

REPORT OF INDEPENDENT INVESTIGATION

DEATH OF BRAEDEN BRADFORTH

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OCTOBER 28, 2019

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I. GLOSSARY OF ACRONYMS

AT	Athletic Trainer
DPAC	Dennis Perryman Athletic Complex
EAP	Emergency Action Plan
EHI	Exertional Heat Illness
EHS	Exertional Heat Stroke
GCS	Glasgow Coma Scale
HLC	Higher Learning Commission
KJCCC	Kansas Jayhawk Community College Conference
NATA	National Athletic Trainers Association
NCAA	National Collegiate Athletic Association
PPE	Pre-Participation Examination
SCT	Sickle Cell Trait
STAC	Student Academic Credits
WBGT	Wet-Bulb Globe Temperature

II. EXECUTIVE SUMMARY

This independent investigation was chartered by the Garden City Community College Board of Trustees on May 14, 2019. The Investigation Team was asked to identify facts that caused or contributed to the August 1, 2018 death of student-athlete Braeden Bradforth. Records related to the death of Braeden Bradforth were obtained from several sources including, but not limited to, Garden City Community College; Garden City; Finney County; attending medical clinics and hospital in Garden City, KS and Neptune, NJ; and the Bradforth family. To carry forward the investigation, the Investigation Team made three trips to Garden City, KS and one to Newark, NJ.

Soon after the engagement, we learned there was a striking lack of leadership by President Herbert Swender, Athletic Director John Green, Head Football Coach Jeff Sims, and Head Athletic Trainer TJ Horton, during the weeks and months leading up to August 1, 2018. There was little to no oversight of the preparation for and execution of the August 1, 2018 conditioning test designed and run by Coach Sims. This lack of oversight set off a series of events that ended with the death of Braeden Bradforth.

Braeden Bradforth sent July 24, 2018 emails to the Garden City Community College football coaching staff seeking an opportunity to play football for the institution. Some time between July 24 and July 30, the coaching staff agreed to give Braeden the chance to make the team. Braeden arrived in Garden City at about 2:00 PM on July 30, where he submitted medical and other forms necessary to participate in the football program. As we reviewed documents and interviewed witnesses, it became evident there was a failure to properly assess student-athletes prior to the August 1 conditioning test described by one witness as an intense cardio workout. Little attention was given to assess Braeden Bradforth's level of fitness. No consideration was given to the level of his acclimatization to weather or to the altitude in Garden City. Braeden Bradforth arrived on campus only fifty-four hours prior to the moment he lined up to run 36 - 50 yard sprints within eight seconds for each in temperatures likely hovering around 80 degrees F. We found a lack of preparation to ensure practice safety, including no planning or training of coaches or the athletic training staff on a venue-specific emergency action plan. There was no plan to address a student-athlete presenting with signs of exertional heat illness.

No Garden City Community College athletic training or coaching staff member and no Emergency Medical Service or Emergency Department personnel identified or treated Braeden Bradforth's escalating symptoms of the exertional heat stroke that caused his death.

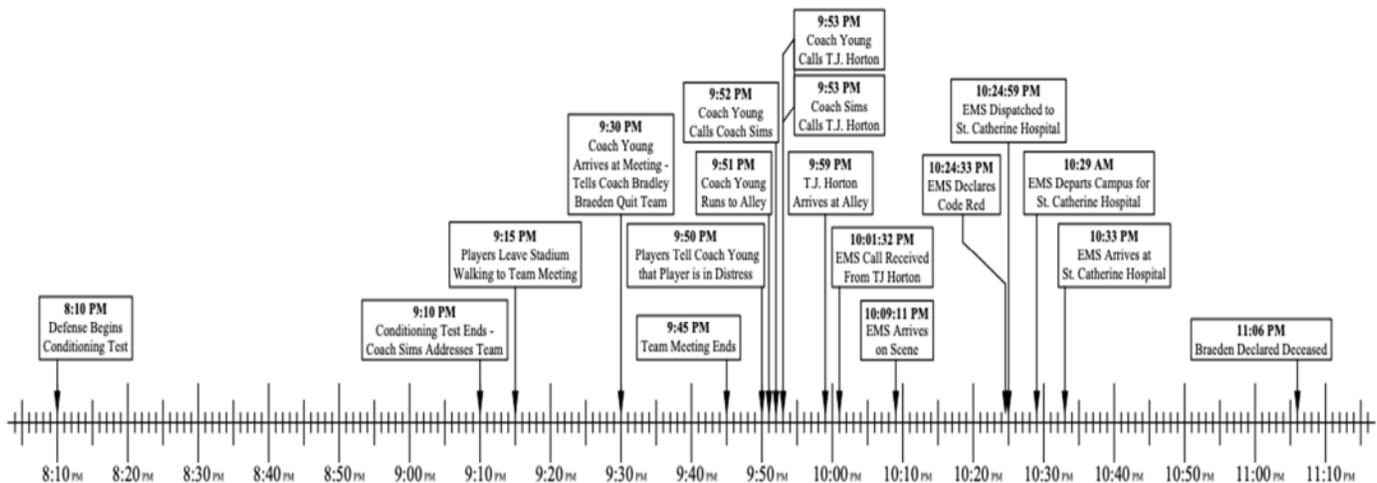
Braeden Bradforth was a new recruit to the football program at Garden City Community College. The coaching and athletic training staff of the institution had limited information about him and what few records they had arrived only days before his death. Three days prior to his July 30, 2018 arrival in Garden City, Braeden Bradforth received a physical examination by his personal pediatrician, Dr. Kristen Atienza, in Neptune, New Jersey. As a condition of Braeden's participation in the football program, Dr. Atienza was required to and did complete a form called Garden City Community College Athletics, Preparticipation Physical Evaluation. Although Dr. Atienza checked a box that signaled Braeden Bradforth was "Cleared without restrictions" to participate in athletics at Garden City Community College, in the section following the

clearance, Dr. Atienza made a recommendation specific to diet/exercise. This recommendation was not noticed by the Garden City Community College athletic training staff until after Braeden died. The recommendation was therefore not communicated to the coaching staff prior to the time Braeden Bradforth ran the conditioning test.

When Braeden Bradforth arrived in Garden City, his physical condition should have been evident to the athletic trainers and coaches. He was overweight at 315 lbs., out of shape, and should not have run the conditioning test as designed and implemented. A cause of death was a poorly designed and administered conditioning test for an unconditioned, non-acclimatized student-athlete at an altitude with nine percent less oxygen than he was accustomed to at his home in Neptune, NJ.

Once Braeden Bradforth began to drift into medical distress, there was failure to plan for appropriate care. An effective plan likely would have rescued him from what turned out to be his untimely death. The response time and significant delays between multiple opportunities for effective treatment were a cause of death. Immediately after the intense cardio workout, Braeden Bradforth should not have been permitted to wander off alone on an unfamiliar campus. Unfortunately, Braeden chose to attempt to access his dorm room through a narrow and hot alley with limited airflow. When he could not enter the building through a locked door, he sat down and rested his head against a brick wall that likely continued to radiate heat. Around 20 to 30 minutes later, he was found by teammates who summoned help. From that moment forward, we noted poor implementation of an emergency response. Garden City Community College had no training in place for this situation and no Emergency Action Plan. A contributing cause of death was the failure to have and implement an effective Emergency Action Plan. Following are the approximate times of important events leading to Braeden Bradforth's death:

Figure 1. Timeline of Significant Events



Players departed the stadium at 9:15 PM, but Braeden Bradforth was the reported last to leave the stadium, accompanied by Coach Caleb Young, and the time is estimated at 9:20 PM.

30 min	Time Braeden left the stadium to time discovered unconscious in alley (9:20 PM to 9:50 PM)
3 min	Time from finding Braeden to time Head Athletic Trainer, Horton was called (9:50 PM to 9:53 PM)
3 min	Time from the arrival of Horton to time Emergency Medical Service was called (9:59 PM to 10:02 PM)
7 min	Time from Horton call to time Emergency Medical Service arrived on campus (10:02 PM to 10:09 PM)
24 min	Time from Emergency Medical Service arrival on campus to arrival at St. Catherine Hospital (10:09 PM to 10:33 PM)
73 min	Time from moment Braeden left stadium to arrival at St. Catherine Hospital (9:20 PM to 10:33 PM)

When treatment is administered within 30 minutes of detection of heat illness and includes identification of elevated core temperature (greater than 104° F) coupled with rapid cooling of the full body via cold water immersion of 55° F, exertional heat stroke death can be averted. There was no identification of Braeden Bradforth’s escalating symptoms of exertional heat illness by the athletic training staff as he entered the stands after the conditioning test nor when he walked out of the stadium accompanied by Coach Young. There was no identification of exertional heat stroke or appropriate treatment by the first responders (Coach Caleb Young and Head Athletic Trainer TJ Horton), or by Emergency Medical Service providers (Christine Macias and James Good), or by the Emergency Department staff at St. Catherine Hospital. Braeden Bradforth’s core temperature was never assessed and no effective method of cooling him was ever implemented by anyone. A contributing cause of death was the failure to timely identify and treat Braeden Bradforth’s exertional heat illness.

III. INVESTIGATIVE MANDATE

A. Structure and Scope of the Investigation

The defined scope of the independent investigation was to identify facts which may have caused or contributed to the death of Garden City Community College football student-athlete Braeden Bradforth on August 1, 2018. Randy J. Aliment and Jordan Ford of Lewis Brisbois were retained by the Garden City Community College Board of Trustees to conduct the investigation. Mr. Aliment retained Dr. Rod Walters of Walters Inc., Consultant in Sports Medicine, to assist in the investigation. Although our professional fees and expenses are being paid by Garden City Community College, we provided no legal advice to the institution. Inquiries related to the independent investigation were referred to counsel to Garden City Community College, Randall D. Grisell of Doering, Grisell & Cunningham, P.A.

This Report of Independent Investigation, Death of Braeden Bradforth, (“Report”) is prepared by Mr. Aliment and Dr. Walters.

B. Statement of Independence

The independent investigation was led by Mr. Aliment and Dr. Walters with support by Phil Hedrick and Jordan Ford (“Investigation Team”). The Investigation Team independently developed the investigative work plan without direction from Garden City Community College and executed the work plan without interference or obstruction by the institution. To the extent we asked the Garden City Community College administration (“Administration”) to assist with certain discrete tasks, representatives of the institution made concerted efforts to accommodate us throughout the entirety of our work. For example, at our request, the Administration provided the Investigation Team with a place to work while in Garden City, provided access to Garden City Community College's records, as well as access to current employees as we carried out our work. The Administration placed no restrictions on the Investigation Team as we pursued evidentiary leads deemed necessary to fulfill our mandate.

As contemplated at the outset of the investigation, we were asked to deliver our factual findings to the Garden City Community College Board of Trustees (“Trustees”) at the conclusion of our work. The Trustees and Administration did not participate in determining the content of this Report beyond initial discussions with the Investigation Team and Mr. Grisell. The Trustees, Administration, and Mr. Grisell were not provided with an advance draft copy of this Report.

IV. INVESTIGATIVE PROCESS

A. Investigative Plan

At the outset of this investigation and in coordination with the Administration, we assessed the availability of Garden City Community College records during a time frame deemed relevant by the Investigation Team. In addition, the Investigation Team independently developed document and information requests and then worked with the Administration to search academic, athletic, and administrative department records responsive to our requests. Once potentially relevant documents were collected, the Investigation Team reviewed the documents for relevance and incorporated them into our document management system. The Investigation Team conducted both on-site and remote review of these records.

Given the publicity of the matter and the potential reluctance of certain individuals to come forward, we worked with Garden City Community College to undertake a broad outreach to the Garden City community, in addition to providing regular public updates. Garden City Community College publicized this independent investigation on the institution's website to encourage persons with information related to the death of Braeden Bradforth to come forward and speak to the Investigation Team. The announcement was initially posted on May 31, with updates on June 10, June 17, and again on July 31, 2019. On May 30, 2019, Garden City Community College President Ryan Ruda sent emails to the campus-wide community, to alumni and to former football student-athletes who had been coached by former head football coach, Jeff Sims. These emails also encouraged recipients with information related to the death of Braeden Bradforth to come forward.

Excluding witnesses who independently contacted the Investigation Team, we identified several individuals who we believed might have information relevant to a determination of the cause or causes of the death of Braeden Bradforth. Although many individuals were still employees or students of Garden City Community College, others were never associated with the institution. At our request, the Administration provided significant assistance to the Investigation Team as we undertook efforts to identify and locate such witnesses. When we encountered difficulty identifying or securing interviews of former employees, Mr. Grisell and the Administration assisted us and encouraged such persons to cooperate with our efforts.

At the outset of each witness interview, we explained the structure of our engagement, our investigation mandate, and the fact that although the Investigation Team includes lawyers, we were not representing Garden City Community College, the Bradforth family, or the witnesses. We never prohibited nor otherwise objected to the participation of a personal attorney for a witness during an interview. If we learned a witness was represented by a lawyer, we thereafter directed our communications to their counsel. We also informed each witness we would be taking notes of our discussion and we were not otherwise recording the interview.

The investigation into the cause or causes of Braeden Bradforth's death was complicated, however, by several factors. First, we could not replicate exactly the August 1, 2018 weather and other environmental factors present on the practice field or in the alley where Braeden Bradforth was found by football student-athletes following a team meeting. Second, nearly all witnesses anticipated the Bradforth family would soon file a lawsuit against Garden City Community College and perhaps other organizations and individuals. This may have been an important reason why some witnesses decided not to respond to our repeated requests for an interview. Because the Investigation Team does not have subpoena power to compel testimony, we were unable to learn potentially important facts from such individuals. Despite repeated efforts by Mr. Grisell, the Administration and the Investigation Team to secure interviews from football student-athletes and athletic training students,¹ many of these witnesses chose not to meet with us. In addition, the emergency department physicians and nurses at St. Catherine Hospital who attended to Braeden Bradforth during the final moments of his life refused, through counsel, all requests for an interview. We could not locate some witnesses such as Braeden Bradforth's college roommate, Nymonta Doucoure, despite calls to his last known phone number. Exact timelines could not be established for some events, as we had no access to mobile telephone records of Garden City Community College employees and some events were wholly dependent upon memories of witnesses. Finally, for those persons interviewed, we do not have the legal authority to place witnesses under oath. Notwithstanding these challenges, we believe we gathered the information necessary to make the factual findings and conclusions noted in this Report.

