


QUALITY WORK INSTRUCTIONAL MANUAL	  HALCYON MARINE HEALTHCARE SYSTEMS	DOCUMENT NO.  QWI 15.0	EFFECTIVITY DATE: December 12, 2018
			REVISION NO.: 0
		PREPARED BY: Marilar F. De Guzman, MD QAM	APPROVED BY: Glennnda E. Canlas, MD Medical Director
SUBJECT: WORK INSTRUCTIONAL MANUAL FOR VISUAL			

### **VISUAL UNIT 1: (Optometrist/Visual Assistant)**

#### **TEST INCLUDED:**

##### Visual Acuity Test

1. Snellen's Chart (20 feet)
2. LED Vision Chart (Adjusted to 10 feet but also equivalent to 20 feet)
3. Jaeger's Chart ( 4" – 16")

##### Color Vision Test

1. Ishihara Color Plates (1 – 25 number identification/ 26 – 38 tracing)
2. LED Vision Chart (adjusted to 10 feet but also equivalent to 20 feet)
3. Farnsworth Color Arrangement Test (Online <http://www.colblindor.com/color-arrangement-test>)

### **VISUAL UNIT 2: (Visual Assistant)**

#### **TEST INCLUDED:**

##### Visual Acuity Test

1. LED Vision Chart (adjusted to 10 feet but also equivalent to 20 feet)
2. Jaeger's Chart (14" – 16")

##### Color Vision Test


1. Ishihara Color Plates ( 1- 17 number identification/18 -25 tracing)
2. Farnsworth Color Arrangement Test (Online <http://www.colblindor.com/color-arrangement-test>)

#### **A. Launch Visual Module**

1. Launch the internet browser (Google chrome) and click Diagnostic Halcyon Marine Website. Login using your assigned username and password on the home page.

**WHEN USING A DIFFERENT BROWSER OR HOME PAGE THAT IS NOT HMHS PAGE:** Type <http://192.168.10.217/login> on the Navigational Toolbar, then log in using your designated username and password.

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2. Click "Diagnostics" from the from the Halcyon System Home page, then click "Visual" to view the current list for visual queue.


**WHEN PATIENT IS NOT ON QUEUE:**

- a. Key in patient's PEME number or surname on the search tab, click on "add charge" button look for "visual add charge" button to manually place the patient in your queue and proceed with number 2; or
- b. Key in patient's PEME number or surname on the search tab, click on the patient's PEME number.

**B. Receiving the Patients for Visual Examination**

1. Call the patient on queue.
2. Receive the ticket/PEME and seat the patient.
3. Check the identity of the patient by checking their valid identification card.
4. Click on the "time" beside the patient's name and then click on "serve" and right click on "enter result" to open a new tab for encoding visual examination and findings.
  - a. Key in the patient's PEME number or surname on the search tab, click on "add charge" button look for "visual add charge" button to manually place the patient in your queue and proceed to number 2; or
  - b. Key in patient's PEME number or surname on the search tab, click on the patient's PEME number
5. Interview the patient based on the following:
  - a. History of hypertension, diabetes or hyperthyroidism
  - b. History of intake of any medications
  - c. History of eye surgery
  - d. If the patient was diagnosed with color vision deficiency? If diagnosed, since when?

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- e. If the patient is wearing prescription eyeglasses? If yes, what type (for distance, for near, bifocal, progressive)?  
If the eyeglasses are worn constantly, request the patient to remove the eyeglasses for at least 5 minutes to 1 hour depending on the prescription of the patient.
- f. If the patient is wearing contact lenses request patient to remove the contact lenses for at least 30 minutes to 1 hour and allow the eye to rest.
6. Orient the patient on all visual procedures.
7. Examine/observe the patient's eye if contact lenses are worn.
  - instruct the patient to follow the pen on your hand with his/her eyes (right to left, up and down)
  - observe the periphery of the cornea if contact lenses are worn
8. During manual mode or when queuing is not stable, the Optometrist should coordinate with the CSO for the queuing of the patients.

**C. Perform the following:**

*Ishihara* – test for color vision, which includes:


*VISUAL 1 Ishihara Booklet*

- a. 1 – 25 (number plates), instruct the patient to identify the number on the plates, the patient should be able to identify each plate for 3 seconds or less
  - b. 26– 38 (tracing) instruct the patient to trace each plate with a brush or tip of a pen, the patient should be able to trace each plate for 10 seconds or less.
  - c. The plates should be held 75 cm from the subject.
- Failure of the patient to recognize the plates or the tracings is equivalent to color vision deficiency or if needed / requested by follow-up doctors patients has to undergo Farnsworth Color Arrangement test.

*VISUAL 2 Ishihara Booklet*

- a. 1 – 17 (number plates), instruct the patient to identify the number on the plates, the patient should be able to identify each plate 3 seconds or less
- b. 18 - 25 (tracing) instruct the patient to trace each plate with a brush or tip of a pen, the patient should be able to trace each plate 10 seconds or less.

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- c. The plates should be held 75 cm from the subject.


#### *Visual Acuity*

- LED Vision Chart – chart attached to a wall, used to test visual acuity for distance with a remote control (patient is positioned 10 feet which is also equivalent to the standard 20 feet distance - Visual Chart Projector).
- The vision chart is switched on, the lights are turned off except for the lamp.
- Without the eyeglasses, cover the left eye to examine the right eye then allow the patient to read the letters/numbers starting with the big optotypes then repeat with the other eye. Then remove the cover to test the binocular vision of the patient. If the patient cannot read the biggest letter or the biggest optotype on the LED chart, Snellen should also be used to test the distance visual acuity of the patient.

