23 Day Old Patient with Neonatal Fever at Children's Medical Center of Dallas

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Abstract

The objective of this report is to detail the deficiencies that appear to exist in the treatment of neonates at Children's Medical Center of Dallas based on a 28-day hospital experience, which began in the Emergency Department the evening of September 8, 2016. Problems experienced include deviations from accepted standards of care which led to a prolonged stay, an untoward event which led to a hospital-acquired condition, and unnecessary diagnostic procedures, performed without consent, which resulted in undue patient suffering and a second hospital-acquired condition. These issues, among others, are documented for reporting to the hospital as well as to the appropriate regulatory and licensing agencies.

Keywords: Patient Safety, neonatal fever, meningitis, HIPAA, Children's Health, lumbar puncture, cluster care, order sets

23 Day Old Patient with Neonatal Fever at Children's Medical Center of Dallas

Upon the recommendation of the pediatric nurse line for Children's Medical Center of Dallas, our son was taken to the emergency department on the evening of September 8, 2016. After confirming a rectal temperature of 38.6 degrees Celsius at home, he was immediately triaged and admitted with a rectal temperature of 38.4 degrees Celsius. The following report details the care that was experienced during our stay.

Deviations from Standards of Care

Review of research studies related to treatment of a fever of unknown origin in infants less than 28 days shows that empiric treatment is indicated at time of admission. Empiric treatment includes hospitalization and administration of broad-spectrum antibiotics per the Rochester criteria. Additional treatment protocols and decision trees also indicate the same. The deviations from the accepted protocols caused undue stress to the patient and maintaining acceptable standards of care would have prevented untoward events.

Neonatal Fever

Standards of Care.

According to the Rochester criteria, an infant less than or equal 60 days of age who presents with a fever of greater than 38.0 degrees Celsius, a history of full-term birth, no prior illness, no skeletal, soft tissue, skin or ear infections but who is not well-appearing and has an abnormal CBC should be treated with hospitalization and empiric antibiotics. (Hui et al., 2012)

"I believe that the prudent evaluation and management of young febrile children is as much an art as a science. The art is reflected in *thoughtful attention to parental observations and concerns* [emphasis added], coupled with a careful physical examination of the child. The

science derives from the knowledge that fever may indicate a serious bacterial infection (SBI), especially among the very young; that *the role of laboratory tests in the evaluation of febrile children is controversial* [emphasis added]; and that the risk of missing infection must be weighed against the consequences of excessive testing and treatment". (Prober, n.d.)

Treatment Received.

The treatment received at this hospital deviated from the standards detailed above from the beginning. Per Rochester criteria, no LP was indicated. Even per other diagnostic scales the quantity of attempts was excessive, especially given the age of the patient. When the first LP failed to collect fluid for assessment, treatment should have been continued, without interruption, for the recommended course of time. Instead, antibiotics were given randomly and then stopped until it was finally recognized that parental observations about the decline in the patient's condition was accurate.

All communication from the team of physicians indicated that the only symptom requiring continued observation was the presence of a fever. Once the patient was afebrile for the prescribed amount of time, the parents were advised that the child would be released. This was regardless of the continued photophobia and hypersensitivity to touch and movement as noted by various nurses and physicians. Once the physicians were advised that upon his release the child would be taken to a different facility for more appropriate follow-up, more intensive consideration of the existing symptoms and empiric treatment was deemed necessary. Prior to this conversation, the team of physicians had no regard for parental concern or observation and had disregarded nursing staff's continued expressions of concern.

Diagnostic Testing

Standards of Care.

While the debate rages hotly about the necessity of a lumbar puncture in an infant this age, one thing that seems consistent in all responses to the question of the standard of care as it relates to this test is that seven attempts are too many.

Treatment Received.

In trying to ascertain what was wrong with their child, the parents agreed to one lumbar puncture in the emergency department. Because of the hectic flow, the signing of a consent form for this procedure was delayed until after the test had been performed. This consent specified the doctor who had performed the test and that it was consent for an LP to be performed in the emergency department. After an extended period, we were told that this attempt was unsuccessful. The reasoning given was that the patient was potentially dehydrated, though there were no clinical symptoms or documentation to support that.