¹ On June 26, 2019, student athletic trainer Madison Groth sent a text message to Assistant Athletic Trainer Sarah Lemmons explaining why she did not want to be interviewed by the Investigation Team. Exhibit 1.

B. Information Reviewed

1. College Records Specific to Braeden Bradforth

There was surprisingly very little written communication between Braeden Bradforth and the Administration, football coaches, and athletic trainers prior to his July 30, 2018 arrival on campus. Braeden sent five emails to football coaches Jeff Sims, Joshua Hager, John Powers, Casey Walker, and Caleb Young on July 24, 2018 asking for an opportunity to play football for Garden City Community College. The only email response from the coaches came from John Powers, who asked Braeden for the phone number of his high school football coach.² We were not provided with any documentation of the coaches' internal decision to invite Braeden to try-out for or to play football at Garden City Community College.

According to records provided by the Administration, Braeden Bradforth applied to Garden City Community College, paid a deposit, and was admitted. The documents included: a signed Assumption of Risk form; a signed Consent to Release Medical Information form; a completed Medical History form; the office note from Braeden's pediatrician; a vaccination report; copies of his insurance cards; a completed Preparticipation Physical Evaluation form ("PPE")³; a completed Student-Athlete Information form; and results of his tuberculosis screen. Braeden Bradforth was reported as weighing 315 pounds and his height was 76". According to body mass calculations, Braeden Bradforth's body mass index was 36.5 and was therefore obese.

2. Athletic Department Practice Schedule, Policies, Plans

Among other things, a detailed football student-athlete calendar that included a practice and game schedule was included in a document titled Garden City Football, Opportunity USA, 2018.⁴ We were told the calendar and practice schedule from this document was provided to all football student-athletes. We saw no evidence that Braeden Bradforth received this information before July 30, 2018, at the earliest. We believe he was unaware of the specifics of the August 1, 2018 conditioning test until he arrived in Garden City. We conclude he ultimately received information about the conditioning test because he discussed it with his high school football coach on July 31, 2018.

3. Organizational Planning and Leadership Structure

Among other things, the Administration provided organizational charts to the Investigation Team for 2015 – 2019.⁵ Several witnesses spoke about interpersonal tension at Garden City Community College during times important to this investigation. There were reports of conflict between the athletic department and the Administration generally and between President Swender, other members of the Administration and the Trustees specifically. Tension extended to the Garden City community about operations at the institution. For example, President Swender and the former Athletic Director, John Green, were supportive of each other

² Email communications between Braeden Bradforth and the football coaches. Exhibit 2.

³ Braeden Bradforth's Preparticipation Physical Evaluation. Exhibit 3.

⁴ Excerpt from Garden City Football, Opportunity USA, 2018; July 28, 2018 - August 1, 2018 schedule. Yellow highlights in document are in original. Exhibit 4.

⁵ Garden City Community College Organization Charts, 2015 – June 2019. Exhibit 5.

while others in the Administration were in open conflict. The current Vice President of Student Services, Colin Lamb, described a toxic culture at the college in 2018. He said it was his perception that President Swender and Mr. Green were the reason for tensions at the institution. We heard about many examples of the conflict. Several witnesses commented that the atmosphere on campus was one of dysfunctional chaos with little regard for best practices or appropriate procedures. In the words of one witness, *nobody trusted anyone* and *everybody was on an island*. Coach Sims also told us *he tried to keep his staff absolutely clear of administrative struggles* and that the *Football staff kept to itself*. We were advised that during 2017 and 2018, Garden City Community College faced financial issues, accreditation issues, litigation issues, staff turnover and related issues, technology and physical infrastructure issues, Title IX issues, possible National Junior College Athletic Association (“NJCAA”) and Kansas Jayhawk Community College Conference (“KJCCC”) violations and sanctions, and the possibility of a US Department of Education investigation into financial aid violations.

Although we did not do an in depth review of these internal organizational conflicts, we mention it in this Report due to the large number of witnesses who commented about it and the impact it must have had on institutional planning. At the time of Braeden Bradforth’s death, President Swender told us he was in the middle of the negotiation of his severance from the institution and that his official resignation date was the following Tuesday, August 7, 2018. Regarding the accreditation issue allegations, the Higher Learning Commission (“HLC”) placed Garden City Community College on Probation in June 2017 when the institution was determined to be out of compliance with HLC’s Criteria for Accreditation. One of the stated issues was the HLC’s concern related to “systemic and integrated planning”; an issue relevant to our investigation and Report. The Garden City Community College status changed from “Accredited – Probation” to “Accredited” effective June 27, 2019.⁶

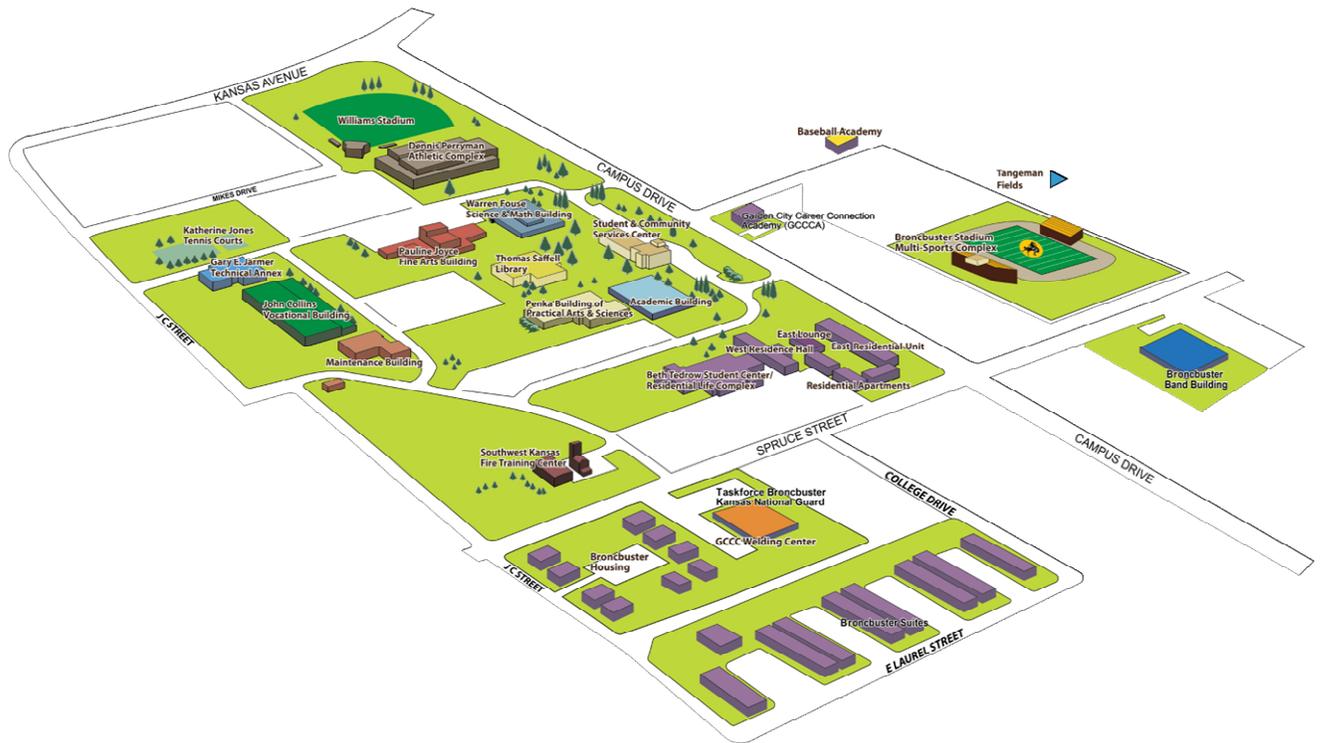
Mr. Lamb told us that the positive turning point in leadership on campus was the departure of Mr. Green and President Swender and the hiring of Dr. Ruda as President/CEO.

4. Campus Facilities

We visited nearly all buildings on campus and all facilities that were important to this investigation including the Dennis Perryman Athletic Complex (“DPAC”); Broncbuster Stadium; Residence Halls; and the Academic Lecture Building and Lecture Hall (reference Figure 1) where the team “Winners Meeting” was held after the August 1, 2018 conditioning test. We walked the path Braeden would have taken from the stadium, across the Assembly of God Church parking lot, the location on campus he last interacted with Coach Caleb Young, and then on to the alley where he was found in medical distress. We obtained the distances important to our work from Google maps. Although we acknowledge these distances are not exact, they illustrate the approximate distances presented in the Report.

⁶ HLC Public Disclosures of decisions related to Garden City Community College. Exhibit 6.

Figure 2. Garden City Community College Campus Map

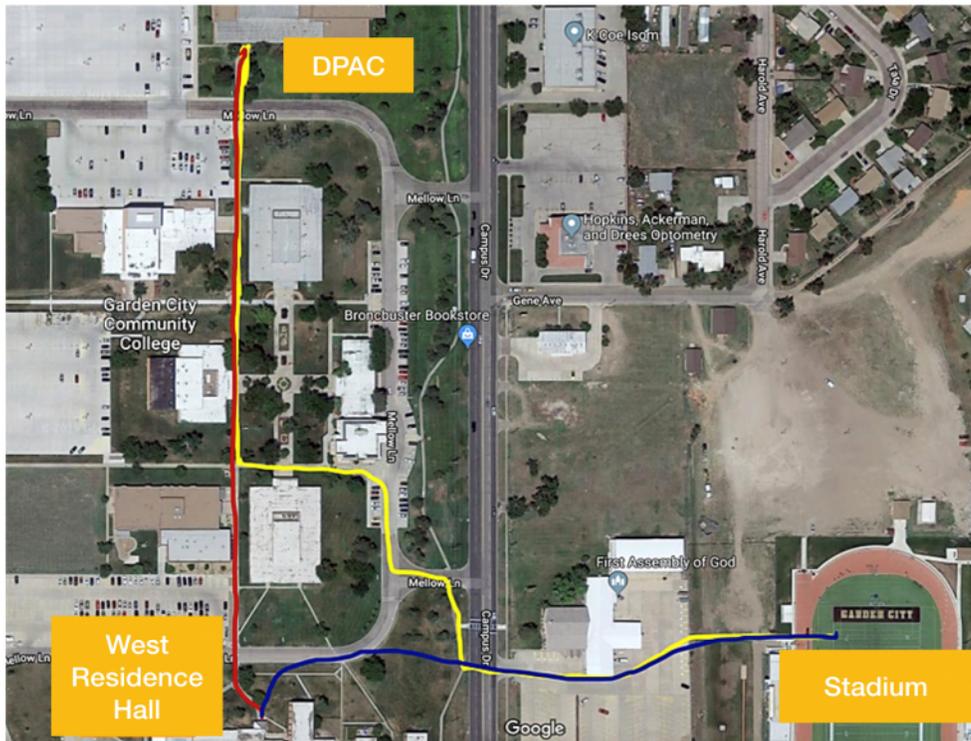


The athletic department is housed within the DPAC (reference Figures 2 and 3). Braeden Bradforth and some of his teammates were housed in the West Residence Hall, 1,294 ft. from the DPAC (reference red route on the aerial photograph in Figure 3). The football practice area is located at the stadium 2,341 ft., roughly one-half mile, from the team locker room (reference yellow route on the aerial photograph). The West Residence Hall is 993 ft. from the practice area in the stadium (reference blue route on the aerial photograph in Figure 3). Multiple witnesses, including TJ Horton and Sarah Lemmons, told us the majority of the football players dress in their residence hall room and walk the shorter distance to the stadium (1,986 ft. versus the 7,270 ft. roundtrip to DPAC and stadium). All distances are presented in Table 1. At the conclusion of practice, the football players return to their residence hall where they shower. We were told the traditional locker room space is rarely utilized by the team except on game day.

Table 1. Walking Distances (measurements in feet) Related to Practices

	Pre-Practice	Post-Practice
West Residence Hall to DPAC (red)	1,294	1,294
DPAC to Stadium (yellow)	2,341	2,341
Stadium to West Residence Hall (blue)	993	993

Figure 3. Map of Walking Distances



5. Common Space Cameras

As we toured the campus, we noted that exterior surveillance cameras are strategically located on various buildings. The majority of the cameras, however, were non-operational as of the date of our investigation. Those cameras that were functional produced very poor quality digital images. The camera system at Garden City Community College was purchased in 2010, is of extremely poor quality and has not been properly maintained. During the summer of 2018, there was no plan in place to automatically review surveillance video in the event of any criminal act or injury accident on campus. During our June 4 - 5, 2019 visit, we reviewed images from one of the working cameras and confirmed what we had been told about the poor quality of the camera surveillance system.

According to Campus Police Chief Rodney Dozier, as of May 2018, exterior surveillance camera images were automatically overwritten every 30 days.⁷ Mr. Dozier explained that the reason images were automatically overwritten was on account of limited storage due to cost issues. When questioned further about this, he stated he did not consider the option of exporting images to an external drive when an incident such as that involving Braeden Bradforth occurred. In the days following Braeden's death, Mr. Dozier told us he did not ask for any images to be saved because he did not think there would be any camera that would have captured any portion of Braeden Bradforth's journey from the stadium to the alley where he was found by teammates. Mr. Dozier admitted, however, that nobody looked at images from any of the cameras to see if at least one picked up anything that might have been of interest. As of the time of our investigation, all exterior camera images from August 1, 2018 had been overwritten.