Repeat the same procedure with the patient wearing his/her prescription

- Snellen's Chart
  - Without the eyeglasses, cover the left eye to examine the right eye then allow the patient to read the letters on the Snellen's chart, then repeat with the other eye. Remove the cover to test the binocular vision of the patient.
  - If the patient is unable to identify the letters at 20 feet instruct the patient to position himself 15 to 5 feet until the patient is able to read at least the biggest letter
  - Repeat the same procedure with the patient wearing prescription eyeglasses
  - If the patient is wearing contact lenses, check the patient's visual acuity with eyeglasses at least 30 minutes to an hour of eye rest.
- Jaeger's Chart (Patient is instructed to sit up straight placing the reading material 14 – 16 inches in front of the patient)
  - Without the eyeglasses, cover the left eye to examine the right eye then allow the patient to read the numbers on the jaeger's chart, then repeat with the other eye.
  - Then remove cover to test the binocular vision of the patient.
  - Repeat the same procedures with the patient wearing prescription eyeglasses

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#### *Farnsworth Test*

##### Farnsworth D-15 Test

- Map out color confusion between Protan, Deutan and Tritan separates mildly color deficient and strongly color deficient.
- Compromise of color arrangement caps that have vivid colors with high spectral.
- Conducted in daylight conditions (illuminant C 6500 oK) 60, 75, 100watt bulb.

#### **Test Procedure**


- Caps are taken out and arranged randomly on a black surface (black cloth is used for contrast) the surface. A droplight is used for proper illumination.
- Indicate the starter cap, and ask the patient to locate the cap within the group of 15 that is closest in the color to the starter cap. This cap is the placed adjacent to the starter cap.
- The patient should choose the next cap that closely resembles the first cap that he placed beside the starter cap. This process is repeated until all the caps on the testing surface are back in the storage box.
- Once the patient claims that the caps are arranged by color, the box is closed and sealed, may be flipped to determine scoring.
- Time limit: 2 minutes. Once done, the patient may be given additional time to make changes if he feels the need to do so.
- Any score achieved that is less than normal, the patient is allowed to rest for 10-15 minutes subsequently retested.
- All score sheets are scanned and sent to follow-up.

#### **Scoring**

- The order of the cap placement is recorded on the appropriate portion of the test score sheet.
- The tester then connects the dots on the circular plotting form to plot the order.

#### **D. Testing patients with very low visual acuity**

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When visual acuity is below the largest opto type on the chart, the reading distance is reduced until the patient can read it.

Once the patient is able to read the chart, the letter size and test distance are noted.

If the patient is unable to read the chart at any distance, the patient is tested on the following:

- o Hand Motion (HM)
- o Counting Fingers (CF)
- o Light Perception (LP) or No Light Perception (NLP)

**E. How to test patient's with contact lenses**

- With the patient's contact lenses test the patient for distance and for near vision
- Cover the left eye to examine the right then allow the patient to read the letters for Snellen's and numbers for Jaeger's then repeat with the other eye.
- Take note of the result
- Ask the patient to remove the contact lenses for an hour and instruct the patient to come back for visual acuity testing without contact lenses.
- Cover the left eye to examine the right eye then allow the patient to read the letters/numbers then repeat with the other eye
- Record all results in the patient's database

**F. Encoding of results on the patient's data base**

1. Enter the PEME No.
2. Click "time" then "Enter Result"
3. Encode the result and click "save"


**G. Farnsworth Test**

Farnsworth D-15 Test

- map out color confusion between Protan, Deutan and Tristan separates mildly color deficient and strongly color deficient.
- compromise of color arrangement caps that have vivid colors with high spectral.
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Test Procedure:

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1. Caps are taken and arranged randomly on a black surface (black cloth is used for contrast) the surface. A droplight is used for proper illumination.
2. Indicate the starter cap, and ask the patient to locate the cap within the group of 15 that is closest in the color to the starter cap. This cap is the placed adjacent to the starter cap.
3. The patient should choose the next cap that closely resembles the first cap that he placed beside the starter cap. This process is repeated until all the caps on the testing surface are back in the storage box.
4. Once the patient claims that the caps are arranged by color, the box is closed and sealed, may be flipped to determine scoring.
5. Time limit: 2 minutes. Once done, patient may be given additional time to make changes if he feels the need to do so.
6. Any score achieved that is less than normal, patient is allowed to rest for 10-15 minutes subsequently retested.
7. All score sheets are scanned and sent to follow-up.


#### Scoring

- The order of the cap placement is recorded on the appropriate portion of the test score sheet.
- The tester then connects the dots on the circular plotting form to plot the order.

#### H. RECEIVING OF PATIENTS WITH LOA (LETTER OF AUTHORIZATION)

1. Receives SSMA patient and confirm his identity by checking the LOA form, ID and/or ticket.
  2. Checks the PEME number from the patient's list in INet.
  3. Once all verifications are done, record the patient's name and PEME number in the logbook.
  4. Explain the visual testing procedure to the patient.
  5. Conducts the test procedure. Refer to the following procedures to this work instructions:
- 5.1 Letter C for Ishihara test for color vision and visual acuity

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5.2 Letter D for patients with very low acuity

5.3 Letter E for patients with contact lens

6. After the tests are completed, record the results in the logbook and encode on the patient's database in INet.
7. Ensure to tally the results encoded in the system against the logbook.
8. Create a visual test official result and convert to PDF.
9. Send the visual test official result to SSMA via email, copy furnished the General Manager for Operations.

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