After admission, the parents were informed that this procedure would need to be attempted again. The patient was taken to a procedure room for what was supposed to be approximately 20 minutes. Almost an hour later, a member of the staff came back to the patient's room to inform the parents that several subsequent attempts had failed. It was at this point that questions were raised about how many attempts were being made and it was revealed that three attempts had been made in the emergency department and that four more had been made on the floor. With only one consent to one procedure on file, this was more than a little alarming to the parents.

Since the documentation of the lumbar punctures that had been attempted in the emergency department was not entered into the clinical record, there is no way to validate the

precise number of attempts or how the patient tolerated the procedures. After the second set of attempts, however, an umbilical hernia was noted by the parents and documentation from the emergency department specifically detailed that it did not exist on admission. Further, a doctor noted a hydrocele that was previously not present.

Untoward Event

Standards of Care.

Dressing changes for a neonatal PICC line should be handled with the utmost level of care. Per Covidien, manufacturer of the 1.9fr PICC that was used, "Dressing changes must be performed utilizing strict aseptic technique" (Gustafson, 2005). Aseptic technique has long been established in order to minimize the risk of infection. One key component is monitoring the field to maintain sterility. "If the gloves become desterilised, remove them, re-wash your hands and put on new sterile gloves" (Marsden, 2015)

Treatment Received.

Even to a layperson watching the dressing change performed on September 30, 2016 it was clear that the use of sterile procedure was lacking. Having watched numerous dressing changes be performed by the PICC team, the differences in procedure were apparent from the beginning. There was a blatant disregard of numerous warnings by the patient's mother about the extent of the spread of fecal matter. Though they were warned several times, the person in charge of the dressing change (at least appearing in charge as she directed the other staff member's actions at each step) kept repeating that the cleaning of various parts of the line was the responsibility of the nurse and that they would not be addressing the cap or any of the tubing that was soiled. This led to the sterile gloves being used to handle portions of the line that were

soiled and then coming into direct contact with not only the new dressing, but also the insertion site.

Other Issues

The remaining issues run the gamut from Housekeeping to HIPAA violations. These problems are still causing issues and stress on the family even now, months after discharge.

Patient Care

These problems directly affected the patient and could have had significantly more detrimental outcomes. Thanks to attentive parenting and the support of outside consultants, these outcomes were mostly avoided, however this caused and is still causing incredible amounts of undue stress to the family.

Cluster Care.

The concept of cluster care is not a new one and its benefits are far-reaching in settings such as this, especially in the case of an infant this young. Non-cluster care and inconsistent nursing practices contribute significantly to drastically reduced satisfaction of patients and families. "Sleep is essential for life. No one can stay awake indefinitely without great physical and mental costs. Sleep deprivation is often considered dangerous because it impairs so many aspects of cognition and physical abilities that could contribute to life-threatening situations. "Sleeping like a baby" is considered a good thing, and for the infant, sleep is necessary for normal growth and development. In the early newborn period, full-term infants sleep an average of 16 to 20 hours each day" (McGrath, 2007). There were extreme swings in this area during the stay. Some days and nights the nurses were noticeably absent except for the required checks. Unfortunately, those times were not the norm.

On one specific night, the nurse on duty went so far beyond the established protocols that she came into the room every hour and disturbed the patient to do unnecessary checks for random things. This was over halfway through the stay and the patient's mother was already exhausted. In the medical record, you will find an event recorded from this night. After struggling to get the nurse to leave the patient alone, both the mother and the patient had finally fallen asleep. Due to the issues that had been occurring, the mother was holding the baby as the nurse had attempted to access the child without speaking to the mother several times and the mother no longer felt that it was in her child's best interest to be left where the nurse could get to him without her being aware. It is a sad testament to the care problems that had been occurring that at approximately 0400 the morning of 9/21/2016 the patient's grandmother was called in to keep watch as the mother could no longer function as the patient's advocate due to the extreme duress that had been caused by this facility.