President Ruda told us the institution has updated all internal cameras over the past year and have a plan and bids/quotes in place to install additional exterior cameras on buildings and in the parking lots to improve coverage in the future. He said the institution plans to retain images for 30 days and longer in the event of a criminal act or injury accident on campus. Following the death of Braeden Bradforth, we were told some exterior cameras began to be replaced. Mr. Dozier told us he believes Garden City Community College needs a policy regarding cameras and the review of surveillance images following certain types of campus incidents.⁸ Mr. Dozier said he has considered policies from other colleges and universities and has submitted suggestions to Derek Ramos, the Dean of Physical Plant Facilities Management.

Andrew Knoll, Director of Information Technology, has been overseeing surveillance cameras since March 2019. He told us the institution plans to purchase a new server and new cameras. He also said the institution plans to overwrite data every 30 days for both indoor and exterior cameras.

6. Emergency Medical Service Records

We received and reviewed several records related to the emergency medical response once Braeden Bradforth was found unconscious in an alley servicing the West Residence Hall. On September 4, 2018, Garden City Police Chief Michael Utz requested all documents from the Emergency Medical Service assist call related to this matter.⁹ The documents include: the 911 call from TJ Horton;¹⁰ the EMS radio traffic in connection with this matter;¹¹ the Medical Control radio traffic;¹² and the EMS Event Report.¹³ The Investigative Team received records of

⁷ Andrew Knoll, the current Director of Information Technology, told us that exterior cameras were overwritten every 14 days.

⁸ On October 25, 2019, Mr. Dozier sent the Investigation Team a copy of the Security Cameras Policy Statement, approved October 1, 2016. Garden City Community College personnel did not know about or follow this Policy in connection with the Braeden Bradforth incident.

⁹ Supplemental Report provided by GCPD. Exhibit 7.

¹⁰ A transcript of the 911 call is provided with the hard copy of this Report. An audio recording of the 911 call is also provided with an electronic copy of this Report. Exhibit 8.

¹¹ A transcript of the EMS radio traffic is provided with the hard copy of this Report. An audio recording of the EMS radio traffic is also provided with an electronic copy of this Report. Exhibit 9.

¹² The audio recording of the Medical Control radio traffic is provided with an electronic copy of this Report. Exhibit 10.

¹³ The EMS Prehospital Care Report includes call and dispatch times discussed in this Report. Exhibit 11.

the pre-hospital care provided by the emergency response team that treated Braeden Bradforth in the alley and transported him from the campus to St. Catherine Hospital.¹⁴

7. Medical Records

Copies of certain medical records were initially provided to the Investigation Team in June, 2019 by Jill Greene, counsel for the Bradforth family. Medical records related to Braeden Bradforth's brief hospitalization at St. Catherine Hospital were also provided to the Investigation Team directly from the Hospital in August 2019 pursuant to a medical records release authorized by and received from the Bradforth family. Among the medical records provided to the Investigation Team was the November 30, 2018 Amended Certificate of Death from the Office of Vital Statistics in the Kansas Department of Health and Environment.¹⁵ We requested, but did not receive, the original Certificate of Death from the Finney County Coroner's office. Although we again presented the medical release from the Bradforth family, we were told St. Catherine Hospital would not release the original Certificate of Death to the Investigation Team.

8. Garden City Police Records

The Garden City Police Department did not investigate the death of Braeden Bradforth. Rodney Dozier told us that on August 2 or 3, 2018, he talked with the Police Chief, Mike Utz, about possibly investigating facts and circumstances related to Braeden Bradforth's death. Mr. Dozier said Chief Utz told him they did not intend to investigate the matter because Braeden died at the hospital and therefore it was considered "an attended death".

9. Internal Review by Garden City Community College

Information for a document titled Internal Review related to the death of Braeden Bradforth was collected by Colin Lamb,¹⁶ Rodney Dozier and Tammy Tabor¹⁷ in mid September 2018.¹⁸ We understand Ms. Tabor was the primary writer of the Internal Review with input by Mr. Lamb and Mr. Dozier. We were told no witness was interviewed in connection with its preparation. The Internal Review is largely based upon a collection of statements by certain persons with knowledge about the August 1, 2018 conditioning test and the discovery of Braeden Bradforth in medical distress in an alley on campus. Ms. Tabor and Mr. Lamb told us it was particularly difficult to pin down TJ Horton on facts related to the incident. Mr. Horton was asked to submit a statement, and soon after he submitted it, we were told he would mention something further. Ms. Tabor told us when this happened, she asked him to write it down and submit it to her. Mr. Horton prepared four statements prior to the time we began our

¹⁴ EMS Prehospital Care Report details care provided by EMS paramedics James Good and Christine Macias relative to this incident. Exhibit 12.

¹⁵ Amended Certificate of Death. Exhibit 13.

¹⁶ Colin Lamb was the Dean of Students at the time of the incident. He is now the Vice President, Student Services and Assistant Athletic Director.

¹⁷ Tammy Tabor is the Director of Compliance in the Athletic Department and the Director of Enrollment Management.

¹⁸ Internal Review. Exhibit 14.

investigation in May 2019. Eight months after the incident, a document titled Summary of Internal Review, Braeden Bradforth Matter was released in mid April 2019.¹⁹

To our knowledge, no other investigation regarding the death of Braeden Bradforth was undertaken between the time of the Internal Review and the time we began our investigation.

10. Witness Interviews

Persons interviewed and/or for whom written statements or texts were obtained are attached to this Report.²⁰

V. EVENTS LEADING TO THE DEATH OF BRAEDEN BRADFORTH

A. Investigation Team Timeline Summary

May 14, 2019	Investigation Team engaged by the Garden City Community College Board of Trustees
June 3 - 6, 2019	Investigation Team Trip 1 and interviews in Garden City, KS
June 11, 2019	Dr. Walters interview of Ms. Ingram-Atkins in Newark, NJ
June 25 - 28, 2019	Investigation Team Trip 2 and interviews in Garden City, KS
July 27 - 29, 2019	Investigation Team Trip 3 and interviews in Garden City, KS and Wichita, KS
August – October, 2019	Research, Continued Interviews and additional document review

B. Initial Stages of Investigation Prior to June 3, 2019

The Administration delivered several documents to the Investigation team in May, 2019. Among other things, the documents included information related to the Internal Review; Summary of Internal Review, Braeden Bradforth Matter; football program; certain medical records; 911 and emergency medical service records; and Garden City Community College records related to Braeden Bradforth. In addition, the Investigation Team requested:

- Name, job title, and contact information for:
 - All football coaches during the 2018-2019 school year;
 - All athletic trainers during the 2018-2019 school year;
- Names and contact information for football team players for the 2018-2019 school year and specifically those that attended the August 1, 2018 practice;
- Name and contact information for Braeden Bradforth's roommate;
- Copies of all football practice and game schedules for the 2018-2019 school year;
- Copies of minutes from all football team meetings from May 2018 to August 2018;
- Copies of all training or practice schedules, plans, or documents;

¹⁹ Summary of Internal Review, Braeden Bradforth Matter, April 2019. Exhibit 15.

²⁰ List of witnesses. Exhibit 16.

- All e-mail correspondence between any Garden City Community College representative and Braeden Bradforth regarding conditioning, training, or participation in the football program from May 2018 to August 2018;
- Copies of Employment Agreements for football coaching and training staff;
- Copies of all football performance and/or practice videos or other recordings; and
- Names, job titles, and contact information for persons responsible for oversight of student-athlete strength and conditioning and training programs.

To the extent this information was available, it is our opinion it was provided by the Administration to the Investigation Team. We expected more emails, particularly from the coaching staff, assuming they used email to communicate with one another. We also did not have access to mobile phone records or text messages such that we can say we captured a record of all important communications during times important to this investigation. The Investigation Team also secured additional documents including, but not limited to, the NJCAA Handbook and treatment protocols from Centura Medical Group, the consulting medical group for Garden City Community College. In all, the Investigation Team reviewed over three thousand pages of written material and over four hundred documents including, but not limited to, reports, manuals, diagrams, photographs and emails, and conducted over 40 interviews.

C. Interview of Bradforth Family and High School Coach

Joanne Ingram-Atkins and her lawyer, Jill Greene, were unwilling to meet with Mr. Aliment but agreed to meet with Dr. Rod Walters on June 11, 2019 at the Newark Liberty Airport Marriott. During the meeting, Braeden's mother told Dr. Walters about her son and described in detail the days and moments before he boarded a plane to play football at Garden City Community College. Braeden traveled to Garden City on July 30 on American Airlines flight 4039. The flight was scheduled to arrive in Garden City at 1:46 PM. A copy of the flight confirmation receipt was shared with Dr. Walters by Ms. Ingram-Atkins. In the documents we reviewed, it is mentioned Braeden had consulted with a cardiologist in New Jersey.²¹ When Dr. Walters asked Ms. Ingram-Atkins about this, she denied they had any concerns about it and said Braeden had received a full clearance from his cardiologist, Dr. Mitchell Alpert,²² to play football. Ms. Ingram-Atkins suggested that Dr. Walters phone Braeden's high school football coach to gain more insight into subjects related to his athletic ability and conditioning prior to August 1, 2018.

Braeden's high school coach, Tarig Holman, was contacted on July 19, 2019. Coach Holman confirmed Braeden had been recruited on his high school campus by Coach Steve Shimko, an assistant football coach from Garden City Community College. Coach Shimko left Garden City for a position as assistant quarterbacks coach for the Seattle Seahawks prior to Braeden's arrival in Garden City. This may account for the reason the recruitment of Braeden to play football in Garden City went dark in the spring of 2018.

²¹ Cardiology consult was discovered during a phone conversation between Athletic Director John Green and Joanne Ingram-Atkins the week following Braeden's death. TJ Horton was in Mr. Green's office during the call, and reported it in connection with the Internal Review.

²² On June 12, 2019 and again on June 26, 2019, Dr. Walters asked Jill Green to send the Investigation Team the cardiologist's medical records. As of this writing, these medical records have not been received.

Coach Holman explained Braeden Bradforth played in the 41st All-Shore Gridiron Classic on Thursday, July 12, 2018 at Brick Memorial High School. According to Ms. Ingram-Atkins, Braeden had been working out to prepare for this game and was engaged in all the practices the week of the game. Ms. Ingram-Atkins also told Dr. Walters he played the entire game. Coach Holman commented, however, that although Braeden was not in great shape, he was able to rotate plays with other players as is common with all-star play. When asked about Braeden's level of fitness prior to his departure for Garden City, Coach Holman stated he was not in good shape.

Ms. Ingram-Atkins told Dr. Walters there was a telephone conversation between Braeden and Coach Holman on July 31, 2018. During the interview of Coach Holman, he confirmed Braeden had spoken with him by phone after Braeden had arrived in Garden City. He said Braeden told him he was concerned about the conditioning test planned for August 1, 2018. Coach Holman said the two of them discussed the specifics of what Braeden understood would be the conditioning test; 36 – 50 yard sprints within 8 seconds for each sprint for offensive and defensive linemen like Braeden.²³ Coach Holman said Braeden mentioned he was concerned about his ability to successfully complete the conditioning test but volunteered Braeden had a great deal of pride and this would cause Braeden to push himself.

D. Bradforth's Medical Condition

Braeden Bradforth was screened by his pediatrician on July 27, 2018. From the medical history we reviewed and his PPE, there is no reference to his being Sick Cell Trait ("SCT") positive.²⁴ Medical records also indicate Braeden denied any drug or alcohol use when seen by his pediatrician. The autopsy report revealed there was no drug interaction or alcohol issue that played any role in the cause of death.²⁵ Braeden was medically cleared for participation in the Garden City Community College football program without restrictions by his pediatrician, Dr. Helen Atienza.²⁶

E. Bradforth's Decision to Play Football at Garden City Community College

Braeden's stepfather, Robert Ingram, told us Coach Capenelli, Braeden's former coach at Neptune High School, had sent game-film on Braeden to several schools prior to Braeden's senior year. One of those schools was Garden City Community College. We asked Mr. Ingram about Braeden's level of physical activity and fitness prior to the July 2018 All-Shore Grid Iron Classic game. Mr. Ingram described Braeden as a player that wanted to be his best. He said Braeden worked out at practices with his high school coach, Tarig Holman. He also commented that there were workouts during the summer of 2018 prior to and leading up to the Grid Iron Classic. Because Mr. Ingram is a regional truck driver, he is out of the home several days at a

²³ Practice schedule for August 1, 2018, Exhibit 4.

²⁴ SCT positive persons may have serious complications up to and including death associated with dehydration and an overheated body temperature. Altitude, dehydration and pre-existing illness during strenuous exercise can adversely affect persons with SCT.

²⁵ November 28, 2018 Autopsy Report. Exhibit 17.

²⁶ Preparticipation Physical Evaluation. Exhibit 3.

time and did not closely monitor how frequently or how rigorously Braeden was working out during the summer of 2018. After the Grid Iron Classic, Mr. Ingram said he had spoken with Braeden about the need to make the most of his life. He said he told Braeden he should get admitted to a school and play football. Mr. Ingram said he was surprised when he returned from his next trip and Braeden excitedly told him he got a chance to play football at Garden City Community College. Mr. Ingram denied having a conversation with any of the coaches at Garden City Community College prior to the August 1, 2018 conditioning drill.²⁷

Ms. Ingram-Atkins explained that she had asked if Braeden could arrive in Garden City on July 31, 2018 due to the late date Braeden was invited to attend and play football at Garden City Community College. She said that school administrators told her that if Braeden was going to enroll for the fall semester, all football players had to report on campus by July 30, 2018. Accordingly, she and Braeden decided to make immediate plans for his trip to Garden City.

