

TEMPLATES FOR COMPREHENSIVE BALANCE EVALUATION REPORTS

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The following templates are in outline form. I designed them so that the IRM local network programmer can read them and understand the format of the completed report. During my presentation at the 2009 AVAA conference I will be linking this to a video showing the process of completing a report. My reports include auditory brainstem response audiometry results, but unfortunately I no longer have the templates.

If the balance report is to be tied to a specific consult, then

Balance Evaluation <consult>

If the report is not tied to a consult but you still wish to use the template format, then

Balance Evaluation <T>

Everything in parentheses will be report text. Everything not in parentheses will be template prompted text.

I. Balance Evaluation <consult> or Balance Evaluation <T>:

“ This veteran was referred with complaints of <open field>. The following assessments were performed:

The Balance Handicap Inventory was administered as a tool to assess self-perceived handicap. The results are as follows:

Functional score <open field>
 Emotional score <open field>
 Physical score <open field>
 Total score <open field>
 Other <open field>

Audiometrics	normal
Audiometrics	abnormal
Electronystagmography	normal
Electronystagmography	abnormal
Rotary Chair Testing	normal
Rotary Chair Testing	abnormal
Posturography	normal
Posturography	abnormal
Vestibular Evoked Myogenic Potential Testing	normal
Vestibular Evoked Myogenic Potential Testing	abnormal
Dynamic Visual Acuity	normal
Dynamic Visual Acuity	abnormal

Other

a. Audiometrics normal

1. "Comprehensive hearing test shows hearing essentially within normal limits bilaterally, Speech discrimination ability is normal bilaterally and middle ear mobility is normal. The stapedial reflex behavior is normal. There is no evidence of a middle ear fistula during pressure changes in ear canal"

2. Other; <open field>

b. Audiometrics abnormal "The comprehensive hearing test revealed the following abnormalities:

Severity and type of hearing loss	<open field>
Symmetry and stability	<open field>
Discrimination scores both ears	<open field>
Tympanometry test both ears and reflexes	<open field>
Fistula test results	<open field>

Reliability
Other

<open field>
<open field>”

c. Electronystagmography normal

1. “Electronystagmography (ENG) was performed to assess the integrity of the right and left peripheral vestibular systems individually and the function of the ocular-motor system.

THE ENG WAS NORMAL

The veteran demonstrated normal saccadic and smooth pursuit eye movements for fast and slow target speeds. The optokinetic responses were normal for rightward and leftward moving visual fields. There was no gaze nor positional nystagmus, with and without fixation. The Hallpike test was negative for both ears down. Benign positional paroxysmal vertigo was not evident. The responses to warm and cool water caloric irrigations to both ears were normal and symmetrical. The vet demonstrated good suppression of the caloric nystagmus with visual fixation. Overall, ENG shows no evidence of peripheral vestibular nor ocular motor dysfunction.”

2. “Other <open field>”

3. values yes/no

4. values yes

“left warm caloric SPV	<open field>
right warm caloric SPV	<open field>
right cool caloric SPV	<open field>
left cool caloric SPV	<open field>
total SPV	<open field>
Unilateral Weakness	<open field>

Directional preponderance <open field>
Other <open field>”

d. Electronystagmography abnormal;

1. “Electronystagmography (ENG) was performed to assess the integrity of the right and left peripheral vestibular systems individually and the function of the ocular-motor system.

THE ENG WAS ABNORMAL

This veteran’s ENG was characterized by the following abnormalities: <open field>

The following results were within normal range:
<open field>

Judgement of veteran attentiveness and cooperation:
<open field>

Diagnostic impressions: <open field>”

2. Caloric summary yes/no

3. Caloric summary yes

“left warm caloric SPV <open field>

right warm caloric SPV <open field>

right cool caloric SPV <open field>

left cool caloric SPV <open field>

total SPV <open field>

Unilateral Weakness <open field>

Directional Preponderance<open field>”

4. “Other: <open field>”

E. Rotary Chair Testing normal

1. “Rotary Chair testing is a passive rotational test, performed to assess both ocular-motor integrity and the vestibular ocular reflex (VOR). With the veteran seated in the motorized chair, rapid velocity steps and sinusoidal oscillations are produced while the veteran’s head movements are constrained. Central and peripheral vestibular function can be assessed at different body speeds.

THE ROTARY CHAIR EXAM WAS NORMAL.

