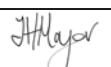


# Standard Operating Procedure

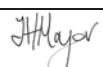
## Clinical Protocol - Medical Assessments

**SOPMED002S**

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure		Author
	<b>SOPMED002S - Clinical Protocol for Medical Assessment</b>		<b>Jemma Major</b>
	Version	Operations Approval	QA Approval
	v04.12.25		

## Contents

Page	Section	Title
3	1	Purpose
3	2	Scope
3	3	Health & Safety
3	4	Responsible Person(s)
4	5	References
4	6	Previous SOP Versions
4	7	Associated Documents & Forms
5		Pre Assessment preparation
6		Clinical Protocol
		Section1 Candidate Details
		Section2 Questionnaire & Medical Requirements
7-8		Section 3 General Health
9		Section 4 Advice Leaflets
		Section 5 Mobility, Balance & Coordination
10-11		Section 6 Vision Assessment
11- 12		Section 7 Hearing Assessment
12		Section 8 Medications
13		Section 9 Clinical Notes

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure		Author <b>Jemma Major</b>
	SOPMED002S - Clinical Protocol for Medical Assessment		
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	v04.12.25		

## 1. Purpose

The purpose of the procedure is to provide detailed instruction on the process adopted by Crystal Health Group to deliver 'Competence Specific Medical Assessments' that meet the requirements of the relevant rail standard. Safety Critical medicals will follow the same protocol.

## 2. Scope

The procedure covers the process for conducting the clinical examination of medical assessments, including Height, Weight, BMI, Blood Pressure, Pulse, Urine Screening and Medication review and assessment of Mobility, Balance & Co-ordination; Alertness & Psychological Wellbeing and Speech & Ability to communicate, and the use & maintenance of the equipment used in the process.

## 3. Health & Safety

All tasks and activities associated with this SOP comply with Crystal Health Group's Health & Safety Policy.

## 4. Responsible Person(s)

**Medical Examiner (OHT)** - A health professional who is responsible for performing medical assessments under the delegated authority of the Responsible Occupational Physician.

- Confirm the identity of the candidate and obtain their written, informed consent to undergo the medical assessment, which is freely given following explanation of the Competence Specific Medical process.
- Carry out the 'Competence Specific Medical Assessment' according to their training and the instructions detailed in this document.
- Provide a complete and accurate record of the clinical examinations and assessment results.
- Uphold high professional standards, respecting the dignity and confidentiality of the candidate and conducting clinical examinations according to the instruction and training provided.
- Ensure the equipment used to conduct the medical assessment is in good working order, within its recommended calibration and used and stored in accordance with the training and manufacturer's instructions.

**Reviewing OHT** An OHT who has received additional training in Network rail standard & Safety Critical Worker (SCW) requirements for awarding fitness levels (Internal CHG staff only)

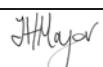
- Review all assessments and questionnaires to award a level 1 or 3 certificate (SCW Fit or Unfit) where possible.
- Where necessary request additional information from candidates GP/Optician to support referral and initiate referral with ROP.
- Following the guidance contained in SOPMED001A, escalate cases to the Responsible Occupational Physician where there is any doubt that the candidate meets the medical fitness standards.

**Responsible Occupational Physician (ROP)**- An accredited specialist in occupational medicine who has the knowledge, experience, skills and understanding relevant to occupational health practice in the railway industry.

- Provide clinical supervision of the service and ensure the competence of medical examiners through the audit of 5% randomly selected cases completed by each Medical Examiner per annum.
- On receipt of referrals, advise on medical fitness to carry out safety critical competence specific duties.