F. The Onboarding of Football Student-Athletes

The following information is listed on the Garden City Community College website (https://www.gobroncbusters.com/information/2019_athletic_forms.pdf):

1. Each student-athlete is required to have a [PPE]²⁸ prior to participation in any intercollegiate sport. The final decision on physical disqualifications or reason for rejection is the responsibility of the team physician and/or athletic trainer (AT); furthermore, return to competition following an injury is also the decision of Garden City Community College ATs or Team Physician. Athletes may be disqualified from a particular sports program if the medical staff feel further participation would be hazardous to the health and safety of the student-athlete.
2. When for any reason the physician completing the PPE recommends a specialist be consulted before approval of sports participation, the individual concerned will be responsible for securing such information prior to any sports participation.
3. When previous injuries have been evaluated by a medical specialist prior to enrollment at Garden City Community College, a letter or approval/clearance must be submitted to the athletic trainer prior to participation in any sports activity.

²⁷ Persons present at the August 1, 2018 conditioning drill reported Coach Jeff Sims was *up in Braeden's face* while Braeden was running sprints during the conditioning test. We were told Coach Sims was yelling at Braeden telling him he had spoken to Braeden's father who told Coach Sims Braeden *didn't work hard*. During our interview of Coach Sims, he denied having spoken to Braeden's father.

²⁸ The PPE is sometimes referred to in Garden City Community College materials as a Preparticipation Physical Evaluation and at other times a preparticipation physical examination.

G. July 30, 2018 – The Onboarding of Braeden Bradforth

Like Braeden Bradforth, Sarah Lemmons was new to Garden City Community College. She started work at the institution on July 5, 2018. No specific plan was shared with us by Ms. Lemmons regarding onboarding her specific to athletic training duties. As of August 1, 2018, Ms. Lemmons was not licensed by the state of Kansas Board of Healing Arts.²⁹ She administered much of the processing of medical paperwork required for participation at Garden City Community College. During this time, the Athletic Department was in the midst of migrating to a new electronic medical record, Healthy Roster, which had been provided by Dr. Clay Greenen, to facilitate better monitoring of student-athletes post-injury, especially those sustaining concussions. SportsWare had been used previously. Ms. Lemmons was also preparing a spreadsheet that listed information on players cleared to practice. Data collected included student-athlete parent information, copy of [insurance] card, completed medical history, PPE, acknowledgement of policies and procedures, a signed consent form, SWAY balance test, and the importing and printing ability of ImPACT™ data into SportsWareOnline™.

Garden City Community College has an open enrollment policy so students who have a high school degree are admitted. Braeden's admission application was processed on July 27, 2018. Student Academic Credits ("STAC") records show Braeden Bradforth never enrolled in classes or met with an academic advisor. According to NJCAA rules, student-athletes do not have to be enrolled to participate in preseason football camp. Braeden Bradforth was classified by the institution as a football recruit and an admitted but not enrolled student. Mr. Lamb told us that Braeden was a *walk-on* and that no letter of intent was signed or a scholarship offered. Braeden Bradforth paid the residence hall and meal fees during football camp.

According to Coach Caleb Young, communication to players usually came from the position coach, then to the coordinator, and finally to the head coach. Coach Jeff Sims told us about a series of six letters that are sent by the coaching staff to players over the summer. He said that each letter sets forth information intended to help players prepare to play football for Garden City Community College. As an example, Coach Sims told us that if a student-athlete was a late recruit and missed the first three letters, the player would be sent the fourth letter along with the first three. He also stated that if the player was recruited after all six letters went out, he would be sent all six letters before he arrived on campus. According to information provided to the Investigation Team by the Administration and by the Bradforth family, there is no evidence that Braeden received any of these six letters at any time. Coach Sims recalled no direct verbal communication with Braeden prior to August 1, 2018. Braeden Bradforth received no communication from Garden City Community College on what would be expected of him on the first day of organized practice prior to the time he arrived in Garden City.

TJ Horton told us that *he and his assistant look at every problem identified in the [PPE]*. He told us that *school policy is to review all physicals before practice begins*. Mr. Horton admitted, however, that the athletic training staff did not review the findings in every player's PPE before the August 1, 2018 conditioning drill. Although Braeden's PPE notes that he was "cleared without restrictions" to participate in college athletics, it includes a recommendation, by

²⁹ Sarah Lemmons received her license August 20, 2018. She was only permitted to perform administrative tasks and work as a first responder until her Kansas license was granted.

his pediatrician, for diet and exercise. In response to a question in the PPE: “Are you currently trying to control your weight? If so, how?” Braeden answered “Yes, Nutrition guide from doctor.” Ms. Lemmons told us that she did not notice specific information on Braeden’s PPE until after his death and therefore, the information noted above about weight, diet, and exercise was not communicated to the coaching staff in advance of the conditioning test.

Information for Braeden was recorded by Ms. Lemmons in an Excel spreadsheet and emailed to the coaches. The Excel spreadsheet report reflects receipt and review of personal health insurance, the PPE, and balance testing (concussion baseline tests).³⁰ Ms. Lemmons told us that prior to August 1, 2018, she only noted that the PPE had been completed and did not look at specific information in the PPEs before the August 1, 2018 conditioning test. To our knowledge, the coaching staff was not aware that details recorded in a PPE were not reviewed by the athletic training staff before players took the conditioning test. No accommodation for Braeden was made by the coaches in connection with the conditioning test.

H. July 31, 2018 – The Day Before the Conditioning Test

As previously noted, Braeden spoke by phone on July 31 to his high school football coach about the specifics of the conditioning test he was to run the next day. Ms. Ingram-Atkins told us that Braeden phoned her around bedtime and told her that he had discussed the upcoming conditioning test with Coach Holman.

I. August 1, 2018 - First Day of Organized Practice

Sarah Lemmons told us that before the first practice there was a *minicamp* attended by the athletic training staff and athletic training students to cover emergency situations and the role each student trainer would have in such a circumstance. She said the meeting covered taping, first aid and what their job responsibilities would be during practice such as helping to prepare the field, filling the splint bag, the medical bag and water bottles. Ms. Lemmons said there was no discussion of what to do in case of heat illness. Ms. Lemmons told us that at the time she came to Garden City Community College, there was no campus-wide emergency action plan (“EAP”) and no athletic training staff EAP was taught to the coaching staff. She also said that there was no athletic training staff policy or coaching staff policy that would require that a player in distress must drink water, must get into an ice tub or must seek shade.

Ms. Ingram-Atkins stated that she received a phone call from Braeden on August 1 around 11:30 am ET. He told her that the players’ day begins early in the morning and although they train hard, he told her he felt good. She said that around 5:30 pm ET, she called him to get the name of his dorm so she could ship him some snacks, speakers and general school supplies.

³⁰ An Excel spreadsheet, with Braeden’s information, was emailed on July 31, 2018 by TJ Horton to Coach Jeff Sims. Exhibit 18. Although CJ Anthony told the Investigation Team he ran in the August 1 conditioning test, this final Excel spreadsheet that was sent to Coach Sims does not indicate CJ Anthony turned in information necessary to participate in this practice. Such participation by CJ Anthony violates NJCAA policy. At the hospital following Braeden’s death, John Green directed TJ Horton to take a look at Braeden’s PPE. Mr. Horton searched for but was unable to find it until seven days later. Exhibit 19. It appears the athletic training staff mishandled student-athlete documents in advance of the August 1 conditioning test.

She said that she called again at 5:45 pm ET to confirm that she shipped the box. She said that she asked him to call her after the workout, but not too late as she had to work in the morning.

1. Scheduled Team Activities

Team activities were detailed in a document titled: Garden City Football, Opportunity USA, 2018. It is our understanding that some, if not all, of this document was provided to the football student-athletes prior to the time team practice activities began.³¹ The schedule included team meetings, meal times, practice times and other team activities.

2. Weight Training

The August 1st day began with a scheduled activity in the weight room. The team agenda for the defensive unit referenced Defense Lift/Condition/Stretch & Position Meetings, Chalk/Walk/Film. Coach Sims described the session to us as an orientation session to introduce players to weight room activities. Weight training orientation was conducted by position group.

3. Conditioning Test

The offensive and defensive units ran the conditioning test separately with the offensive unit first and the defensive unit second. We were told that the players warmed up and stretched before running the test. Players also ran by position group defined for the defensive unit as “Speed” (defensive backs) “Combo” (e.g. linebackers) and “Bigs” (defensive linemen). Braeden ran with the “Bigs”. Defensive players waited in the stands while the offensive players ran. Offensive players completed their run and then went to the stands to rest and drink water while the defensive players ran.

Coach Sims told us that the conditioning test is designed to assess the athlete’s level of condition. He told us that he designed the test based upon the fact that there is an average of seventy-two plays in a typical football game. He said that the defensive and offensive units play roughly one half of the plays, or thirty-six plays for each unit. He told us that the fifty yard sprint within an eight second time for each roughly equates to the exertion of a player during an average play. He told us that the sprints were broken down into four sets of nine repetitions with eight seconds between each repetition and two minutes of rest between each set.

Coach Sims told us that multiple athletes were pulled from the conditioning test because they struggled with the sprints. He described “struggling” as bending over. Players are graded by their position coach at every practice. He told us that although the coaches are generally not allowed to leave the office until their players have been graded, coaches did not grade players after the August 1 conditioning test due to the incident involving Braeden. He offered further that he did not hold a coaches meeting after the “Winners Meeting” for the same reason.

Coach Sims was asked if he recalled Braeden’s performance during the conditioning test. He said that he did and that the defensive line was less than 10 feet in front of him. Coach Sims

³¹ Exhibit 4. As previously noted, we believe Braeden received some, or all, of this document after he arrived in Garden City.

recalled that he had interacted with Braeden earlier in the day and that he was excited to play football in Garden City. He said that Braeden had asked him for shoes to run the conditioning test and Coach Sims said that he gave some running cleats to Braeden. Coach Sims told us that he recalled two instances where Braeden *did not run through the line*³² which he described as a common coaching principle of his staff. Although he stated that he did not recall whether Braeden struggled during the sprints, he admitted that he told Braeden, during the time he was running, that *I didn't give you shoes to run slow*. Coach Sims told us that if Braeden had struggled, he would have been removed from the conditioning test but that was not the case. Coach Sims did mention that Braeden *was a kid that wanted to do well* implying that Braeden tried hard to perform to the best of his ability. He said that any player that failed the conditioning test would be required to run again the next day and would not be issued helmets and shoulder pads until they completed the conditioning test.

According to Coach Young, Coach Sims had his own plan for strength and conditioning and did not seek input from any of the other coaches. He said that the stopwatch for times during the conditioning test was maintained by Coach Sims. Although coaches are required to record the times of players by position under their respective authority, no record of any notes by any coach for the August 1, 2018 conditioning test were delivered to the Investigation Team pursuant to our request.

Coach Young told us that he was positioned during the conditioning test on the north side of the field at the goal line. He recalled the interaction between Coach Sims and Braeden telling us that Coach Sims *yelled at Braeden stating something like he would take them [the shoes] back if he didn't run all the way through the goal line*.

Kirby Grigsby was one of the players on the field during the conditioning test. He was a member of the defensive unit and ran with the defensive backs. He told us that he was able to watch the defensive linemen run. Kirby said that he saw the "Bigs" giving an all-out effort to meet the required time. Kirby also recalled the interaction between Coach Sims and Braeden stating that Coach Sims was *screaming at one particular guy, Braeden, because he was not finishing the run*. Kirby told us that *Braeden was out of shape and really tired*. Kirby said that *there was a lot of screaming and everyone felt bad because they could see Braeden was trying but he was physically worn out. But Braeden never stopped, he kept pushing himself*. Kirby said that although he couldn't hear Coach Sims' words, he could see that he was getting up in Braeden's face. Kirby confirmed that water was available to the players and that they were encouraged by the coaches to keep their bodies hydrated. He denied that the coaches withheld water from the players.

CJ Anthony was also one of the teammates on the field during the conditioning test. He was a member of the offensive unit. He recalled seeing Braeden at the time of the conditioning test and said *he looked big*. He told us that when Braeden ran, *he started to bend over, like he was about to pass out*. He also reported that when that happened, Coach Sims *cussed out Braeden stating that he was soft and that he needed the shoes back*. CJ said that this *embarrassed Braeden in front of the whole team* and that *Braeden kept trying to run to try to prove that he*

³² Players were required to run from the 50 yard line all the way through, and not just to, the goal line.

wasn't [soft]. CJ confirmed that water was available to the players both before and after the conditioning test. He also denied that the coaches withheld water from the players.

Nearly all persons we interviewed that witnessed Braeden run during the conditioning test acknowledged that Braeden had some issue with the run. Some, like Coach Sims, described the issue as a problem with effort; a failure to run through the goal line. Others described physical inability to complete the run in the required time which caused him to bend over, like he was going to pass out, and the like. Whatever the issue was, nobody disputed the fact that there was a confrontation initiated by Coach Sims and directed at Braeden. Clearly there was some difficulty with Braeden's ability to complete 36 – 50 yard sprints within eight seconds for each.

4. Assessment of Student-Athletes in Advance of Practice

We saw no evidence that there was an assessment of the fitness level for any player prior to the time they lined up and ran the conditioning test other than to confirm that a box on the first page of the PPE was checked to indicate that the player was "Cleared without restrictions". Indeed, Mr. Horton admitted that the athletic training staff did not review every player's medical history before the August 1 conditioning test.