Tools to help with these problems have been studied. One such study relays, "Sunnybrook wanted to minimize disruption of infant sleep. They observed that non-emergent hands on care were generally provided based on nursing routine, and not on infant state. They sought to improve practitioner recognition of infant sleep states, by preparing a sleep state tool for use at the bedside. Educational intervention utilizing this tool had a positive impact and care practices changed" (Laudert et al., 2007). With sleep being so critical, cluster care should be the norm and certainly should not have to be requested by the patient's family.

Order Sets.

"Well-designed standard order sets—both electronic and paper formats—have the potential to:

- Integrate and coordinate care by communicating best practices through multiple disciplines, levels of care, and services
- Modify practice through evidence-based care
- Reduce variation and unintentional oversight through standardized formatting and clear presentation of orders
- Enhance workflow with pertinent instructions that are easily understood, intuitively organized, and suitable for direct application to current information-management systems
- Reduce the potential for medication errors through integrated safety alerts and reminders
- Reduce unnecessary calls to physicians for clarifications and questions about orders" (ISMP, 2010)

Due to the lack of use of standard order sets, the patient's family is now dealing with issues that should have been resolved prior to discharge now, three months after release. Since the patient was being treated for presumed meningitis, it was noted throughout the course of treatment that a hearing screening would need to be completed prior to discharge. This appears numerous times in progress notes and discharge plans contained in the medical record. However, as documented in a consult note on October 4, 2016, this testing was unable to be completed because the order was not entered in a timely manner. Therefore, the patient had to see a specialist after discharge, incurring a copay. After an initial abnormal screening the patient was then sent to another hospital facility for the ABR testing which should have been part of this inpatient stay. This placed further stress on the family as there were additional costs associated

with the testing that should have been rolled into the inpatient bill, but instead had to be paid out of pocket.

Dietary Advice.

During this extended hospital stay, various specialty areas of the hospital came into the patient's room to verify that the care being received was sufficient and that the patient would be ready to be taken care of upon discharge. One of those specialist areas was dietary. The dieticians came by weekly during this inpatient stay and according to them things were going well until September 29, 2016. On this date the dietician had to come by because the patient was no longer gaining weight appropriately.

It is documented in the medical chart that various members of the physician team were informing the parents that they were overfeeding the patient. This was based solely on episodes of emesis which were non-bilious and non-bloody, but occurred with varying frequency and were concerning to the parents because of their seeming increase during the stay. This patient was already being treated for reflux by his primary care physician due to similar episodes prior to the admission, and it seems likely that between this pre-existing condition and the medications that were being used to treat empirically the emesis should have been non-concerning. Instead, after several weeks of being told that she was to blame for this portion of the patient's sickness, the patient's mother began to limit his intake at the direction of his physicians. This caused the patient to spend several days fussing and not being fed the amount he was used to and required, thus prompting the visit from the dietician due to his lack of sufficient weight gain.

The dietician immediately went and addressed this issue with the physicians, finding and correcting their documentation and understanding. There was no further mention of overfeeding and the patient once again began to gain appropriately.

Miscellaneous

HIPAA Violations.

It became clear to the patient's family during this stay that the policies and procedures put in place by the Health Insurance Portability and Accountability Act of 1996 and further fleshed out in the Privacy Rule of 2002 were not being followed. These patient protections were enacted to keep information from being distributed or used in ways that were not authorized or appropriate.

On one occasion during this stay, medication sent from the pharmacy for a diaper rash was received with a label for another patient. This was noticed by the parents and ultimately corrected by a resident who came in and found the mistake unprompted. The resident simply tore the label from the medication and left it at the bedside. The family can only assume that it is likely the other patient received medication labeled for their son.