### Clinical Advisor / Administrator

- Schedule medical assessment appointments ensuring candidates have a sponsor and are provided with the relevant information for attending the appointment.
- Maintain a record of the screening on Swiftcase.
- Report the outcome of the assessment to the employer and Sentinel in accordance with the instructions and timescales identified in SOPMED001A.
- Monitor & coordinate referral and complete results in line with SOPMED001A

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure		Author
	SOPMED002S - Clinical Protocol for Medical Assessment		Jemma Major
	Version	Operations Approval	QA Approval
	v04.12.25		

## 5. References

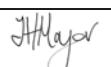
NR/L2/OHS/00124 Competence specific medical fitness requirements and occupational health provider requirements for medical assessments  
Medical Fitness Assessment RIS 3789 TOM  
PDF-06-01-2013-06 Sentinel Guide - Introduction For Medical Providers  
PDF-06-02-2013-06 Sentinel Guide – How To Record Medical Results  
PDF-06-04-2013-06 Sentinel Guide -How To View Medical Certificates / DA Certificates  
PDF-06-05-2013-06 Sentinel Guide - How To Manage My Account

## 6. Previous SOP Version

Previous Version	Changes	Effective Date
New version combining all word format clinical protocols General Health-v03.09.22 Vision- v02.09.22 Hearing- v03.10.21	<ul style="list-style-type: none"><li>changed from word to Indesign format</li><li>all clinical protocols incorporated into this SOP</li><li>Addition of warning for BP&gt;180/110</li><li>All admin &amp; reviewing information transferred to separate SOPMED001A</li></ul>	
v01.11.23	<ul style="list-style-type: none"><li>removal of GO/GN3655 -RSSB replaced by Medical Fitness Assessment RIS 3789 TOM</li><li>change to footer format</li></ul>	10.03.25
v02.03.25	<ul style="list-style-type: none"><li>adapted to generic wording to incorporate SCW medicals which will follow PTS protocol</li><li>RFI request &amp; ROP initiation tasked to reviewing OHT.</li><li>Lower pulse rate parameter increased to 60 at ROP request</li><li>Addition of Otosure audiometer instructions</li></ul>	13.11.25
v03.11.25	<ul style="list-style-type: none"><li>comparative colour vision testing updated to account for plates being mixed up</li></ul>	22.12.25

## 7. Associated Documents & Forms

- Medical Questionnaire and Consent
- Medical Assessment Record – Network Rail
- Epworth Sleep Questionnaire
- HADS Questionnaire
- Quick reference guides
- Medical assessment equipment list

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure		Author <b>Jemma Major</b>
	Version	Operations Approval	
	v04.12.25		

The below information relates to PTS medicals and Safety Critical Worker medicals (SCW) which follow the same process and include the same clinical tasks.

Any company wishing to supply products or services to the rail industry must be RISQS accredited. Crystal Health Group will be annually audited by RISQS (Rail Industry Supplier Qualification Scheme) to ensure we meet the standards required and set by Network Rail for delivering medical screening services.

Any individual wishing to work on the rail infrastructure must have a PTS (Personal Track Safety) medical assessment and Drug & Alcohol screen prior to commencing training or work. Sentinel is the database which stores an individual's competence and fitness to work. Crystal Health Group upload all results directly to the Sentinel database.

When conducting a PTS medical assessment you must consider specific risks for rail workers. For example, colour blindness would impact an individual's ability to distinguish coloured signs. Less obvious risks such as fatigue or side effects from medications must be considered and are also important when deciding on the Level of competence being awarded.

SCW medicals adopt the same principles and use DVLA Group 2 standards as guidance- D&A testing is optional.

Individuals should not be suffering from medical conditions, or be taking any medical treatment, likely to cause:

- sudden loss of consciousness;
- impairment of awareness or concentration;
- sudden incapacity;
- temporary visual impairment;
- impairment of balance or co-ordination; or
- significant limitation of mobility.

The above should be considered at all times when conducting medical screening and any concerns documented.

## Pre-assessment preparation

### Confidentiality

Confidentiality must be maintained at all times. You must not discuss any element of the medical examination, including test outcomes / results with anyone other than the candidate or another CHG member of staff, who requires information to perform their duties. Employers, managers or sponsors are not entitled to this information. The Medical Examiner will be responsible for transporting medical records to CHG Head Office. Whilst transporting the medical records, the Medical Examiner will ensure the records are kept in the locked boot of a car and out of sight. Medical records will not be left in the vehicle overnight and instead stored securely within the Medical Examiner's home. If the Medical Examiner is unable to transport the records personally, a courier service will be used. The completed medical records will be placed in a robust document envelope, marked 'confidential' and sent by Special Delivery.

