

MEDICAL PRESS CONFERENCE REGARDING KEVIN EVERETT
BOLDED NAMES COULD NOT BE VERIFIED AT THIS TIME
SEPTEMBER 12, 2007

Dr. Marzo: As Scott mentioned, we are here today as promised to update you on new and substantial information and really as well a routine care of Kevin Everett. We have available today, Dr. Kevin Gibbons. He is an integral part in what's happened since Sunday night. He's been involved in Kevin's care from the beginning on arrival at the hospital. Dr. Gibbons is an Associate Professor in neurological surgery at the University of Buffalo. He is board certified by the American Board of Neurological Surgeons. He's also the Director of the University at Buffalo Neurosurgery Residency Teaching Program and is the direct supervisor of the neurosurgical and the intensive care unit at Millard Fillmore Gates Hospital so his qualifications will speak for themselves. Again, he's been day-to-day with Kevin. He's been involved with the care 24-hours a day since Kevin's injury and I want to extend a person thanks to Kevin for co-managing our athlete. Also, Dr. Cappuccino is here. He was introduced to the public the other day. As you know from his press conference on Monday he too has been a integral part in the care of our injured player. I want to just take a quick opportunity and I'm going to turn it over to the team of doctors here, a quick opportunity to thank many people who have also been involved in Kevin's care including the staff in the neurosurgical and intensive care unit. People like the nurses, technicians and all of the clerical staff in the hospital. They have been wonderful to us as you might imagine. So I'd like to take this opportunity on behalf of our organization and on behalf of all the medical staff to thank the real workers at Gates Hospital. I'm going to offer Dr. Gibbons the microphone first. He has some introductory statements and comments to make and then we'll probably open it up to questions.

Dr. Gibbons: Thank you John. As John said I'm the Program Director in Neurosurgery for the University at Buffalo and the Director of the Neurosurgical and Intensive Care Unit at Gates Circle Hospital. My particular areas of focus have to do with brain tumors and the treatment of complex cervical spine problems. I'm one of 10 neurosurgeons, 10 residents and four fellows many of which have been involved with the ongoing care with Dr. Cappuccino of Kevin Everett. In addition to the medical staff, there are numerous individuals who have helped out along the way in his care and I'll try to mention some of them by name as we go along. I'd like to address the questions and provide some information regarding the neurological injury sustained Sunday afternoon by Kevin Everett. I think all of you are aware he received immediate and excellent pre-hospital care by the Bills medical staff team and training staff. He was brought to Gates Circle Hospital of the Kaleida Health System where he was further assessed by Dr. Cappuccino and members of the neurosurgical team including Dr. Elad Levy, one of my partners who is actually in hospital completing a lengthy surgery and Andrea Chamczuk who is a resident in neurological surgery who were involved with Dr. Cappuccino in his initial hospital assessment and resuscitation. He was brought to Gates in part because it's a regional complex, a stroke center staffed by members of the UB Neurosurgery team and University Neurology. It's one of the busiest stroke hospitals in the Northeast United States. It's staffed 24-7 with immediate CT, CT angiography, MRI, three fully

equipped neurosurgical operating suites, three fully equipped angio suites for treatment of acute neurovascular problems and a 10 bed neurological surgery ICU. I think many of those things have helped along the way hour-by-hour and day to day.

Within an hour of Kevin's arrival at Gates, he had received emergency room assessment by the emergency room team of physicians, by the neurosurgical staff, continuing assessment by Dr. Cappuccino. He received an extensive CT study of his neck and an MRI of his neck. His injury was quite apparent on the field and in the emergency room. He was quadriplegic. That means zero voluntary muscle function in his arms and legs. He had crude pressure sensation in his extremities and in his trunk. That is an injury that is one step above the most severe injury we see in which someone is motor and sensory complete with no function below the level of the injury. As you know, his injury was at the C3/4 level. That's considered an upper-cervical spine injury. It brings into question not only use of limb, but life because of the pulmonary complications that occur with injuries at his level. His MRI demonstrated that he had suffered a subluxation at C3/4 it's commonly termed a fracture suffixation although most patients with his picture and in Kevin's situation itself there's actually not a true fracture. It's a badly dislocated neck. And it's done because of the ligament and muscle avulsion of bone in the setting significant force is on the neck or head. In addition to the ligament injury and bone dislocation he clearly had a spinal cord injury. The cervical cord was draped over the lower vertebral segment involved causing a great deal of pressure on the spinal cord, a great deal deformity of the spinal cord and even on an MRI performed probably not an hour and a half, an hour and twenty minutes after injury swelling or edema within the spinal cord.

