A Guide to Interpretation HFA Single Field Analysis

ZEISS

Patient: aaa , aaa
Date of Birth: Mar 13, 1954
Gender: Female
Patient ID: 146174106

OD Single Field Analysis - GPA | Central 24-2 Threshold Test

Fixation Monitor:	Gaze/Blind Spot	Stimulus:	III, White	Date: Jul 25, 2014
Fixation Target:	Central	Background:	31.5 asb	Time: 10:57 AM
Fixation Losses:	0/13	Strategy:	SITA-Standard	Age: 60
False POS Errors:	0%	Pupil Diameter:		
False NEG Errors:	0%	Visual Acuity:		
Test Duration:	00:25	Rx: +5.25 DS		GHT: Outside Normal Limits
Fovea:	Off			

VFI: 98%

MD: -0.58 dB
PSD: 2.62 dB P < 2%

GPA

24-2

See GPA printout for complete analysis

Baseline Exams:
Jul 24, 2014   Jul 24, 2014
Previous Follow-up Exams:
Jul 24, 2014   Jul 25, 2014

△ P < 5% Deterioration
▲ P < 5% (2 consecutive)
▲ P < 5% (3+ consecutive)
X Out of Range

Total Deviation

Pattern Deviation

:: P < 5%
▨ P < 2%
▩ P < 1%
■ P < 0.5%

Comments

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Reliability Indices

Blind Spot Errors (Fixation Losses/FL)

Blind Spot Errors are recorded when Blind Spot monitoring is active and occur when a patient responds to a stimulus presented in the blind spot. The number of responses is recorded over the total number of stimuli presented. A high error rate may mean poor patient fixation during the test or that the blind spot was located incorrectly. Fixation Losses ≥ 20% are indicated by a double X.

False Positives (FP)

False Positive errors occur when a patient responds too quickly to a stimulus or in the absence of a stimulus. In SITA tests False Positives are not calculated until the end of the test and a percentage ≥ 15% will be indicated by a double X. A percentage ≥ 33% will be indicated for non-SITA tests. A high score suggests that the patient may be overly concerned about not seeing all the stimuli. Patients that respond inappropriately may also have abnormally high threshold results.

False Negatives (FN)

A False Negative is recorded if the patient does not respond when a stimulus is repeated at a particular location and at a level much brighter than has already been seen.

Note: Reports will display only one message with the priority given to high False Positives and the message "Excessive High False Positives". Otherwise, the message "Low Test Reliability" is displayed on SITA test reports if Fixation Losses are ≥ 20%. For non-SITA tests, the same message will display if either the number of Fixation Losses are ≥ 20% or False Negatives are ≥ 33%.

Grayscale and Numeric Formats

The Grayscale format depicts the size and depth of any present field defects. Each pattern variation corresponds to a 5 dB change in sensitivity. The comparative scale in Table 4-2 displays the ten (10) Grayscale patterns and relates them to decibels and apostilbs.

SYM										
ASB	0.8–0.1	2.5–1	8–3.2	25–10	79–32	251–100	794–316	2512–1000	7943–3162	> 10000
DB	41–50	36–40	31–35	26–30	21–25	16–20	11–15	6–10	1–5	≤ 0

Table 6-2 Grayscale Symbols and Numerical Equivalents in Apostilbs (ASB) and Decibels (dB).

Note: The Grayscale in SWAP printouts often looks significantly darker because SWAP testing normally generates lower threshold sensitivity values than does white-on-white testing. The maximum (0 dB) stimulus in SWAP testing is 6 foot-lamberts, not 10,000 apostilbs.

Total Deviation Plots

The numeric values in the upper total deviation plot represents the difference in decibels (dB) between the patient's test results and the age-corrected normal values at each tested point.

The lower total deviation plot, called a probability plot, translates the values from the upper plot into shaded symbols indicating the highlights points falling below specific percentile levels compared to the reference limits. These are explained in the legend labelled "Probability Symbols." For instance, a totally black square indicates that the value observed at that point location occurred in less than 0.5% of the subjects in the reference database.