### Facilities

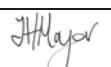
Facilities should be checked to ensure the candidate has privacy throughout the assessment. No access signs should be displayed to prevent entry by unauthorised personnel. Ideally the room used should have a 6 metre length to conduct the distance vision test and the hearing test will require a quiet area to ensure background noise does not interfere. If you feel the facilities are inadequate then please call Crystal Health Group immediately and we will attempt to rectify this. Any concerns regarding the facility can also be documented on the "Commercial testing form".

### Questionnaire & Consent

On arrival for the medical assessment appointment, the candidate should be provided with the 'Medical Questionnaire & Consent Form' and asked to complete the questions ahead of being seen by the Medical Examiner. This can also be provided prior to the appointment to speed up the process on the day.

### Equipment

The medical equipment should be set up and checked prior to use. The 'Medical Assessment Equipment List' details all equipment required to conduct the assessment. Ensure that audiometers and blood pressure monitors are within calibration date by checking the calibration sticker attached. An accuracy check should be conducted every day or prior to use, run a test on yourself to ensure readings are as expected.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure	
	SOPMED002S - Clinical Protocol for Medical Assessment	
	Version	Operations Approval
	v04.12.25	
		

# Clinical Protocol- Conducting A Medical Assessment

Welcome the candidate and describe the assessment process. Written consent will be obtained from the candidate confirming their understanding of the assessment process and their agreement to progress, through the signing of the consent declaration in the Medical Questionnaire & Consent Form'.

The Section numbers below refer to the corresponding section within the Medical Assessment Record.

## **Section 1: Candidate Details**

### **Confirmation from Photographic ID**

The Medical Examiner must confirm the identity of the candidate using photographic identification, which includes a unique identifying number. Original versions must be seen and a copy (on the phone for example) cannot be accepted. Examples of acceptable photo identification would be:

- Photo ID issued by an employer e.g. Sentinel card or employer ID badge
- Passport
- Driving licence (photographic)

If none of the above are available then call CHG immediately.

### **Alternative Verification**

If suitable photo ID is not provided by the candidate, the Medical Examiner should attempt to verify the candidates identity by alternative means which include:

- Requesting photographic identification from the candidate's employer.
- Endorsement of identity by the candidate's Line Manager. A record of verification which includes the Medical Examiners confirmation of the identity of the Line Manager will be maintained in the Medical Assessment Record (Notes section) or on the COC/ROR form when conducted with a D&A test.

If you are unable to confirm the candidates identity by the above means then you must call Crystal Health immediately.

### **Sentinel card (PTS/ Network Rail Only)**

It is important to note if the candidate already holds a Sentinel card and is currently working on the rail infrastructure. This information can be taken from the questionnaire. Additionally, if the candidate already has an endorsement on their Sentinel card then the symbol must be recorded in this section.

Red Triangle = Must be accompanied when on the infrastructure

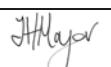
Blue Circle = Colour vision deficiency

## **Section 2 :Questionnaire & Medical Requirements**

Review the Questionnaire and ensure all the fields have been completed & sufficient information provided where a positive response has been recorded. Prompt the candidate to provide additional information where necessary and any omissions must be followed up with the candidate. If the candidate has answered yes to any of the conditions listed then they must provide as much information as possible, including dates of diagnosis/last visit to a health professional, side effects and current state of condition. Record details within Section 9 (Clinical Notes) of the Medical Assessment Record- this information will be used to make a decision on their level of fitness so thorough details are essential.

If the candidate has indicated that they suffer from any sleep disorders or excessive fatigue then they must also complete the ESQ (Epworth Sleep Questionnaire) and the score must be recorded in this section.

If they indicate any mental health illness, including anxiety or depression then they must also complete the HADS Questionnaire (Hospital Anxiety & Depression Scale) Please note that anxiety & depression scores are calculated separately.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure	
	SOPMED002S - Clinical Protocol for Medical Assessment	
	Version	Operations Approval
	v04.12.25	
		

### **Drug & Alcohol Test and Urinalysis**

The urine sample collected for the D&A test (see SOPDRG001S & SOPDRG002S) can also be used for urinalysis. Alternatively a fresh urine sample should be provided in a single use plastic urine sample cup.

