North Carolina Department of Health and Human Services
Division of Public Health • Epidemiology
Office of the Chief Medical Examiner

NCME NEWS

News from the North Carolina Medical Examiner System

John D. Butts, MD, Chief Medical Examiner

Winter 2009 ***Vol. 22***

AUTOPSIES IN TOX CASES

We have not subjected it to a "scientific study" but we feel that we are seeing more instances where apparent overdoses are not being autopsied. Our guidelines call for posts in such instances to insure that we get adequate samples for toxicology testing, as well as to give us an alternative cause of death should those tests come back negative. There are number of medications that redistribute postmortem and may require samples from multiple sites including organ tissues like liver to fully appreciate the significance of any results obtained. When all the material available to test in a suspected overdose is a few cc's of bloody fluid from a "cardiac stick" the laboratory is already behind the eight ball. The sample may be exhausted before testing can be completed and even when results are obtained their significance, particularly if the concentrations are borderline, are questionable. On the other hand, with good samples from several locations as well as liver, virtually any substance can be found if present and its significance in terms of possible cause of death appropriately determined.

When, however, death is delayed by days or weeks, the value of an autopsy is greatly diminished, and in many instances, eliminated. Under those circumstances the only samples that will ordinarily be of help to us are those that may have been drawn upon admission. We ask you to check with the laboratory in the hospital to see if any admission samples are still present and have those sent to us . In those delayed deaths where there are no samples available but testing was performed upon admission, please obtain copies of those reports and attach them to your report of investigation.

Many of you have been very good about including multiple samples from your inspections in motor vehicle and other traumatic deaths signed out after inspection without post. This has already proved helpful in several cases.

WEAPON IDENTIFICATION

An item not always filled in on the report of investigation is the type of weapon involved in a shooting. While there are certainly instances, particularly in homicides, when the weapon is unknown, the type of gun utilized in a suicide should be known. Please remember to obtain that information from law enforcement and include it on your report.

MEDICAL RECORDS AS PART OF ME REPORT

Medical records submitted along with your report of investigation are often helpful when we review the case. However, actual patient medical records are protected under HIPAA rules and cannot be part of the official medical examiner public record. Therefore, please complete your narrative summary of the circumstances surrounding the death. Do not use such phrases as "See enclosed ED report" as the referenced records cannot be included when your report is sent to families, law enforcement or others who request a copy of the public record.

CHANGES IN THE LAWS

The last session of the General Assembly passed a number of legislative items bearing upon our ME system. One pertained to deaths in mental hospitals and other institutions under the control of the North Carolina Department of Health and Human Services. Due to some concerns about whether these deaths were being properly certified, DHHS administratively instructed all of its units to report every death occurring in those institutions to a local county medical examiner. This was followed up with a bill entitled "an Act to Amend North Carolina Medical Examiner Jurisdiction" which added the line "occurring in State facilities operated in accordance with Part 5 of Article 4 of Chapter 122C of the General Statutes" to one of our governing statutes, GS 130A-383 Medical Examiner Jurisdiction. Thus, as of August 1, 2008, all such deaths became medical examiner cases. That is, any death occurring in such an institution must be investigated and certified by a county medical examiner just as deaths in jails, prisons or correctional institutions already are. This change will not impact most of you since the facilities are located in only eight counties, Burke, Wayne, Granville, Lenoir, Buncombe, Wilson, Pitt and Wake.

The state-operated institutions are:

Julian F. Keith ADATC	Black Mountain
R. J. Blackley ADATC	Butner
Walter B. Jones ADATC	Greenville
Caswell Developmental Center	Kinston
J. Iverson Riddle Developmental Center	Morganton
Murdoch Developmental Center	Butner
Broughton Hospital	Morganton
Central Regional Hospital	Butner
Central Regional Hospital (CRH) – Raleigh Campus	Raleigh
Cherry Hospital	Goldsboro
Whitaker School	Butner
Wright School	Durham
Black Mountain Neuro-Medical Center	Black Mountain
O'Berry Neuro-Medical Center	Goldsboro
Longleaf Neuro-Medical Center	Wilson

Should you be notified of a death in such a facility, you should treat it as you would any other medical examiner case. Some of you in other counties may encounter one if a patient has been transferred to a hospital in your county for medical treatment. Where death is clearly the result of a long-standing medical condition, review of records and inspection of the body is all that is needed. When it is sudden and unexpected or the result of an injury, an autopsy should be performed. It is estimated that there are approximately 80 deaths yearly in these facilities. The OCME is recruiting an investigator to assist in the

work-up and follow-up of these deaths.

Please bear in mind that this requirement only applies to deaths of in-patients at the specifically named institutions. Deaths of patients in other mental health facilities such as private or public/county hospitals, group homes, or other treatment facilities should only be accepted as cases if they meet the normal criteria for ME jurisdiction.

