



G56 “Hot Shots”: A Forensic Approach to Allegations Surrounding Fatal Consequences of Injected Substances of Abuse

Rebecca A. Irvine, MD*, Dept of Forensic Medicine, 50 Parramatta Rd, Glebe, New South Wales, AUSTRALIA

After attending this presentation, attendees will have an awareness of the pervasive and variable concept of “hot shot” in the non-forensic community. A working definition for forensic scientists is suggested. Attendees will also be able to describe an approach to autopsy that will optimize the potential to refute or support the allegation or at least demonstrate that all due consideration has been afforded the possibility.

This presentation will impact the forensic science community by highlighting the lay concept of “hot shot” and how pathologists can address the allegation.

The term “hot shot” is variably defined and is well-ensconced in the public consciousness. Although it may encompass accidental death due to an unexpectedly high drug concentration, it more commonly implies malicious involvement of another and homicidal intent. Even a brief perusal of lay websites reveals awareness that benzodiazepines will potentiate opiates, and creative and alarming suggestions to make injections painful or fatal. Typical perceived victims are informers, fellow addicts (for robbery or revenge), or targets of organized crime. The concept appears regularly as a plot device in popular media, in the news, and as propaganda.

The concept has been neglected in forensic literature. Although the pathologist is rarely able to support or refute it, there is a need to acknowledge and define it, develop an approach to examination, and establish an academic data base. Complacency may result in distress for families, dissatisfaction on the part of law enforcement/prosecuting attorneys, public concern, embarrassment, and fostering of conspiracy theories.

A search of the database of DOFM Glebe revealed no cases of injected drug toxicity or detected adulterants that would reasonably represent homicide. Cases have gone to inquest on such allegations, but none appear to have had sufficient evidence to support taking the matter to trial. Law enforcement and the media in this district nevertheless regularly assert that a “hot shot” has occurred.

It has been suggested that a threatened victim would sustain obvious defense injuries; the usual scenario proffered, however, is a non-naïve intravenous drug user unaware of the danger. A past history of drug abuse tends to suggest recidivism rather than homicide.

The first step in allaying concerns is to elicit what the concept means to the individual raising the assertion. The following is a suggested forensic definition of “hot shot”: The *deliberate* injection or provision of materials for injection of an *abused substance* that is known to *likely be lethal* due to extreme purity, increased concentration, or adulteration by a known poison.

Although allegations may be misguided, the truth is that street drugs are invariably adulterated to “cut” the active substance, improve the appearance of the product, and introduce toxicological “distractions” (i.e., local anaesthetics). Drug substitution may occur (i.e., heroin for cocaine). There have been outbreaks of acute reactions to pharmaceutical adulterants (i.e., clenbuterol/scopolamine). There may be contaminants, including bacteria (with outbreaks of anthrax and Clostridial disease) and heavy metals (i.e., lead). Adulterants may have deleterious effects that contribute to death, including drug toxicity, non-drug poisoning, sepsis, and allergic reactions.

Identification and medicolegal verification of a “hot shot” is predicated on a thorough investigation, ideally with information regarding the nature of the presumed fatal injection. It also requires the collaboration of a toxicologist, possibly with the task of identifying an unusual substance.

In cases of alleged “hot shot” prior to autopsy, an examination that is arguably more thorough than the usual “overdose” case should be considered; the goal is to gain as much information as possible as to the causes and circumstances of death, bearing in mind that even negative findings of violence may help to clarify the situation. The allegation is usually predicated on the assumption that death occurred quickly, so evidence of a survival time may be important. Features of past drug abuse may be significant in some situations. A list of autopsy procedures for consideration in such situations will be presented.

Forensic pathologists need to be honest with law enforcement, prosecutors, and families about the limitations of autopsy in these cases, but acknowledge the possibility of homicide and approach the autopsy with thoroughness and an open mind.

Hot Shot, Drugs of Abuse, Homicide