Urine Screening is performed using a Multistix 10SG dipstick test. The candidate will be asked to provide a urine sample into a clean, dry sample cup. The Medical Examiner will check the candidate has provided a sufficient volume of sample for testing. The test should be performed on fresh, well mixed urine. On receipt of the sample perform the testing promptly and mix the sample immediately prior to testing.

Check the reagent strips are not past their expiration date and that the strips do not show any discolouration or darkening of the reagent areas.

Remove one test strip from the container and replace the cap immediately. Completely immerse the reagent areas of the strip in the urine and remove immediately to avoid dissolving out the reagents. Whilst removing the strip, run the edge of the strip against the rim of the urine container to remove excess urine. The strip must be held in a horizontal position to prevent possible mixing of chemicals from adjacent reagent areas and / or contaminating the hands with urine.

At the specified time, read the results by comparing the reagent areas to corresponding colour charts on the bottle label. The colour strips should be held close to the colour blocks and the colour blocks carefully matched. NAD would indicate "No Abnormalities Detected"

Avoid laying the strip directly on the colour chart, as this will result in urine soiling the chart.

Adhering to the specified 'read time' is critical to the accuracy of the test. The protein can be read immediately, but the glucose should be read after 30 seconds. All other tests are not reported on. The results are recorded in the Medical Assessment Record.

The Multistix 10 SG Reagent strips must be stored at room temperature, in their container containing a desiccant and must not be stored in direct sunlight.

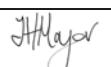
## **Section 3 :General Health**

### **Blood Pressure**

The Medical Examiner will measure the candidate's blood pressure and pulse using an Omron M2 - Digital Blood Pressure Monitor. The equipment used must be within calibration date and this can be checked on the calibration sticker attached. Switch on the BP monitor and check the low battery light is not illuminated. If the warning light is lit, all the batteries must be replaced before the instrument is used to conduct tests. Select the appropriate sized cuff based on the size of the candidates arm and insert the air plug into the air jack. The cuff must be fully deflated when it is inserted into the air jack.

The candidate should be relaxed and seated in an upright seated position (not slouching) for the test. The test can be performed on either arm. Tight or thick clothing will need to be removed from the arm used for testing, sleeves should not be rolled up as an alternative to removal. Ask the candidate to place their arm onto the table in front of them and place the cuff around the arm at a height equivalent to the candidate's heart. Ask the candidate to turn their arm so their palm is facing upwards. The air tube should run down the inside of the forearm and be in line with the candidate's middle finger. The bottom of the cuff should be 1 to 2 cm above the elbow. Once in position the fabric fastener is closed.

Inform the candidate not to talk whilst the test is conducted. Press the start/stop button to begin the test. The device will automatically inflate and then deflate the cuff. The results appear on the digital display as a higher (Systolic) reading, a lower (Diastolic) reading and the pulse rate. If an irregular heart beat or abnormal pulse rhythm is detected then a warning symbol (heart icon) appears on the display. Record these results on the Medical Assessment Record.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure	
	SOPMED002S - Clinical Protocol for Medical Assessment	
	Version	Operations Approval
v04.12.25		

## High Blood Pressure

If the blood pressure reading is greater than 160/95 on either the systolic or diastolic reading, then up to 3 readings in total will be taken and recorded. An interval of 2 minutes is required between testing to allow the arteries to refill and it can be beneficial to conduct this after the candidate has been sat quietly for a longer period of time.

Advice leaflets must be provided for any candidate with a final BP reading of 140/90 or greater.

If a candidate produces a BP reading of 180/110 or greater then you must recommend they seek immediate medical advice, as they are at a greater risk of stroke or heart attack. Call Crystal Health Group for assistance.

## Low blood Pressure

If the blood pressure is recorded as below 90/60 on either the systolic or diastolic reading, the candidate must be questioned to establish whether they suffer from any of the following symptoms:

- Fatigue
- Light-headedness
- Dizziness
- Nausea
- Clammy skin
- Depression
- Loss of Consciousness
- Blurred vision

Record their responses in the Clinical Notes section of the Medical Assessment Record.

## Faulty Equipment

Any deficiencies in performance of the BP monitor must be immediately reported to Crystal Health Group for investigation and the instrument removed from use until rectification of the issue.