CHANGE IN DEPARTMENT OF CORRECTIONS LAW

Governor Easley signed Senate Bill 1480/Session Law 2008-2 into law creating a new provision for the medical release of certain inmates. Under the terms of the law, inmates who are permanently and totally disabled, terminally ill or geriatric may be released to home or hospice care. Such inmates are still under the custody of the state Department of Corrections. The death of an inmate released under the conditions called "extended limits of confinement" must be reported to and certified by the local medical examiner. We are working closely with the Prison Health System to identify these deaths and ensure that you are notified.

CLARIFICATION OF REQUIREMENTS FOR MEDICAL EXAMINERS

GS130A-382 specifies the requirements for an appointment as medical examiner. Under the original statute the duly elected coroner could be appointed as an "acting medical examiner" until such time a physician could be found to fill that role. The statute was modified subsequently to include county registrar, deputy registrar or subregistrar. Under an informal agreement with the State registrar, we utilized this language to appoint other non-physician medical personnel as medical examiners. The statute has now been amended to better clarify this and the line now reads "in the event no licensed physician in the county accepts an appointment the chief medical examiner may appoint "as acting county medical examiner one or more physicians licensed to practice medicine in the State from other counties, a licensed physician assistant, a nurse, a coroner, or an individual who has taken an approved course of training as required by the medical examiner."

COUNTY MORGUES

Prior to the institution of the statewide medical examiner system each county was responsible for meeting all costs involved in medical-legal death investigations. This included the provision of a county morgue, a place where deceased individuals could be taken to be examined either by the coroner or in those counties that had opted for the optional medical examiner system, a medical examiner. When the current legislation that empowered our statewide system was enacted, no mention was made of county facilities though there was a broad phrase allowing the Chief Medical Examiner to "arrange for the use of existing public or private laboratory facilities." This was generally construed to refer to facilities for the performance of toxicological analyses and autopsies. The need for local facilities was always evident and usually accomplished by utilizing the morgue of the local hospital or a funeral home. From time-to-time questions arose as to what a county's responsibility was in such matters and we would point out that the institution of the ME system did not eliminate the need for local facilities and that in the absence of any provision in the statutes it remained a county obligation. This has now been formally written into the law by the addition of the following line: "each county shall provide or contract for an appropriate facility for the examination and storage of bodies under medical examiner jurisdiction", to GS138-381 "Additional

Services and Facilities." In short there is now a specific legal obligation on the part of a county to provide a place where bodies can be taken and an external examination performed by the local medical examiner.

ORGAN DONATION

The last session also saw the implementation of a revision of the Uniform Anatomical Gift Act. This was a part of a national effort initiated by the National Conference of Commissioners on Uniform State Laws. There were aspects of the bill that pertained to the interaction between the procurement system and out medical examiner system. We were able to work with the donor service agencies to come up with language in those parts that we felt would allow us to continue to effectively work together to maximize the possibility of organ and tissue recovery while at the same time protecting the integrity of the medical-legal death investigation process. The new law urges the continued cooperation between medical examiners and procurement agencies.

Several items of significance for us as MEs include a proviso that the procurement agencies may consult with the medical examiner prior to the death of an individual to determine whether there will be any limitations on donation from the medical-legal standpoint. An old statute that implied the medical examiner could authorize removal of corneal tissues without the consent of the next-of-kin has been deleted.

We would reiterate that we believe that the vast majority of instances of donation, and particularly organ donation, are not incompatible with an adequate medical-legal death investigation. There would be very few instances, if any, when the medical examiner would need to prohibit the harvesting of functioning organs, heart, lung, liver, etc. from a beating heart donor even in homicide cases.

When the authorization is for tissues, skin, bone, corneas, heart valves, etc., the donation may often be effected after examination by the medical examiner if there is no autopsy. In other instances the autopsy can proceed with subsequent harvesting. In those instances, such as corneas, where the time window of harvest is more limited in most instances the collection can occur prior to post.

NEW QUARTERS PROGRESS

Planning continues for the new facilities that will house the State Public Health Laboratory and the Office of the Chief Medical Examiner. While no earth has yet been turned the plans are almost completed and the planned move-in date is now June of 2011.

NEW MECKLENBURG COUNTY MEDICAL EXAMINERS OFFICE

The Mecklenburg County Medical Examiner's Office (MCMEO) began operations at the new facility located at 3440 Reno Ave., Charlotte in December 2008. The office serves as a regional Forensic Pathology and autopsy facility with a staff of twelve including three board certified Forensic Pathologists. The MCMEO currently covers Mecklenburg, Cabarrus, Anson, Rowan, Stanly, Union, and Cleveland Counties, as well as some special cases for Gaston County.

