Camp Lejeune: Methodology for Developing a Defensible Medical Opinion

SME training-Louisville, KY

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VA HEALTH CARE | Defining EXCELLENCE in the 21st Century

Forensic Medicine, Definitions

- That science which applies the principles and practice of the different branches of medicine to the elucidation of doubtful questions in courts of justice, insurance claims and other compensation determinations
- The branch of medicine that interprets or establishes the facts in civil or criminal law cases

Unique Challenges of CLCW Cases

- Unique provider skill set required
- Toxicology evaluations
- Detailed exposure history required
- Intimate knowledge of specific scientific reports and related literature
- Melding of the above into a medically/legally defensible report requires excellent writing skill

Benefits of Subject Matter Experts

- Greater consistency of evaluation and opinions based on best medical evidence, improved efficiency of provider opinions
- Provide a **nexus decision** in accord with the requirements of the requesting agency
  - Within the requisite **burden of proof**
  - Based on documented thorough review of the probative evidence
  - With supporting statements based on medical literature
- Assess and document medical **impairment and functional abilities** in accord with the requirements of the requesting agency
  - Deferred to residual examination

Definition: Burden of Proof

- The duty placed upon a party to prove or disprove a disputed fact
- This does not equate to medical certainty

Burden of Proof

- **Beyond a reasonable doubt**: “proof of such a convincing character that a reasonable person would not hesitate to act upon it in the most important of his own affairs"
- **Clear and convincing evidence**: evidence that establishes the truth of a disputed fact by a high probability
- **Preponderance of the evidence**: one side has more evidence in its favor than the other, even by the smallest degree
- **VA’s unique issue:** Equipoise evidence, benefit of the doubt goes to the veteran

Review the 2507

- Condition listed as Claimed by Veteran
- Dates of Service at CL - listed for MO but not for residual exam
- Last several pages are required by VA/standard

Where to look for Records

- VBMS/ Virtual VA (is the veteran already SC?)
- CPRS/ VISTA Web/JLV
- Vista Imaging (may find personal med records that were not submitted to VBA as part of the health record)
- C-file (hardcopy records-rare)

STRs

- Pre-service occupation (usually short-lived [ENL exam])
- Family history (though only up to service dates [ENL exam])
- Symptoms, illness, treatment in service (e.g. neurobehavioral symptoms, direct occupational exposure=acute symptoms)
- Social history (smoking, substance abuse)
- Exit physical (e.g. urinalysis, CXR)

MPRs

- Record of Service – location and duration of station
- Embarkation Record –period absent from CL but still assigned to CL (sea duty, TAD for training, etc.)
- Record of Time Lost-AWOL/AOL, incarcerated off base
- Job in service (DD214)

Risk Factors- Consider review prior to starting medical record review to save time

- Age & race/ethnicity
- Smoking, Alcohol, Substance abuse
- Obesity (weight prior to illness onset)
- Occupational History/ hobbies – post service
- Family history/genetics
- Past medical history (Prior cancers, radiation)
- Comorbidities (hypertension, diabetes, GERD)

Private Provider Nexus Statements

- Need to address and comment
- Agree or refute
  - Is there a rationale or only predicated on professional experience?
  - Other risk factors apparent considered (i.e. smoking, family hx)?
  - Time at CL considered (duration and latency)?
  - Literature reviewed (peer-reviewed current literature in support of rationale)?