## Pulse

The pulse rate and rhythm will be recorded at the same time as the BP reading. Abnormal pulse rhythm will be indicated by a heart icon being displayed next to the pulse reading.

Pulse rate is measured in beats/min. Any pulse rate <60 or >120 should be repeated 2 minutes later. Record result for pulse and pulse rhythm on the Medical Assessment Record.

## BMI - Body Mass Index

The candidates BMI is calculated using height and weight measurements. Measure the candidate's height and weight, recording the result in Metres (M) and Kilograms (Kg) respectively. Ask the candidate to remove their shoes and outdoor clothing before measuring height and weight.

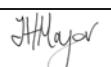
BMI is calculated using the formula: 
$$\text{BMI} = \frac{\text{Weight (Kg)}}{\text{Height (M)}^2}$$

## Low BMI

If the calculated BMI is below 19, question the candidate to obtain further information and potential reasons behind this. Consider whether there is any underlying physical abnormality or an eating disorder. The information recorded should include the following:

- Whether the candidate eats a healthy diet
- Whether the candidate has noticed any unexplained or sudden changes in their weight
- Whether the candidate has suffered from gastric symptoms such as discomfort or diarrhoea
- Whether the candidate has ever suffered from the following symptoms: Fatigue / Light-headedness / Dizziness / Nausea / Clammy skin / Depression / Loss of Consciousness

Record the candidate responses in the Clinical Notes section of the Medical Assessment Record.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure	
	SOPMED002S - Clinical Protocol for Medical Assessment	
	Version	Operations Approval
	v04.12.25	
		

## High BMI

Where BMI is above 30, you must assess the candidate for any signs that may impact on physical fitness and ability to perform tasks. Observe the candidate for signs of 'shortness of breath' and the elevated BMI should also be considered when assessing blood pressure, pulse and mobility.

Any candidate with a BMI greater than 30 should be provided with an advice leaflet which provides guidance on how to reduce weight and healthy lifestyle choices.

## Section 4: Advice Leaflets

Provide advice to the candidate on Health & Wellbeing where appropriate and record this in the Medical Assessment Record. Indications where advice should be given include raised BMI, smoking, alcohol consumption above recommended levels and raised blood pressure. Advice leaflets should also be provided to the candidate where necessary.

## Section 5: Mobility, Balance & Coordination

### **Observation**

Observe the candidate's locomotor skills when the candidate enters the clinic room and as they stand and sit.

### **Examination**

Assess the candidate's mobility, balance & co-ordination by asking the candidate to perform the following tasks:  
(Also see quick reference guide)

- Candidate to walk in a straight line. Candidate to return heel to toe walking- note any abnormalities of gait or difficulties.
- Candidate to stand on their tip toes; touch their toes; and kneel on their left knee and then their right. Lift each leg in turn as if to step over an imaginary obstacle on the floor.
- Candidate to turn their head to the left, right, up and down, to check neck rotation.
- Candidate to clap their hands above their head, rotate each shoulder in turn and rotate each arm in turn and together.

### **Romberg's Test (to assess balance)**

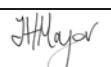
Ask the candidate to stand with their feet together and hands by their side. Then ask the candidate to close their eyes and observe them for an interval of 1 minute. (stand close by as a precaution in order to stop the person from falling over). If the candidate moves their feet or requires support to prevent them from falling, they have failed the test. At the end of the minute the candidate is asked to touch their nose with their left index finger and then their right to assess their co-ordination.

### **Abnormal Findings or Clinical History**

If there is any concerns found or any issues declared on the medical questionnaire that may affect their mobility, balance or coordination then question the candidate and obtain further information. The information should include the following examples:

- The nature of the problem and any underlying cause if known
- How long the candidate has been experiencing difficulties
- How the problem affects their movement and ability to undertake day to day tasks
- How far the candidate can walk without difficulty
- Whether the candidate can walk up and down the stairs without any difficulty
- Whether the candidate can carry / lift a small bag or rucksack
- Whether the candidate can climb a ladder or traverse rough or uneven ground easily.