Pattern Deviation Plots

The Pattern Deviation plots are similar to the total deviation plots, except that STATPAC has adjusted the analysis of the test results for any changes in the height of the measured hill of vision caused, for example, by cataracts or small pupils. STATPAC also corrects for any patients who are "supernormal."

Global Indices

Visual Field Index (VFI): VFI is a weighted average of the ratio of the measured threshold to the age-adjusted normal threshold for all points that have depressions in the Pattern Deviation at the 5% level or higher. The VFI is weighted to give increased importance to thresholds near the point of fixation.

Mean Deviation (MD): MD is the average elevation or depression of the patient's overall field compared to the normal reference field. "P" values are given to significant deviations.

Pattern Standard Deviation (PSD): PSD is a measurement of the degree to which the shape of the patient's measured field departs from the normal, age-corrected reference field. "P" values are given to significant deviations.

The Glaucoma Hemifield Test

For 24-2 and 30-2 tests, the GHT evaluates five zones in the superior field and compares these zones to their mirrored zones in the inferior field. One of the following messages will be displayed:

- WITHIN NORMAL LIMITS
- OUTSIDE NORMAL LIMITS
- BORDERLINE

The message GENERAL REDUCTION OF SENSITIVITY is shown whenever the field is depressed to a level seen in fewer than 0.5% of the normal population in the patient's age range. When the comparison indicates abnormally high sensitivity, the message ABNORMALLY HIGH SENSITIVITY appears.

Note: The GHT is not available with FastPac tests.

Numerical and Graphical GPA Plots

Deviation from Baseline Plot
The Deviation from Baseline Plot compares the pattern deviation of a Follow-up test to the average of the pattern deviation values of two Baseline tests, and indicates changes at each tested point.

Gaze Tracking

In most Humphrey perimeters, an automatic dual-variable gaze tracker measures gaze direction every time a stimulus is presented. On gaze tracking record, lines extending upward indicate the amount of gaze error during each stimulus presentation, with full scale indicating errors of 10 degrees or more. Lines extending downward indicate the unsuccessful measurement of gaze direction, for instance, because of a blink.

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SITA Faster 24-2C
New pattern on HFA3

The 24-2C test pattern combines all 24-2 points **PLUS TEN** selected 10-2 points (shown in OD orientation)

Large Gray	24-2 pattern
Large Orange	Ten additional 24-2C points
Small Gray	10-2 pattern
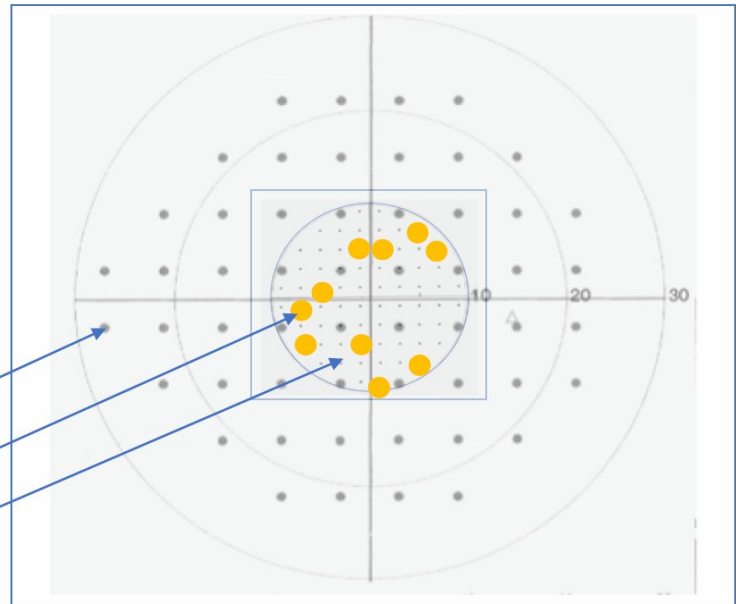
- 10 additional macular points within the 24-2 testing pattern

- SITA Faster 24-2
  - ✓ Test in as little as 2 minutes or less
  - ✓ 50% faster than SITA Standard ~30% faster than SITA Fast

- SITA Faster 24-2C
  - ✓ More information in central field
  - ✓ 20% faster than SITA Fast 24-2