



# Office of the Ombudsman for Mental Health and Developmental Disabilities



## Medical Alert - Unexpected Deaths



## Following Recent Outpatient Dental Surgery

This Medical Alert is based on the work of the Medical Review Subcommittee and should be posted prominently. The Office of the Ombudsman for Mental Health and Developmental Disabilities works to improve the services provided to people with disabilities by communicating important information found in the Medical Review Subcommittee's reviews of deaths and serious injuries. Thank you for promptly reporting deaths and serious injuries. You are helping us to meet our mission.

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After reviewing four unexpected deaths in one year that occurred shortly after outpatient dental surgery, the Medical Review Subcommittee (MRS) speculated that it is possible that the clients, who had been prescribed acetaminophen with codeine (Tylenol #3) or acetaminophen with hydrocodone (Vicodin) for post-op pain relief, had been rapid metabolizers of codeine or hydrocodone, which resulted in levels of morphine much higher than would be explained by the records of medication administration, as revealed by the toxicology studies completed in one of the four cases. Alternatively, the other medications prescribed for the clients, such as the medications used during dental surgery and/or the client's regular medications like Tegretol, may have led to increased levels of codeine and/or hydrocodone.

The MRS made the following recommendations:

- 1) The MRS recommends to the medical examiner or coroner that, in similar cases of unexpected death shortly after a medical or dental procedure, an autopsy be performed. In cases where an autopsy is not indicated, at a minimum, samples should be obtained for toxicological studies. Autopsies and/or toxicological studies were completed for only one of the four deaths.
- 2) The following recommendation is specifically for adult foster care (AFC) homes and group homes with waived services with unlicensed staff: The MRS recommends that orders for pain medications be very clear to avoid any confusion that may result in an overdose or an adverse reaction to medications. An example of the type of health care provider's order that requires further clarification is "1 or 2 tablets every 4-6 hours prn pain," because the order offers too many options related to dose and time. The reason this is important is that unlicensed staff are not in the position to make assessments and cannot adjust doses and make judgments related to medications. With an order like the above example, staff are put in the difficult situation of deciding how much and how often medication can be administered. Review of AFC and group home documentation by the Office of the Ombudsman reveals that medication administration records often are unclear as to the exact dose administered and the client's response to that dose (e.g., whether one or two tablets were administered and when another dose is available). The burdens of knowing these limits and obtaining clarification of the order fall to the residential site staff, because health care providers generally are not informed of staff training and job descriptions.

Therefore, when prn, "pro re nata" or "as needed," pain medications are prescribed as "1 or 2 tablets every 4-6 hours," the residential facility should contact the prescriber to more narrowly specify one dose, timing, and indication (reason) for administering the medication. In addition, the residential staff should require the prescriber to specify the maximum number of milligrams of medication to be administered in a 24 hour period and the total number of days for which the medication is prescribed or its discontinuation date.

The client's response to medication should be carefully monitored, and staff should document whether or not the client received a benefit from the administration of a prn pain medication. When an unusual response to medication is observed, such as "sleepiness" or increased sedation, staff should notify the client's health care provider, because this may be an indication of too much medication or a possible overdose.

- 3) The MRS recommends that alternatives to medications to control pain be developed and promoted for use by clients with developmental disabilities. In addition to the use of medication for pain relief, some clients may find some of the

following techniques helpful, if they are not otherwise contraindicated: 1) aromatherapy, 2) relaxation/massage imagery therapy, 3) careful application of heat or cold, 4) re-positioning/exercise/movement, 5) distraction (via music, hand massage, etc.), and 6) local or topical ointments/medications as ordered by the healthcare provider.

## **Case Studies - Unexpected Deaths Following Recent Dental Surgery Could this Happen to Your Client?**

- 1) A 32-year-old man, with autism, severe mental retardation, myotonic dystrophy, and a cardiac pacemaker, died unexpectedly on 2/28/2002 in the waived group home in which he had lived since 2/02/2001. No autopsy was performed. His manner of death was natural, and his immediate cause of death was attributed to myotonic dystrophy. The client had undergone oral surgery on 2/27/2002. He was released from the hospital at 10:30 PM. He was found dead in his bed at 12:21 AM on 2/28/2002. For post-surgical pain, he had been prescribed "Vicodin elixir as directed (hydrocodone & acetaminophen elixir 2.5/167 mg one tablespoonful - 15 ml - by mouth every 4 to 6 hours as needed)."
- 2) A 45-year-old man, with autism, severe mental retardation, seizure disorder, and mitral valve prolapse, died unexpectedly on 3/29/2002 in the waived group home in which he had lived since 06/01/1997. No autopsy was performed. His manner of death was natural, and the immediate cause was attributed to natural causes. The client had undergone outpatient oral surgery on 3/26/2002. He was released from the hospital at 3:40 PM. On 3/28/2002, he was seen by the oral surgeon for a swollen face and fever. The oral surgeon referred him to his primary physician. The client was returned to his residence. He was found dead in his bed at 07:05 AM on 3/29/2002. He had been prescribed Tylenol #3 1-2 tablets every 6 hours as needed for pain at discharge following outpatient surgery. According to his medication administration record, he was administered seven doses over three days, but it was unclear from the record whether he had received one or two tablets per dose.
- 3) A 27-year-old man, with severe mental retardation, cerebral palsy, and epilepsy, died unexpectedly on 05/23/2002 in the waived group home in which he had lived since 09/23/2000. No autopsy was performed. His manner of death was natural, and the immediate cause was attributed to natural causes. The client had undergone outpatient oral surgery on 5/22/2002. He was released from the hospital at 4:55 PM. The client had appeared to be recovering well. He was on a clear liquid diet and was able to take oral pain medication. He was active until 6 PM on 5/23/2002 when he was positioned upright by staff in a living room chair. He was found unresponsive at 8:57 PM. 911 was called, and CPR was started. The client was unable to be resuscitated. After his dental surgery on 5/22/2002, the client had been prescribed "acetaminophen with codeine 1-2 tabs for pain 4 x daily prn (4-6 hrs)." He received five doses of medication. It was unclear from the records reviewed whether the client had received one or two tablets per dose.
- 4) A 37-year-old man, with profound mental retardation, cerebral palsy, hypothyroidism, seizure disorder, spastic quadriplegia, and osteoporosis, died unexpectedly on 11/28/2002 in the waived group home in which he had lived since 03/01/2002. His death was reported to the medical examiner, and an autopsy was performed. His manner of death was an accident, and the immediate cause was attributed to an opiate overdose. The client had undergone outpatient oral surgery on 11/26/2002. He was released from the hospital at 12:55 PM. His condition appeared stable until night staff checked on the client at midnight to obtain his vital signs. The client was not breathing and did not have a pulse. CPR was started and 911 was called. Paramedics and police arrived at approximately 12:10 AM, and CPR and other resuscitative measures were continued. The client was pronounced dead by attending paramedics at approximately 12:41AM. After the death of this client, the residential facility made changes in an effort to prevent similar occurrences. Staff now have the equipment to measure oxygen sats (PO2). In addition the staff uses a standardized measuring med cup for liquid medications.

**Bottom Line:** There is no substitute for caring, well trained, and well-supported front line staff. You are the first to see a change in your client's behavior after a return to his or her residence after an outpatient procedure. As these cases indicate, even when the orders of health care providers are carefully followed, deaths can occur. Your attention to your client, your recognition of a change, and your early call for help just may save your client's life.

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