Record the responses in the Clinical Notes section of the Medical Assessment Record.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure		Author
	SOPMED002S - Clinical Protocol for Medical Assessment		Jemma Major
	Version	Operations Approval	QA Approval
	v04.12.25		

## Alertness & Psychological Wellbeing

Assess the alertness and wellbeing of the candidate through observation of their demeanour throughout the medical assessment. Be alert for the candidate showing signs of depression, mania, lack of concentration, anxiety, tiredness and fatigue. If you have any concerns regarding this, then question the candidate about their mood, sleep problems and stress and record any concerns within the Clinical Notes section of the 'Medical Assessment Record.

If there is an indication of tiredness, fatigue or a history of a sleep disorder then ask the candidate to complete the Epworth Sleep Questionnaire.

Any candidates who have declared a mental health condition such as depression or anxiety should also be asked to complete the HADS questionnaire. If a candidate declares a mental health issue then record the date of diagnosis within Clinical Notes section.

## Speech and Ability to Communicate

Deficiencies in speech can arise from speech impediments, cognitive disruption in brain or nerve injury or disease and problems in the production of speech following strokes, tracheal surgery and respiratory disease.

Assess the candidate through observation of their speech and communication throughout the medical assessment. Speech will be assessed for clarity and volume and any deficiencies should be recorded. Assessing English language skills is not the remit of the Medical Examiner.

## **Section 6: Vision assessment**

### **Snellen Test - Distance vision test**

If the candidate wears spectacles or contact lenses to improve their **distance vision** the Medical Examiner will record this on the Medical Assessment Record. Visual acuity will be measured firstly without wearing visual corrective aids and finally with.

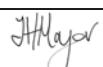
Visual acuity is measured using a Snellen Chart at a distance of 6 metres, which must be clean and free from marks and shown in good lighting conditions. If 6 metres is not available then an optical grade mirror can be used to double a 3 metre distance.

Ask the candidate to stand or sit at the mark that corresponds to the required distance from the Snellen chart (6 metres) Firstly the left eye will be tested- ask the candidate to cover their right eye and read the lines of letters from the chart. Alternate between asking the candidate to start reading the line from the left side of the chart and then from the right. Alternation is required to ensure that the letters have not been memorised prior to the testing. Record the distance vision result as the lowest line read correctly.

The test must then be repeated with the candidate covering their left eye, to measure the visual acuity in the right eye and conclude by measuring visual acuity for both eyes together.

The Snellen chart should be concealed from the candidate and only viewable during the visual acuity test, again to prevent memorising the chart.

The distance vision required for the candidate to meet the standard is 6/9 in the better eye and 6/12 in the other, with or without corrective visual aids. If a candidate wears corrective visual aids they must be tested firstly without wearing them, as they may meet the standard without the need of corrective aids.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure	
	<b>SOPMED002S - Clinical Protocol for Medical Assessment</b>	
	Version	Operations Approval
	v04.12.25	
		

## Visual Fields - Confrontation Test

To conduct the test, the Medical Examiner positions themselves sitting directly facing the candidate approx 1 metre away. Ask the candidate to cover their right eye and the Medical Examiner closes or covers their left eye.

Ask the candidate to look straight at their open eye. Using your left hand first, place your fingers equidistance between yourself and the candidate. Now move your fingers to the left, beyond the periphery of your own vision and move your fingers back towards the centre until they become visible again. At this point, holding your hand still, present between 1 or 2 raised fingers to the candidate and ask how many fingers are raised.

This process is repeated to test the upper and lower left quadrants. Finally switch to using your right hand to test the upper and lower right quadrants. The test is then repeated for the other eye, with the candidate covering their left eye and the Medical Examiner covering or closing their right eye.

During the test ensure the candidate remains looking into your open eye and not directly at the finger(s). If an abnormal result is detected, then details of the area which caused issues must be documented. Any concerns such as double vision, Amblyopia (lazy eye), nystagmus (repetitive, involuntary eye movement) or other noticeable eye conditions must be noted.

## Colour Vision - Ishihara Testing

Colour vision is assessed using a 38 plate Ishihara Book, using plates 1-21 to determine normality or defectiveness of colour vision. Present the plates at a distance of 75 cm from the candidate and tilted so the plane of the paper is at right angles to the line of vision. Plates are presented in non-sequential order\* and each plate must be read by the candidate within 3 seconds. Record how many plates have been read correctly within the medical assessment record.