His initial MRI also showed that he had an acute vertebral artery intrusion which is one of the four main blood vessels to the brain. This is not an uncommon finding in someone with this particular cervical spine injury. I'll address more on that later. The deformity of the cord, the ongoing pressure of the cord and neurological status mandated an attempt at immediate reduction. Dr. Cappuccino and the team brought the patient to the operating suite where I met them. Some initial tests were done to assess Kevin's breathing which is a great concern in the critical care unit after a cervical cord injury. He had a breathing test performed that demonstrated, although by a quick passive look, it seemed like he was breathing normally. His breathing was significantly impaired to the point where his what we call pulmonary reserves were probably at a quarter of normal. He was taken one to of the operating surgical suites where he was placed in traction in an effort to obtain immediate reduction of the cervical fracture. That's done with the patient awake and slightly sedated. His fracture was such that it could not be reduced in that setting. He was then carefully intubated by members of the anesthesia team, **Dr. Kurik**, who's a physician we work with regularly in neurosurgery and at that point the operation commenced with Dr. Cappuccino and myself. His initial operation was through an anterior incision in the neck in which the anterior ligaments were divided on top of the cervical spine. The disc was removed. The posterior ligament of the vertebral body which is actually in front of the spinal cord was largely avulsed by the injury, was torn from the bone by his injury.

We removed some small amount of blood clot and disc that was in part causing pressure on the cord and then we basically with a variety of maneuvers realigned his neck. Once his neck was realigned that immediately takes away the most severe point of pressure on the spinal cord. His neck was then stabilized with some graphing techniques and a short titanium plate. That course of the operation took about an hour and a half probably. With great care he was then termed prone, a posterior incision was made in his neck and with Dr. Cappuccino and Dr. Ken Snyder?, one of my residents, posterior neck was exposed and the sight of ligament avulsion in back of the neck was readily apparent. And that point was also secured with titanium screws and short rods. At that point, I rejoined the operation and the cervical **lamina** of C3 and C4 were removed very carefully with high speed drill and that exposed the dura, which is the leather-like lining over the spinal cord. Happily, the dura was intact. There was no evidence of tear. We performed an intraoperative ultrasound that demonstrated a relatively normal looking spinal cord. With plenty of room around it now, normal pulsations of the spinal cord which is what he hoped to see and expected to see and we were quite pleased at that point. Drains were placed, his incisions were closed and he was brought to the neurosurgical intensive care unit. In the field on the way into the hospital he did receive saline. His heart rate and blood pressure was stable throughout that time. It had been stated that he had been in spinal shock. At no time was he in spinal shock which is a positive, which is a good thing. Again, when we see an incomplete injury, if he's not in spinal shock, it increases slightly, chance for recovery. His temperature when he got the emergency room at Gates was 98, slightly below normal.

During surgery we allowed him to cool and during surgery and general anesthesia our battle is usually in most elective operations preventing excessive cooling. In this situation when we want him cool it's actually fairly easy to get him cool. We use hypothermia during a variety of neurosurgical procedures to provide protection to the brain and spinal cord. After surgery, in the neurosurgical intensive care unit, he received a repeat MRI scan done I believe three hours after surgery, at approximately 1 o'clock in the morning. That MRI demonstrated his spinal was well decompressed. The amount of edema or swelling within the cord was decreased compared to the MRI he had immediately before surgery. There was no evidence of unusual bleeding. The vertebral artery was not normal but looked better than it had on his initial MRI. He over the course of the next couple of hours also had a follow CT scan that demonstrated that the reconstruction of his neck went well in terms of placement of graphs and hardware. It demonstrated what we would expect it would demonstrate.

He also had a CT angiogram which is an examination of the blood vessels of the neck which demonstrated his vertebral artery although not normal was open and showed no evidence of major dissection and we were happy with that finding. He also underwent an MRI of the head to make sure he had not had evidence of a stroke from his arterial avulsion. And the MIR of his head was normal. That morning, approximately six o'clock in the morning, I examined Kevin with Dr. Cappuccino and at that point to command he was able to push his knees together, about a half an inch. There was no other motor function in his arms or legs but he

clearly had voluntary control of some muscle function below the level of his injury. And when we see that, we're cautiously optimistic. We often wait weeks to months to see that after a cervical cord injury if it's motor complete initially in the field. His body temperature following surgery rose in the ICU in spite of efforts to keep it cool and although hypothermia is of use in certain circumstances, in acute neurosurgical or neurological prevention for stroke, using it long term for certain circumstances remains a controversial option. And we discussed whether or not we should keep him hypothermic. Kevin helped settle that issue because really after surgery he tried to develop a fairly precipitous rise in temperature and although we're not all sure cold temperature is good, we know that high temperature is bad in the setting of a neurological injury. So at that point, early Monday morning, a decision was made to cool him. The usual things we do to cool an individual did not work in this situation so a special intravascular cooling unit was used consisting of a special catheter that runs saline in an internal loop inside the blood vessel was inserted by Dr. Ionita of the University Neurology team who is one of our stroke attendings and stroke researchers.

