Public Health

DURHAM COUNTY HEALTH DEPARTMENT INVESTIGATION INTO THE DEATH OF MATTHEW MCCAIN

On January 19, 2016 at approximately 5:30 AM, Detainee Matthew McCain (Mr. McCain) was found unresponsive in his single-occupancy cell. A registered nurse, detention officers and EMS staff attempted to resuscitate him; however, they were unsuccessful and Mr. McCain was pronounced dead at 6:08:10 AM.

Correct Care Solutions, Inc. (CCS) provides the medical services for the Durham County Detention Facility pursuant to a contract with Durham County. Durham County Department of Public Health (DCoDPH) manages the contract on behalf of the County.

This report is the result of an independent investigation conducted by the staff of DCoDPH regarding the circumstances of the death in an effort to: (1) identify any irregularities in the care provided to Mr. McCain; (2) ensure the quality of care was acceptable based upon objective standards of care; and (3) identify any areas in need of improvement.

Reviews of the following informational sources were conducted: Mr. McCain's medical record, sick call requests, interviews with medical and detention staff, commissary receipts, telephone calls made by Mr. McCain during November 2015 through January 17, 2016, the autopsy report, the National Commission on Correctional Health Care (NCCHC) Accreditation Results, the Operational Assessment of Durham County Detention Facility by the National Institute of Corrections and the recommendations from the Mortality Review Meeting.

DCoDPH staff who participated in this review process are: Cheryl Scott, RN, MN/MPH, Public Health Nurse Program Manager; Hattie Wood, RN, MSN, MHA, Director of Public Health Nursing Division; Joanne Pierce, MA, MPH, Deputy Public Health Director; and Gayle Harris, MPH, RN, Public Health Director.

The medical records were thoroughly reviewed but specific findings cannot be shared because of HIPAA requirements.

The EMS Report:

"Dispatched by 911 for a Cardiac Arrest at the jail. Responded immediately. Arrived on scene concurrently with EMS 52, M 2 and DFD. EMS/DFD directed

to the patient by jail staff. Patient is located on the 3rd floor in cell #21. Patient is a 29 y/o male, unresponsive with cool/moist skin and was found laying supine on a concrete bed. Facility staff was rendering aid in the form of CPR and had also applied an AED with no shock advised twice prior to our arrival according to the staff. Facility staff report finding the patient unresponsive in his cell around 05:30 this morning. It is unknown the patient's down time or when he was last seen conscience [sic] and alert. Patient had no spontaneous respirations, absent breath sounds, no pulses and absent heart tones."

"We took over patient care, from the facility staff, by first moving the patient to the floor to have better access for patient care. LUCAS 2 was successfully applied, ventilations assisted by oral airway/BVM first and then the IGEL placed with good placement confirmed. Patient's initial cardiac rhythm was Asystole, end tidal of 2, SPO2 in the 60's, glucose was 25 and temperature read LOW. Adult EZ IO placed in the patient's right lower extremity and patient received a total of 3 EPI 1:10, 25 GM of D50 and 50 mEq of Sodium Bicarbonate. Due to the initial low end tidal reading the IGEL was pulled and replaced with a second which still gave a low end tidal reading. After approximately 21 minutes of attempted resuscitative efforts by EMS/DFD patient had no noted rhythm changes, pupils were dilated and nonreactive, patient's core was cold to touch, no palpable pulses and no heart tones. At approximately 06:08:10 all resuscitative efforts ceased. EMS clears the call at this time."

Autopsy Results:

The body of Mr. McCain was examined on January 19, 2016 by Dr. L. Scott. The Medical Examiner reported the following:

SUMMARY AND INTERPRETATION

"The decedent was a 29-year-old male detainee found unresponsive in his single prison cell on the morning of 1/19/2016. He reportedly suffered a seizure the previous day. He had a medical history of a seizure disorder, hypertension, and diabetes.

Findings at autopsy included concentric left ventricular hypertrophy without significant overall heart enlargement, mild pulmonary congestion, nephrosclerosis, and a renomedullary interstitial cell tumor. No significant traumatic injuries were present.