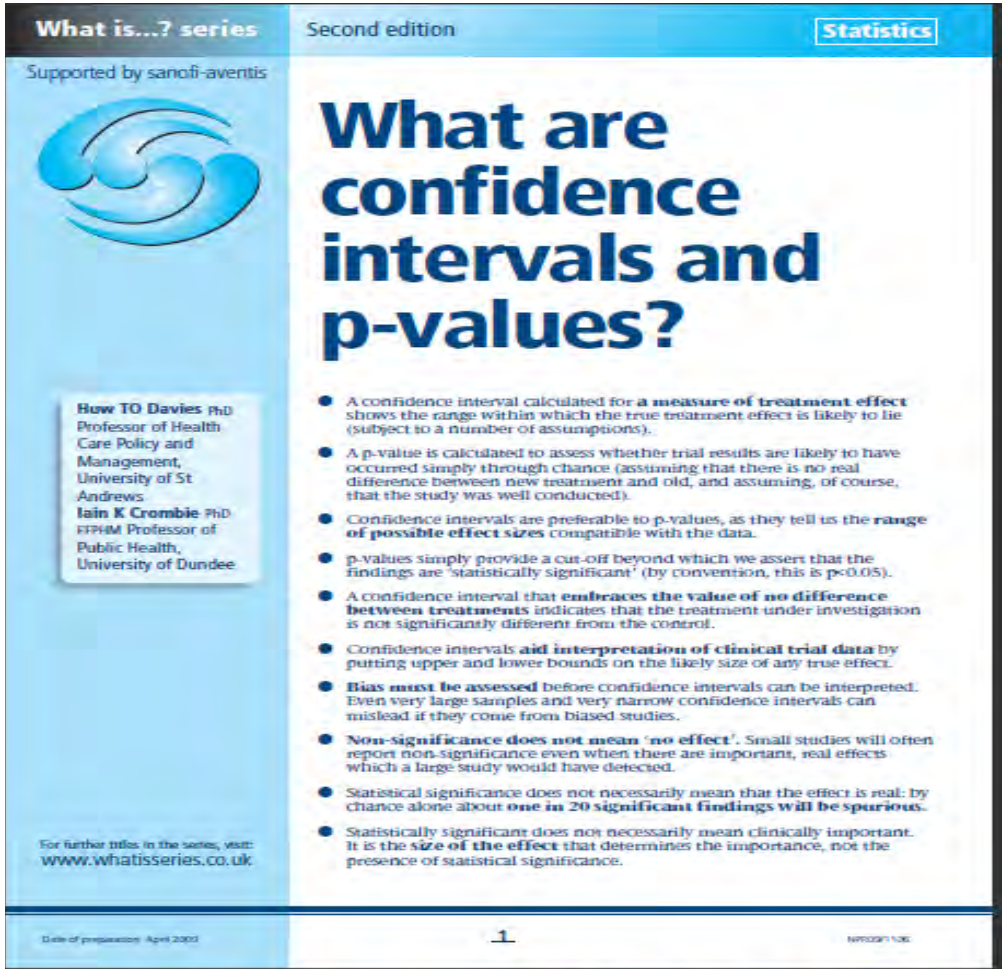
Literature Review

- Current review (Pub Med, Agency for Healthcare Research and Quality, Cumulative Index of Nursing and Allied Health Literature, EMB Online, MEDLARS, Cochrane, Google Scholar, Up-to-Date, etc.)
- Up date as needed or 6-12 months

Continued

- Peer-reviewed journal articles
- Control groups, size of study (low power?)
- Statistical significance (confidence interval, p-value)
- Compare odds and risk ratios with risk factors
- No Wiki
- SharePoint – shared SME articles

Confidence Interval and p-values



What is...? series

Second edition

Statistics

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What are confidence intervals and p-values?

How TO Davies PhD
Professor of Health Care Policy and Management, University of St Andrews
Iain K Crombie PhD FFPHM Professor of Public Health, University of Dundee

- A confidence interval calculated for **a measure of treatment effect** shows the range within which the true treatment effect is likely to lie (subject to a number of assumptions).
- A p-value is calculated to assess whether trial results are likely to have occurred simply through chance (assuming that there is no real difference between new treatment and old, and assuming, of course, that the study was well conducted).
- Confidence intervals are preferable to p-values, as they tell us the **range of possible effect sizes** compatible with the data.
- p-values simply provide a cut-off beyond which we assert that the findings are 'statistically significant' (by convention, this is $p<0.05$).
- A confidence interval that **embraces the value of no difference between treatments** indicates that the treatment under investigation is not significantly different from the control.
- Confidence intervals **aid interpretation of clinical trial data** by putting upper and lower bounds on the likely size of any true effect.
- **Bias must be assessed** before confidence intervals can be interpreted. Even very large samples and very narrow confidence intervals can mislead if they come from biased studies.
- **Non-significance does not mean 'no effect'.** Small studies will often report non-significance even when there are important, real effects which a large study would have detected.
- Statistical significance does not necessarily mean that the effect is real: by chance alone about **one in 20 significant findings will be spurious.**
- Statistically significant does not necessarily mean clinically important. It is the **size of the effect** that determines the importance, not the presence of statistical significance.

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