This provided for very effective cooling over the course of 4 to 6 hours. With the decision to cool him though comes additional ICU management problems, marked fluctuation in electrolytes, difficulty in managing the ventilator and the need to keep the patient sedated if not pharmacologically paralyzed. Over the course of the next 24 hours we carried that out. On Tuesday morning, again at 6 o'clock or a little bit before we lifted the sedation on Kevin and were able to examine him. At that time he demonstrated clear improvement in the motor function in his legs, brisk ability to push his knees together and apart, and the ability to wiggle his toes, slight movement at the ankles and most importantly from our standpoint the ability with his knee elevated to kick out his lower leg against gravity. We are pleased at this time. In his upper extremities he regained the ability to slightly extend his elbow with his triceps muscle and a hint of ability to flex his arm at the biceps. And I do mean a slight amount. The decision was made to begin warming him and we did over the next 12 hours avoiding hypothermia or elevated temperature but allowing his body temperature to come up. We carried that out. During the course of this time with the sedation lifted we're able to continuously or repetitively examine Kevin with continued demonstration of anti-gravity power in at least one major muscle group in his legs and continued movement in one muscle in his arms.

This morning, he continues to demonstrate improvement in his legs to the point he can now bend his hip to bring his knee up slightly and he again demonstrates anti-gravity power in his quadriceps to straighten out his knee. He demonstrates continued movement at the ankles and the ability to wiggle his toes. He has somewhat improved triceps function today compared to yesterday in the sense he can just overcome gravity with his left triceps, little bit more difficult to do so with his right triceps. The biceps function which we had seen yesterday seems to fluctuate. At some points we seem to get it, at some points we don't. He has no movement or function at all in his hands. His sensory emanation remains difficult to assess. In terms of his general medical care today, the good news is that shortly before coming over here we were able to extubate him, to get him off the ventilator. That's a major achievement for somebody with his level of injury at this point in his

hospital care. It will be an effort on his part and on the part nurses who take care of him and the respiratory therapists and his physicians to keep him off ventilator over the next several days. He is receiving all of the routine care we provide to somebody with a life threatening spinal cord injury. We are feeding him through a feeding tube. We are monitoring his vital signs continuously and carefully. He is receiving frequent laboratory tests following a whole variety of parameters that we follow in critically ill patients in the neurological ICU. So far, so good. He will be getting tomorrow a study to assess his diaphragmatic function in terms of breathing, see if the muscles that do the major work of bringing air into our lungs work and work in equal fashion. He will be getting a follow up MRI of his neck just to make sure the swelling is improving as his exam seems to be improving. He was assessed today by members of the physical therapy team at Gates who had fitted him with some splints to help avoid what we call contractures or deformities in joints that can occur in paralyzed or very weak limbs early on in the setting. He is receiving treatment in a variety of forms to hope to avoid blood clots forming in his legs which is regrettably a life threatening problem with quadriplegic/quadruparalysis. At this point, he remains in the ICU. He will remain in the ICU for the foreseeable future. There is no further surgery planned for him at this time. There is the possibility of further surgery to deal with the variety of the problems with severe spinal cord injuries can suffer.

There are some answers now after we've had the chance to observe him for 72 hours and see his progress. Many more questions remain. He will be studied on a weekly basis to follow up his vertebral artery injury. The majority of these are asymptomatic. Some patients do suffer strokes in this setting and he will be carefully followed for that. If that were to occur, he's probably in the best place in the world to have that treated. At this point, Kevin is awake and starting to ask questions. He voices understanding what's happened to him. He realizes in some part what lies ahead. His mother has been at his bedside for the most part since a little after noon on Monday. She was present shortly after he was excavated this afternoon. She is pleased if not ecstatic over what's happened since she's come to town. She understands that this is a life-changing event and that the story of the first few days is a story that's going to continue over months to years. She does specifically like to thank the Bills organization, the employees and staff at Kaleida Health Gates Circle and the whole Western New York community for the well wishes that she's received directly and has heard about regarding the injury her son's sustained.

