HEARING LOSS RECORDABILITY ISSUES

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Purpose of Illness and Injury Reporting

- To track work-related injuries and illness for statistical purposes.

- The recordability determination process is not the same as hearing loss prevention strategies.

Purpose of Illness and Injury Reporting

- Compliance with recordkeeping rules is important to the ultimate goal of tracking incidence of work-related hearing loss however there are also best practices to work toward preventing noise induced hearing loss.
Recording Criteria

OSHA and FRA:

- STS, 10 dB average shift from baseline at 2k, 3k, and 4k (age correction allowed) AND
- 25 dB average thresholds on current test at 2k, 3k, and 4k (hearing loss)
- IN THE SAME EAR

OSHA/FRA Recordable Shifts – 2 required components

- >10 dB STS
- ≥25 dB Hearing (Loss)

OSHA/FRA Recordable Shifts

- >10 dB STS
- Recordable Shift
- ≥25 dB Hearing (Loss)
Reporting Criteria

MSHA:
25dB average shift from STS baseline at 2k, 3k, and 4k (age correction allowed)

\[ \geq 25 \text{ dB} \]

STS

OSHA/FRA # 1

<table>
<thead>
<tr>
<th></th>
<th>2k</th>
<th>3k</th>
<th>4k</th>
<th>Avg Shift</th>
<th>Current test Avg</th>
<th>OSHA/FRA (10 dB) STS?</th>
<th>OSHA/FRA Recordable?</th>
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</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>10</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>10</td>
<td>25</td>
<td>25</td>
<td>6.67</td>
<td>20</td>
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\[ 0 + 10 + 10 \]
\[ 20/3 = 6.67 \]

OSHA/FRA # 2

<table>
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<th>2k</th>
<th>3k</th>
<th>4k</th>
<th>Avg Shift</th>
<th>Current test Avg</th>
<th>OSHA/FRA (10 dB) STS?</th>
<th>OSHA/FRA Recordable?</th>
</tr>
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<tr>
<td>Baseline</td>
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<td>10</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Current</td>
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<td>25</td>
<td>25</td>
<td>11.67</td>
<td>20</td>
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\[ 10 + 15 + 10 \]
\[ 35/3 = 11.67 \]
### OSHA/FRA # 3

<table>
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<th>4k</th>
<th>Avg Shift</th>
<th>Current test Avg</th>
<th>OSHA FRA (10 dB) STS?</th>
<th>OSHA/FRA Recordable</th>
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</thead>
<tbody>
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<td>Baseline</td>
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<td>15</td>
<td>20</td>
<td></td>
<td>10 + 15 + 20</td>
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<tr>
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<td>30</td>
<td>40</td>
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</tbody>
</table>

\[
\frac{10 + 15 + 20}{3} = 15
\]

### MSHA # 1

<table>
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<tr>
<th></th>
<th>2k</th>
<th>3k</th>
<th>4k</th>
<th>Avg Shift</th>
<th>MSHA (10 dB) STS?</th>
<th>MSHA (25 dB STS) reportable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>15</td>
<td>20</td>
<td>20</td>
<td></td>
<td>0 + 5 + 10</td>
<td>No</td>
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<tr>
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<td>15</td>
<td>25</td>
<td>30</td>
<td>5</td>
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<td>No</td>
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</table>

\[
\frac{0 + 5 + 10}{3} = 5
\]

### MSHA # 2

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<th>3k</th>
<th>4k</th>
<th>Avg Shift</th>
<th>MSHA (10 dB) STS?</th>
<th>MSHA (25 dB STS) reportable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>0</td>
<td>10</td>
<td>15</td>
<td></td>
<td>10 + 15 + 10</td>
<td>Yes</td>
</tr>
<tr>
<td>Current</td>
<td>10</td>
<td>25</td>
<td>25</td>
<td>11.67</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

\[
\frac{10 + 15 + 10}{3} = 11.67
\]
**Reference Audiogram**

- Original baseline, or revised baseline
- OSHA baseline revision requirements
  - Audiologist or physician authorization only for
  - "persistent" worsening in hearing, or
  - "significant" improvement in hearing from the original baseline
  - Each ear must be revised separately

**Optional 30 Day Retests**

- Retest(s) may be performed within 30 days. *Optional.* If retest for OSHA:
  - Does *not* confirm: don’t record
  - *Confirms:* record within 7 days of the retest
  - *Not conducted:* record within 7 days of annual test

- If subsequent testing indicates that an STS is not persistent, you may erase or line-out the recorded entry.
Work - Relatedness

Only work-related shifts need to be recorded/reported.

