | Press <1> and <Enter> to continue.
| | | Range: 1..1
| | |
| | | END FILTER
| | |
| | | ELSE IF Whether is willing to give blood sample = No [BSWill = 2]
| | |
| | | REFBSC
| | | NURSE: Record why blood sample refused.
| | | CODE ALL THAT APPLY.
| | | 1 Previous difficulties with venepuncture
| | | 2 Dislike / fear of needles
| | | 3 Respondent recently had blood test / health check
| | | 4 Refused because of current illness
| | | 5 Worried about HIV or AIDS
| | | 6 Other
| | | [Multiple responses to REFBSC are recorded in variables REFBSC1 to
| | | REFBSC3]
| | | [Code maximum 6 out of 6 possible responses]
| | |
| | | IF (Reason why blood sample refused = Other [RefBSC = 6]
| | |
| | | OTHREFBS @
| | | NURSE: Give full details of other reason(s) for refusing blood sample.
| | | String 135
| | |
| | | END FILTER
| | |
| | | END FILTER
| | |
| | | END FILTER
| | |
| | | IF((Whether has a clotting disorder = [Yes, NONRESPONSE]) OR (Whether ever had a
| | | fit = [Yes, NONRESPONSE]) OR (Whether is willing to give blood sample = No))
| | | [((ClotB = [1, NONRESPONSE]) OR (Fit = [1, NONRESPONSE]) OR (BSWill = 2)))]
| | |
| | | NOCODES @
| | | NURSE: No blood to be taken.
| | | Circle consent codes 04, 06, 08, 10, and 12 on the front of the Consent Booklet.

```

| Press <1> and <Enter> to continue.
| Range: 1..1
|
END FILTER

VENEPUNCTURE CHECKLIST

VPSYS @

NURSE: Which system did you use to take blood?

- 1 Vacutainer needle
- 2 Butterfly needle

VPHAND @

NURSE: Was the respondent left handed or right handed?

- 1 Left handed
- 2 Right handed

VPARM @

NURSE: Which arm did you use to take blood?

- 1 The right arm
- 2 The left arm
- 3 Both arms

VPSKIN @

NURSE: Code the skin condition of the arm used.

- 1 Skin intact
- 2 Skin not intact

VPALCO @

NURSE: Did you use an alcohol wipe?

- 1 Yes
- 2 No - water-based wipe used
- 3 No wipe used

VPALCONO @

NURSE: Why was alcohol wipe not used?

OPEN

VPSAM @

NURSE: Code the number of attempts made to take blood.

- 1 Sample taken on first attempt
- 2 Sample taken on second attempt
- 3 Both attempts failed

VPPRESS @

NURSE: Code who applied pressure to the puncture site.

CODE ALL THAT APPLY.

- 1 Nurse,

- 2 Respondent
- 3 Partner or spouse

VPSENS @

NURSE: Was the respondent sensitive to the tape or plaster?
Sensitive to tape/plaster
Not sensitive to tape/plaster
Did not check

VPPROB @

NURSE: Was there any abnormality noted after 5 minutes?
Please remember to recheck the site after completion of the blood sample module.
CODE ALL THAT APPLY.
1 Sensory deficit
2 Haematoma
3 Swelling
4 Other (describe at next question)
5 None

IF VpProb=OTHER THEN

| **VPOTHER @**

| NURSE: Record the details of the other abnormality fully.
| STRING135

| *IF VPPROB = NOT none THEN*

|

| **VPDETAIL @**

| NURSE: You have coded that an abnormality was noted after 5 minutes.
| Please record the action you took when you noticed this.
| OPEN

|

| **VPCHECK @**

NURSE: Did you re-check the puncture site after completion of the blood sample module?
1 Yes, site was re-checked
2 No, site was not re-checked

STANDING HEIGHT MODULE

HGT1INT @

NURSE: Now follows the Standing Height Measurement module.

Press <1> and <Enter> to continue.

Range: 1..1

HTINTRO @

I would now like to measure your height.

NURSE: Press <1> and <Enter> to continue.

Range: 1..1

RESPHTS

NURSE: Measure standing height and code below.

Include 'disguised' refusals such as 'It will take too long', 'I have to go out' etc. at code 2:
Height refused.

- 1 Height measured
- 2 Height refused
- 3 Height attempted, not obtained
- 4 Height not attempted

[Don't know and refusal are not allowed]

IF Whether standing height measurement was attempted or obtained = Measured

[RespHts = 1]

HEIGHT

NURSE: Record standing height (in centimetres).

Please record height with one decimal digit, using the full stop as decimal point.

[Don't know and refusal are not allowed]

[CHECKS N45 - N46]

RELHITE

NURSE: Code one only.

- 1 No problems experienced, reliable height measurement obtained
Problems experienced - measurement likely to be:
- 2 Reliable
- 3 Unreliable

IF Reliability of standing height measurement according to nurse = Unreliable

[RelHite = 3]

HINREL

NURSE: What caused the height measurement to be unreliable?

- 1 Hairstyle or wig
- 2 Turban or other religious headgear
- 3 Respondent stooped
- 4 Respondent would not stand still
- 5 Respondent wore shoes
- 6 Other, please specify

| |

| | *IF Reason for standing height measurement to be unreliable = Other [HiNRel = 7]*

| |

| | **OHINREL @**

| | NURSE: Please specify what caused unreliable height measurement.

| | String 60

| |

| | END FILTER

| | END FILTER

| |

| | **MBOOKHT @**

| | NURSE: Enter this height measurement on [^Name of respondent]'s Measurement Record Card.

| | Height: [^Standing height - centimetres] cm or [^Standing height - feet] feet [^Standing height - inches] inches.

| | 1 Continue

| |

| | *ELSE IF Whether standing height measurement was attempted or obtained = Refused [RespHts = 2]*

| |

| | **RESNHI**

| | NURSE: Give reasons for refusal.

| | 1 Cannot see point / Height already known / Doctor has measurement

| | 2 Too busy / Taken too long already / No time

| | 3 Respondent too ill / frail / tired

| | 4 Considered intrusive information

| | 5 Respondent too anxious / nervous / shy / embarrassed

| | 6 Refused (no other reason given)

| | 7 Other

| | [Don't Know and Refusal are not allowed]

| |

| | *ELSE IF Whether standing height measurement was attempted or obtained = [attempted but not obtained, not attempted] [RespHts = [3 , 4]]*

| |

| | **NOHTBC**

| | NURSE: Code reason for not obtaining height.

| | CODE ALL THAT APPLY.

| | 1 Respondent is unsteady on feet

| | 2 Respondent cannot stand upright / too stooped

| | 3 Respondent is chairbound

| | 4 Confined to bed

| | 5 Respondent unable to remove shoes

| | 6 Ill or in pain

| | 7 Stadiometer faulty or not available

| | 8 Other - specify

| | [Don't Know and Refusal are not allowed]

| | **[Multiple responses to NOHTBC are recorded in variables NOHTBC1 to NOHTBC4]**

| | **[Code maximum 7 out of 8 possible responses]**

| |

| | *IF (Reason for not obtaining standing height measurement = Other [NoHtBC = 8]*

```

| |
| | NOHITCO @
| | NURSE: Please specify other reason.
| | String 60
| |
| | END FILTER
END FILTER

```

IF Whether standing height measurement was attempted or obtained = [Refused, attempted but not obtained, not attempted] [RespHts = [2, 3, 4]]

```

| | EHTCH
| | NURSE: Ask the respondent for an estimated height.
| | Will it be given in metres or in feet and inches?
| | If respondent doesn't know height use <Ctrl K>,
| | If respondent isn't willing to give height use <Ctrl R>.
| | 1 Metres
| | 2 Feet and inches

```

IF Whether estimated height will be in metric or imperial measures = metres [EHtCh = 1]

```

| | EHTM
| | NURSE: Please record estimated height in metres.

```

ELSE IF Whether estimated height will be in metric or imperial measures = feet and inches [EHtCh = 2]

```

| | EHTFT
| | NURSE: Please record estimated height.
| | Enter feet here.
| | Range: 0..7

```

```

| | EHTIN
| | NURSE: Please record estimated height.
| | Enter inches here.
| | Range: 0..11

```

```

| | END FILTER
END FILTER

```

[Final measured or estimated height is recorded in variable EstHt as follows:

```

IF (Height = RESPONSE) THEN EstHt = Height
ELSE IF (EHtFt = RESPONSE) AND (EHtIn = RESPONSE) THEN
EstHt = ((EHtFt * 12) + EHtIn) * 2.54
ELSE IF (EHtFt = RESPONSE) AND (EHtIn <> RESPONSE) THEN
EstHt = EHtFt * 30.48
ELSE IF (EHtm = RESPONSE) THEN EstHt = EHtm * 100
ELSE EstHt = EMPTY]

```

[CHECK N47]

WEIGHT MODULE

WGTINT @

NURSE: Now follows the Weight Measurement module.

Press <1> and <Enter> to continue.

Range: 1..1

RESPWTS

NURSE: Measure weight and code.

If the respondent weighs more than 130 kg (20 ½ stones) do not weigh.

Code as weight not attempted.

Include 'disguised' refusals such as 'It will take too long', 'I have to go out' etc. at code 2:
Weight refused.

- 1 Weight measured
- 2 Weight refused
- 3 Weight attempted, not obtained
- 4 Weight not attempted

[Don't know and refusal are not allowed]

IF Whether weight measurement was attempted or obtained = Measured

[RespWts = 1]

WEIGHT

NURSE: Record weight (in kilograms).

Record weight with one decimal digit, using the full stop as decimal point.

[Don't know and refusal are not allowed]

FLOORC

NURSE CODE: Scales placed on?

- 1 Uneven floor
- 2 Carpet
- 3 Neither

RELWAIT

NURSE: Code one only.

- 1 No problems experienced, reliable weight measurement obtained
Problems arised, measurement likely to be:
 - 2 Reliable
 - 3 Unreliable

[Responses to RELWAITB are recorded in variable RELWAIT]

MBOOKWT @

NURSE: Enter the weight measurement on [^Name of respondent]'s Measurement Record Card.

Weight: [^Weight - kg] kg or [^Weight - stone] stones [^Weight - pounds] pounds.

If weight looks wrong, go back to 'Weight' and re-weigh.

- 1 Continue

ELSE IF Whether weight measurement was attempted or obtained = [Refused,

attempted but not obtained, not attempted] [RespWts = [2 , 3, 4]]

| *IF Whether weight measurement was attempted or obtained = Refused*
| [RespWts = 2]

| **RESNWT**

| NURSE: Give reasons for refusal.

- | 1 Cannot see point / Weight already known / Doctor has measurement
- | 2 Too busy / Taken long enough already / No time
- | 3 Respondent too ill / frail / tired
- | 4 Considered intrusive information
- | 5 Respondent too anxious / nervous / shy / embarrassed
- | 6 Refused (no other reason given)
- | 7 Other

| [Don't Know and Refusal are not allowed]

| *ELSE IF Whether weight measurement was attempted or obtained = [attempted but*
| *not obtained, not attempted]* [RespWts = [3 , 4]]

| **NOWTBC**

| NURSE: Code reason for not obtaining weight.

| CODE ALL THAT APPLY.

- | 1 Respondent is unsteady on feet
- | 2 Respondent cannot stand upright
- | 3 Respondent is chairbound
- | 4 Confined to bed
- | 5 Respondent unable to remove shoes
- | 6 Respondent weighs more than 130 kg
- | 7 Ill or in pain
- | 8 Scales not working
- | 9 Other - specify

| [Don't Know and Refusal are not allowed]

| **[Multiple responses to NOWTBC are recorded in variables NOWTBC1 to**
| **NOWTBC4]**

| **[Code maximum 8 out of 9 possible responses]**

| *IF Reason for not obtaining weight measurement = Other* [NoWtBC = 9)

| **NOWATCO @**

| NURSE: Please specify other reason.

| String 60

| END FILTER

END FILTER

EWTC

NURSE: Ask the respondent for an estimated weight.

Will it be given in kilograms or in stones and pounds?

If respondent doesn't know weight use <Ctrl K>.

If respondent isn't willing to give weight use <Ctrl R>.

- 1 Kilograms