It was also noted on multiple occasions when utilizing room service for ordering meals that the methods of questioning to ensure the correct patient's room was charged left a lot to be desired. Because no standard way of identifying the caller seemed to exist, the staff on the other end are left to verify as best as they can, which on several occasions involved releasing other patient names and room numbers. This would seem to be a simple problem to correct, so the family was surprised at such a considerable oversight.

Housekeeping.

The problem of cleanliness was a big one during this stay. There was old dirt in the corners of the floors and in one room during this stay a large quantity of food crumbs and pieces were found under the couch in the patient's room. When this was pointed out to the nurse, housekeeping was brought in to move furniture and clean the floor. This problem occurred

around 3am, causing significant upheaval at a time when the patient should have been able to rest.

Trash removal was also a big problem. It seemed overly difficult to keep the trash can from overflowing. This was, at times, due to procedures being done in the room and trash from them being put into the regular trash can. Based on sterile procedure protocols, this could have been avoided if proper disposal techniques had been used as that waste requires special handling.

In a hospital that claims to have three full shifts of housekeeping staff, most days it was fortunate for the patient's room to see one member of that staff in the morning for a cursory wipe down, which is unacceptable for keeping things clean and infections at bay.

Billing.

To date, notification from the insurance company that this hospital stay has been billed properly has still not been received. Numerous claims have been sent, but not all were sent using the correct member number. At the prompting of the patient's mother, this issue was supposed to be resolved. The most recent contact with the hospital's billing department was at the end of November. At that time, the patient's mother was told that the claims were being reprocessed and that it should be reflected in 30-45 days. There is still no indication of any correction showing on the insurance company's side.

Also, after verifying with medical records that the provider notes from the emergency department were never entered, the patient's mother noted that there are still charges on the itemized bill for a lumbar puncture being performed there. As there is no documentation to support that, and no consent for the further testing done on the floor the following day, these claims will be reported to the insurance company for review and potential fraudulent billing. This was mentioned to the billing department as soon as it was discovered, but no effort was

made to correct the bill even though the patient's mother was informed that no note would be generated for the emergency department items that were missing as the allowable time between service provided and documenting had passed.

Joint Commission

Patient Safety Event.

A Patient Safety Event is described as "an event, incident, or condition that could have resulted or did result in harm to a patient." (Joint Commission, 2016). During this stay, there was one event that was not only a HIPAA violation, but also a patient safety event.

When medication was delivered from the pharmacy with the wrong patient's information on it, the patient's family became aware of the issue almost immediately. Due to the fact that it was able to be verified as the correct medication (as it was a prepackaged cream for a severe diaper rash), the patient's parents went ahead and applied the cream. This issue was later caught by a resident during a consult in the middle of the night and the label was completely removed by her.

Anytime a medication is dispensed or delivered incorrectly from the pharmacy, there have been far too many breakdowns in the chain of care. In a lot of scenarios, medication errors would not be caught by the patient's family and could have deadly outcomes.

Sentinel Event.

The definition of a Sentinel Event includes the following: "severe temporary harm is critical, potentially life-threatening harm lasting for a limited time with no permanent residual, but requires transfer to a higher level of care/monitoring for a prolonged period of time, transfer to a higher level of care for a life-threatening condition, or additional major surgery, procedure, or treatment to resolve the condition" (CAMH, 2016).

This patient experienced a hospital acquired infection of the PICC line detailed earlier. This event is the very definition of a Sentinel Event. It was a Patient Safety Event that did reach the patient and resulted in the patient being transferred to a higher level of care as evidenced by the additional antibiotic administration and the increase in frequency of vital sign monitoring. There were additional tests required and ultimately the patient's care was negatively impacted as the method for administering medications had to change, which caused undue stress during the final days of the stay.

In conclusion, while many may question the studies that show medical errors as the third leading cause of death in the United States, it is certainly plausible when this stay is considered. There is high concern for the safety of patients in this facility who do not have family or advocates at the bedside continuously. Reviews of other reports related to these concerns indicate that they are rare events and it is quite apparent that changes are needed to protect the patients who find themselves in need of safe, effective medical care.

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