There were several concerns about Braeden Bradforth's fitness level that were apparent in his PPE. These concerns should have been accounted for before he ran in the August 1 conditioning test. Although Braeden's pediatrician had noted on his PPE that he could participate in college athletics without restrictions, there was a recommendation specific to diet and exercise. It is also reported that Braeden was trying to lose weight with a nutrition guide from his doctor. Braeden was a late recruit about whom the institution had very little information. It was known, however, that he had reached out to the coaching staff to request an opportunity to play football in Garden City only eight days before the conditioning test. It was known that Braeden came to Garden City, KS with a different climate and elevation (about a 2,800 ft. difference) than Neptune, NJ. It was known that Braeden had not received any of the six letters Coach Sims sent to incoming players over the summer months to prepare them to run hard on the first day of drills. When Braeden showed up, at 6' 3½" weighing 315 lbs.,³³ one may conclude he was obese.

Against these facts, one could reasonably conclude that Braeden Bradforth should not have run in the conditioning test as it was designed and implemented on August 1, 2018.

5. Assessment of Weather

At the practice, TJ Horton told us that he looked at the weather app on his smartphone to note the weather condition.³⁴ He told us that the school had a digital sling psychrometer on August 1, but it was out of batteries so he could not use it. Mr. Horton did not record venue specific measurements indicative of weather conditions on the field. Research suggests the difference between the onsite and NWS WBGT measurements resulted in misclassification of

³³ The weight of 315 lbs. is reflected in the PPE. We saw no evidence Braeden Bradforth was weighed on campus before the August 1 conditioning test.

³⁴ The weather condition, including temperature, was not recorded by Mr. Horton and was not communicated to the coaching staff. This weather and temperature reading would not necessarily record the temperature on the Garden City campus and would not reflect the temperature on the synthetic turf practice field.

the heat-safety activity category by 45%. (Pryor, Pryor, Grundstein, & Casa, 2017). A study referenced on the Synthetic Turf Council’s website originally published in The Journal of Turfgrass and Sports Surface Science Vol. 83 (2007) explains “the intensity of solar radiation striking the artificial turfgrass and the solar zenith angle were primarily responsible for elevating the artificial turfgrass temperature.”

6. Hydration Stations and Protocols

Mr. Horton described a three-tier system that Coach Sims instituted for hydration of football players. This plan was confirmed by Ms. Lemmons and Coach Young. Players experiencing an exceptional practice on the previous day were assigned a black jersey. Players wearing a black jersey were provided the electrolyte drink, Gatorade, during practices for rehydration. Those players described as having a good, but not exceptional, practice wore the regular team jersey (white for offense, brown for defense) and were given water from a squirt bottle. Those players judged as having a poor practice, had to wear an orange jersey and drank out of a water hose. Mr. Horton said he never saw the coach stop a player with an orange jersey from drinking out of a squirt water bottle.

7. Post Practice Assessments

Table 2. Times of Activities Related to Conditioning Test and Discovery of Braeden Bradforth

8:10 PM ³⁵	Defense Begins Conditioning Test
9:10 PM	Conditioning Test Ends
9:15 PM	Players Depart Stadium
9:20 PM	Braeden Bradforth was the Last to Leave the Stadium Accompanied by Coach Caleb Young
9:30 PM	Coach Young Tells Position Coach that Braeden Quit Team
9:30 PM	Team Meeting Begins
9:45 PM	Team Meeting Ends
9:50 PM	Players Tell Coach Young that Braeden is in Distress
9:51 PM	Coach Young Runs to Alley to Attend to Braeden
9:52 PM	Coach Young Calls Coach Sims
9:53 PM	Coach Young Calls TJ Horton
9:53 PM	Coach Sims Calls TJ Horton
9:59 PM	TJ Horton Arrives at Alley to Attend to Braeden

³⁵ Since we did not have access to mobile phone records, we could not precisely identify the exact time phone calls were placed. Times in this table are therefore approximate based upon witness interviews.

Following the conditioning test, Coach Sims said that he assembled the team on the field and reminded them of the “Winners Meeting” scheduled for 9:30 PM. Coach Sims told us that he checked with Mr. Horton before he left for the meeting to confirm that Mr. Horton would remain on the field until it was cleared of all players and coaches.

Ms. Lemmons told us that she noticed Braeden in the stands after the conditioning test. She said that he was just sitting there and was putting on his sandals. She said that she heard Coach Young tell him that *he'd better hurry up* because they had to get to the team meeting. Ms. Lemmons told us that she asked Braeden *are you good?* and said that he responded *yes ma'am*. She told us that she did not notice that there was anything wrong.

Coach Young told us that he went up into the stands to move players along to the team meeting. He said that he saw Braeden stumble as he was going to the stands but did not think anything of it.³⁶ He said that he asked Braeden, *Yo, you good?* to which he said Braeden responded *Yeah I'm good*. Coach Young said that he and Braeden were the last players and coaches to leave the stadium and that they did so together. Coach Young told us that he continued to walk with Braeden from the stadium to the First Assembly of God parking lot adjacent to the carport area. As they left the church parking lot and crossed Campus Drive, Coach Young said that Braeden veered to the left toward the West Residence Hall and in the opposite direction of the “Winners Meeting”. Coach Young reported that he asked Braeden if he was quitting the team. Coach Young said Braeden did not verbally respond, but shook his head in a way that appeared to be *disappointment* and Braeden continued to walk away. Coach Young told us that he interpreted Braeden’s response as a decision that he was quitting the team.³⁷

Although Ms. Lemmons told us Braeden had his water bottle after the conditioning test, no witness told us that they saw Braeden drink water before, during or after the conditioning test. No witness told us that Braeden, or any other player, was denied water at any time during the conditioning test.

This moment was the last chance for someone from the athletic training staff or coaching staff to intervene with Braeden Bradforth as he was in the process of leaving the practice field and stadium, deciding not to attend the team meeting, and heading toward the West Residence Hall. Perhaps Coach Young was correct that Braeden chose not to attend the Team Meeting because he intended to quit the team. Perhaps it was more likely that Braeden did not feel well enough to sit in a meeting and chose instead to return to his room to rest. Alternatively, he could have been disoriented and incapable of making a rational decision. We know that he could not figure out how to take the correct path back to his room. Unfortunately, he chose a route where he would not easily be discovered. When Braeden could not open a locked door at the end of the alley, it appears he chose to sit down, rest his head against a brick wall, and not make an effort to walk back out.

³⁶ Coach Sims told us that according to Coach Young, Braeden stumbled when he walked across the street. It is unclear whether this was in addition to the misstep in the stands. Braeden’s difficulty with balance and/or walking could have been interpreted as a presentation of an exertional heat stroke, especially when coupled with the just completed exertional activity. His case would fully manifest in the coming minutes when he wandered into an overheated alley with poor circulation of air.

³⁷ Sarah Lemmons, who last saw Braeden in the stands after the conditioning test, told us *it didn't look to her like he wanted to quit. It looked like he had a good attitude.*

Based upon the timeline and events presented in Table 2, it is estimated that 30 minutes (9:20 PM to 9:50 PM) elapsed from the end of the conditioning test to the time teammates discovered Braeden Bradforth in medical distress in the alley. It is also estimated that discovery was about 25 minutes (9:25 PM to 9:50 PM) after he veered away from Coach Young toward the West Residence Hall.

8. Team Meeting

In Coach Sims' system, each position coach is responsible for his players. This is true for both practices and meetings. Position coaches take attendance of their position players. As Coach Young entered the meeting room, he told Coach Bradley that Braeden quit the team. Coach Sims was also told Braeden quit the team and he admitted, during our interview of him, he was upset by this. Coach Sims said when he addressed the team, he talked about Braeden and admitted to us he *made some rather rough comments about Braeden's performance during the conditioning drill based upon the information from Coaches Young and Bradley*. It was at the "Winners Meeting" that Coach Sims told us he told the team *this kid didn't even finish the running today, was slacking, he didn't even have a pair of shoes to lift in, but I gave him a pair of shoes*. Kirby Grisby said Coach Sims told the team Braeden was *slacking* during the conditioning test and said *because Braeden didn't finish running, he felt disrespected and told Bradley to tell Braeden to "gimme my shoes back."* Coach Sims told us he now regrets having made "rather rough comments."

According to Mr. Horton, no athletic trainer went to the "Winners Meeting" to see if any player was medically in trouble. Following the conditioning drill, the athletic trainers were engaged in breaking down the equipment before going home.

J. Discovery of Braeden Bradforth in Campus Alley

Kirby Grigsby said he grabbed his water bottle and walked out of the "Winners Meeting" alone to his dorm room. Along the way, a couple players called out to him stating *hey we need some help over here*. The two players also said *we need help, he needs water*. Kirby said he poured what was left in his water bottle on Braeden's face. He said Braeden's head was against the brick wall, he was out of breath, and he would not get up. He said that although more people started to arrive at the scene, most stayed at the entrance.

At this point, a couple of players ran back to the Team Meeting to get some help and located Coach Young, who told us he immediately ran out to an alley between the West Residence Hall fence and the West Residence Hall. Upon arriving in the alley, Coach Young told us Braeden was opening and closing his eyes and there was a crowd of players around. Coach Young said he called Coach Sims. Coach Young asked Coach Sims if he should call an ambulance or Mr. Horton. Coach Sims directed him to call Mr. Horton. Coach Sims told us he also called Mr. Horton after he spoke with Coach Young.

Figure 4. Photo of Alley Where Braeden Bradforth Was Found



Kirby said the players with Braeden in the alley told Coach Young to *call the ambulance, call the police*. He said that instead, Coach Young called Mr. Horton. Mr. Horton told us he was on his way home after practice when Coach Sims called him and told him a player was down near the dorms.

Table 3 outlines events at the alley. Figure 4 provides a visual of the alley where Braeden Bradforth was found, sitting down with his head against the brick wall at the end of the alley next to the locked door. Three minutes passed from the time Mr. Horton arrived on the scene until EMS was called. Once EMS arrived at 10:09 pm, it was another 16 minutes until the unit departed the campus for the hospital.

Table 3. Timeline of Events at the Scene Upon Discovery of Braeden Bradforth

10:01:32 PM	EMS Call Received From TJ Horton	EMS Report
10:02:26 PM	EMS Call Ended	EMS Report
10:04:03 PM	EMS Dispatched to Scene	EMS Report
10:09:11 PM	EMS Arrives on Scene	EMS Report
10:20:00 PM	TJ Returns to ATR to Retrieve PPE	TJ's notes
10:21:00 PM	Supplemental Oxygen Begins	EMS Pre-Hospital Care Notes
10:24:00 PM	Vital Signs: BP 79/59, Pulse 169, Resp 20, Labored, O ₂ 94, BG 141	EMS Pre-Hospital Care Notes
10:24:00 PM	Glasgow Coma Scale 4	EMS Pre-Hospital Care Notes
10:24:33 PM	EMS Declares Code Red	EMS Report
10:24:59 PM	EMS Dispatched to St. Catherine Hospital	EMS Report

It was reported by multiple sources that many student-athletes brought water to the alley and poured it on Braeden's head. We were told Braeden would stick out his tongue like he wanted water. There were players standing around but Mr. Horton does not recall who those players were. A couple other coaches showed up as well. We were told Braeden opened his eyes, but it was just a blank stare.

Ms. Lemmons told us her *big question about the Bradforth incident was why emergency medical services was not called right off the bat*. Ms. Tabor also told us *in [her] mind, the biggest thing was not calling EMS right away*.

1. Heat Differential in Alley

Reference the inserted drawing, Figure 4. The 4 ft. wide concrete walkway is bordered by a 25 ft. high brick wall on the West and is open to the East for the first 30 ft., from Point A to Point B. The 6 ft. high fence bounds the East side of the walkway from Point B to Point C. At Point C, the fence gives way to the 25 ft. high brick wall which surrounds the walkway for the final 7 ft. where Braeden Bradforth sat with his head against the brick.

Several persons interviewed commented on how hot the space was (at Point C). Based upon these statements, we decided to obtain temperature readings along the brick wall at approximately the same time of day Braeden had been found. The measured temperatures would then be compared to each other to determine if a correlation exists between position and temperature. The air temperatures of the two different days would not be identical of course, but the temperature measurements along the wall would help quantify the localized increase in temperature due to the combined effects of the 25 ft. brick wall's thermal mass (radiant heat) and the restricted airflow (minimal air cooling).

On our August 27, 2019 visit to the campus, air temperatures were measured at points along the wall and in the open space adjacent the alley, approximately 15 ft. from the building.³⁸ The measurements were taken in the evening (8:30 pm CT) to attempt to replicate the environmental conditions on August 1, 2018.