```

| 2 Stones and pounds
|
| IF Whether estimated weight will be in metric or imperial measures = kilograms
| [EWtCh = 1]
|
| EWTKG
| NURSE: Please record estimated weight in kilograms.
|
| ELSE IF Whether estimated weight will be in metric or imperial measures = stones
| and pounds [EWtCh = 2]
|
| EWTST
| NURSE: Please record estimated weight. Enter stones here.
| (Enter pounds at the next question.)
| Range: 0..32
|
| EWTL
| NURSE: Please record estimated weight. Enter pounds here.
| Range: 0..13
|
| END FILTER
|
END FILTER

```

```

[Final measured or estimated weight is recorded in variable EstWt as follows:
IF (Weight = RESPONSE) THEN EstWt = Weight
ELSE IF (EWtSt = RESPONSE) AND (EWtL = RESPONSE) THEN
EstWt = ROUND(((EWtSt * 14) + EWtL) * 4.54) * 0.1
ELSE IF (EWtSt = RESPONSE) AND (EWtL <> RESPONSE) THEN
EstWt = ROUND(EWtSt * 63.56) * 0.1
ELSE IF (EWtkg = RESPONSE) THEN EstWt = EWtkg
ELSE EstWt = EMPTY]

```

```

[CHECKS N52 - N56]

```

WAIST AND HIP CIRCUMFERENCE MODULE

WHMOD @

NURSE: Now follows the Waist Measurement.

Press <1> and <Enter> to continue.

Range: 1..1

WHINTRO⁴

I would now like to measure your waist.

NURSE CODE:

- 1 Respondent agrees to have waist measured
- 2 Respondent refuses to have waist measured
- 3 Unable to measure waist for reason other than refusal

IF Whether consents to waist measurement = Agree [WHIntro = 1]

REPEAT UP TO THREE TIMES [LOOP FOR Loop:= 1 TO 3]

IF (Waist measurement order = [first, second]) OR ((Waist measurement order = third) AND ((First waist measurement <> not obtained) AND (Second waist measurement <> not obtained) AND (Absolute difference between first and second waist measurements > 3cm)))

[(PLoop = [1, 2]) OR ((PLoop = 3) AND ((Waist1 <> 999.9) AND (Waist2 <> 999.9) AND (ABS (Waist1 - Waist2) > 3)))]

WAIST

NURSE: Measure the waist to the nearest mm.

Enter the [**first / second / third**] waist measurement in centimetres.

(Remember to include the decimal point.)

If measurement not obtained, enter '999.9'.

[Don't know and refusal are not allowed]

[Responses to WAIST are recorded in variables WAIST1 to WAIST3]

[CHECK N57]

END FILTER

IF (First waist measurement = not obtained) OR (Second waist measurement = not obtained) OR (First hip measurement = not obtained) OR (Second hip measurement = not obtained)

[(Waist1 = 999.9) OR (Waist2 = 999.9) OR (Hip1 = 999.9) OR (Hip2 = 999.9)]

YNOWH

NURSE: Enter reason for not getting both measurements.

- 1 Both measurements refused
- 2 Attempted but not obtained
- 3 Measurement not attempted

⁴ See variable whwill in the dataset

END FILTER

[Whether all waist measurements have been obtained is computed and recorded in variable RespWH]

IF (Response to waist measurement = [Only one obtained, refused, not attempted]) OR (Reason why none or only some measurements were obtained = Both measurements refused) [(RespWH = [2, 3, 4]) OR (YNoWH = 1)]

WHPNABM

NURSE: Give reason(s) [^for refusal / why unable / for not obtaining measurement / for not attempting / why only one measurement obtained].

CODE ALL THAT APPLY.

- 1 Respondent is chairbound
- 2 Respondent is confined to bed
- 3 Respondent is too stooped
- 4 Respondent did not understand the procedure
- 5 Respondent is embarrassed / sensitive about their size
- 6 No time / busy / already spent enough time on this survey
- 95 Other (specify at next question)

[Multiple responses to WHPNABM are recorded in variables WHPNAB1 to WHPNAB3]

[Code maximum 7 out of 7 possible responses]

IF (Reason for not obtaining waist and hip measurements = Other [WHPNABM = 95])

OTHWH @

NURSE: Give full details of 'other' reason(s) for not getting full waist measurement

String 140

END FILTER

END FILTER

IF (First waist measurement <> [not obtained, EMPTY]) OR (Second waist measurement <> [not obtained, EMPTY])

[(Waist1 <> [999.9, EMPTY]) OR (Waist2 <> [999.9, EMPTY])]

WJREL

NURSE: Record any problems with waist measurement:

- 1 No problems experienced, reliable waist measurement
- 2 Problems experienced - waist measurement likely to be reliable
- 3 Problems experienced - waist measurement likely to be slightly unreliable
- 4 Problems experienced - waist measurement likely to be unreliable

IF Whether any problems with waist measurement = some problems experienced [WJRel = [2, 3, 4]]

PROBWJ

NURSE: Record whether problems experienced are likely to increase or decrease


```
| | the waist measurement.
| | 1 Increases measurement
| | 2 Decreases measurement
| |
| END FILTER
|
END FILTER
|
IF Response to waist measurement = [Both obtained, Only one obtained]
| [RespWH = [1, 2]]
|
| WHRES @
| NURSE: Offer to write results of waist measurement, where applicable,
| onto respondent's Measurement Record Card.
|
| Waist
| [^Waist1] cms inches
| [^Waist2] cms inches
|
| Press <1> and <Enter> to continue.
| String 1
|
END FILTER
```

LUNG FUNCTION MODULE

LFINT @

NURSE: Now follows the Lung Function module.

The next part of my visit is a lung function test. This will involve you breathing out as hard and as fast as you can for as long as you can into a tube. Before I explain more about the test, I need to ask you a couple of questions to make sure it is safe for you to do.

Press <1> and <Enter> to continue.

Range: 1..1

HASURG

Can I check, have you had abdominal or chest surgery in the past three months?

- 1 Yes
- 2 No

*IF Whether respondent has had abdominal or chest surgery in last 3 months = No
[HaSurg = 2]*

EYESURG

Do you have detached retina or have you had eye or ear surgery in the past 3 months?

- 1 Yes
- 2 No

IF Whether respondent has had eye surgery in the last 3 months = No [EyeSurg = 2]

/ IF EyeSurg=No AND age>15

LFHRT

Have you had a heart attack in the past 3 months?

- 1 Yes
- 2 No

/ IF HASURG = No

HASTRO

Have you been admitted to hospital for a heart complaint in the past month?

- 1 Yes
- 2 No

LFTB

Are you currently taking any medications for the treatment of tuberculosis?

- 1 Yes
- 2 No

/ IF (Whether respondent has had abdominal or chest surgery in last 3 weeks = Yes)

/ OR (Whether respondent has had eye surgery in the last 4 weeks = Yes) OR

/ (Whether respondent admitted to hospital for heart complaint in last 6 weeks = Yes)

/ [(HaSurg = 1) OR (EyeSurg = 1) OR (HaStro = 1)]

NOLUNG

NURSE: This respondent is not eligible for a lung function test.
Explain to the respondent that it will not be safe for them to do the lung function test.
Press <1> and <Enter> to continue.

*ELSE IF (Whether respondent has had abdominal or chest surgery in last 3 weeks = No) AND (Whether respondent has had eye surgery in the last 4 weeks <> Yes) AND (Whether respondent admitted to hospital for heart complaint in last 6 weeks <> Yes)
(HaSurg = 2) AND (EyeSurg <> 1) AND (HaStro <> 1)*

LFWILL

A lung function test tells us how well people's lungs are working. It measures the amount of air you can blow out of your lungs and how fast you can blow the air out. On it's own this test can't tell me if there are any problems with your lungs so if you have any concerns about your lungs you should talk to your GP.
To do the test you will need to blow out into a tube as hard and as fast as you can for as long as you can. To get an accurate test you will need to do more than one blow.
Would you be willing to have your lung function measured?

- 1 Yes, agrees
- 2 No, refuses
- 3 Yes but unable to take lung function measurement for reason other than refusal

IF LFWill = Yes but unable to take lung function measurement for reason other than refusal

NOATTLF

NURSE: Record why unable to take reading.

CODE ALL THAT APPLY.

- 1 Respondent is breathless
- 2 Respondent is unwell
- 3 Respondent upset/anxious/nervous
- 9 Other reason (PLEASE SPECIFY)

IF NOATTLF= other reason

NOATTO@

NURSE: Give other reason why the respondent did not attempt / refused lung function test.

STRING 250

IF LFWill=1 AND Smoke=1-3 THEN

LFSMOK

Can I just check, have you smoked in the last 24 hours? This may have been a cigarette, cigar or pipe

- 1 Yes
- 2 No

IF LFSMOK=Yes THEN

LFSMHR

How many hours ago did you last smoke?

| | NURSE: Code the number of hours. If less than one hour, code 0.
| | Range : 0..24

| | **INHALER**
| | (Can I just check), have you used an inhaler, puffer or any medication for your
| | breathing in the last 24 hours?
| | 1 Yes
| | 2 No

| | *IF Whether used an inhaler / puffer in last 24 hours = Yes [Inhaler = 1]*

| | **INHALHRS**
| | How many hours ago did you use it?
| | NURSE: Enter number of hours. If less than one hour, code 0.
| | Range: 0..24
| | **[Responses to INHALHRS are recorded in variable INHALHR]**

| | *IF Whether respondent admitted to hospital for heart complaint in last 6 weeks = No
| | [HaStro = 2]*

| | **CHESTINF**
| | In the past three weeks, have you had any respiratory infections such as influenza,
| | pneumonia, bronchitis or a severe cold?
| | 1 Yes
| | 2 No
| | **[Responses to CHESTINF are recorded in variable CHESTIN]**

| |
| | END FILTER

| | *IF LFRESP = NONE*
| | **LFCODE3 @**
| | NURSE: Circle consent code 14 on front of the Consent Booklet.
| | Press <1> and <Enter> to continue.

| | *IF NOATTLF = RESPONSE*
| | **LFCODE5 @**
| | NURSE: Circle consent code 14 on front of the Consent Booklet.
| | Press <1> and <Enter> to continue.
| | | | ELSE

| | **LFPRAC@**
| | NURSE: Launch the spirometry program and Explain the manoeuvre to the
| | respondent. Point out the following:
| | Tight seal round the spirette
| | Breathe in as deeply as possible
| | Straight away blast the air out as hard as they can and as fast as they can and keep
| | going for as long as possible
| | Need a few blows, will guide them through
| | Demonstrate the blow to the respondent