On addressing the report made by Dr. Green that Kevin would walk out of the hospital

Dr. Cappuccino: After having spoken to Dr. Green who was one of the many resources that we utilized in helping with care of Kevin he was apprised of some of the clinical information and the assessment that he gave was based on the limited information that we were able to provide for him and it certainly is Dr. Green's opinion. It's my belief as Dr. Gibbons, my colleague, just stated that we still are looking at many weeks to month's scenario and walking out of this hospital really is not a realistic goal but walking may very well be.

On if Kevin is a quadriplegic

Dr. Gibbons: Kevin clearly was quadriplegic. Kevin has regained some use in his legs. He is now profoundly quadriparetic which means weak but with some movement. His hand function remains completely absent and most patients with quadriplegia improve a little bit in their arms and none in their legs. He has done things in a little reverse order.

On to what degree of the progress Kevin has made relative to other patients with similar injuries

Dr. Gibbons: The speed with it's occurred is a great sign. Have we seen it before? Yes. In part there are many things in his favor including the fact that he had deformity of his cord but not a transection, that he never went in spinal shock, a few other different things that were involved in his early assessment and management. But when we had talked about this before, during and after surgery we discussed that this is a long shot for him to have a significant recovery of arms or legs but certainly not impossible. For patients who have motor complete cervical injuries who have some preserved sensation about 40% percent of them improve somewhat. Sometimes it's dramatic improvement that really means something. Sometimes it's return of sensation where it wasn't there before. Sometimes it's return of useless motor movement. Someone can push their knees together the days after surgery and three years later all they can do is push their knees together. That's not useful motor. For many patients with cervical injuries, the ability to regain use of their hands, even if they don't regain the use of their legs, makes a huge difference in their independence. So we expected to see improvement. We're really happy to see it now.

Dr. Cappuccino: Just based on the classification of his injury initially as we had described on Monday because he had no motor function he was in a very ambiguous class. He had no motor function but did have some sensation. He was ASIA type B classification and as Kevin mentioned and I mentioned on Monday, about 5-10 percent have meaningful return so we see him upgrading his level on a day-to-day basis but we still have not jumped two or three grades where a half a grade maybe a grade. And we still have a long way to go.

On if he moved up a class to the 40% level of patients

Dr. Cappuccino: I would think that in the best class scenario we have increased one class grade on the ASIA scale from an ASIA B to an ASIA C and the prognosis is still variable.

On if he is more optimistic

Dr. Cappuccino: I'm still an optimist by nature and I'm cautiously slightly more optimistic that we may see some form of function return. I still do not believe that Kevin will play football. My hope is that Kevin will some day achieve some form of community independent ambulation.

On the ASIA Scale

Dr. Cappuccino: The ASIA Scale is simply a five category classification of spinal

cord injuries with the Asia A's being the worst and up the ladder. He was in the second worst category at the time of his injury. He has progressed slightly towards the next category which will be based solely on the motor functions that he regains. We're borderline, he would require as Dr. Gibbons has indicated movement against gravity in five major muscle groups and today we've counted four I believe.

On the concern of losing the patient in the hours after the injury and is the injury still considered life threatening

Dr. Gibbons: The likely hood of dying in a 24 or 72 hour period after an isolated cervical cord injury in the presence of good medical care is actually low. If you fracture your neck at C 3 and you're the driver of a car in a single car motor vehicle accident you could well die in an hour or six or 12 hours without medical attention. Once you're in the medical care system and your only injury is cervical spine it would be very unusual for someone to die in 24, 48 or 72 hours. But the longer term for somebody with a significant cord injury, quadriplegia or significant quadriparesis, that is a chronic life threatening state from complications of blood clots in the legs traveling to the lungs causing a fatal pulmonary embolism. GI bleeding which occurs in quadriplegics at a very high rate. Simple infections that for anyone in this room could be treated with an out patient prescription for four or five days could be life threatening for a quadriplegic. Finally, there are the pulmonary issues and the ventilator issues. At Kevin's level of injury there are problems or some questions in terms of diaphragmatic function. But most individuals with his injury have normal functioning diaphragms but they cannot cough or take a deep breath. So they are at significant risk for pneumonia, which is an infection in the lungs or atelectasis which is a non-infectious collapse of portions of the lung. We will be working with this and when I say we I mean the nurses in my intensive care unit, will be working on Kevin from hour-to-hour to prevent this from happening over the next several days to weeks.

On the relationship and use of expertise by Dr. Green and the Miami Project

Dr. Cappuccino: In an effort to provide the best possible care for Kevin after his injury, multiple resources are utilized. The University of Buffalo Neurosurgical Services, the Buffalo Bills medical staff, Rural Metro, the training staff and I utilized as many resources as I could in order to establish protocols and utilize the best interventions that I could. In that light, Dr. Green, who is world renowned in terms of his research on spinal cord injuries and the potential rehabilitation of spinal cord injuries, was one resource that was utilized among many. He was apprised of the injury itself and his conclusions were based on the information that he was provided.