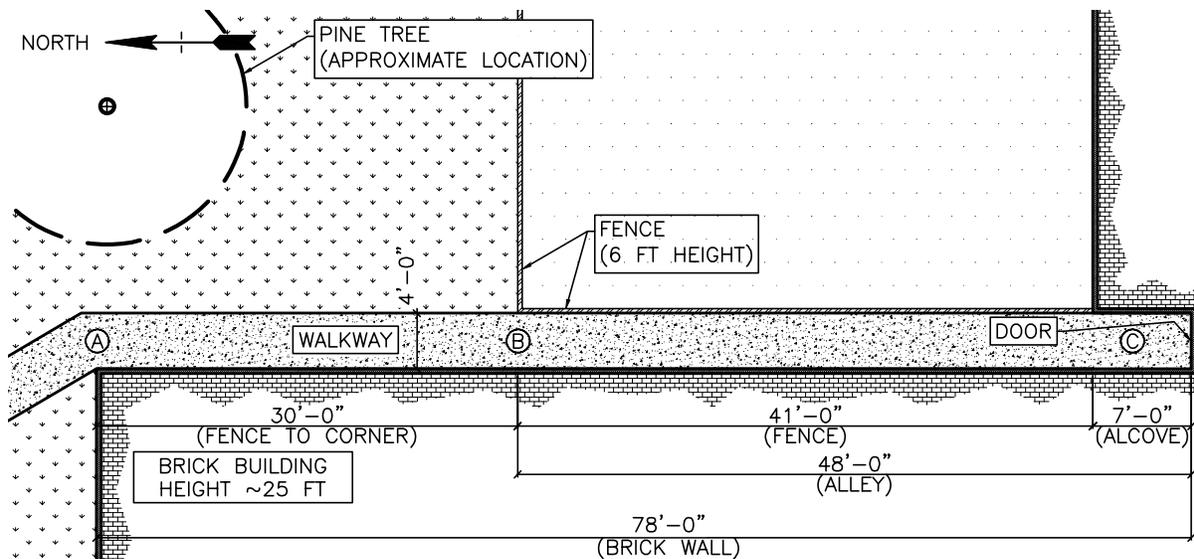
The ambient temperature at the site on August 27, 2019 at 8:30 pm CT was 73° F, 11° F less than the 84° F referenced on the day of the incident.³⁹ The temperature at the corner of the wall was measured at 74° F (reference position A). The temperature at the midpoint of the wall was 76° F (reference position B). The temperature where Braeden Bradforth was found resting his head against the brick wall was 79° F (reference position C). This data indicates a correlation between air temperature and distance from the alcove and corroborates interviewee statements that the alley was noticeably hotter than the surrounding area. At Point C, Braeden was surrounded on three sides by 25 ft. of brick. The brick wall has a high thermal mass which allows it to radiate heat long after the sun has set, demonstrated by the increased temperatures measured

³⁸ Measurements were made using a Kestral 5400 WBGT Heat Stress Tracker & Weather Meter and validated with a SensorPush Wireless Thermometer/Hygrometer.

³⁹ The National Weather Service shows a temperature of 79° F on August 27, 2019 at 8:30 pm CT. The August 2018 statement by Coach Sims references a temperature of 84° F at 6:54 PM as collected from www.wunderground.com/history/daily/KGCK/date/2018-8-1. The web values were actually recorded at the airport some ten miles distant from the campus.

along the walkway. From a relief point of view, there was minimal air movement between the 6 ft. fence and the 25 ft. brick wall, meaning the wall's radiant heat was not being removed but rather was maintaining elevated temperatures in the alley. It is also significant to note the ambient temperature measured at the site on August 27, 2019 was 4° F greater than the values published on the web for that same day. Venue specific measures are the recommended and should be noted and recorded in advance of a practice.

Figure 4. Sketch of Access Alley of West Residence Hall



2. Initial Medical Assessment and Response in Alley

When TJ Horton arrived, he noted Braeden's labored breathing. He said it was like he was snoring. He told us when he first saw Braeden in the alley, his thought was he had slipped and possibly hit his head. At the time, he assumed Braeden had attended the team meeting. Mr. Horton assessed Braeden's radial pulse but could not find one. He said when he checked his carotid pulse, Braeden would stop breathing. Mr. Horton told us his heart rate was about 100 bpm.⁴⁰ Mr. Horton said there was no breeze in the alley and told us *it was hot there* [the alley]. He did not assess core temperature or attempt to cool Braeden. Mr. Horton said he did a sternal rub to attempt to arouse him without success.

Paramedics James Good and Christine Macias responded to Horton's 911 call and we interviewed both. Ms. Macias told us her best recollection of what happened that evening is reflected in the detailed report she prepared.⁴¹ Upon their arrival at the alley, Braeden was unconscious and leaning against the wall in the dark alley to the side of West Residence Hall dormitory. Ms. Macias reported *his head was leaning on the building*.

⁴⁰ No vital signs were ever recorded by TJ Horton. During our interview of Mr. Horton, estimated Braeden's heart rate was 100 bpm (beats per minute).

⁴¹ Exhibit 12.

Mr. Good and Ms. Macias reported Braeden had a Glasgow Coma Scale (“GCS”) score of “4”. The GCS is a neurological scale that gives an objective assessment of a person's consciousness for initial as well as follow-up assessments. The GCS is intended to give a reliable and objective way to record the state of a person's consciousness for initial as well as subsequent assessment. A person is assessed against the criteria of the scale, and the resulting points give a person's score between 3 (indicating deep unconsciousness) and 15. The GCS assessment is an evaluation of the patient's eye responses, response to verbal commands, and motor responses.

Braeden never regained consciousness. Mr. Good recalled it was tight and congested with no airflow in the alley. He told us there were several people around including some players and coaches, but he did not know specifically who they were. Mr. Good said he was working on Braeden at the same time they were telling him what they knew about how Braeden ended up in the alley. Mr. Good said nobody seemed to know other than the fact they told him Braeden had a *rigorous workout* a short time earlier. Ms. Macias recorded that a teammate said *they had an intense workout one hour prior*. She also recorded that a coach stated *they had an intense cardio workout prior*.

Mr. Good told us those present were unsure if the patient hit his head, fainted, or anything else about what happened.⁴² He said they were only able to provide minimal patient history. “Coach states patient had asthma and used an inhaler”.⁴³ This comment about asthma and the use of an inhaler was not mentioned during our interviews. This is also interesting since Braeden's PPE (which does not reference an inhaler or asthma) had not been shared by the athletic training staff with the coaches. We have been unable to ascertain which coaches provided this information, but the likely source was Coach Young, who interacted with Braeden on several occasions and may have noticed his use of an inhaler.

When we asked Mr. Good why Braeden's core temperature was not assessed, he said they did not have a rectal thermometer in the emergency vehicle. Although they were told Braeden had recently completed a *rigorous* and *intense cardio workout* and they knew it was a warm evening and he was found unconscious in a hot and congested alley with limited airflow, they did not recognize this was a heat related illness. They provided no heat illness specific treatment for Braeden at the alley or on the way to the hospital. Mr. Good told us that had they known or suspected heat illness, they would have placed ice packs on his groin and under his arms and they would have cranked up the air-conditioning on the way to the hospital.

Ms. Macias and Mr. Good brought Braeden out to ambulance and loaded him for the ride to St. Catherine Hospital. As they made the turn out of the parking lot, Braeden slumped over. He was a large man and too big for Ms. Macias to reposition on the stretcher by herself. Mr. Good got out and helped her reposition Braeden. About that time, a second

⁴² No witness made a reference to any physical trauma (injury caused by abrading tissue on concrete or brick), contusion (injury caused by altercation or contact with hard surface), or laceration (cutting or tearing of tissue caused by blunt contact associated with falling). There was confirmation of the absence of such findings on autopsy.

⁴³ The EMS Prehospital Care Report details care provided by EMS relative to this incident. Exhibit 12. This information is what Mr. Good and Ms. Macias shared with the Emergency Department upon transfer of patient. The information was also apparently shared with the Coroner and pathologist conducting the autopsy as the information is noted in both the Coroner's Report, Exhibit 20 and Autopsy Report, Exhibit 17.

ambulance arrived on-scene and they assisted with the driving, allowing both Mr. Good and Ms. Macias to care for Braeden while en route. They signaled code red to brief the hospital Emergency Department staff on what they knew and what they could expect upon arrival.

At the Emergency Department at St. Catherine Hospital, the paramedics provided bedside update to the hospital team that included the patient’s history, which was the information reported in the EMS log notes.⁴⁴ Ms. Macias told us this type of reporting is standard procedure.

The Coroner’s report⁴⁵ references the following: “I spoke with the football coach as well as athletic trainer who state he was able to participate without issue in football practice and was behaving normally and they spoke to him”. The Coroner’s report also ruled out any foul play such as a fight as it was noted there was “no evidence of scratching or defensive marks” and “no contusions”. The Coroner’s report also states there was “no evidence of apparent drug use with needle marks”. The Autopsy Report likewise references information obtained from Coroner.

K. Treatment at St. Catherine Hospital

Table 4. Treatment at St. Catherine Hospital

10:24 PM	EMS Dispatched to St. Catherine Hospital	EMS Report
10:26 PM	40 mg Lidocaine; 750 mL Normal Saline; and 2 mL Naloxone administered	EMS Pre-Hospital Care Notes
10:29 AM	EMS Departs Garden City Community College for St. Catherine Hospital	EMS Pre-Hospital Care Notes
10:30 PM	Horton calls Sims-Braeden transported hospital	Horton interview
10:33 PM	EMS Arrives at St. Catherine Hospital	EMS Pre-Hospital Care Notes
10:34 PM	Pulse 166, O ₂ 97; Glasgow Coma Scale 4	EMS Pre-Hospital Care Notes
10:36 PM	Braeden Arrives in Emergency Department	EMS Pre-Hospital Care Notes
10:38 PM	20mg Etomidate administered	Bradforth Hospital Notes
10:39 PM	100mg Succinylcholine administered	Bradforth Hospital Notes
10:43 PM	1mg Atropine administered	Bradforth Hospital Notes
10:44 PM	1mg Epinephrine administered	Bradforth Hospital Notes
10:48 PM	1mg Epinephrine administered	Bradforth Hospital Notes
10:50 PM	50mEq Sodium Bicarbonate administered	Bradforth Hospital Notes

⁴⁴ Exhibit 12. We were unable to confirm what the Emergency Department care team would say they heard from the paramedics because the hospital declined repeated requests to interview Emergency Department physicians and nurses.

⁴⁵ Exhibit 20.

10:53 PM	1mg Atropine administered; 1mg Epinephrine administered	Bradforth Hospital Notes
10:58 PM	50mEq Sodium Bicarbonate administered	Bradforth Hospital Notes
11:01 PM	1mg Epinephrine administered	Bradforth Hospital Notes
11:00 PM	Horton en route to hospital	TJ Horton interview
11:06 PM	Braeden declared deceased	TJ Horton interview
11:10 PM	Horton arrives at hospital	TJ Horton interview

When Braeden Bradforth arrived at the hospital, he was in obvious medical distress (Glasgow Coma Scale of 4, identified as a code red) and was having difficulty breathing.⁴⁶ The cause of his condition was not recognized by the attending physicians despite what Ms. Macias recorded in her narrative report. Braeden Bradforth was not assessed or treated for exertional heat stroke (“EHS”) at the hospital. Upon review of the post-mortem records, Dr. Holschen (FACEP Board-certified Emergency Medicine and Board-certified Sports Medicine Physician, Associate Professor, Department of Emergency Medicine Loyola University, Chicago, IL) stated EHS was not included in the differential diagnosis, possibly due to the lack of information provided of patient history, though this history was noted by the Paramedics in their assessment.⁴⁷ Traditionally, this information is communicated to the next providers of care with the bedside update prior to transfer of patient care. It appears from the St. Catherine Hospital medical records that the patient was being treated to rule out the following conditions based upon the tests ordered:

1. Low blood glucose
2. Electrolyte imbalance
3. Cardiac issue
4. Intoxication
5. Head injury

At the hospital were Coach Sims, Coach Young, Coach Bradley, John Green, Nathan Sheridan, Herbert Swender, Jeff Kris, TJ Horton, and the hospital pastor. We understand the hospital pastor phoned the Bradforth family soon after Braeden passed. The Emergency Department physician commented to the coaches and administrators at St. Catherine Hospital that the D-dimer test was the highest level on this test he had seen. This was the impetus for Coach Sims’ claim to the press that Braeden’s death was caused by a blood clot. Based upon the postmortem autopsy, this was not a medical finding as a cause of death. The D-dimer test is reportedly used to help rule out the presence of an inappropriate blood clot. Some of the conditions the D-dimer test is used to help rule out include deep vein thrombosis or pulmonary embolism.

⁴⁶ Based upon information available to the Investigation Team, securing patient’s airway would take precedence over cooling at this time due to urgency of respiratory distress.

⁴⁷ June 4, 2018 Report of Jolie C. Holschen, MD. Exhibit 21.

L. Autopsy Findings

Dr. Jolie Holschen reviewed the medical file and timeline of treatment by EMS, Emergency Department physicians as well as the post-mortem autopsy. The question of determining EHS was not addressed by the medical team attending to the last moments of Braeden Bradforth's life as no reference of core temperature assessment was made by the EMS or Emergency Department physicians. Dr. Holschen commented:

In the differential diagnosis of a patient with altered mental status after exercise in the heat, besides heat stroke, I would include encephalitis/meningitis (unlikely since he was not ill prior to practice starting and autopsy states meninges normal), exertional hyponatremia (but this would not result in the tachypnea and tachycardia noted thirty minutes after the end of practice), intracranial injury (unlikely since this was a noncontact practice and no signs of trauma), cardiac arrest from exertional sickling (unknown if this patient was sickle cell trait positive, but no sickling seen on autopsy), cardiac arrest from underlying heart condition (those making prone to ventricular arrhythmias may result in sudden arrest; he did have left ventricular hypertrophy per autopsy, but ventricular arrhythmia is unlikely to result in the full picture here with progressive altered mental status which persisted during documented sinus tachycardia) and other drugs of abuse such as sympathomimetics and stimulants (can cause some of the findings including altered mental status, tachypnea, and tachycardia; but the toxicology screen was negative). Though the patient is noted to have a history of asthma, this would not likely cause the altered mental status without respiratory distress at the time he left the team practice. Narcotic overdose can be considered, but is unlikely given the situation where he was witnessed to have abnormal behavior after being watched during the several hour practice and given no response to naloxone given en route via EMS.

As severe as Braeden Bradforth's condition was, no one identified the problem that was causing his death. Braeden therefore received no treatment at the hospital for the medical condition that would end his life.

VI. REVIEW OF THE LITERATURE

A. Administration Practice Guidelines

Clinical practice guidelines help both practitioners and patients make healthcare decisions in specific circumstances, as guidelines are created by expert panels who evaluate the available data regarding screening, prevention, treatment options, diagnosis, risk/benefit profile, and cost-effectiveness of available treatment options for a particular clinical situation (D'Arcy, 2007).

