Reviewer's report

Title: Number of substances used related to increased risk for unnatural death. A Combined Medico-Legal and Case-Record Study.

Version: 2 Date: 16 June 2009

Reviewer: Glen B Baker

Reviewer's report:

This is a potentially interesting manuscript, and the authors have answered most of my previous queries; however, I still have some concerns that I feel should be dealt with as indicated below. The English has been improved greatly.

Major Compulsory Revisions:

I have some concern about the clarity of the terms “use” and “abuse” in the manuscript. The phrases “Number of substances used” in the title and “multi-drug substance use” in the abstract imply that drugs of all types taken by the patient were considered. However, on page 7 the authors indicate that antipsychotics and antidepressants have not been scored (which I assume means not included). Even though these drugs are not generally considered drugs of abuse, I was surprised that they were not included in the analysis since they are major psychotropic drugs with numerous adverse side effects and the potential for serious drug-drug interactions. I think that the authors should comment on this aspect and perhaps indicate that leaving these drugs out may be a limitation of their study.

When the authors mention drugs “used previously in life”, were there any minimum criteria for the number of times a drug was used before it was included? Furthermore, were drug use, misuse and recreational use of the same drug all treated the same, i.e. as one drug used?

Minor Essential Revisions:

- Page 7: the authors state that the legal drugs include benzodiazepines and other tranquillizers. What drugs did they include under “other tranquillizers”?
- Page 9, line 6: Is “P < 0.26” supposed to be “P > 0.26”?
- Page 10: Both P values are exactly 0.52 – the authors indicated in their letter that the value was supposed to be 0.51 for violent death.
- Page 15, reference 11: Reconsidered should be reconsidered.

Discretionary Revisions

- Page 2, Abstract: In the Results portion of the Abstract, perhaps the word
overall should be added after unnatural death.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.