If a workplace event/exposure:
- caused hearing loss
- contributed to an existing hearing loss
- significantly aggravated an existing hearing loss

Recordkeeping Policies and Procedures Manual (OSHA Instruction CPL 02-00-135)

Question 10-4. What rules must an employer ensure that a physician or other licensed health care professional use to make a determination that a hearing loss case is not work-related under section 1904.10(b)(6)?

Physician or other licensed health care professional (PLHCP) must follow the rules set out in 1904.5 to determine if the hearing loss is work-related. If an event or exposure in the work environment either caused or contributed to the hearing loss, or significantly aggravated a pre-existing hearing loss, the physician or licensed health care professional must consider the case to be work related. It is not necessary for work to be the sole cause, or the predominant cause, or even a substantial cause of the hearing loss; any contribution from work makes the case work-related. The employer is responsible for ensuring that the PLHCP applies the analysis in Section 1904.5 when evaluating work-related hearing loss, if the employer chooses to rely on the PLHCP's opinion in determining recordability.

Determining Cause

- Determined by the professional's (audiologist, physician or other licensed healthcare provider) discretion.
- Case-by-case review
- NHCA guidelines for recording hearing loss
  Approved by NHCA EC April 26, 2011
- CAOHC update articles
- ACOEM and AAA position statements
Resources


American College of Occupational and Environmental Medicine: Role of the Professional Supervisor Position Statement (2012)
http://www.acoem.org/uploadedFiles/Public_Affairs/Policies_And_Position_Statements/Occupational%20Noise-Induced%20Hearing%20Loss.pdf

CAOHC
http://www.caohc.org

NHCA: Position Statement (2011)
https://www.hearingconservation.org/assets/docs/Guidelinesforworkrelatednessdraft.pdf

Determining Cause
Case-by-case review:
- Audiometric data
- Noise exposure
  - Other environmental exposure
  - Nonoccupational noise exposure
- Hearing Protection
- Medical case history

CASE-BY-CASE REVIEW

Q: Has hearing loss been established?
Q: Commensurate with occupational noise exposure?
Q: Was hearing protection properly fitted and used?
Q: Are symptoms claimed plausible?

Is it likely, or not, that the workplace noise has contributed to the hearing change?
Q: Has hearing loss been established?

- Must have reliable audiometric data to identify hearing loss and hearing shifts.
- Does the audiogram "look like noise exposure"?
  - Is there a written diagnosis of a medical problem causing the hearing loss?
  - Noise configuration
  - Progression/trajectory of the loss
  - Symmetry of the hearing.

Asymmetrical Loss / Symmetrical Shift

STS with Age Corrections: Yes
Recordable Shift with Age Corrections: Yes

Symmetrical Loss / Asymmetrical Shift

STS with Age Corrections: Yes
Recordable Shift with Age Corrections: Yes
Q: Commensurate with occupational noise exposure?

- Over the tenure of employment
  - Job history, noise exposure data
  - Is there noise exposure (>80dBA)?
- Area measurements, noise dosimetry
  - Consider noise control efforts
  - Extended work shifts > 8 hours
- Other environmental exposures
  - solvents, heavy metals, tobacco smoke

Q: Was hearing protection properly fitted and used?

- worn consistently and correctly,
- fitted properly, well-sealed
- routinely replaced as needed,
- Not removed periodically for communication or other purposes.
- Attenuation- is it sufficient for the employee’s noise exposures w/o causing overexposure (objectively measured?)

1904.5(b)(2): Are there situations where an injury or illness occurs in the work environment and is not considered work-related? Yes, an injury or illness occurring in the work environment that falls under one of the following exceptions is not work-related, and therefore is not recordable.

(ii) The injury or illness involves signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs outside the work environment.
OSHA Recordability: Step-by-Step
1. Is there STS and hearing loss in the same ear? If yes, then
2. Does a 30-day retest confirm the shift & loss (or no retest conducted)? If yes, then
3. Can the contribution of workplace noise be completely ruled-out? If not, then
4. Record case on OSHA 300 Log (within 7 days)

Be Proactive!
- The recordability determination process is unrelated to hearing loss prevention strategies
- Conduct annual tests during the work shift. Retest (“on rested ears”) to identify TTS
- Hearing protection use at work
  - Consistent use?
  - Correct use?
  - Correct product?
- Training – are employees “taking it home”?
- Other interventions: “Imminent” STS, non-age corrected STS

Questions?