

## ATB – SUBJECTIVE / MANIFEST REFRACTION

(DD Form 2808, Block 62. ‘REFRACTION BY AUTOREFRACTION OR MANIFEST’)

[As of: 1 May 2002]

*[Performed by an Optometrist or Ophthalmologist ONLY!]*

### Important notes concerning the new DD Form 2808.

Unfortunately, the new pre-printed wording of block 62, “REFRACTION BY AUTOREFRACTION OR MANIFEST” may be very confusing. It is VERY important that anyone conducting testing for any FDME understand that an ‘autorefraction’ of any kind is NOT authorized and should NEVER be entered on the DD Form 2808 unless it is in block 60 (Other Vision Test) or in block 73 (Notes) for reference only.

### Autorefraction results should NEVER be entered into block 62!

Highly recommend lining through the entire “...BY AUTOREFRACTION OR MANIFEST” wording and utilize the blank next to the refraction to enter the type of refraction utilized. For example:

By -0.50 S. -0.25 CX 180 (type of refraction here)



**All ‘autorefraction’ entries on FDME’s in block 62 will be returned as incomplete.**

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The terminology of ‘cycloplegic’, ‘subjective’, and ‘manifest’ can be confusing when it comes to FDME’s. For standardization, this guide explains how these entries are commonly utilized. Basically, as follows:

| <u>Terminology</u>  | <u>Class of FDME</u>   | <u>When Indicated</u>   |
|---|--|---|
| ‘Cycloplegic’   | Class 1/1A only<br>(drops given)                                   | Class 1/1A FDME only<br>[See ATB-Cycloplegic Refraction]  |
| ‘Subjective’ or<br>‘Manifest’   | All classes except Class 1<br>(no drops given)<br>(phoropter used) | Corrected vision with current<br>glasses (HxRx) worse than 20/20 <sup>-1</sup><br>in either eye at distance <u>or</u> near. |
| ‘ Hx Rx’ *<br>[Hx = ‘habitual’ or<br>‘historical’]<br>= current glasses | All classes except Class 1<br>(no drops given)<br>(lensmeter used) | Corrected vision with current<br>glasses (HxRx) at least 20/20 <sup>-1</sup><br>in each eye at distance <u>and</u> near.    |

\* [Some use the term ‘manifest’ to mean ‘HxRx’ also. See ‘Notes About Manifest Refraction’ on the last page of this ATB.]

### **Purpose/Indications – Subjective / Manifest Refraction (“Subj” or “Manifest”):**

Needed for all classes of FDME, other than Class 1/1A, if the patient is referred for being outside of qualification standards in blocks 61 or 63. (See referral criteria for blocks 61 and 63.) This measures a patient’s refractive error without the use of a cycloplegic agent (no drops).

### **Equipment/Supplies – Subjective / Manifest Refraction (“Subj” or “Manifest”):**

- Phoropter
- Projected Snellen distance visual acuity chart [must be projected IAW AR 40-501, paragraph 4-12, a.(1) and b.(1)]. Projected sources for a subjective or manifest refraction include, but are not limited to:
  - Traditional Projector with screen
  - Binocular Visual Acuity Tester (BVAT), or similar system
  - Refraction system with projected image (i.e. the Marco Nidek COS-1000 Compact Ophthalmic System, the Marco Nidek EPIC-2100, or similar system)
- Standard Reduced Snellen near visual acuity card (needed if uncorrected near vision is worse than 20/20<sup>-1</sup> in either eye.)

### **Set-up – Subjective / Manifest Refraction (“Subj” or “Manifest”):**

- This is NOT for any Class 1 FDME. A subjective refraction should only be conducted after completing all other eye testing and verifying any disqualifying parameters from other tests. However, it can be done at any time in the physical exam procedure. Highly recommend a brief review of the physical exam form to ensure any other eye testing completed at that time does not require re-testing (i.e. meets standards). One more check in the process will only help to ensure the physical is correct when finally forwarded to Fort Rucker for review.

### **Step-By-Step Procedure – Subjective / Manifest Refraction (“Subj” or “Manifest”):**

- This is NOT for any Class 1 FDME.
- Perform a subjective refraction for either distance and/or near depending on the referral criteria and findings in blocks 61 and 63.
- Enter the ‘best corrected distance visual acuity’ in block 61 and the ‘best corrected near visual acuity’ in block 63 next to the pre-printed “Corr. to 20/” “ entries for each eye.
  
- Record the subjective refraction findings for each eye in block 62:
  - The ‘sphere’ amount in the first blank (between the pre-printed entries of “By” and “S.”
  - The ‘cylinder’ amount in the second blank (between the pre-printed entries of “S.” and “CX”; if there is no cylinder amount, enter ‘sphere’, ‘sph’, or ‘DS’.

- The ‘astigmatism axis’ in the third blank (after the pre-printed entry of “CX”; if there is no astigmatism, enter a horizontal line here.)
- After the astigmatism axis, write the word ‘subjective’ (or ‘subj’) [or the word ‘manifest’ if using this term interchangeably with ‘subjective’] to indicate the type of refraction conducted.
- If the patient’s best-corrected near visual acuity utilizes the same prescription as the best-corrected distance visual acuity, simply enter the word ‘lens’ next to the pre-printed entry of ‘by’ under block 63 (NEAR VISION). If the best-corrected near visual acuity utilizes an ‘Add’ (bifocal), enter the amount of the ‘Add’ ONLY which will always be a number preceded by a ‘+’ sign.
- If you know the refraction still does not correct patient to qualifying standards at distance and/or near, perform a full eye exam to try and determine the cause. If undeterminable, refer to Ophthalmology.

Typical ideal subjective refraction entry on DD Form 2808:

|                    |       |                |   |       |    |       |    |     |      |
|--------------------|-------|----------------|---|-------|----|-------|----|-----|------|
| 61. DISTANT VISION |       |                | 62. REFRACTION <del>BY AUTOREFRACTION OR MANIFEST</del> |       |    |       |    |     |      |
| Right              | 20/25 | Corr. to 20/20 | By  | plano | S. | -0.50 | CX | 180 | Subj |
| Left               | 20/30 | Corr. to 20/20 | By  | +0.25 | S. | -0.75 | CX | 180 | Subj |

|                 |       |                |          |
|-----------------|-------|----------------|----------|
| 63. NEAR VISION |       |                |          |
| Right           | 20/30 | Corr. to 20/20 | by +1.00 |
| Left            | 20/30 | Corr. to 20/20 | by +1.00 |

**REFERRAL CRITERIA – Subjective/Manifest Refraction:**

Class 1/1A FDME – ALL Class 1/1A FDMEs receive a cycloplegic exam.

All other classes of FDME – refer if either eye’s best corrected vision is worse than 20/20<sup>-1</sup> at distance or near.

**Notes About “MANIFEST REFRACTION”**

Over time, with FDMEs, many have come to use ‘manifest refraction’ to identify the patient’s current spectacle prescription (the glasses the patient is wearing). However, most eye care providers utilize the words ‘subjective’ and ‘manifest’ interchangeably and instead use terms such as, ‘Hx Rx’ or ‘Spec Rx’ to identify the current spectacle prescription. Therefore, ideally, if the patient meets standards in each eye with his/her current spectacle prescription, it should be entered on the physical in a clear manner as to show that the visual acuity was tested with the current spectacle prescription. This would never be entered for a Class 1/1A FDME and should be verified by subjective refraction if the prescription is older than one year.