```

/ | Give the spirometer to the respondent. Ask them to breath normally.
/ | PRESS <1> AND <Enter> TO LAUNCH THE SPIROMETRY SOFTWARE.
/ | 1 Yes
/ | 2 No
/ |
| |
| | REPEAT THREE TIMES [LOOP FOR Idx:= 1 TO 3]
| |
| | IF (First FVC reading <> 9.95) AND (Whether no readings obtained = No)
| | [(FVC1 <> 9.95) AND (NoRead = 2)]
| |
| | FVC
| | Enter FVC reading. If no reading obtained enter '0'.
| | If you are not going to obtain any readings at all enter '9.95'.
| | [Highest technically satisfactory FVC reading is recorded in variable
| | HTFVC]
| |
| | [ Whether no LF readings were obtained is computed and recorded in
| | variable NoRead]
| |
| | [CHECKS N68 - N69]
| |
| | IF FVC reading (litres) < 9.95 [FVC < 9.95]
| |
| | FEV
| | Enter FEV reading. If no reading obtained enter '0'.
| | [Highest technically satisfactory FEV reading is recorded in variable
| | HTFEV]
| |
| | [CHECKS N70 - N74]
| |
| | PEF
| | Enter PEF reading. If no reading obtained enter '0'.
| | Range: 0..995
| | [Highest technically satisfactory PEF reading is recorded in variable
| | HTPEF]
| |
| | [CHECKS N75 - N77]
| |
| | PCFEV
| | Enter @IFEV1%@I reading.
| | If no reading obtained enter '0'."
| | Range: 0..100
| |
| | PCFVC
| | Enter @IFVC1%@I reading.
| | If no reading obtained enter '0'."
| | Range: 0..100
| |
| | PCPEF
| | Enter @IPEF1%@I reading.

```

```

| | | | If no reading obtained enter '0'."
| | | | Range: 0..100
| | | |
| | | | END OF LOOP
| | | |
| | | | QUALITY
| | | | Derived: Outcome from lung function software (A - F).
| | | | Testing: Enter quality level letter.
| | | | STRING 1
| | | |
| | | | IF Quality= C OR D OR F
| | | | QUALCDF@
| | | | Nurse: Explain the reason for the session quality for this respondent.
| | | | STRING 200
| | | |
| | | | IF Other IN QualCDF THEN
| | | | QUALOTH@
| | | | NURSE: Please give other reason.
| | | | STRING 250
| | | | ENDFIF
| | | |
| | | | IF QUALITY= C OR D OR F
| | | | CDFCOM1@
| | | | NURSE: Are there any comments which need to be noted about this respondent's
| | | | lung function test.
| | | | 1 Yes
| | | | 2 No
| | | |
| | | | IF Quality= A or B THEN
| | | | QUALAB@
| | | | NURSE: Are there any comments which need to be noted about this respondent's
| | | | lung function test.
| | | | 1 Yes
| | | | 2 No
| | | |
| | | | IF QualAB = Yes THEN
| | | | QUALABot@
| | | | NURSE: Please note comment about this respondent's spirometry test.
| | | | STRING 250
| | | |
| | | | NULLLF@
| | | | NURSE: Record why you were unable to take any readings.
| | | | STRING 200
| | | |
| | | | IF (Whether willing to have lung function measured = Yes) AND (How many technically
| | | | correct blows were obtained = [All, some]) [(LFWill = 1) AND (LFResp =[1, 2])]
| | | |
| | | | IF Whether respondent registered with GP <> RESPONSE
| | | | [GPreGB <> RESPONSE]

```

LFSAM @

NURSE: If not already asked: (Can I just check) are you registered with a GP?

- 1 Respondent registered with GP
- 2 Respondent not registered with GP

END FILTER

IF (Whether or not satisfactory blow = At least one and respondent registered with GP) OR (Whether respondent registered with GP = Yes) OR (Whether respondent registered with GP = Yes)

[[((NLSatLF = 1) AND (GPRegB = 1))OR (LFSam = 1) OR (GPRegB = 1)]

GPSENDLF @

May we send your lung function test results to your GP?

- 1 Yes
- 2 No

END FILTER

IF Whether results may be sent to GP = No [GPSENDLF = 2]

LFCODE4 @

NURSE: Circle consent code 04 on front of the Consent Booklet.

Press <1> and <Enter> to continue.

Range: 1..1

GPRLFM @

NURSE: Specify reason(s) for refusal to allow LF readings to be sent to GP.

CODE ALL THAT APPLY.

- 1 Hardly / Never sees GP
- 2 GP knows respondent's LF level
- 3 Does not want to bother GP
- 4 Other (SPECIFY AT NEXT QUESTION)

[Code maximum 4 out of 4 possible responses]

IF Why results may not be sent to GP = Other [GPRLFM = 4]

OTHREFM @

NURSE: Give full details of reason(s) for refusal.

String 140

END FILTER

ELSE IF Whether results may be sent to GP = Yes [GPSENDLF = 1]

NCINS1 @

NURSE: Ask the respondent to read and initial 'Lung Function to GP consent', on page 5 of the consent booklet

Explain the need for written consent and ask the respondent to print name, sign and date the Consent Form in the spaces provided at the bottom of page 5 of the Consent Booklet (if not done already).