The saccadic, optokinetic, and smooth pursuit eye movements were normal and there was no gaze nystagmus. The veteran demonstrated good visual suppression of movement-induced nystagmus. Rapid rotations produced the expected eye movements when the visual field was stationary. There were no abnormalities in the vestibular ocular reflex (VOR) measures at slow and fast chair sinusoidal oscillations. The nystagmus showed normal gain, symmetry in both directions of turn, and phase relationships to head movement. Finally, the veteran demonstrated normal nystagmus gain and decay during rapid increases and decreases in velocity (step velocity test).”

2. “Other <open field>”

3. values yes/no

4. values yes

“The gain, asymmetry, and phase values of the VOR are as follows:

Abnormal H(high) L(low) LE(lead)
LA(lag)

Gain asymmetry phase
(weaker side %)

.01	_____	_____	_____	
.02	_____	_____	_____	
.04	_____	_____	_____	
.08	_____	_____	_____	
.16	_____	_____	_____	
.32	_____	_____	_____	
.64	_____	_____	_____	
1.28	_____	_____	_____	
Fixation	_____	_____	_____	
Vision+VOR	_____	_____	_____	
	Gain		Decay	
	CW	CCW	CW	CCW
CW Step velocity	_____	_____	_____	_____
CCW Step velocity	_____	_____	_____	_____”

5. “Other; <open field>”

F. Rotary Chair abnormal

1. “Rotary Chair testing is a passive rotational test, performed to assess both ocular-motor integrity and the vestibular ocular reflex (VOR). With the veteran seated in the motorized chair, rapid velocity steps and sinusoidal oscillations are produced while the veteran’s head movements are constrained. Central and peripheral vestibular function can be assessed at different body speeds.

THE ROTARY CHAIR EXAM WAS ABNORMAL

This veteran's Rotary Chair test was characterized by the following abnormalities: <open field>
 The following results were within normal range: <open field>
 Judgments of veteran attentiveness and cooperation: <open field>
 Diagnostic impressions: <open field>"

2. values yes/no

3. values yes

"The gain, asymmetry, and phase values of the VOR are as follows:

Abnormal H(high) L(low) LE(lead)
LA(lag)

Gain asymmetry phase
(weaker side %)

.01	_____	_____	_____
.02	_____	_____	_____
.04	_____	_____	_____
.08	_____	_____	_____
.16	_____	_____	_____
.32	_____	_____	_____
.64	_____	_____	_____
1.28	_____	_____	_____
Fixation	_____	_____	_____
Vision+VOR	_____	_____	_____

Gain Decay
CW CCW CW CCW

CW Step velocity _____

CCW Step velocity _____”

4. “Other; <open field>”

G. Posturography normal

1. “Computerized Dynamic Posturography (CDP) is a functional test of balance which requires the veteran to remain stable under various conditions of platform and visual field motion. Somatosensory, visual, and vestibular integration abilities are assessed. Also, the automatic and volitional motor coordination necessary for rapid postural changes are examined.

THE POSTUROGRAPHY EXAM WAS NORMAL

The six subtests of sensory organization showed normal ability to utilize combinations of all sensory cues. The veteran’s center of gravity was normal while standing, and the veteran demonstrated normal and effective strategies to remain balanced. Also, automatic reactions to induced sway were effective and normal. Adaptation testing revealed good use of volitional movements during rapid platform movements. The limits of stability during volitional body sway were normal.”

1. “Other <open field>”

2. Values yes/no

3. Values yes

“Composite score SOT; <open field>”

“Composite score Motor Control Test; <open field>”

H. Posturography abnormal

1. “Computerized Dynamic Posturography (CDP) is a functional test of balance which requires the veteran to remain stable under various conditions of platform and visual field motion. Somatosensory, visual, and vestibular integration abilities are assessed. Also, the automatic and volitional motor coordination necessary for rapid postural changes are examined.