The new state of the art 17,000 square foot facility was designed by a local Charlotte architect with significant involvement by the Forensic Pathologists and staff. Consisting of a separate office building and a morgue building which are connected by passageways and a courtyard, the facility is a great improvement over the old facility, incorporating an abundance of natural light in both the office and morgue areas. The design allows for daily examination and autopsy procedures as well as

accommodations for increased demand associated with mass disaster incidents. Separate examination rooms are available for standard examinations and autopsies, radiographic studies, and potentially highly infectious cases or decomposed remains. A separate space is also available for other ancillary studies such as digital photography, fingerprinting, and gunshot residue kit collection. The Office of the Chief Medical Examiner continues to provide the histology and toxicology services. As the need for forensics services continues to increase and with the possible future expansion of the regional coverage area for the MCMEO, the facility was specifically designed to allow for additional expansion of the office and morgue areas.

By incorporating modern environmental and workplace controls, the facility is a candidate for LEED Gold certification. LEED (Leadership in Energy and Environmental Design) is a program administered by the U.S. Green Building Council to measure a building's sustainability. It is now the standard for indicating how "green" is a facility. Some of the key elements in the design include use of natural light, energy and light monitoring and control systems, solar power lighting, control of storm water runoff and a landscaped rain garden, use of recycled materials in over 80% of the interior materials and finishes, and heating and cooling energy recovery systems for all building exhaust air. The new facility has also eliminated chemicals for processing of x-rays by installing a state of the art digital radiography system that also drastically reduces physical labor and the time needed to obtain x-rays. These design elements have resulted in a workplace that is safe, efficient, environmentally friendly, and capable of handling the regional Forensic Pathology needs of the State for the future.

IDENTIFICATION

In the overwhelming majority of instances bodies coming to us as ME cases have been identified in the field by hospital personnel, EMS or law enforcement. They arrive with the paperwork bearing their name and often multiple body tags and bands with same. On those occasions when the identity is unknown or questionable, that information is conveyed to us and it becomes our role to assist in the identification process either by facilitating the fingerprinting of the body or obtaining suitable samples for DNA testing. In some instances we actually make the identification by dental or x-ray comparisons. Identifications are often problematic in multiple fatality situations particularly if there is damage to the bodies that affects their identifiability. While we do not need to proceed to positive, "scientific," identification in every death we certify, we should remain alert to the possibility of identification misassignments, particularly in multiple fatality incidents. If you encounter a situation where you feel there is some uncertainty in regard to identification, please be sure to consult your regional pathologist or our office

NEWS FROM THE CHILD FATALITY PREVENTION TEAM

The North Carolina Child Fatality Prevention Team (CFPT) is located in the Office of the Chief Medical Examiner. There are approximately 1600 deaths of children (0 to 17 years) in NC each year. Six hundred of these are investigated by the medical examiner system because they meet ME guidelines. Every child death is then reviewed twice after its file is complete--first by an OCME pathologist and then by the CFPT. The CFPT review consists of a thorough examination of all aspects of the case, including medical records, law enforcement investigation, EMS reports, etc. There is a confidential database into which multiple variables from each case are entered. From this database, reports are compiled, as requested by a variety of agencies, to provide information and to monitor trends for all means of child deaths. Every month, the CFPT staff meets with the entire State Team, composed of legislatively mandated representatives from multiple agencies interested in preventing child deaths, to review individual child deaths, to study overall trends, and to formulate recommendations to submit to the Child Fatality Task Force.

Staff:

Deborah Radisch, MD, MPH	Director, Forensic Pathologist
Lisa Mayhew, MS	Lead Investigator, Trainer
Krista Ragan, MA	Research Director, Investigator

What we can do for you:

- Lisa scene reconstruction, child death investigation training, investigation assistance
- Krista data requests, customized reports, investigation

What you can do for us:

- Familiarize yourself with the child death investigation protocol and use it in all your child death investigations.
- Complete or have law enforcement complete the child death checklist and send it to us.
- Call us with any questions about your child death investigations, at any time, during or after the investigation

ANNUAL SEMINAR

The 2008 seminar in June was well attended with over 100 participants. We will assemble again in 09, the same place and time, June 6th. We hope you will save this date for a visit to Chapel Hill. We are in the process of putting an interesting and educational program. A brochure will go out later in the spring and will be posted on our website.

OCME PERSONNEL CHANGES

Our most recent two forensic pathology fellows, Dr. Dina Trobianni and Dr. Steven Dubner chose to take additional training in neuropathology. Dr. Trobianni did so here at UNC while Dr. Dubner went to Chicago. Our current fellow is Dr. Samuel Simmons who completed his pathology residency in Kentucky and is a graduate of Wake Forest Medical School.

Dr. Diana Garside, our Deputy Chief Toxicologist, has left to pursue some new career goals. We are actively recruiting a replacement.

Dr. Cynthia Gardner left us in June. She is now practicing in New Orleans, LA. We hope to name her replacement soon.