```
| | | Nurse: Print your name, sign and date in the spaces provided at the bottom of
| | | page 5 of the Consent Booklet.
| | | - Check the name by which the GP knows the respondent.
| | | - Check GP name, address and phone number are recorded on the front of the
| | | consent booklet.
| | | - Circle consent code 13 on the front of the Consent Booklet.
| | | Press <1> and <Enter> to continue."
| | |
| | | IF (LFWill IN [No, YesUn]) OR (LFSam = NotReg) OR (LungEx = Yes) OR
| | | (GPSENDLF = No) THEN
| | | CODE04
| | | NURSE: Circle code 06 on the front of the Consent Booklet.
| | | Press <1> and <Enter> to continue.
| | |
| | | END FILTER
| | |
| | | END FILTER
| | |
| | | END FILTER
```


BALANCING MODULE

BALINT @

NURSE: Now follows the Balancing module.

Press <1> and <Enter> to continue.

Range: 1..1

MMBCINT @

NURSE: Explain the purpose of the tests:

'I would now like to carry on with some more physical performance measurements, this will involve asking you to move your body in different ways.

I will first describe and show each movement to you, then I'd like you to try to do it.

If you cannot do a particular movement, or if you feel it would be unsafe to try to do it, please tell me and we'll move on to the next one.

Let me emphasize that I do not want you to try to do any exercise that you feel might be unsafe.

Do you have any questions before we begin?'

NURSE: Press <1> and <Enter> to continue.

Range: 1..1

MMBCSC

NURSE: Check respondent's status and availability.

ASK: 'Do you have any problems from recent surgery, injury or other health conditions that might prevent you from standing up from a chair or balancing?'

- 1 Yes
- 2 No

IF Whether respondent has any problems / health conditions = Yes [MmBCSc = 1]

|

| MMBCCH @

| NURSE: After you describe each test, discuss with respondent whether [^he / she] should attempt the test given [^his / her] physical problems.

| Do not assume a respondent is too physically limited to attempt a test without discussing it with [^him / her].

| However, remember that the respondent's health is paramount.

| Press <1> and <Enter> to continue.

| Range: 1..1

|

END FILTER

MMSSINT @

NURSE: First explain and then demonstrate the side-by-side stand to the respondent.

'Now I will show you the first movement.

I want you to try to stand with your feet together, side-by-side, for about 10 seconds.

You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet.

Try to hold this position until I tell you to stop.

You may support yourself on a chair, table or wall while getting into position.'

NURSE: Press <1> and <Enter> to continue.

Range: 1..1

MMSSSC

Do you feel that would be safe?

- 1 Yes
- 2 No

IF Whether respondent feels it is safe to attempt side-by-side stand = Yes
[MmSSSc = 1]

MMSSSTT @

When I want you to start, I will say: 'Ready, begin'.

NURSE: Ask the respondent to stand up. Stand to the side of the respondent.

SAY: 'Ready, begin!'

Press the start button to start the stopwatch as soon as the respondent gets into the position and removes their hand from the support.

If necessary, provide gentle support to the respondent's arm to help [^him / her] into the side-by-side stand.

SAY: 'Ready, begin!' and then let go of [^his / her] arm.

Stop the stopwatch and say 'Stop' after 10 seconds or when the participant steps out of position or grabs your arm.

NURSE: Press <1> and <Enter> to continue.

Range: 1..1

MMSSRE

NURSE: Record the outcome of the side-by-side stand.

- 1 Held for 10 seconds
- 2 Held for less than 10 seconds
- 3 Not attempted

IF Outcome of side-by-side stand = held for less than 10 seconds [MmSSRe = 2]

MMSSTI

NURSE: Record the time in seconds to two decimal places.

(enter the large numbers on the stopwatch display before the decimal point and the small numbers after it).

Use the full stop as the decimal point, e.g. 6.55.

END FILTER

END FILTER

IF (Whether respondent feels it is safe to attempt side-by-side stand = No) OR
(Outcome of side-by-side stand = not attempted) [(MmSSSc = 2) OR (MmSSRe = 3)]

MMSSNA

NURSE: Record reason side-by-side stand was not attempted.

- 1 Tried but unable
- 2 Participant could not hold position unassisted
- 3 Not attempted, you felt unsafe
- 4 Not attempted, participant felt unsafe
- 5 Participant unable to understand instructions

- | 6 Participant refused
- | 7 Other reason |

END FILTER

IF Outcome of side-by-side stand = held for 10 seconds [MmSSRe = 1]

MMSTINT @

NURSE: First explain and then demonstrate the semi-tandem stand to the respondent:
'Now I will show you the next movement.

I want you to try to stand with the side of the heel of one foot touching the big toe of the other foot for about 10 seconds.

You may put either foot in front, whichever is more comfortable for you.

You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet.

Try to hold this position until I tell you to stop.

You may support yourself on a chair, table or wall while getting into position.'

NURSE: Press <1> and <Enter> to continue.

Range: 1..1

MMSTSC

Do you feel that would be safe?

- 1 Yes
- 2 No

*IF Whether respondent feels it is safe to attempt semi-tandem stand = Yes
[MmSTSc = 1]*

MMSTSTT @

When I want you to start, I will say: 'Ready, begin'.

NURSE: Ask the respondent to stand up. Stand to the side of the respondent.

SAY: 'Ready, begin!'

Press the start button to start the stopwatch as soon as the respondent gets into the position and removes their hand from the support.

If necessary, provide gentle support to the respondent's arm to help [^him / her] into the semi-tandem position.

SAY: 'Ready, begin!' and then let go of [^his / her] arm.

Stop the stopwatch and say 'Stop' after 10 seconds or when the participant steps out of position or grabs your arm.

NURSE: Press <1> and <Enter> to continue.

Range: 1..1

MMSTRE

NURSE: Record the outcome of the semi-tandem stand.

- 1 Held for 10 seconds
- 2 Held for less than 10 seconds
- 3 Not attempted

IF Outcome of semi-tandem stand = held for less than 10 seconds [MmSTRe = 2]

MMSTTI

NURSE: Record the time in seconds to two decimal places.
(enter the large numbers on the stopwatch display before the decimal point and the small numbers after it).

Use the full stop as the decimal point, e.g. 6.55.

END FILTER

END FILTER

*IF (Whether respondent feels it is safe to attempt semi-tandem stand = No) OR
(Outcome of semi-tandem stand = not attempted) [(MmSTSc = 2) OR (MmSTRe = 3)]*

MMSTNA

NURSE: Code the reason why semi-tandem stand was not attempted.

- 1 Tried but unable
- 2 Participant could not hold position unassisted
- 3 Not attempted, you felt unsafe
- 4 Not attempted, participant felt unsafe
- 5 Participant unable to understand instructions
- 6 Participant refused
- 7 Other reason

END FILTER

IF Outcome of semi-tandem stand = held for 10 seconds [MmSTRe = 1]

MMFTINT @

NURSE: First explain and then demonstrate the full tandem stand to the respondent:
'Now I will show you the next movement.

I want you to try to stand with the heel of one foot in front of and touching the toes of the other foot for about [^30 / 10] seconds.

You may put either foot in front, whichever is more comfortable for you.

You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet.

Try to hold this position until I tell you to stop.

You may support yourself on a chair, table or wall while getting into position.'

NURSE: Press <1> and <Enter> to continue.

Range: 1..1

MMFTSC

Do you feel that would be safe?

- 1 Yes
- 2 No

*IF Whether respondent feels it is safe to attempt full tandem stand = Yes
[MmFTSc = 1]*

MMFTSTT @

When I want you to start, I will say: 'Ready, begin'.

NURSE: Ask the respondent to stand up. Stand to the side of the respondent.

SAY: 'Ready, begin!'

Press the start button to start the stopwatch as soon as the respondent gets into the position and removes their hand from the support.

If necessary, provide gentle support to the respondent's arm to help [^him / her] into the full tandem position.

SAY: 'Ready, begin!' and then let go of [^his / her] arm.

Stop the stopwatch and say 'Stop' after [^30 / 10] seconds or when the participant steps out of position or grabs your arm.

NURSE: Press <1> and <Enter> to continue.

Range: 1..1

MMFTRE

NURSE: Record the outcome of the full tandem stand.

- 1 Held for [^30 / 10] seconds
- 2 Held for less than [^30 / 10] seconds
- 3 Not attempted

[Variable MMFTRE2 indicates whether the respondent held the full tandem stand for 10 or 30 seconds (which depended on their age)]

IF Outcome of full tandem stand = held for less than 30 / 10 seconds

[MmFTRe = 2]

MMFTTI

NURSE: Record the time in seconds to two decimal places.

(enter the large numbers on the stopwatch display before the decimal point and the small numbers after it).

Use the full stop as the decimal point, e.g. 6.55.

[CHECK N82]

END FILTER

END FILTER

IF (Whether respondent feels it is safe to attempt full tandem stand = No) OR

(Outcome of full tandem stand = not attempted) [(MmFTSc = 2) OR (MmFTRe = 3)]

MMFTNA

NURSE: Record reason full tandem stand was not attempted.

- 1 Tried but unable
- 2 Participant could not hold position unassisted
- 3 Not attempted, you felt unsafe
- 4 Not attempted, participant felt unsafe
- 5 Participant unable to understand instructions
- 6 Participant refused
- 7 Other reason

END FILTER

END FILTER

END FILTER

LEG RAISE MODULE

IF (Age of respondent (computed) <= 69) AND (Outcome of side-by-side stand = Held for 10 seconds) [(HHAge <= 69) AND (MmSSRe = 1)]

LEGINT @

NURSE: Now follows the Leg Raise module.

Press <1> and <Enter> to continue.

Range: 1..1

MMLOINT @

NURSE: First explain and then demonstrate the leg raise to the respondent:

'Now I will show you the next movement.

I want you to try to stand on one leg, whichever one you want, and raise the other leg off the ground a few inches.

Stand for as long as you can - I will stop you at 30 seconds.

You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop.

You may support yourself on a chair, table or wall while getting into position.'

NURSE: Make sure there is a firm support nearby and allow the respondent to practice.

Press <1> and <Enter> to continue.

Range: 1..1

MMLOSC

Do you feel that would be safe?

1 Yes

2 No

*IF Whether respondent feels it is safe to attempt leg raise (eyes open) = Yes
[MmLOSc = 1]*

MMLOSTT @

When I want you to start, I will say: 'Ready, begin'.

NURSE: Ask the respondent to stand up near to a firm support, eg wall or chair.

Stand to the side of the respondent. SAY: 'Ready, begin!'

Press the start button to start the stopwatch as soon as the respondent raises one foot off the ground and removes their hand from the support.

If necessary, provide gentle support to the respondent's arm to help [^him / her] into position.

SAY: 'Ready, begin!' and then let go of [^his / her] arm.

Stop the stopwatch and say 'Stop!' either

A) when the raised leg touches the floor as the respondent loses [^his / her] balance or

B) after 30 seconds, whichever happens first.

Press <1> and <Enter> to continue.

Range: 1..1

MMLORE

NURSE: Record the outcome of the leg raise.

- 1 Held for 30 seconds
- 2 Held for less than 30 seconds
- 3 Not attempted

IF Outcome of leg raise (eyes open) = held for less than 30 seconds
[MmLORe = 2]

MMLOTI

NURSE: Record the time in seconds to two decimal places.
 (enter the large numbers on the stopwatch display before the decimal point and the small numbers after it).
 Use the full stop as the decimal point, e.g. 6.55.

END FILTER

END FILTER

IF (Whether respondent feels it is safe to attempt leg raise (eyes open) = No) OR
(Outcome of leg raise (eyes open) = not attempted)
[(MmLOSc = 2) OR (MmLORe = 3)]

MMLONA

NURSE: Record reason leg raise was not attempted.

- 1 Tried but unable
- 2 Participant could not hold position unassisted
- 3 Not attempted, you felt unsafe
- 4 Not attempted, participant felt unsafe
- 5 Participant unable to understand instructions
- 6 Participant refused
- 7 Other reason

END FILTER

IF Outcome of leg raise (eyes open) = held for 30 seconds [MmLORe = 1]