THE POSTUROGRAPHY EXAM WAS ABNORMAL

“This veteran’s posturography exam was characterized by the following abnormalities:”

(select all that apply)

a. “The Sensory Organization Test (SOT) subtests 1 through 6 resulted in the following with clinical significance:”

(select only one)

- “1. Normal on all conditions
2. Vestibular Dysfunction (5,6 abnormal)
3. Visual-Vestibular dysfunction (4,5,6 abnormal)
4. Visual preference even with incorrect visual information (3,6 abnormal)
5. Visual preference with Vestibular dysfunction (3,5,6 abnormal)
6. Somatosensory-vestibular dysfunction (2,3,5,6 abnormal)
7. Severe (2,3,4,5,6 abnormal, possibly 1 also)

8. Inconsistent or aphysiologic

This pattern suggests the following;<open field>”

b. “Postural control strategy analysis; <open field>”

c. “Center of gravity alignment; <open field>”

d. “Automatic postural control during motor control test; <open field>”

e. “Volitional postural control during adaptation test; <open field>”

f. “Control over volitional sway and limits of stability;<open field>”

Judgement of veteran attentiveness and cooperation:
<open field>

Diagnostic impressions: <open field>”

I. Vestibular Evoked Myogenic Potential testing normal

1. “Vestibular Evoked Myogenic Potential (VEMP) testing was performed to assess a portion of the otolith organs used in balance control (the saccule) along with other associated sensory and motor nerve fibers. Myogenic recordings of the sternocleidomastoid (SCM) muscles during sustained loud click and tone burst stimulation to each ear help to reveal vestibular function from each side of the head . Several hundred loud clicks are presented to each ear while the veteran maintains a specified tonic nerve activity from the SCM. The

resultant right side and left side waveform peak amplitudes are compared for symmetry.

THE VEMP EXAM WAS NORMAL

This veteran demonstrated normal absolute and interear P1 and N1 latencies and amplitudes. The waveform morphology was good and reliability of the response was seen in the replications. These results suggest normal saccular function and integrity of the inferior vestibular nerve.

2. "Other <open field>"

3. values yes/no

4. values yes

"P1/N1 amplitude left; <open field>
right: <open field>

latency of N1 left: <open field>
right: <open field>

Amplitude ratio (33% or greater is abnormal); <open field>
Other; <open field>"

- J. Vestibular Evoked Myogenic Potential testing abnormal
1. "Vestibular Evoked Myogenic Potential (VEMP) testing was performed to assess a portion of the otolith organs used in balance control (the saccule) along with other associated sensory and motor nerve fibers. Myogenic recordings of the sternocleidomastoid (SCM) muscles during sustained loud click and tone burst stimulation to each ear help to reveal vestibular function from each side of the head . Several

hundred loud clicks are presented to each ear while the veteran maintains a specified tonic nerve activity from the SCM. The resultant right side and left side waveform peak amplitudes are compared for symmetry.

THE VEMP EXAM WAS ABNORMAL

The following abnormalities were noted: <open field>
The waveform morphology was <open field>
The veteran's ability to maintain tonic SCM contraction was <open field>
These abnormal results could suggest <open field>"

2. "Other <open field>"

3. values yes/no

4. values yes

"P1/N1 amplitude left; <open field>
right: <open field>

latency of N1 left: <open field>
right: <open field>

Amplitude ratio (33% or greater is abnormal); <open field>
Other; <open field>"

K. DYNAMIC VISUAL ACUITY (DVA)

Visual acuity was assessed when the vet was still and during moderate head rotations. The rotation speed mimics typical body movements. Vestibular-ocular reflex (VOR) abnormalities or eye movement motor command abnormalities can prevent an individual from focusing on the visual environment during normal daily activities. During this test, the veteran shakes his head at an average velocity of 100 degrees per second and a measure is taken of visual sensitivity. The recording

equipment can determine the loss of sensitivity during rightward and leftward head turns.

THE DVA WAS NORMAL/ABNORMAL (choose one)

DVA NORMAL;

When the veteran is still, his visual acuity is <small open field>. A measure of his perception time (the minimal duration of stimulus) is <small open field>. His visual acuity during rightward head turns is <small open field>. His visual acuity during leftward head turns is <small open field>. There does not appear to be any loss of visual acuity during head turns, suggesting intact VOR and ocular motor systems for visual control.

or

DVA ABNORMAL;

When the veteran is still, his visual acuity is <small open field>. A measure of his perception time (the minimal duration of stimulus) is <small open field>. His visual acuity during rightward head turns is <small open field>. His visual acuity during leftward head turns is <small open field>. The abnormal decrease in visual acuity during head movement while turning (toward the right/towards the left/in both directions) could suggest a (left/right/bilateral) VOR or ocular motor weakness. The veteran loses focus of the surrounding environment when he moves at a moderate speeds.

Other; <large open field>