Practice standards are usually established by authority or general consent, practice standards are criteria that, when met, result in the best patient outcomes, establish the best practices, or provide the greatest value (D'Arcy, 2007). These documents are published as peer-reviewed documents. As such, they have undergone the peer-review process and should be evidence of best practices. These documents may be embraced by an association, but are not published by the association. Consensus statements offer topic-specific opinions or recommendations and are often more of an association view. Sports organizations model procedures based upon these authorities.

B. Acclimatization

Acclimatization has been part of best practices and standard of care recommendations with references dating to back to 1980 (Suzuki 1980). It is recommended that conditioning periods should be phased in gradually and progressively to encourage proper exercise acclimatization and to minimize the risk of adverse effects on health. The first seven to ten days (at minimum, the first four separate-day workouts) of any new conditioning cycle (including but not limited to return in January, after spring break, return in summer, and return after an injury) are referred to as transitional periods (Casa, Anderson, et al., 2012; Casa & Csillan, 2009; Pandolf, 1998). A written, progressive program of increasing volume, intensity, mode, and duration should be instituted for all transitional periods. These conditioning programs should be approved by a credentialed strength and conditioning coach. The strength and conditioning coach should work cooperatively with medical staff (certified athletic trainer, team physician, or both) when developing transitional workout plans, particularly if the athlete is recovering from an injury or if any uncertainty exists regarding the pace of exercise progression.

Transitional periods should invoke an appropriate work-to-rest ratio for the sport. A 1:4 work-to-rest ratio (with greater rest permissible) when conducting serial activity of an intense nature, for example, is a good starting place to emphasize recovery. A qualified strength and conditioning coach is knowledgeable about and uses acclimatization principles. Participation in summer work-outs on campus under the supervision of a strength and conditioning coach is preferable to unsupervised workouts elsewhere or workouts conducted by unqualified persons.

C. Effect of Altitude on Training

At sea level, there is a pressure equivalent to ten meters of water pressing down on all of us all the time as the weight of the air above us in the atmosphere. As a person ascends to heights such as up a mountain, there is less air above you in the atmosphere. The important effect of this decrease in pressure is this: in a given volume of air, there are fewer molecules present, or the pressure is lower (Boyle's law). The percentage of those molecules that are oxygen is exactly the same: 21%. As there are fewer molecules of everything present, including oxygen, this can pose issues for conditioning. At 2,831 ft., (the altitude of Garden City, Kansas) the standard barometric pressure is 92 kPa (689 mmHg). This means there is 91% of the oxygen available at sea level (such as Braeden Bradforth's home in Neptune, New Jersey).⁴⁸ This calculation, though not dramatic, is significant relative to the fact Braeden Bradforth arrived on campus only fifty-four hours prior to an exhaustive, anaerobic conditioning test.

⁴⁸ Calculation online at (http://www.altitude.org/air_pressure.php).

D. Exertional Heat Illness

The NATA's position statement on exertional heat illness ("EHI") (Casa et al., 2015) speaks specifically to exertional heat stroke ("EHS") and appropriate recognition. Due to the magnitude of the illness, and the progressive nature of EHI, it is imperative to identify and rapidly treat this condition. The two main diagnostic criteria for EHS are central nervous system dysfunction and a core body temperature greater than 104°F. EHS is one of the most common causes of sudden death in athletes. Rectal temperature thermometry is the most accurate method of obtaining an immediate and accurate measurement of core body temperature. Other devices, such as oral, axillary, aural canal, tympanic, forehead sticker, and temporal artery thermometers, inaccurately assess the body temperature of an exercising person. A delay in accurately assessing temperature during diagnosis may also explain a body temperature that is lower than expected. Immediate treatment is vital in EHS. It is important to not waste time by substituting an invalid method of temperature assessment if rectal thermometry is not available. If EHS is suspected, cold water immersion ("CWI") (or another rapid cooling mechanism if CWI is not available) should be initiated immediately. Treatment of EHS represents a unique medical challenge to the prehospital healthcare provider due to the time sensitive nature of treatment. In cases of EHS, when cooling is delayed, there is a significant increase in organ damage, morbidity, and mortality after 30 minutes (Belval et al., 2018).

In a patient suspected of having EHS, central nervous system function should be assessed. Signs and symptoms can include disorientation, confusion, dizziness, loss of balance, staggering, irritability, irrational or unusual behavior, apathy, aggressiveness, hysteria, delirium, collapse, loss of consciousness, and coma. In some cases, a lucid interval may be present; however, if EHS is present, the patient will likely deteriorate quickly. Other signs and symptoms of EHS may be present include dehydration, hot and wet skin, hypotension, and hyperventilation. Most patients with EHS have hot, sweaty skin as opposed to those with the classical type of heat stroke (the passive condition that typically affects children and the elderly), who present with dry skin.

The NCAA's Sports Medicine Handbook (Parsons, 2015) is prepared by the NCAA's Sports Medicine department in conjunction with the NCAA's Committee on the Medical Aspects of Sports. This document is a valuable resource for athletic trainers and sports medicine teams in all practice settings. It includes specific chapters on Emergency Care and Coverage Emergency Action Plan and Prevention of Heat Illness. The document is an excellent reference for NCAA member institutions with a compilation of documents for protocol development.

E. Assessment of Conditioning and Acclimatization Before Strenuous Exercise

There are basic considerations for readiness of athletes relative to the demands of physical activity. As mentioned by Casa et al (Casa, Anderson, et al., 2012) in the document to address preseason training activities, four of the key components of his article included acclimatization, introducing athletes to an activity in a general progression, components of medical coverage, and the development and practice of the EAP. Acclimatization requires seven to ten days for athletes to become acclimated to the environment. Acclimatization is not the same as conditioning. Conditioning is likewise important to prevention of EHI. Maximizing strength and conditioning sessions has become fundamental to sport. The right combination of strength,

speed, cardiorespiratory fitness, and other components of athletic capacity can complement skill and enhance performance for all athletes. A sound and effective training program relies on scientific principles of exercise physiology and biomechanics intended to produce outcomes that are sensitive and specific to the sport should be the goals (Armstrong & Maresh, 1991; Casa et al., 2013; Casa, Anderson, et al., 2012; Casa & Csillan, 2009; Pandolf, 1998).

Training programs should be individualized. Some athletes will require a longer acclimatization process. An athlete at a different level of preparedness from his or her teammates (due to injury or time away from training) should use a training program tailored to his or her level. Coaches are urged to introduce new conditioning activities gradually. Any new exercise introduced into a strength and conditioning program should be added in a deliberate, gradual fashion by a qualified strength and conditioning coach. This guideline is true for any aspect of the regimen but is particularly important during the early stages of a conditioning program.

Additional steps to aid in the prevention of complications secondary to conditioning:

1. The physician-supervised PPE prior to activity will assist identification of athletes with risk factors for heat illness or a history of heat illness (Casa et al., 2013; Casa, Anderson, et al., 2012).
2. Individuals should be acclimatized to the heat gradually over seven to fourteen days (Armstrong & Maresh, 1991; Casa et al., 2013; Casa, Anderson, et al., 2012; Casa & Csillan, 2009; Pandolf, 1998). Heat acclimatization involves progressively increasing the intensity and duration of physical activity and phasing in protective equipment (if applicable). If heat acclimatization is not maintained, the physiologic benefits provided by this process will decay within three weeks (Armstrong & Maresh, 1991; Casa & Csillan, 2009; Pandolf, 1998). The first two to three weeks of preseason practice typically present the greatest risk of EHI, particularly in equipment-intensive sports (Bergeron et al., 2005; Casa & Csillan, 2009; Kerr, Casa, Marshall, & Comstock, 2013; Yeargin et al., 2006). All possible preventive measures should be used during this time to address this high-risk period.
3. Athletes currently sick with a viral infection (e.g., upper respiratory tract infection or gastroenteritis) or other illness or have a fever or serious skin rash should not participate until the condition is resolved (American College of Sports et al., 2007; Bergeron et al., 2005; Kenny & Journeay, 2010). Even after symptoms resolve, the athlete may still be susceptible to heat illness and should be observed carefully upon return to exercising in the heat.
4. Individuals should maintain hydration and appropriately replace fluids lost through sweat during and after games and practices. Players should have free access to readily available fluids at all times, not just during designated breaks. Adequate nutrition helps prevent dehydration validated by weight charts (Casa et al., 2000; Casa, Clarkson, & Roberts, 2005). These strategies may reduce the risk

of acute and chronic significant dehydration and decrease the risk of EHI (Bergeron et al., 2005; Casa et al., 2000; Casa et al., 2005).

5. The sports medicine staff must educate relevant personnel (i.e., coaches, administrators, security guards, emergency medical services staff, athletes) on preventing and recognizing EHI and, in particular, EHS (Andersen, Courson, Kleiner, & McLoda, 2002; Courson, 2007). Signs and symptoms of a medical emergency should be reviewed, and every institution should have and personnel should practice an EAP specific to each practice and game site. Review and rehearsal of the EAP should include all relevant members of the sports medicine team (i.e., coaches, athletic trainers, emergency medical service).
6. Appropriate medical care must be available, and all personnel must be familiar with EHI prevention, recognition, and treatment (Andersen et al., 2002; Casa, Guskiewicz, et al., 2012; Courson, 2007).
7. When environmental conditions warrant, a cold water immersion or ice tub and ice towels should be available to immerse or soak a patient with a suspected heat illness (Casa, Guskiewicz, et al., 2012). Immediate whole-body cooling is essential for treating EHI and EHS in particular. Onsite facilities are needed for immediate treatment.
8. The assessment of rectal temperature is the clinical gold standard for obtaining core body temperature of patients with EHS (Casa et al., 2007). No other field-expedient methods of obtaining core body temperature (e.g., oral, axillary, tympanic, forehead sticker, temporal) are valid or reliable after intense exercise in the heat, and they may lead to inadequate or inappropriate treatment, thereby endangering a patient's health (Casa et al., 2007; Gagnon, Lemire, Jay, & Kenny, 2010; Huggins, Glaviano, Negishi, Casa, & Hertel, 2012; Ronneberg, Roberts, McBean, & Center, 2008).
9. Because the effects of heat are cumulative, athletes should be encouraged to sleep at least seven hours per night in a cool environment; eat a balanced diet; and properly hydrate before, during, and after exercise (American College of Sports et al., 2007). Individuals should also be advised to rest in a cool environment during periods of inactivity (e.g., off days, between sessions on double-practice days) to maximize recovery. Rest periods should incorporate meal times and allow two to three hours for food, fluids, electrolytes (primarily sodium and chloride), and other nutrients to be digested and absorbed before the next practice or competition.
10. To anticipate potential problems, a preseason heat-acclimatization policy should be developed for organized sports and event guidelines formulated for hot, humid weather conditions based on the type of activity and wet-bulb globe temperature (WBGT) (Armstrong & Maresh, 1991; Casa et al., 2013; Casa & Csillan, 2009; Pandolf, 1998). In stressful environmental conditions, particularly during the first

two to three weeks of preseason practice, activity should be delayed or rescheduled or the practice session shortened to reduce the risk to participants.

11. Individuals who may be particularly susceptible to EHI must be identified (Cleary, 2007; Rav-Acha, Hadad, Epstein, Heled, & Moran, 2004; Shibolet, Coll, Gilat, & Sohar, 1967; Wallace et al., 2006). They should be closely monitored during stressful environmental conditions and preventive steps should be taken (Epstein, Moran, Shapiro, Sohar, & Shemer, 1999; Rav-Acha et al., 2004). In addition, emergency supplies and equipment (e.g., tubs for cold-water immersion [CWI], rectal thermometer) should be onsite, easily accessible, and in good working order to allow immediate intervention and treatment if needed.
12. Rest breaks should be planned and the work-to-rest ratio modified to match the environmental conditions and the intensity of the activity (Epstein et al., 1999; Green et al., 2007; Rav-Acha et al., 2004). Breaks should be in the shade or in a predetermined cooling zone and should allow enough time for all athletes to consume fluids. Additionally, players should be permitted to remove equipment (e.g., helmets) during rest periods.
13. The use of dietary supplements and other substances that have a dehydrating effect, increase metabolism, or affect body temperature and thermoregulation is discouraged (Roelands & Meeusen, 2012). Because supplements may increase the risk of EHI, their use should be carefully monitored.

F. Hydration Protocol

According to the National Athletic Trainers' Association Position Statement: Exertional Heat Illnesses, (Casa et al., 2015) individuals should maintain aggressive hydration and appropriately replace fluids lost through sweat during and after games and practices. It is encouraged for athletes to have free access to readily available fluids at all times, not just during designated breaks. Instruct them to eat or drink appropriate sodium-containing fluids and foods to help replace sodium losses in sweat and urine and to enhance hydration (i.e., water retention and distribution). The aims of fluid consumption or replacement are to prevent a body mass loss of more than two percent (as measured before and after the practice or game) and to keep morning urine light in color. The use of weight charts has long been used for the pre- and post-practice monitoring of body weight to prevent excessive weight loss during practices, especially those in the pre-season.

G. Emergency Action Plan

The EAP is an integral part of the care of sports participants (Andersen et al., 2002). It is recommended training and emergency care procedures be conducted annually at a minimum. Emergency situations may arise at anytime during athletic practices and events. Expedient action must be taken in order to provide the best possible care to the athlete in emergency and/or life threatening conditions. Preparation for emergency and/or life threatening conditions involves formulation of an EAP, proper coverage of events, maintenance of appropriate emergency

equipment and supplies, utilization of appropriate emergency medical personnel, and continuing education in the area of emergency response.

Accidents and injuries are inherent with sports participation. The planning begins with education of all members of the athletic department. Roles specific to implementation of the EAP must be embraced by all parties, especially those involved in the appropriate and immediate care. The following items represent identified areas of care provided based upon established best practices (Andersen et al., 2002; Casa, Anderson, et al., 2012).