On the use of the ice cold saline solution used to lower the body temperature for spinal cord injuries

Dr. Cappuccino: I would be remised to think for Dr. Green but there is a burgeoning volume of research that indicates that limited hypothermia, especially in spinal cord injury, can be imminently beneficial and we tried to provide every humanly possible appropriate treatment for this injured patient.

On changing his prognosis from Monday

Dr. Cappuccino: My involvement to date was the immediate resuscitation, the surgical reconstruction and I have to tell you that my hat is off to Kevin who along with being a co surgeon at the reconstruction really is specifically expert in the critical care and management. I continue to follow him and I am by life an optimist, I am concerned that what we see may or may not be established my hope is that he will walk again but I can only base my opinions each day on the clinical evaluation of the patient.

Dr. Gibbons: If Monday morning, Andy had walked into a group of neurosurgeons and orthopedic spine surgeons and rehab physicians and told them, "here is what to this guy and I think he is going to walk again." He would have gotten some very strange looks if not laughed at because the odds were very much against him. The patient has made significant improvement. No one should think that the function in his legs is close to normal. Not even close. He has no movement in his hands. He has a long way to go. If you ask me if he would walk again I would tell you I wouldn't bet against it. But he has a long way to go.

On the role of the ice saline in the initial treatment

Dr. Cappuccino: Again, as Dr. Gibbon's nicely described earlier and it's not just in the care and treatment of spinal cord injuries, there is a burgeoning volume of literature and research on the utilization of limited hypothermia in the care and treatment of acute stroke, which is why we have the machine in Buffalo. There is a study on acute stroke going on with Dr. Gibbons as the primary investigator. It's also utilized in sudden cardiac death; it is utilized prophylactically in some centers for the elective treatment of major spinal reconstructive surgery. But our literature has told us that in the presence of an acute spinal cord injury, if we can by any means possible we can lower the core temperature of the body, there may in fact be, and we don't have all of the data yet, there may in fact be a sparing effect on the inflammation and otherwise cell destruction of the spinal cord. It seemed like a simple and straight forward application which I was willing to pull out all the stops to try to help this young man.

On this cooling saline being used normally when a patient comes in

Dr. Cappuccino: It's one of the many potential immediate interventions utilized in these situations.

Dr. Gibbons: I would be remised to point out Dr. Ionita of the neurology department is the principal investigator on the stroke cooling study and giving credit where credit is due she has been a great assistance in this particular case. I would also be remised, and it has been mentioned in passing, of the significant work done by the non medical staff at Gates in the care of this patient. There was a very complicated neurosurgical case going on at the time that Kevin arrived and our on-call operating team was actually busy. Two individuals came in including **JUNE LEWIS** who is the nurse in charge of the operating suites for the neurosurgery team at Gates. **BILL PALUMBO** who is the chief radiology technician who can make anything happen in the operating room with pictures and we're a very image-guided specialty. They came in and I would tell you that it is not unusual for them

and many other employees and associates at Gates and hospitals around this country to come in on their off hours when they are not on-call at a moment's notice when they are needed.

Dr. Cappuccino: I would like to say about that staff that does not just involve the Buffalo Bills. Having had the misfortune of treating other patients weekends, nights and other urgent situations, they are there at your beck and call.

On his recovery so far and how being an athlete has helped

Dr. Gibbons: It has helped so far. We don't worry about stressing his heart a little bit to make it pump a little harder to get more blood to his spinal cord or other organs. Being an athlete in good shape is important. Youth is important in terms of any critical illness. In studies of patients with quadriplegia or dense quadraparesis over the age of 65, the six month mortality rate from pulmonary problems is in excess of 40 percent. So being young counts for something. Of course, young when it comes to trauma is split somewhere in the mid 30's.

On the use of the cooling saline in the ambulance being the earliest application it has every been used before

Dr. Cappuccino: I honestly can't tell you if that was the earliest. I can tell you that it was something that as a medical staff had the presence of mind to institute and fortunately had the ability to do so. Whether the hypothermia or not change the ultimate outcome or whether it was the timing and good work of the staff at Millard Fillmore Gates Hospital who opened every door and broke down every barrier for us. I believe personally that it's a concert of all these. It was fortunately the perfect storm of treatment for someone, a human being, with this kind of injury. Hopefully, the gain we have seen to date, like I said I'm an optimist, will continue. I would love nothing more as I said in the initial news conference; the best case scenario is a complete recovery. We are cautiously optimistic and I stand by that.