K42 The Psychological Autopsy: Psychiatry & Behavioral Science and Toxicology in a Working Relationship — Medicines of the Mind

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After attending this presentation, attendees will understand the different classes of antidepressant and antipsychotic medications in society, analytical profiles of recently approved Food and Drug Administration drugs, how these medications are evaluated in context with the cause and manner of death, and how these drugs are interpreted when the manner of suicide is disputed by a family, leading to a psychological autopsy being performed.

This presentation will impact the forensic science community by serving as a reminder of the importance of toxicology testing, along with its scope in assessing cause and manner of death.

Antidepressant and antipsychotic medications are widely prescribed in our society to treat signs and symptoms of depression as well as psychosis. Antidepressants can be categorized into several subcategories to include older generation drugs such as the tricyclic and monoamine oxidase inhibitors. Newer generations of the antidepressant medication include Selective Serotonin Reuptake Inhibitors (SSRIs) and Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) and combinations thereof. Antipsychotic medication is generally segregated into two types: "typical" antipsychotic drugs that have the potential of severe side effects to the patient and "atypical" medications that are considered a newer generation class of drugs with lesser side effects. The public has definitely been educated about these drugs and, even with the emerging drugs, by the bombardment of advertisements in magazines, newspapers, and television segments. With such prevalence and public knowledge, prescription medication needs to be assessed in routine medical examiner/coroner cases where the cause and manner of death may or may not be known.

The role of a postmortem toxicologist is varied. The first is to assist the medical examiner/coroner/pathologist in assessing the case and determine the level of analytical testing necessary based on the case history, death scene investigation, incoming mode and manner of death, drug or prescription medications collected, autopsy findings, family accusations, and any other possible question that would have to be answered tomorrow with today's analysis. The second role is actually analyzing the biological specimen for the presence or absence of drugs/prescription medications with the appropriate quality control measures in place to ensure accurate and precise results. The last role is to provide the results to the medical examiner/coroner/pathologist and possibly assist with the interpretation of the drugs and their concentrations in respect to their autopsy findings and investigations.

For cases where the cause and manner of death is not evident, a general comprehensive toxicology screen is performed and generally accounts for a wide array of drugs and prescription medication available in society; however, for cases where the cause and manner of death appears to be obvious, such as non-drug related suicide involving a hanging or gunshot wound to the head, toxicology testing may not be all that complete. Its important to note that in order to evaluate the psyche of the decedent, a more comprehensive panel of drug tests, including antidepressant and antipsychotic medications, may need to be assessed to understand their level of contribution toward the actual cause and manner of death.

Toxicology, Antipsychotics, Antidepressants