MMLSINT @

NURSE: First explain and then demonstrate the leg raise with eyes closed to the respondent:
 'Now I would like you to repeat the procedure one more time, this time with your eyes closed.
 I want you to close your eyes and try to stand on one leg, whichever one you want, and raise the other leg off the ground a few inches.
 Stand for as long as you can - I will stop you at 30 seconds.
 You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop.
 You may support yourself on a chair, table or wall while getting into position.'
 NURSE: Make sure there is a firm support nearby and allow the respondent to practice.
 Press <1> and <Enter> to continue.
 Range: 1..1

MMLSSC

Do you feel that would be safe?

- 1 Yes
- 2 No

IF Whether respondent feels it is safe to attempt leg raise (eyes shut)= Yes
[MmLSSc = 1]

MMLSSTT @

When I want you to start, I will say: 'Ready, begin'.

NURSE: Ask the respondent to stand up near to a firm support, eg wall or chair. Stand to the side of the respondent. SAY: 'Ready, begin!'

Press the start button to start the stopwatch as soon as the respondent raises one foot off the ground and removes their hand from the support.

If necessary, provide gentle support to the respondent's arm to help [^him / her] into position.

SAY: 'Ready, begin!' and then let go of [^his / her] arm.

Stop the stopwatch and say 'Stop!' either

A) when the raised leg touches the floor as the respondent loses [^his / her] balance or

B) after 30 seconds, whichever happens first.

Press <1> and <Enter> to continue.

Range: 1..1

MMLSRE

NURSE: Record the outcome of the leg raise with eyes shut.

- 1 Held for 30 seconds
- 2 Held for less than 30 seconds
- 3 Not attempted

IF Outcome of leg raise (eyes shut) = held for less than 30 seconds
[MmLSRe = 2]

MMLSTI

NURSE: Record the time in seconds to two decimal places.

(enter the large numbers on the stopwatch display before the decimal point and the small numbers after it).

Use the full stop as the decimal point, e.g. 6.55.

END FILTER

END FILTER

IF (Whether respondent feels it is safe to attempt leg raise (eyes shut) = No) OR
(Outcome of leg raise (eyes shut) = not attempted)
[(MmLSSc = 2) OR (MmLSRe = 3)]

MMLSNA

NURSE: Record reason leg raise with eyes shut was not attempted.

- 1 Tried but unable
- 2 Participant could not hold position unassisted

| | | 3 Not attempted, you felt unsafe
| | | 4 Not attempted, participant felt unsafe
| | | 5 Participant unable to understand instructions
| | | 6 Participant refused
| | | 7 Other reason
| | |
| | END FILTER
| |
| END FILTER
|
END FILTER

CHAIR RISE MODULE

CHRINT @

NURSE: Now follows the Chair Rise module.

Press <1> and <Enter> to continue.

Range: 1..1

MMCRAV

NURSE: Check the availability of a suitable chair.

- 1 Suitable chair available
- 2 No suitable chair available

IF Whether suitable chair for chair rise available = available [MmCRAV = 1]

MMCRINT @

The next test measures the strength in your legs.

NURSE: First explain and then demonstrate the procedure:

'I want you to try to stand up from a firm straight-backed chair, like a dining chair.

First, fold your arms across your chest and sit so that your feet are on the floor; then stand up keeping your arms folded across your chest.'

Press <1> and <Enter> to continue.

Range: 1..1

MMCRSC

Do you feel it would be safe to do this?

NURSE: If the participant cannot rise without using arms,

SAY: 'Okay, try to stand up using your arms.'

- 1 Yes
- 2 No

IF Whether respondent feels safe to attempt single chair rise = Yes [MmCRSc = 1]

MMCRRE

NURSE: Record the outcome of single chair rise measure.

- 1 Participant stood without using arms
- 2 Participant used arms to stand
- 3 Test not completed

IF Outcome of single chair rise measure = Not completed [MmCRRe = 3]

MMCRNA

NURSE: Record the reason why the test was not completed.

- 1 Tried but unable
- 2 Participant could not hold position unassisted
- 3 Not attempted, you felt unsafe
- 4 Not attempted, participant felt unsafe
- 5 Participant unable to understand instructions
- 6 Participant refused
- 7 Other reason

[Refusal is not allowed]

END FILTER

END FILTER

IF Outcome of single chair rise measure = Stood without using arms
[MmCRRe = 1]

MMRRINT @

NURSE: Use the same chair and the same place as in the single chair rise.

Explain the test to the respondent:

'Now I would like you to repeat the procedure but this time I want you to stand up straight as quickly as you can [[^]ten / five] times, without stopping in between and without using your arms to push off.

After standing up each time, sit down and then stand up again.

Keep your arms folded across your chest. I'll be timing you with a stopwatch.'

NURSE: Demonstrate.

Press <1> and <Enter> to continue.

Range: 1..1

MMRRSC

Do you feel it would be safe to do that?

- 1 Yes
- 2 No

IF Whether respondent feels safe to attempt multiple chair rise = Yes
[MmRRSc = 1]

MMRRSTT @

NURSE: Ask the respondent to resume the sitting position [[^]he / she] was in just before standing up, with feet resting on the floor and arms folded across the chest.

When the participant is properly seated, say 'Ready? Begin!'

Start the stopwatch as soon as you say 'Ready? Begin!'

Count out loud as [[^]he / she] rises each time, up to [[^]ten / five] times.

A rise is complete when the respondent is fully standing with their back straight.

When the respondent completes the fifth rise, press the split timer on the stopwatch.

Continue counting out loud.

When the respondent has straightened up completely for the [[^]tenth / fifth] time, stop the stopwatch.

Press <1> and <Enter> to continue.

Range: 1..1

MMRRRE

NURSE: Record the total number of rises completed.

Range: 0..10

END FILTER

IF Outcome of multiple chair rises (number of rises completed) = [5 - 10]
[MMRRRe = [5 - 10]]

MMRRFTI

NURSE: Record the time in seconds to two decimal places to complete five chair rises (enter the large numbers on the stopwatch display before the decimal point and the small numbers after it).

Use the full stop as the decimal point, e.g. 26.55.

[CHECKS N83 - N84]

IF (Age of respondent (computed) <= 69) AND (Outcome of multiple chair rises (number of rises completed) = 10) [(HHAge <= 69) AND (MMRRRe = 10)]

MMRRTTI

NURSE: Record the time in seconds to two decimal places to complete ten chair rises (enter the large numbers on the stopwatch display before the decimal point and the small numbers after it).

Use the full stop as the decimal point, e.g. 26.55.

[CHECKS N85 - N87]

END FILTER

END FILTER

IF (Whether respondent feels safe to attempt multiple chair rise = No) OR (Outcome of multiple chair rises (number of rises completed) < 5) OR ((Age of respondent (computed) <= 69) AND (Outcome of multiple chair rises (number of rises completed) < 10)) [(MmRRSc = 2) OR (MMRRRe < 5) OR ((HHAge <= 69) AND (MMRRRe < 10))]

MMRRNA

NURSE: Record reason why participant did not attempt or failed to complete all chair rises.

- 1 Tried but unable
- 2 Participant could not hold position unassisted
- 3 Not attempted, you felt unsafe
- 4 Not attempted, participant felt unsafe
- 5 Participant unable to understand instructions
- 6 Participant refused
- 7 Other reason

[Refusal is not allowed]

END FILTER

END FILTER

END FILTER

HAIR SAMPLING

HAIRINTR@

NURSE: Now follows the Hair sampling module.
Press <1> and <Enter> to continue.

HAIREXCL

NURSE: Do not read out - Participants are excluded from the hair sample in the following circumstances:

- Pregnancy (in 'younger partner' participants)
- Breastfeeding (in 'younger partner' participants)
- Current scalp condition rendering the hair sample soiled or at risk of transmission of an unknown / known blood borne virus (e.g. active bleeding or infection)
- Respondent is unable to sit with head remaining still (e.g. continual tremor / head shaking)
- Has less than 2cms of hair length in the posterior vertex scalp area (not including any hair extensions)

Is the respondent excluded from providing a hair sample for any of the above reasons?"

- 1 Yes
- 2 No

IF HAIREXCL = Yes

|

| HAIREXC2

| NURSE: Please code the reason for respondent being excluded from hair sample collection.

- | 1 Pregnant
- | 2 Breast feeding
- | 3 Current scalp condition rendering hair sample soiled or at risk of transmission of blood borne virus
- | 4 Participant unable to sit with head remaining still
- | 5 Participant has less than 2cms of hair in the posterior vertex scalp area (not including any hair extensions)
- | 6 Other reason (please specify)

| *IF HAIREXCLY = Other*

|

| HAIREXO@

| NURSE: Enter full details of other reason(s) for not attempting hair sample.
| STRING 140

|

| HAIRINTRO@

| READ OUT: We are interested in measuring a hormone called cortisol. Cortisol Levels will tell us about any stress you might experience. This is of particular interest because stress may be related to heart disease.
| The amount of cortisol released over time can be measured in hair.

|

| *END FILTER*

| HAIRPROC

| NURSE: Explain to the respondent what is involved in the hair sample collection
| procedure (this is outlined in the project instructions / hair sample collection procedure
| sheet). We would like to take a small sample of your hair to test it for cortisol. Would
| you be willing to do this?

| 1 Yes

| 2 No

| / | *IF HAIRPROC = No*

| /

| **HAIRWHY⁵@**

| NURSE: Give reasons for refusal.

| STRING 140

| **HAIRNO @**

| NURSE: Circle consent code 16 on front of the Consent Booklet.

| Press <1> and <Enter> to continue.

| END FILTER

| *ELSEIF HAIRPROC = Yes*

| **HAIRCONS@**

| NURSE: Ask the respondent to read and initial 'Hair Sample Consent', on page 5 of
| the Consent Booklet. Explain the need for written consent and ask the respondent to
| print name, sign and date the Consent Form in the spaces provided at the bottom of
| page 5 of the Consent Booklet (if not done already).

| Nurse: Print your name, sign and date in the spaces provided at the bottom of page 5
| of the Consent Booklet.

| Circle consent code 15 on front of the Consent Booklet.

| Press <1> and <Enter> to continue.

| **HAIRCUT@**

| NURSE: Take the hair sample. Once the hair sample has been cut, tighten the wire to
| ensure the hair strands do not become free.

| Place the hair sample into the sample envelope with the scalp (cut end) uppermost.

| Bend the end of the wire tie over the envelope closure to provide a fixing point for the
| sample and seal the envelope over the tie.

| Press <1> and <Enter> to continue.

| **HAIRPACK**

| NURSE: Place a pre-prepared respondent sample label on the sample envelope, on
| the same side as the envelope closure. Complete the CAPI and dispatch note as per
| project instructions. Place the labelled hair sample envelope into the hard backed A5
| dispatch envelope with the dispatch note and post.

| Was a hair sample obtained?

| 1 Yes

| 2 No

| **CODE16a@**

⁵ Answers here coded into variables HairWhy1-HairWhyZ

| | NURSE: Cross out consent code 15 if already circled on the front of the Consent
| | Booklet. Replace with consent code 16 on the front of the Consent Booklet.
| | Press <1> and <Enter> to continue.

| | *IF HAIRPACK = Yes*

| | **HAIRCOL**

| | NURSE: What colour is the hair sample?

- | | 1 Brown
- | | 2 Blonde
- | | 3 Red/auburn/ginger
- | | 4 White
- | | 5 Grey
- | | 6 Black
- | | 7 Other colour (please specify)

| | **HAIRCLO@**

| | NURSE: Please give other hair colour.

| | STRING 40

| | *END FILTER*

| | **HAIRDYE**

| | NURSE: Is your hair dyed?

- | | 1 Yes
- | | 2 No

| | *IF HAIRDYE = Yes*

| | **HAIRDYEL**

| | NURSE: When did you last have it dyed?

- | | 1 Yesterday
- | | 2 A few days ago
- | | 3 1-2 weeks ago
- | | 4 3-4 weeks ago
- | | 5 Over a month ago

| | **HAIRDYET**

| | NURSE: What type of dye did you use?

- | | 1 Permanent
- | | 2 Semi-permanent
- | | 3 Don't Know (SPONTANEOUS ONLY)

| | *END FILTER*

| | **HAIRTREA**

| | Has your hair been chemically treated (eg. Perm, chemical straightening)?

- | | 1 Yes
- | | 2 No

| | *IF HAIRTREAT = Yes*