If a Medical Examiner does not have normal colour vision they should bring this to the attention of their line manager, so that suitable adjustments\* can be implemented to enable them to conduct the test.

\* plates have already been mixed up and a dymo label placed on the book cover, listing the expected result for each plate.

### **Test Conditions**

Testing must be performed under natural diffuse sunlight or fluorescent lighting. Tungsten light is not suitable. When not in use, the Ishihara Book should be stored in its protective cover away from direct sunlight.

Coloured spectacles or lenses are not permitted as a means to passing a colour vision test or to perform tasks requiring normal colour vision.

### **Interpretation of Results**

No. of Plates	Outcome
17 or more plates read correctly	Normal Colour Vision
13 or less plates read correctly	Defective Colour Vision
14 to 16 plates read correctly	Comparative testing required*

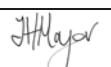
### **Comparative testing**

\*If 14 to 16 plates are read correctly ask the candidate to examine pairs of plates and ask in which of the paired plates the number is easier to read.

The pairs of plates to be used for comparison are: 10 & 11 and 9 & 19.

If the candidate finds it easier to see the image of a '5' in plate 11 than 10 and the image of a '2' in plate 9 than 19 normal colour vision is recorded, if the results are reversed, defective colour vision is recorded. see Quick Reference guide.

If the candidate has defective colour vision that they were previously unaware of, then provide them with a colour deficiency advice leaflet.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure	
	SOPMED002S - Clinical Protocol for Medical Assessment	
	Version	Operations Approval
	v04.12.25	
		

## Section 7: Hearing assessment

### **Equipment**

Hearing is assessed using an air conduction threshold Amplivox 116 Manual Screening or Ottosure PC based audiometer. The Audiometer is for indoor use only and is set up as per manufacturer's instructions manual. The Medical Examiner will ensure hearing cups are cleaned after each test with appropriate wipes.

**Performing the test-** The test must be carried out in quiet environment. Hearing aids must not be worn during the hearing test.

### Amplivox 116 Manual Audiometer operation

The hearing test must begin at 50dB and reduce in 10dB increments.

At each stage the donor must achieve a minimum of 3 out of a potential 5 presentations to pass a stage.

The dB level must be reduced until a stage is not achieved, and then increased in 5dB increments until passed (3 out of 5 presentations)

Once this stage has been achieved press the corresponding ear button (left/right) on the audiometer to record & save the result. Also record the level manually in the corresponding section of the Medical Assessment Record. Complete the above steps for each required frequency (0.5kHz, 1kHz & 2kHz) on both left and right ears, ensuring that each result is recorded and saved as detailed above. Calculate the average loss in each ear by adding all 3 results together and dividing by 3 (mean average)

Once completed print the result and check this corresponds correctly with the results recorded on the Medical Assessment Record. To clear the previous candidates results, hold MENU button and use FREQUENCY button to scroll to "clear test" option. Then use SIGNAL button to scroll through to "yes" option, release the MENU button to select this.

### Otosure PC based Audiometer operation

To operate the Otosure audiometer you will also need a Laptop computer to run the testing. Please ensure you have the 6 digit password to open the specific laptop you will be using.

Open Audiobase program on the PC User name = CRYSTAL or Crystal. Password = Sequence2804

Click the new patient icon (blank page) and fill the following details:

Patient No. = Case reference. If testing multiple donors, then you will need to add a sequential number after the case reference for each donor i.e. SLFD/MED/24 34941- 1

Surname

Forename

Date of Birth

Gender

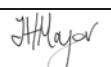
Then select Test type as computer from the drop down menu

Then select Ear icon to display Otosure audiogram screen.

Select start test from dialogue box to automatically run a test.