Analysis of vitreous fluid detected no signs of dehydration or hyperglycemia.

Toxicologic analysis of postmortem blood detected caffeine, hydroxyzine, 0.79 mg/L lamotrigine and 5.1 mg/L Phenytoin. The observed level of Phenytoin is within typical therapeutic limits. The observed level of lamotrigine is slightly below typical therapeutic levels.

Individuals with seizure disorders often have no anatomic findings present at the time of autopsy to explain the presence of the seizure disorder. Individuals can die suddenly from a seizure despite adequate therapy with anti-seizure medications. A recent fatal seizure cannot be diagnosed through anatomic findings at the time of autopsy.

Based on autopsy and investigative findings as currently understood, it is my opinion that the cause of death is complications of a seizure disorder."

External Reports Related to Detention Center Medical Services

The National Commission on Correctional Health Care (NCCHC) Accreditation conducted an independent review On December 10-11, 2015. Excerpts from the review related to the findings are cited below.

> "There are 40 essential standards; 38 are applicable to this facility and 34 (89%) were found to be in compliance. One hundred percent of the applicable essential standards must be met. Findings include:
>
> Essential Standards Not in Compliance
> J-C-03 Professional Development
> J-E-06 Oral Care
> J-E-12 Continuity and Coordination of Care during Incarceration
> J-G-01 Chronic Disease Services
>
> Essential Standards Not Applicable
> J-E-03 Transfer Screening
> J-G-03 Infirmary Care"

"There are 27 important standards: 26 are applicable to this facility and 26 (100%) were found to be in compliance. Eighty-five percent or more of the applicable important standards must be met. Findings include:

Important Standards Not in Compliance
None

Important Standards Not Applicable
J-C-08 Health Care Liaison

Decision: On January 16, 2016 NCCHC's Accreditation Committee awarded the facility Continuing Accreditation with Verification (CAV), *contingent* upon receiving requested compliance verification by May 16, 2016."

Corrective action required:
"J-C-03 Professional Development – All but four health staff are current in cardiopulmonary resuscitation (CPR)…Acceptable documentation includes verification that the director of mental health, and the three full-time mental health clinicians are current in CPR."

"J-E-06 Oral Care –could not verify that the dentist had trained the health staff to conduct the intake screening and initiate the oral screening, including as a part of the initial health assessment…Verification that all qualified health care professionals providing oral screening have been appropriately trained is required."

"J-E-12 Continuity and Coordination of Care during Incarceration – health record review indicated that providers do not consistently review diagnostic tests with the patient in a timely manner. Patients are not consistently seen by a qualified health care professional upon their return from a hospitalization, urgent care, or emergency department visit to ensure proper implementation of the discharge orders and to arrange for appropriate follow up care. In addition, the clinician does not review and act upon the recommendations of specialty consultations in a timely manner... Acceptable documentation includes a plan by the RHA on how all aspects of this standard will be corrected. The plan should include

necessary policy and procedure changes as well as evidence of training for appropriate staff. In addition a CQI process study that evaluates the continuity and coordination of care following the implementation of the corrective action plan."

"J-G-01 Chronic Disease Services – the treatment plans do not routinely include the appropriate elements, including frequency of follow up, monitoring condition and status and taking action as indicated and clinical justification of deviation from the protocols. Providers do not consistently follow chronic disease protocols. Hypertensive patients and diabetic patients are often not referred for fundi testing. Diabetic patients are not referred for foot examinations and hemoglobin blood tests are often not ordered by providers. Providers give little or no instructions to the patient regarding diet, exercise, adaptation to the correctional environment and medication…Documentation in the medical record should confirm that clinicians are following chronic disease protocols by determining the frequency of follow-up for medical evaluation based on disease control; monitoring the patient's condition and taking appropriate action to improve patient outcome; indicating the type and frequency of diagnostic testing and therapeutic regimens; instructing the patient on diet, exercise, adaptation to the correctional environment, and medication; and clinically justifying any deviation from the protocol…acceptable documentation of compliance: results of a CQI process study that assesses clinicians' compliance in following chronic disease protocols."