```

| |
| | HAIRTREA2
| | When did you last have it done?
| | 1 Yesterday
| | 2 A few days ago,
| | 3 1-2 weeks ago
| | 4 3-4 weeks ago
| | 5 Over a month ago
| |
| | END FILTER
| |
| | HAIRWET@
| | Apart from when it rains, on average how many times per week do you get your hair
| | wet, e.g. from swimming or washing?
| | STRING 50
| |
| | ELSE
| |
| | HAIRNOSA@
| | NURSE: Why was no hair sample obtained?
| | 1 Respondent changed mind after consent gained
| | 2 Respondent too uncomfortable during procedure
| | 3 Could not get long enough sample
| | 4 Other reason (please specify)
| |
| | IF HAIRNOSA = Yes
| | HAIRNOY@
| | NURSE: Enter full details of other reason(s) for not obtaining hair sample.
| | STRING 140

```


FINAL QUESTIONS MODULE

ALLCHECK @

Check before leaving the respondent:

- # That all respondents have the relevant copies from the Consent Booklet.
- # That you have re-checked the puncture site after taking blood for that individual (if applicable)..
- # That full GP details are entered on front of the Consent Booklet, along with the name by which GP knows respondent.
- # That all details are completed on front of the Consent Booklet.
- # That there are eight appropriate consent codes ringed on front of the Consent Booklet.
- # That all necessary initials and signatures have been collected.

Press <1> and <Enter> to continue.

Range: 1..1

ENDREACH @

NURSE: End of questionnaire reached.

Press <1> and <Enter> to continue.

Range: 1..1

NUROUTC

NURSE: Why were you not able to complete the nurse schedule for person ^PerNum ^RName?"

79 Partner but nurse schedule completed

80 Refused nurse visit in main interview - and still refuses nurse visit",

81 Nurse schedule completed

82 No contact made

83 Refusal by person

84 Proxy refusal

85 Broken appointment

86 Ill (at home)

87 Ill (in hospital)

88 Away (other reason)

89 Other reason for schedule not being completed

[Don't Know and Refusal are not allowed]

IF whether respondent completed and sent back self-completion questionnaire=Not complete yet [INtSC2=3]

|

| INTSC5 @

| NURSE: Has the respondent completed the self-completion questionnaire(s)?

| 1 Completed, to be posted back by nurse

| 2 To be posted back by respondent

| 3 Respondent refused

| [Don't Know and Refusal are not allowed]

|

END FILTER

SURDOC @

NURSE: Has the respondent given you any survey (other) documents left with them by

the interviewer?

- 1 Yes
- 2 No

IF whether respondent gave nurse interviewer document=yes [SurDoc = 1]

WHHDOC @

NURSE: Code which document(s) you have been given.

CODE ALL THAT APPLY.

- 1 Orange self completion booklet
- 2 Purple or green self completion booklet
- 3 Yellow consent form
- 4 Pink NHS register linkage consent form

IF Interviewer documents given to nurse = Blue self completion booklet [Whhdoc=1]

SCDOC @

Please put the self completion booklet in pre-paid envelope and post back to the office.

Press <1> and <Enter> to continue.

1..1

END FILTER

IF Interviewer documents given to nurse = Yellow consent form OR Pink NHS register linkage consent form [Whhdoc=2 or 3]

FULLDOC @

NURSE: If the respondent is giving you a completed consent form - check that serial number, check letter and person number have been filled in on the relevant form(s) (yellow and/or pink).

Tear off top copy and return to office in prepaid envelope.

Leave bottom copy with respondent for their records.

Press <1> and <Enter> to continue."

1..1

END FILTER

IF Interviewer documents given to nurse = Thank you letter with cheque [Whhdoc=4]

THKDOC @

NURSE: : Leave thank you letter with cheque the with respondent. It is a token of our appreciation.

If respondent cannot cash cheque or wishes to convert it to vouchers, encourage them to phone the office.

Press <1> and <Enter> to continue."

1..1

END FILTER

END FILTER

THANK @

NURSE: Thank the respondent for [^his / her] co-operation.
Then press <1> and <Enter> to finish.

Range: 1..1

APPENDIX - PROGRAM CHECKS

There are two types of checks: soft checks and hard checks.

A *soft* check is a warning that appears when the value entered is extreme or unlikely. It can be suppressed by the interviewer without changing the value entered.

A *hard* check is a warning that appears when the value entered is impossible. A hard check cannot be suppressed by the interviewer without changing the value entered.

DEMOGRAPHICS MODULE CHECKS

IF Whether today's date is shown correctly = Yes [DateOK = 1]

| **CHECK N1 (Soft)**

| CHECK: date of interview <> automatically recorded date of interview

| [NurDate <> MachDate]

| | Are you sure? You previously entered the date of interview as [^MachDate:
| | automatically recorded date of interview].

| | If [^MachDate: automatically recorded date of interview] is the correct date of
| | interview, please change to this.

| | Else, press <S> to continue.

| END CHECK

END FILTER

IF Checking respondent's date of birth - year <> EMPTY [NDoBY <> EMPTY]

| **CHECK N2 (Soft)**

| CHECK: date of birth (derived) = EMPTY [NDoB = EMPTY]

| | Please enter the day, month and year of a valid date.

| | If any of these are really unknown, suppress this warning.

| END CHECK

END FILTER

IF Checking respondent's date of birth - year = RESPONSE [NDoBY = RESPONSE]

| **CHECK N3 (Hard)**

| CHECK: date of birth (derived) > date of interview [NDoB > NurDate]

| | NURSE: This date of birth is after the date you have entered for today's date.

| | Please change one or the other.

| END CHECK

| *IF Date of birth = RESPONSE [DOB = RESPONSE]*

| **CHECK N4 (Soft)**

| CHECK: date of birth (derived) <> date of birth (recorded) [NDoB <> DOB]

| | NURSE: The interviewer recorded [^DoB: date of birth (recorded)] as the date of birth, please query.

| | Then either amend the date of birth which you entered, or suppress this warning and explain in a note <Ctrl M>.

| END CHECK

| END FILTER

| **CHECK N5 (Soft)**

| CHECK: age of respondent (confirmed) > 99 [ConfAge > 99]

| | This gives an age of [^ConfAge: age of respondent (confirmed)] years old, please check.

| END CHECK

| END FILTER

| *IF (Age of respondent (confirmed) = RESPONSE) AND (Age of respondent >= 1) [(DispAge = RESPONSE) AND (RAge >= 1)]*

| **CHECK N6a (Soft)**

| CHECK: age of respondent (from household grid) <> age of respondent (confirmed) [(RAge <> ConfAge)

| | NURSE: You recorded the age as [^RAge: age of respondent (from household grid)] in the Household Grid, please query.

| | Then either amend the date of birth which you entered, or suppress this warning and explain in a note <Ctrl M>.

| END CHECK

| END FILTER

| **CHECK N6b (Hard)**

| CHECK: Whether age of respondent (confirmed) is right <> Yes [DispAge <> 1]

| | NURSE: Press <Enter> and sort out the correct date of birth.

| END CHECK

| **PRESCRIBED MEDICATIONS AND DRUG CODING MODULE CHECKS**

| **CHECK N7a (Hard)**

CHECK: Whether drug code length is 6 digits]

| NURSE: The drug code is a six digit number. Please enter it using only the digits 0-9

| END CHECK

CHECK N7b (Hard)

CHECK: Whether drug code is valid based on the look up table of codes from the codeframe]

| NURSE: Please check, this drug code doesn't seem to be valid.

| END CHECK

CHECK N7c (Soft)

CHECK: Whether drug code = 020102 OR 021001 OR 021002]

| NURSE: Are you sure? This code is used for acute hospital treatment of heart attack. Please check your coding.

| END CHECK

BLOOD PRESSURE MODULE CHECKS

IF Whether respondent has done anything that will affect their BP measurement = None [CONSUBX = 5]

CHECK N8 (Hard)

| CHECK: (whether respondent has done anything that will affect their BP measurement = none of these) AND (whether respondent has done anything that will affect their BP measurement = at least one other answer)

| [ConSubX.CARDINAL <> 1]

| ConSubX: '(None of these)' is an exclusive category.

| END CHECK

END FILTER

CHECK N9 (Soft)

CHECK: *(Done anything that will affect BP in last 30 minutes = eaten, smoked, drunk alcohol, or done exercise) [(ConSubX=1,2,3 or 4]*

| NURSE: This could affect their blood pressure measurements. If possible see other members of the household first in order to give time for the effects to wear off. If you ARE able to do this please change answer here to 5 (None of these).

| END CHECK

IF (ambient air temperature (centigrades) = RESPONSE) [AirTemp = RESPONSE]

CHECK N10 (Soft)

CHECK: Air temperature: decimal point = 0 [FRAC(AirTemp) = 0]

Please record air temperature with one decimal digit, using the full stop as decimal point. If the decimal is zero, suppress this warning and continue.

END CHECK

CHECK N11 (Soft)

CHECK: (air temperature > 25) OR (air temperature < 15)
[(AirTemp > 25) OR (AirTemp < 15)]

Please check, is very unusual for the room temperature to be more than 25 centigrades or less than 15 centigrades. If this temperature is correct, please try to alter it before taking blood pressure readings.

END CHECK

END FILTER

CHECK N12 (Hard)

CHECK: (BP: systolic reading <> [51 - 299, 844, 996, 999]) AND (BP: systolic reading = RESPONSE)

[(Sys <> [51 - 299, 844, 996, 999]) AND (Sys = RESPONSE)]

Systolic reading should be between 51 and 299 or 844 or 999.

END CHECK

CHECK N13 (Hard)

CHECK: (BP: diastolic reading <= 31) AND (BP: diastolic reading = RESPONSE)

[(Dias <= 31) AND (Dias = RESPONSE)]

Diastolic should be more than 31.

END CHECK

CHECK N14 (Hard)

CHECK: (BP: diastolic reading > 199) AND (BP: diastolic reading <> [844, 999])

[(Dias > 199) AND (Dias <> 844, 999)]

Diastolic should be less than 200 or 844 or 999.

END CHECK

CHECK N15 (Hard)

CHECK: (BP: pulse reading < 30) AND (BP: pulse reading = RESPONSE)

[(Pulse < 30) AND (Pulse = RESPONSE)]

| Pulse should be more than 29.

|
END CHECK

CHECK N16 (Hard)

CHECK: (BP: pulse reading <> [30 .. 160, 844, 999]) AND (BP: pulse reading = RESPONSE)

[(Pulse <> [30 - 160, 844, 999]) AND (Pulse = RESPONSE)]

| Pulse should be between 30 and 160 or 844 or 999.

|
END CHECK

CHECK N17 (Soft)

CHECK: (BP: pulse reading <= 48) AND (BP: pulse reading = RESPONSE)

[(Pulse <= 48) AND (Pulse = RESPONSE)]

| This Pulse reading is rather low. Please double check.

|
END CHECK

CHECK N18 (Soft)

CHECK: (BP: pulse reading <> [1 .. 110, 844, 999]) AND (BP: pulse reading = RESPONSE)

[(Pulse <> [1 - 110, 844, 999]) AND (Pulse = RESPONSE)]

| This Pulse reading is rather high. Please double check.

|
END CHECK

CHECK N19 (Soft)

CHECK: (BP: systolic reading < 90) AND (BP: systolic reading = RESPONSE)

[(Sys < 90) AND (Sys = RESPONSE)]

| This Systolic reading is rather low. Please double check.

|
END CHECK

CHECK N20 (Soft)

CHECK: (BP: systolic reading > 250) AND (BP: systolic reading <> [844, 996, 999])

[(Sys > 250) AND (Sys <> [844, 996, 999])]

| This Systolic reading is rather high. Please double check.

|
END CHECK

CHECK N21 (Soft)

CHECK: (BP: diastolic reading < 60) AND (BP: diastolic reading = RESPONSE)

[(Dias < 60) AND (Dias = RESPONSE)]

| This Diastolic reading is rather low. Please double check.

END CHECK

CHECK N22 (Soft)

CHECK: (BP: diastolic reading > 130) AND (BP: diastolic reading <> [844, 999])
[(Dias > 130) AND (Dias <> [844, 999])]

This Diastolic reading is rather high. Please double check.

END CHECK

*IF (BP: systolic reading = [1 - 843, 845 - 995]) AND (BP: pulse reading = [1 - 843, 845 - 998]) AND (BP: diastolic reading = [1 - 843, 845 - 998])
[(Sys = [1 - 843, 845 - 995]) AND (Pulse = [1 - 843, 845 - 998]) AND
(Dias = [1 - 843, 845 - 998])]*

*IF (BP: systolic reading = [1 - 843]) AND (BP: diastolic reading = [1 - 843])
[(Sys = [1 - 843]) AND (Dias = [1 - 843])]*

CHECK N23 (Hard)

CHECK: BP: systolic reading <= BP: diastolic reading [Sys <= Dias]

Systolic reading must be greater than diastolic reading. Go back and amend.

END CHECK

END FILTER

END FILTER

*IF (Number of BP reading = [2, 3]) AND ((BP: First systolic reading < 844)
AND (BP: First diastolic reading < 844))
[((I = [2, 3]) AND (Sys[I] < 844) AND (Dias[I] < 844))]*

*IF ((Previous systolic reading < 844) AND (Previous diastolic reading < 844))
[((Sys[I-1] < 844) AND (Dias[I-1] < 844))]*

CHECK N24 (Soft)

CHECK: Absolute difference between two systolic readings >= 40
[ABS (BPRRead[I].Sys - BPRRead[I-1].Sys) >= 40]

The difference between the two systolic readings is equal to or more than 40mmHg. Please check you have entered the readings correctly.

END CHECK

CHECK N25 (Soft)

CHECK: Difference between two diastolic readings >= 30
[ABS (BPRRead[I].Dias - BPRRead[I-1].Dias) >= 30]

The difference between the two diastolic readings is equal to or more than

| | | 30mmHg. Please check you have entered the readings correctly.
| | |
| | END CHECK
| |
| | END FILTER
| |
| END FILTER

IF Whether any difficulty with taking BP measurements = no problems (DifBPC = 1)