1. Each institution or organization that sponsors athletic activities must have a written EAP. The EAP should be comprehensive and practical, yet flexible enough to adapt to any emergency situation.
2. EAP must be written documents and should be distributed to athletic trainers, team and attending physicians, athletic training students, institutional and organizational safety personnel, institutional and organizational administrators, and coaches. The emergency action plan should be developed in consultation with local emergency medical services personnel.
3. An EAP for athletics identifies the personnel involved in carrying out the EAP and outlines the qualifications of those executing the plan. Sports medicine professionals, officials, and coaches should be trained in automatic external defibrillation, cardiopulmonary resuscitation, first aid, and prevention of disease transmission.
4. The EAP should specify the equipment needed to carry out the tasks required in the event of an emergency, outline the location of the emergency equipment, and the equipment available should be appropriate to the level of training of the personnel involved.
5. Establishment of a clear mechanism for communication to appropriate emergency care service providers and identification of the mode of transportation for the injured participant are critical elements of an EAP.
6. The EAP should be venue specific.
7. EAP should incorporate the emergency care facilities to which the injured individual will be taken. Emergency receiving facilities should be notified in advance of scheduled events and contests. Personnel from the emergency receiving facilities should be included in the development of the EAP for the institution or organization.
8. The EAP specifies the necessary documentation supporting the implementation and evaluation of the EAP.

9. The EAP should be reviewed and rehearsed annually, although more frequent review and rehearsal may be necessary.
10. All personnel involved with the organization and sponsorship of athletic activities share a professional responsibility to provide for the emergency care of an injured person, including the development and implementation of an EAP.
11. All personnel involved with the organization and sponsorship of athletic activities are encouraged to develop, implement, and evaluate an EAP for all sponsored athletic activities.
12. The EAP should be reviewed by the administration of the institution.

VII. FINDINGS AND CONCLUSIONS

A. Cause of Braeden Bradforth's Death

Exertional heat stroke.

B. Findings Related to Cause of Death

1. A cause of Braeden Bradforth's death was a poorly designed and administered conditioning test for an unconditioned, non-acclimated student-athlete.
 - a. Failure of institutional control over employees including the head athletic coach and head athletic trainer who both operated independently and with little to no oversight.
 - b. An aggressive conditioning test on the first day of practice without proper assessment and evaluation of Braeden Bradforth's level of fitness.
 - c. An aggressive conditioning test on the first day of practice without appropriate conditioning and acclimatization for Braeden Bradforth, who arrived in Garden City fifty-four hours before the conditioning test.
 - d. Failure of athletic training staff to share specific health information about Braeden Bradforth with the coaching staff prior to the conditioning test.
 - e. Failure to send timely information to Braeden Bradforth about the level of conditioning necessary for the first day of organized practice including six letters Coach Sims said are sent to incoming student-athletes, as well as the specifics of the August 1, 2018 conditioning test.
 - f. Failure to hire a strength and conditioning coach to monitor appropriate level of fitness for student-athletes like Braeden Bradforth prior to strenuous activity.

- g. Failure to make accommodation for a campus layout where the DPAC is located far from the football practice field and the failure to require student-athletes to return to the DPAC to shower and be assessed for post-practice health status. Braedon Bradforth should not have been permitted to return to his dorm room following an intense cardio workout without first being medically assessed.
 - h. Failure to appropriately observe, record, communicate and account for venue specific weather conditions on a synthetic turf.
- 2. A contributing cause of Braedon Bradforth's death was the failure to have and implement an effective Emergency Action Plan.
 - a. Failure to plan and train coaches and athletic training staff on a venue specific emergency action plan.
 - b. Failure to plan to recognize and appropriately care for Braedon Bradforth as he drifted into medical distress.
 - c. Failure to take advantage of multiple opportunities to quickly address Braedon Bradforth's escalating symptoms of exertional heat illness.
 - d. Failure of EMS paramedics to recognize and treat an obvious case of exertional heat illness.
 - e. Failure of Emergency Department staff at St. Catherine Hospital to recognize and treat an obvious case of exertional heat illness.
- 3. No pre-existing condition played a role in causing Braeden Bradforth's death.
 - a. We found no evidence of a pre-existing medical condition.
 - b. We found no evidence he accidentally fell, hit his head, or otherwise sustained a physical injury.
 - c. We found no evidence of foul play.
 - d. We found no evidence of alcohol or drug use at a time proximal to the time of death.

C. Conclusion

This case provides an interesting scenario as the locker room concept where players congregate to dress and shower prior to and following team practices does not exist due to geographical logistics. The location of the locker room and athletic training facilities are a significant distance away from the practice field, while the residence halls are much closer to the practice field at Bronbuster Stadium. Players therefore elect to utilize their dorm rooms as a

“locker room” and no member of the coaching staff or athletic training staff discourages this practice. This situation does not provide for the post-practice review of injuries or player health concerns afforded the traditional athletic training and locker room setup. Although we can’t know Braeden Bradforth’s state of mind immediately after he walked out of Broncbuster Stadium, he elected to go straight to his dorm room rather than the team meeting. He attempted to access his residence hall via an alley that led to a side door which, unbeknownst to him, was locked. Exhausted, he sat down in a warm alley with little airflow, rested his head against a brick wall, and drifted into unconsciousness.

Conditioning related fatalities are preventable. Institutions should establish standards for workout design, hold coaches accountable, plan for and ensure compliance with sound policies, and empower athletic health care providers with authority over medical decisions. In this case, there were a series of events that led to the death of a Garden City Community College student-athlete. Identification of the event that was the straw that broke the camel's back is hard to say; but all played a role in causing Braeden Bradforth to die late the evening of August 1, 2018.

VIII. BIBLIOGRAPHY

American College of Sports, M., Armstrong, L. E., Casa, D. J., Millard-Stafford, M., Moran, D. S., Pyne, S. W., & Roberts, W. O. (2007). American College of Sports Medicine position stand. Exertional heat illness during training and competition. *Med Sci Sports Exerc*, 39(3), 556-572. doi:10.1249/MSS.0b013e31802fa199

Andersen, J., Courson, R. W., Kleiner, D. M., & McLoda, T. A. (2002). National Athletic Trainers' Association Position Statement: Emergency Planning in Athletics. *J Athl Train*, 37(1), 99-104. Retrieved from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=12937447

Armstrong, L. E., & Maresh, C. M. (1991). The induction and decay of heat acclimatization in trained athletes. *Sports Med*, 12(5), 302-312. doi:10.2165/00007256-199112050-00003

Belval, L. N., Casa, D. J., Adams, W. M., Chiampas, G. T., Holschen, J. C., Hosokawa, Y., . . . Stearns, R. L. (2018). Consensus Statement- Prehospital Care of Exertional Heat Stroke. *Prehosp Emerg Care*, 22(3), 392-397. doi:10.1080/10903127.2017.1392666

Bergeron, M. F. (2003). Heat cramps: fluid and electrolyte challenges during tennis in the heat. *J Sci Med Sport*, 6(1), 19-27. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12801207>

Bergeron, M. F., McKeag, D. B., Casa, D. J., Clarkson, P. M., Dick, R. W., Eichner, E. R., . . . Rowland, T. W. (2005). Youth football: heat stress and injury risk. *Med Sci Sports Exerc*, 37(8), 1421-1430. Retrieved from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16118592

Casa, D. J., Almquist, J., Anderson, S. A., Baker, L., Bergeron, M. F., Biagioli, B., . . . Valentine, V. (2013). The inter-association task force for preventing sudden death in secondary school athletics programs: best-practices recommendations. *J Athl Train*, 48(4), 546-553. doi:10.4085/1062-6050-48.4.12

Casa, D. J., Anderson, S. A., Baker, L., Bennett, S., Bergeron, M. F., Connolly, D., . . . Thompson, C. (2012). The inter-association task force for preventing sudden death in collegiate conditioning sessions: best practices recommendations. *J Athl Train*, 47(4), 477-480. doi:10.4085/1062-6050-47.4.08

Casa, D. J., Armstrong, L. E., Hillman, S. K., Montain, S. J., Reiff, R. V., Rich, B. S., . . . Stone, J. A. (2000). National Athletic Trainers' Association Position Statement: Fluid Replacement for Athletes. *J Athl Train*, 35(2), 212-224. Retrieved from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=16558633

Casa, D. J., Becker, S. M., Ganio, M. S., Brown, C. M., Yeargin, S. W., Roti, M. W., . . . Maresh, C. M. (2007). Validity of devices that assess body temperature during outdoor exercise in the heat. *J Athl Train*, 42(3), 333-342. Retrieved from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=18059987

Casa, D. J., Clarkson, P. M., & Roberts, W. O. (2005). American College of Sports Medicine roundtable on hydration and physical activity: consensus statements. *Curr Sports Med Rep*, 4(3), 115-127. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/15907263>

Casa, D. J., & Csillan, D. (2009). Preseason heat-acclimatization guidelines for secondary school athletics. *J Athl Train*, 44(3), 332-333. Retrieved from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19478834

Casa, D. J., DeMartini, J. K., Bergeron, M. F., Csillan, D., Eichner, E. R., Lopez, R. M., . . . Yeargin, S. W. (2015). National Athletic Trainers' Association Position Statement: Exertional Heat Illnesses. *J Athl Train*. doi:10.4085/1062-6050-50-9-07

Casa, D. J., Guskiewicz, K. M., Anderson, S. A., Courson, R. W., Heck, J. F., Jimenez, C. C., . . . Walsh, K. M. (2012). National athletic trainers' association position statement: preventing sudden death in sports. *J Athl Train*, 47(1), 96-118. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/22488236>

Cleary, M. (2007). Predisposing risk factors on susceptibility to exertional heat illness: clinical decision-making considerations. *J Sport Rehabil*, 16(3), 204-214. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/17923726>

Courson, R. (2007). Preventing sudden death on the athletic field: the emergency action plan. *Curr Sports Med Rep*, 6(2), 93-100. Retrieved from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=17376337

D'Arcy, Y. (2007). Practice guidelines, standards, consensus statements, position papers: What they are, how they differ. *American Nurse Today*, 2(10).

Epstein, Y., Moran, D. S., Shapiro, Y., Sohar, E., & Shemer, J. (1999). Exertional heat stroke: a case series. *Med Sci Sports Exerc*, 31(2), 224-228. Retrieved from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=10063810

Gagnon, D., Lemire, B. B., Jay, O., & Kenny, G. P. (2010). Aural canal, esophageal, and rectal temperatures during exertional heat stress and the subsequent recovery period. *J Athl Train*, 45(2), 157-163. doi:10.4085/1062-6050-45.2.157

- Green, J. M., Yang, Z., Laurent, C. M., Davis, J. K., Kerr, K., Pritchett, R. C., & Bishop, P. A. (2007). Session RPE following interval and constant-resistance cycling in hot and cool environments. *Med Sci Sports Exerc*, *39*(11), 2051-2057. doi:10.1249/mss.0b013e318148bddf
- Huggins, R., Glaviano, N., Negishi, N., Casa, D. J., & Hertel, J. (2012). Comparison of rectal and aural core body temperature thermometry in hypothermic, exercising individuals: a meta-analysis. *J Athl Train*, *47*(3), 329-338. doi:10.4085/1062-6050-47.3.09
- Kenny, G. P., & Journeay, W. S. (2010). Human thermoregulation: separating thermal and nonthermal effects on heat loss. *Front Biosci (Landmark Ed)*, *15*, 259-290. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/20036820>
- Kerr, Z. Y., Casa, D. J., Marshall, S. W., & Comstock, R. D. (2013). Epidemiology of exertional heat illness among U.S. high school athletes. *Am J Prev Med*, *44*(1), 8-14. doi:10.1016/j.amepre.2012.09.058
- Pandolf, K. B. (1998). Time course of heat acclimation and its decay. *Int J Sports Med*, *19 Suppl 2*, S157-160. doi:10.1055/s-2007-971985
- Parsons, J. (2015). *Sports Medicine Handbook*. Indianapolis, IN: NCAA.
- Rav-Acha, M., Hadad, E., Epstein, Y., Heled, Y., & Moran, D. S. (2004). Fatal exertional heat stroke: a case series. *Am J Med Sci*, *328*(2), 84-87. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/15311166>
- Roelands, B., & Meeusen, R. (2012). Caffeine, dopamine and thermoregulation. *Eur J Appl Physiol*, *112*(5), 1979-1980. doi:10.1007/s00421-011-2127-5
- Ronneberg, K., Roberts, W. O., McBean, A. D., & Center, B. A. (2008). Temporal artery temperature measurements do not detect hyperthermic marathon runners. *Med Sci Sports Exerc*, *40*(8), 1373-1375. doi:10.1249/MSS.0b013e31816d65bb
- Shibolet, S., Coll, R., Gilat, T., & Sohar, E. (1967). Heatstroke: its clinical picture and mechanism in 36 cases. *Q J Med*, *36*(144), 525-548. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/6077230>
- Wagner, T., Behnia, N., Ancheta, W. K., Shen, R., Farrokhi, S., & Powers, C. M. (2010). Strengthening and neuromuscular reeducation of the gluteus maximus in a triathlete with exercise-associated cramping of the hamstrings. *J Orthop Sports Phys Ther*, *40*(2), 112-119. doi:10.2519/jospt.2010.3110
- Wallace, R. F., Kriebel, D., Punnett, L., Wegman, D. H., Wenger, C. B., Gardner, J. W., & Kark, J. A. (2006). Risk factors for recruit exertional heat illness by gender and training period. *Aviat Space Environ Med*, *77*(4), 415-421. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/16676653>

Yeargin, S. W., Casa, D. J., Armstrong, L. E., Watson, G., Judelson, D. A., Psathas, E., & Sparrow, S. L. (2006). Heat acclimatization and hydration status of American football players during initial summer workouts. *J Strength Cond Res*, 20(3), 463-470. doi:10.1519/20596.1