Medical staff submitted documentation as requested prior to the May 16, 2016 deadline.

Mortality Review Meeting

On February 11, 2016, DCoDPH staff participated in the standard Mortality Review Meeting that occurs following any detainee death. This review included staff from: DCoDPH (Hattie Wood, Director of Nursing and Community Health Division Director; and Cheryl Scoot, Public Health Nurse Program Manager), Correct Care Solutions (Lisa Watts, Regional Nurse Manager; Patricia Butler, Director of Nursing; Dr. Carl Keldie, Chief Clinical Officer; Dr. Patricia Rodgers, Regional Medical Director; Dr. Sampson Harrell, Medical Director; Jennifer Graf-Perkins, Nurse Practitioner; and Shonicia Jones, Health Services Administrator), and Durham County Detention Facility (Lt. Colonel

Natalie Perkins, Detention Services Director; Major Julian Couch, Detention Services Security; and Captain Elijah Bazemore, Detention Services Program Administration). While minutes were not recorded, recommendations were made for continuous quality improvement.

All recommendations have been implemented.

Operational Assessment Durham County Detention Facility conducted by National Institute of Corrections (report dated May 29, 2016)

At the request of the Sheriff, the National Institute of Corrections conducted an operational assessment of the Detention Facility. While health care was discussed in the report, only one recommendation was made that related to health care in the facility and in the conclusion statement medical care was one of the three areas in which detainees noted improvements.

"Recommendation: Consider using one of the closed split unit housing areas for housing detainees with mental health issues. Convert a cell or use the multipurpose space for mental health offices. With the additional staffing of mental health personnel, it may be possible that the housing unit could be operated by one officer in the housing unit without the addition of a control room officer. Many agencies operate in a similar manner; the detention facility staff would need to weigh this opportunity."

"Conclusion…the general condition of the jail appears to meet or exceed NC standards…Detainees noted improvements in food, medical care, and maintenance…"

CONCLUSIONS AS A RESULT OF THIS INVESTIGATION:

Mr. McCain died as a result of complications from a seizure disorder. However, as a result of this investigation, it is recommended that certain changes should be implemented in/by the Medical Unit to ensure the medical care provided continues to meet local and national standards. These include:

1. Implement "7-Minutes to Save", a CCS campaign;
2. Hold interdisciplinary team meeting to discuss care and treatment for medically complex detainees;
3. Require all staff to participate in shift reports;
4. Restrict commissary purchases **or** retrieve list of all commissary purchases made by detainees diagnosed with diabetes and other complex medical conditions;

5. Consolidate hours of advanced practice providers rather than having two advance practice providers;
6. Assure advance practice provider receives update/additional training in managing chronic diseases;
7. Discontinue the use of ammonia sticks/packets as a way to arouse unresponsive detainees;
8. Obtain read-only access to Duke Medlink for designated CCS medical staff so that providers will have access to results of off-site care provided before and/or during incarceration and expected follow-up recommendations;
9. Implement Special Housing Unit Plan agreed upon by Lt Colonel Perkins, other Detention Facility leadership and Shonicia Jones, Health Services Administrator (Detainees identified as either on complicated chronic disease protocols, withdrawal protocols, wounded, or wheelchair bound will be housed in pods 3B & 3C. Females will be housed in 5D, 3A, when the pod is opened, and medical observation. A registered nurse will be stationed on the 3rd floor in close proximity to provide care for these detainees specifically from 8am – 8pm.);
10. Work with Detention Facility leadership to implement Mental Health Unit as proposed by staff and recommended in the Operational Assessment of the Detention Facility;
11. Work with Alliance Behavior Healthcare and Criminal Justice Resource Center staff members to develop screening tools to better identify detainees with mental health diagnoses, substance abuse histories and /or drug-related charges in order to identify those who may be at risk while incarcerated and to create appropriate treatment and referral plans of care;
12. Monitor compliance with all NCCHC Accreditation corrective action plans;
13. Assure ongoing workforce development for all staff; and
14. Recruit and retain medical staff as needed.

Prepared by:

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