| | **CHECK N26 (Hard)**
| | CHECK: (difficulty with taking BP measurements = no difficulty) AND (difficulty with
| | taking BP measurements = at least one other answer) [DifBPC.CARDINAL <> 1]
| |
| | DifBPC: code 1 is exclusive for this question.
| |
| | END CHECK
| |
| END FILTER

GRIP STRENGTH MODULE CHECKS

IF First measurement with dominant hand = RESPONSE [MMGSD1 = RESPONSE]

| | **CHECK N27 (Soft)**
| | CHECK: First measurement with dominant hand > 65 [MMGSD1 > 65]
| |
| | NURSE: Are you sure? This reading (^MMGSD1: First measurement with
| | dominant hand) is very high!
| |
| | END CHECK
| |
| END FILTER

*IF Second measurement with dominant hand = RESPONSE
[MMGSD2 = RESPONSE]*

| | **CHECK N28 (Soft)**
| | CHECK: Second measurement with dominant hand > 65 [MMGSD2 > 65]
| |
| | NURSE: Are you sure? This reading (^MMGSD2: Second measurement with
| | dominant hand) is very high!
| |
| | END CHECK
| |
| END FILTER

IF Third measurement with dominant hand = RESPONSE [MMGSD3 = RESPONSE]

|
| **CHECK N29 (Soft)**
| CHECK: Third measurement with dominant hand > 65 [MMGSD3 > 65]
|
| NURSE: Are you sure? This reading (^MMGSD3: Third measurement with
| dominant hand) is very high!
|
| END CHECK
|
END FILTER

IF First measurement with non-dominant hand = RESPONSE
[MMGSN1 = RESPONSE]

|
| **CHECK N30 (Soft)**
| CHECK: First measurement with non-dominant hand <= 65 [MMGSN1 <= 65]
|
| NURSE: Are you sure? This reading (^MMGSN1: First measurement with
| non-dominant hand) is very high!
|
| END CHECK
|
END FILTER

[MMGSN2 = RESPONSE]

|
| **CHECK N31 (Soft)**
| CHECK: Second measurement with non-dominant hand <= 65 [MMGSN2 <= 65]
|
| NURSE: Are you sure? This reading (^MMGSN2: Second measurement with
| non-dominant hand) is very high!
|
| END CHECK
|
END FILTER

IF Third measurement with non-dominant hand = RESPONSE
[MMGSN3 = RESPONSE]

|
| **CHECK N32 (Soft)**
| CHECK: Third measurement with non-dominant hand > 65 [MMGSN3 > 65]
|
| NURSE: Are you sure? This reading (^MMGSN3: Third measurement with non-
| dominant hand) is very high!
|
| END CHECK
|
END FILTER

*IF (Second measurement with dominant hand = RESPONSE) AND (First
measurement with dominant hand = RESPONSE)*

[(MMGSD2 = RESPONSE) AND (MMGSD1 = RESPONSE)]

CHECK N33 (Soft)

CHECK: ((First measurement with dominant hand - Second measurement with dominant hand) > 20) OR ((Second measurement with dominant hand - First measurement with dominant hand) >20)

[(MMGSD1 - MMGSD2) > 20) OR ((MMGSD2 - MMGSD1) > 20)]

NURSE: Please check you have entered the correct value!

END CHECK

END FILTER

IF (Third measurement with dominant hand = RESPONSE) AND (First measurement with dominant hand = RESPONSE)

[(MMGSD3 = RESPONSE) AND (MMGSD1 = RESPONSE)]

CHECK N34 (Soft)

CHECK: ((First measurement with dominant hand - Third measurement with dominant hand) > 20) OR ((Third measurement with dominant hand - First measurement with dominant hand) >20)

[(MMGSD1 - MMGSD3) > 20) OR ((MMGSD3 - MMGSD1) > 20)]

NURSE: Please check you have entered the correct value!

END CHECK

END FILTER

IF (Third measurement with dominant hand = RESPONSE) AND (Second measurement with dominant hand = RESPONSE)

[(MMGSD3 = RESPONSE) AND (MMGSD2 = RESPONSE)]

CHECK N35 (Soft)

CHECK: ((Second measurement with dominant hand - Third measurement with dominant hand) > 20) OR ((Third measurement with dominant hand - Second measurement with dominant hand) > 20)

[(MMGSD2 - MMGSD3) > 20) OR ((MMGSD3 - MMGSD2) > 20)]

NURSE: Please check you have entered the correct value!

END CHECK

END FILTER

IF (Second measurement with non-dominant hand = RESPONSE) AND (First measurement with non-dominant hand = RESPONSE)

[(MMGSN2 = RESPONSE) AND (MMGSN1 = RESPONSE)]

CHECK N36 (Soft)

| CHECK: ((First measurement with non-dominant hand - Second measurement with
| non-dominant hand) > 20) OR ((Second measurement with non-dominant hand -
| First measurement with non-dominant hand) >20)
| [(MMGSN1 - MMGSN2) > 20) OR ((MMGSN2 - MMGSN1) > 20)]
| |
| | NURSE: Please check you have entered the correct value!
| |
| END CHECK
|
END FILTER

*IF (Third measurement with non-dominant hand = RESPONSE) AND (First
measurement with non-dominant hand = RESPONSE)
[(MMGSN3 = RESPONSE) AND (MMGSN1 = RESPONSE)]*

| **CHECK N37 (Soft)**
| CHECK: ((First measurement with non-dominant hand - Third measurement with
| non-dominant hand) > 20) OR ((Third measurement with non-dominant hand - First
| measurement with non-dominant hand) >20)
| [(MMGSN1 - MMGSN3) > 20) OR ((MMGSN3 - MMGSN1) > 20)]
| |
| | NURSE: Please check you have entered the correct value!
| |
| END CHECK
|
END FILTER

*IF (Third measurement with non-dominant hand = RESPONSE) AND (Second
measurement with non-dominant hand = RESPONSE)
[(MMGSN3 = RESPONSE) AND (MMGSN2 = RESPONSE)]*

| **CHECK N38 (Soft)**
| CHECK: ((Second measurement with non-dominant hand - Third measurement
| with non-dominant hand) > 20) OR ((Third measurement with non-dominant hand -
| Second measurement with non-dominant hand) > 20)
| [(MMGSN2 - MMGSN3) > 20) OR ((MMGSN3 - MMGSN2) > 20)]
| |
| | NURSE: Please check you have entered the correct value!
| |
| END CHECK
|
END FILTER

BLOOD SAMPLE MODULE CHECKS

CHECK N39 (Soft)

CHECK: Blood sample: whether has a clotting disorder = Yes [ClotB = 1]

| NURSE: You have coded that the respondent has a clotting / bleeding disorder or
| is taking anti-coagulant drugs. This means that no blood is to be taken.

| Is this correct?
| If yes suppress this warning and continue. If no, go back and code 2.
|
END CHECK

CHECK N40 (Hard)

CHECK: date when last had anything to eat or drink > date at start of Blood module
[DateLEat > BDate]

| Please check, you have entered a future date.
|

END CHECK

CHECK N41 (Soft)

CHECK: date when last had anything to eat or drink > two days before date at start of
Blood module [DateLEat < (BDate-(0, 0, 2))]

| Please check, that is more than 24 hours ago.
| If respondent has not eaten/drunk anything in the last 24 hours please explain in a
| note.
|

END CHECK

CHECK N42 (Soft)

CHECK: time when last had anything to eat or drink <= time at start of Blood
module [TimeLEat <= BTime]

| Please check, you seem to have entered a future time.
| If time is correct please explain in a note why this has occurred.
|

END CHECK

*IF ((Whether citrate blue tube was filled = No) OR (Whether plain red tube was filled =
No) OR (Whether fluoride grey tube was filled = No) OR (Whether (first) EDTA purple
tube was filled = No) OR (Whether second EDTA purple tube was filled = No) OR
(Whether third EDTA purple tube was filled = No))
[((SampF1 = 2) OR (SampF2 = 2) OR (SampF3 = 2) OR (SampF4 = 2) OR (SampF5 =
2) OR (SampF6 = 2))]*

CHECK N43 (Soft)

CHECK: Whether any problems in taking sample = no problem [(SamDifC = 1)]

| You should not code 'No problems' as you did not fill all six tubes.
| Please amend or explain in a note <Ctrl M>.
|

END CHECK

END FILTER

CHECK N44 (Hard)

CHECK: (Whether any problems in taking sample = no problem) AND (Whether any problems in taking sample = at least one other answer)

[SamDifC.CARDINAL <> 1]

| If code 1 'No problem' is used then no other codes are allowed.

END CHECK

STANDING HEIGHT MODULE CHECKS

IF Standing height - centimeters = RESPONSE [Height = RESPONSE]

CHECK N45 (Soft)

CHECK: (Standing height: decimal point = 0 [(FRAC (Height) = 0)])

| Please record height with one decimal digit, using the full stop as decimal point.

| If the decimal is zero, suppress this warning and continue.

END CHECK

CHECK N46 (Soft)

CHECK: ((Standing height < Lower limit*) OR (Standing height > Upper limit*))

| [(Height < HtLow) OR (Height > HtHigh)]

| This person's height is [^Foot] feet [^Inch] inches. Is this correct?

| If correct, suppress this warning.

END CHECK

END FILTER

	Male	Female
*Lower limit - HtLow	165 - 0.132*HHAge	155.5 - 0.158*HHAge
*Upper limit - HtHigh	193 - 0.118*HHAge	179.1 - 0.132*HHAge

IF (Whether estimated standing height will be in metric or imperial measures = RESPONSE) AND ((Estimated standing height - feet = RESPONSE) OR (Estimated standing height - inches = RESPONSE) OR (Estimated standing height - metres = RESPONSE)) AND (Final measured / estimated standing height - cm = RESPONSE) [(EHtCh = RESPONSE) AND ((EHtFt = RESPONSE) OR (EHtIn = RESPONSE) OR (EHtm = RESPONSE))] AND (EstHt = RESPONSE)]

CHECK N47 (Soft)

CHECK: ((Estimated standing height < Lower limit*) OR (Estimated standing height > Upper limit*))

| [(EstHt < HtLow) OR (EstHt > HtHigh)]

| This person's height is [^Foot] feet [^Inch] inches. Is this correct?

| | If correct, suppress this warning.
 | |
 | END CHECK
 |
 END FILTER

	Male	Female
*Lower limit - HtLow	165 - 0.132*HHAge	155.5 - 0.158*HHAge
*Upper limit - HtHigh	193 - 0.118*HHAge	179.1 - 0.132*HHAge

WEIGHT MODULE CHECKS

IF Weight = RESPONSE [Weight = RESPONSE]

CHECK N52 (Soft)

CHECK: (Weight: decimal point = 0) [(FRAC (Weight) = 0)]

| Please record weight with one decimal digit, using the full stop as decimal point.
 | If the decimal is zero, suppress this warning and continue.

END CHECK

CHECK N53 (Soft)

CHECK: Weight = 130 [Weight = 130]

| You have recorded the weight as exactly 130.0 kg. Is this the actual weight, or
 | should you have entered an estimate?
 | If correct, press <S> to suppress this warning.

END CHECK

CHECK N54 (Soft)

CHECK: ((Weight < Lower limit*) OR (Weight > Upper limit*))
 [((Weight < WtLow) OR (Weight > WtHigh))]

| This person's weight is [^Stone] stones [^Pound] pounds. Is this correct?
 | Press <S> to suppress this warning.

END CHECK

END FILTER

	Male	Female
*Lower limit - WtLow	0.039*HHAge + 52.37	0.043*HHAge + 40.32
*Upper limit - WtHigh	0.02*HHAge + 102.18	0.0375*HHAge + 89.4

IF (Reason for not obtaining weight measurement = respondent weighs more than 130 kg) AND ((Estimated weight - stone = RESPONSE) OR (Estimated weight - kg = RESPONSE)) AND (Final measured or estimated weight - kg = RESPONSE) [(NoWtBC = 6) AND ((EWtSt = RESPONSE) OR (EWtkg = RESPONSE)) AND (EstWt = RESPONSE)]

CHECK N55 (Soft)

CHECK: Final measured or estimated weight <= 130 [EstWt <= 130]

Earlier the respondent was coded as being heavier than 130 kg (20 ½ stones). Please change estimated weight or NoWtBC.

END CHECK

END FILTER

IF (Whether estimated weight will be in metric or imperial measures = RESPONSE) AND ((Estimated weight - stone = RESPONSE) OR (Estimated weight - pounds = RESPONSE) OR (Estimated weight - kg = RESPONSE)) AND (Final measured or estimated weight - kg = RESPONSE) [(EWtCh = RESPONSE) AND ((EWtSt = RESPONSE) OR (EWtL = RESPONSE) OR (EWtkg = RESPONSE)) AND (EstWt = RESPONSE)]

CHECK N56 (Soft)

CHECK: ((Estimated weight < Lower limit*) OR (Estimated weight > Upper limit*)) [((EstWt < WtLow) OR (EstWt > WtHigh))]

This person's weight is [^Stone] stones [^Pound] pounds. Is this correct? If correct, press <S> to suppress this warning.

END CHECK

END FILTER

	Male	Female
*Lower limit - WtLow	0.039*HHAge + 52.37	0.043*HHAge + 40.32
*Upper limit - WtHigh	0.02*HHAge + 102.18	0.0375*HHAge + 89.4

WAIST MEASUREMENT MODULE CHECKS

CHECK N57 (Hard)

CHECK: Waist measurement = 1000 [Waist = 1000]

1000 is above the valid range, please amend.
IF (Waist < 999) THEN WInch := Waist / 2.54

END CHECK

CHECK N59 (Soft)

CHECK: (Waist measurement <> [50 - 150]) AND (Waist measurement <> 999.9)
[(Waist <> [50 - 150]) AND (Waist <> 999.9)]

| Are you sure?

END CHECK

IF (First waist measurement <> measurement not obtained) AND (Second waist measurement <> measurement not obtained)
[(DoneWst <> 1) AND (Waist1 <> 999.9) AND (Waist2 <> 999.9)]

CHECK N61 (Soft)

CHECK: Absolute difference between two waist measurements > 3 cm

[ABS (Waist1 - Waist2) > 3]

| NURSE: The waist measurements are more than 3 cm apart. (^Waist1 / ^Waist2).
| If you have entered the measurement wrongly, please go back and amend.
| Otherwise, press <S> and take a third measurement.

END CHECK

END FILTER

IF (First hip measurement <> measurement not obtained) AND (Second hip measurement <> measurement not obtained)
[(DoneHip <> 1) AND (Hip1 <> 999.9) AND (Hip2 <> 999.9)]

CHECK N62 (Soft)

CHECK: Absolute difference between two hip measurements > 3 cm

[ABS (Hip1 - Hip2) > 3]

| NURSE: the Hip measurements are more than 3 cm apart. (^Hip1 / ^Hip2).
| If you have entered the measurement wrongly, please go back and amend.
| Otherwise, press <S> and take a third measurement.

END CHECK

END FILTER

REPEAT FOR ALL MEASUREMENTS [LOOP FOR I:= 1 TO 3]

| *IF Waist measurement = RESPONSE [Waist = RESPONSE]*

CHECK N63 (Soft)

CHECK: Waist measurement: decimal point = 0 [FRAC (Waist) = 0]

| Please record waist measurement with one decimal digit, using the full stop
| as decimal point. If the decimal is zero, suppress this warning and continue.

END CHECK