Once the test is complete press the save button (floppy disk icon)

Please remember that the automatic tests will run 10 different frequencies in each ear. PTS + SCW medicals will only require the data from frequencies 500 (0.5K) / 1K and 2K. This data can then be transferred into the corresponding fields on the Medical assessment record. Then calculate the mean average loss in each ear by adding all the results together and dividing by 3.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure	
	SOPMED002S - Clinical Protocol for Medical Assessment	
	Version	Operations Approval
	v04.12.25	
		

Any hearing loss above 30dB must be investigated. If the candidate fails to meet the hearing standard the Medical Examiner will conduct an otoscopic examination to determine if the cause of the hearing loss is correctible and advise the candidate accordingly. Examples of a correctible failure would be a large build up of ear wax which may need syringing to remove or redness or discharge indicating inflammation and infection. If there is hearing loss with no evidence of wax build up or infection the candidate should be questioned in more depth about recent exposure to loud noise or conditions they are aware of which may have caused the hearing loss.

### **Borderline Results**

If an individual's results are borderline fail, the candidate will be referred for retesting in a sound proof booth.

### **Instrument Maintenance and Monitoring**

#### **Daily / On Use Checks**

Inspect the audiometer and its leads to discover any obvious defects e.g. broken wires or defective headset band. Calibration must be checked to be within date (see calibration label on equipment) Plug in the audiometer and ensure that the power light illuminates.

Amplivox 116 only - If operating in battery mode, check the low battery light is not illuminated. If the warning light is lit, the batteries will be replaced or the instrument plugged into mains power before the audiometer is used to conduct tests. Once the headphones and patient response button have been plugged in, test the patient response switch and ensure the 'Response' light comes on. Also test that an audible signal can be heard in the earphones at a frequency of 1Hz at approximately 40dB above the Medical Examiners own threshold in both ears.

Otosure PC based only - prior to conducting a test run a sample screen on yourself to ensure all equipment is functioning as normal

The tests should be performed daily (when in use) and following any relocation and set up of the instrument within the day.

### **Subjective Testing**

The Medical Examiner will perform a full audiogram test on themselves on a monthly basis and retain the records for comparison. The results should confirm the instrument is performing consistently through the Medical Examiner's knowledge of their own hearing thresholds.

### **Faulty Equipment**

Any deficiencies in performance of the audiometer must be immediately reported to Crystal Health Group (Quality Assurance manager) for rectification and the instrument will be removed from use until rectification of the issue.

### **Calibration of Equipment**

Annual calibration of equipment will be performed using an external company. Calibration certificates are maintained by the QA Manager and you will be informed when this is due and requested to return equipment. Expiry dates can be checked on the device calibration sticker.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure	
	SOPMED002S - Clinical Protocol for Medical Assessment	
	Version	Operations Approval
	v04.12.25	
		

## Section 8: Medications

Review the questionnaire and medications declared within the Questionnaire and during the D&A test. If medication has been declared, question the candidate and obtain further information. The information should include the following:

- The duration of treatment.
- The dose and frequency medication is taken.
- The underlying medical reason for taking the medication
- Any side effects experienced e.g. dizziness, giddiness.

The Medical Examiner will record the responses within the medication table in section 8 of the Medical Assessment Record. Any additional information can be recorded as a note in the Clinical Notes section.

If during a medical assessment a candidate declares they are using hay fever tablets please try to get the exact brand or type. Most supermarket brands are either Loratadine or cetirizine which are non-drowsy, whereas Pirton which contains chlorphenamine is known to cause drowsiness, this can cause issues for those wanting to work on the Rail network or within a safety critical role.

If a candidate is taking hay fever medication it is important to note if they cause any side effects such as drowsiness. If they are buying their own medication (e.g. not prescribed) always advise them to take a non-drowsy version and initial that you have provided this advice accordingly.

## Section 9: Clinical Notes

Clinical notes can be made to detail findings from the assessment, or further information gained from discussion about questionnaire responses. Please ensure notes are thorough, containing as much detail as possible. Include dates of diagnosis / concerns raised /current state of condition / side effects etc. This information will be used when making decisions about the candidates level of fitness and therefore their ability to perform certain tasks within the rail infrastructure or their job role.

If you amend or make any corrections within the assessment record please initial to confirm this.

Once completed, all medical assessment records and documentation must be returned to Crystal Health Group using Special Delivery next day postage or delivered in person.

 <b>CRYSTAL</b> Health Group	Standard Operating Procedure		Author
	<b>SOPMED002S - Clinical Protocol for Medical Assessment</b>		<b>Jemma Major</b>
	Version	Operations Approval	QA Approval
	v04.12.25		