```
| |
| | END FILTER
| |
| | IF Hip measurement = RESPONSE [Hip = RESPONSE]
```

CHECK N64 (Soft)

CHECK: Hip measurement: decimal point = 0 [FRAC (Hip) = 0]

| | Please record hip measurement with one decimal digit, using the full stop
| | as decimal point. If the decimal is zero, suppress this warning and continue.

| | END CHECK

| | END FILTER

END OF LOOP

CHECK N65 (Soft)

CHECK: (First waist measurement = Second waist measurement) AND (First waist
measurement <> 999.9)

[(Waist1 = Waist2) AND (Waist1 <> 999.9)]

| The two measurements are exactly the same. Is this correct?

END CHECK

LUNG FUNCTION MODULE CHECKS

CHECK N67 (Soft)

CHECK: Air temperature: decimal point = 0 [FRAC (LFTemp) = 0]

| NURSE: Please record the temperature with one decimal digit, using the full stop
| as decimal point. If the decimal is zero, suppress this warning and continue.

END CHECK

CHECK N68 (Soft)

CHECK: (FVC reading (litres) > 7) AND (FVC reading (litres) <> 9.95)

[(FVC > 7) AND (FVC <> 9.95)]

| Are you sure? This value seems a bit high.

END CHECK

CHECK N69 (Soft)

CHECK: (FVC reading (litres): decimal point = 0) AND (FVC reading (litres) <> 0)

[(FRAC (FVC) = 0) AND (FVC <> 0)]

| Please record the value with one decimal digit, using the full stop as decimal point.
| If the decimal is zero, suppress this warning and continue.

END CHECK

CHECK N70 (Soft)

CHECK: FEV reading (litres) > 7 [FEV > 7]

| Are you sure? This value seems a bit high.

END CHECK

CHECK N71 (Soft)

CHECK: (FEV reading (litres): decimal point = 0) AND (FEV reading (litres) <> 0)
[(FRAC (FEV) = 0) AND (FEV <> 0)]

| Please record the value with one decimal digit, using the full stop as decimal point.
| If the decimal is zero, suppress this warning and continue.

END CHECK

CHECK N72 (Hard)

CHECK: FEV reading (litres) > 9.95 [FEV > 9.95]

| FEV must be less than 9.95. Please correct.

END CHECK

CHECK N73 (Soft)

CHECK: (FVC reading (litres) = FEV reading (litres)) AND (FEV reading (litres) <> 0)
[(FVC <> FEV) AND (FEV <> 0)]

| Are you sure? Both values are the same.

END CHECK

CHECK N74 (Soft)

CHECK: (FVC reading (litres) <= FEV reading (litres)) AND (FVC <> 0)
[(FVC <= FEV) AND (FVC <> 0)]

| This is incorrect, FEV must be less than FVC. Please try again.

END CHECK

CHECK N75 (Soft)

CHECK: PF reading (litres per minute) > 700 [PF > 700]

| Are you sure? This value seems a bit high.

END CHECK

CHECK N76 (Hard)

CHECK: PF reading (litres per minute) > 995 [PF > 995]

| PF must be less than 995. Please correct.

END CHECK

IF Lung Function Measurement order = 1 [PLoop = 1]

CHECK N77 (Soft)

CHECK: (FVC reading (litres) <= 0) OR (FEV reading (litres) <= 0) OR (PF reading (litres per minute) <= 0) [(FVC<= 0) OR (FEV <= 0) OR (PF <= 0)]

| If you are not going to obtain any readings at all please enter '9.95' at FVC.

END CHECK

END FILTER

IF (Whether technique for all three measurements was satisfactory = Yes)

[(Techni1 = 1) AND (Techni2 = 1) AND (Techni3 = 1)]

CHECK N78 (Hard)

CHECK: How many technically correct blows were obtained <> All [LFResp <> 1]

| All blows were correct technique. LFResp should be code 1.

END CHECK

ELSE

CHECK N79 (Hard)

CHECK: How many technically correct blows were obtained = All [LFResp = 1]

| Some blows were not correct technique. LFResp cannot be code 1.

END CHECK

END FILTER

IF Whether technique for at least one measurement was satisfactory = Yes

[(Techni1 = 1) OR (Techni2 = 1) OR (Techni3 = 1)]

CHECK N80 (Hard)

CHECK: How many technically correct blows were obtained = [All, some]
[LFResp = [1, 2]]

| LFResp should be code 2 as some blows were correct technique.

END CHECK

|
| *ELSE IF Whether technique for all three measurements was satisfactory = No*
| *[(Techni1 = 2) AND (Techni2 = 2) AND (Techni3 = 2)]*

| **CHECK N81 (Hard)**

| CHECK: How many technically correct blows were obtained = Some [LFResp = 2]

| | None of the blows were correct technique. LFResp cannot be code 2.

| END CHECK

| END FILTER

BALANCE MODULE CHECKS

| **CHECK N82(Hard)**

| CHECK: Time full tandem stand held (seconds) \geq [$^30 / 10$] [MmFTTi \geq [$^30 / 10$]]

| | NURSE: This is more than [$^30 / 10$] seconds. Please re-enter time if is less than
| | [$^30 / 10$] seconds, otherwise arrow back to MmFTRe and enter code 1.

| END CHECK

CHAIR RISE MODULE CHECKS

| *IF Time to complete five rises (seconds) = RESPONSE*
| *[MmRRFTi = RESPONSE]*

| **CHECK N83 (Soft)**

| CHECK: Time to complete five chair rises (seconds) $<$ 5 [MmRRFTi $<$ 5]

| | Are you sure? This time seems rather low.
| | Please check and amend your coding if necessary.

| END CHECK

| **CHECK N84 (Soft)**

| CHECK: Time to complete five chair rises (seconds) $>$ 20 [MmRRFTi $>$ 20]

| | Are you sure? This time seems rather high.
| | Please check and amend your coding if necessary.

| END CHECK

| END FILTER

*IF Time to complete ten rises (seconds) - only eligible if under 70 yrs =
RESPONSE [MMRRTTi = RESPONSE]*

CHECK N85 (Soft)

CHECK: Time to complete ten chair rises (seconds) < 10 [MMRRTTi < 10]

| Are you sure? This time seems rather low.
| Please check and amend your coding if necessary.

END CHECK

CHECK N86 (Soft)

CHECK: Time to complete ten chair rises (seconds) > 40 [MMRRTTi > 40]

| Are you sure? This time seems rather high.
| Please check and amend your coding if necessary.

END CHECK

END FILTER

*IF (Time to complete ten rises (seconds) - only eligible if under 70 yrs =RESPONSE)
AND (Time to complete five rises (seconds) = RESPONSE)
[(MMRRTTi = RESPONSE) AND (MmRRFTi = RESPONSE)]*

CHECK N87 (Hard)

CHECK: Time to complete ten chair rises (seconds) <= Time to complete five chair
rises (seconds) [(MMRRTTi <= MmRRFTi)]

| This time should be greater than the time recorded to complete five rises.
| Please amend.

END CHECK

END FILTER