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The nurses at Godoy Medical Forensics can provide a comprehensive chronology of the medical records in your case to assist in the cost-effective and efficient review by experts and a thorough preparation of the case theory. The full fact chronology is a comprehensive report that includes nursing analysis and summaries. You can also opt to just having the records organized or just have an expert copy of the fact chronology prepared. The expert copy of the fact chronology is not analyzed by the nurse but can be broken down into issues, making their review focused and therefore more efficient.

What follows is a sample of the full fact chronology. Here is a breakdown of the components:

I. Case summary – overall report that covers all the issues
II. Fact Chronology – all facts relating to the case with comments from the nurse
III. Issue Summaries – each individual issue that is related to the case, includes a summary report and a sub-chronology that is specific to that issue
IV. Terms – glossary of terms and abbreviations
V. Medications – meds relevant to the case are defined and described
VI. Medical Records – full set of organized medical records
VII. Works Cited – scientific and medical literature to support the case, including the Standards of Care that were breached. The extract text is from the article and the notes are from the nurse.

Other benefits are:

- Keyword searchable
- Embedded documents – click the paperclip to open the medical records and the works cited (works cited wasn't linked in this document, paperclip normally present to open full text)

Two copies are created – the one you see here is for the attorney. We also create one for the expert that deletes all the nurse's comments and opinions. **The speed at which an expert can review a document like this is exponential to unorganized records and can cut expert costs down significantly.**

Miller, James

Case Report

Authored by:

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Certified Legal Nurse Consultant

www.GodoyMedical.net

Statement of Confidentiality

The information contained in this ReportBook constitutes privileged and confidential work product and may be entitled to further protection from disclosure under the attorney-client privilege. Accordingly, recipients of this ReportBook shall take all appropriate steps to preserve confidentiality and shall not engage in any acts to waive, abrogate or compromise the privilege or protection that attaches hereto.

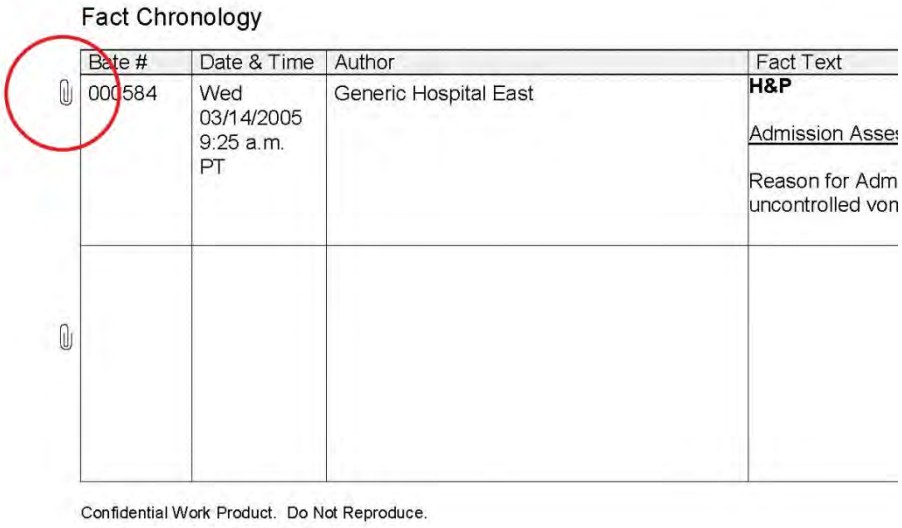
ReportBook Contents

Fact Chronology Instructions:

How to Use this Report

This PDF contains the set of organized records and research pertaining to the case. These files are embedded, and can be accessed through links.

To access the files, click the paperclip icons found in the left hand column of the report:



Fact Chronology

Bate #	Date & Time	Author	Fact Text
000584	Wed 03/14/2005 9:25 a.m. PT	Generic Hospital East	**H&P** Admission Asse Reason for Adm uncontrolled von

Confidential Work Product. Do Not Reproduce.

This function allows you to access linked files throughout the report, as well as the complete set of organized records pertaining to the case, found at the bookmark labeled “Organized Records”:

Documents

Bate #	Date	Author(s)	Full Name	Type +	Subtype
000001 - 000002	To Be Determined	Generic Hospital East	ED Record [000001 - 000002]	Medical Record	ED
000003 - 000008	Wed 01/02/2008	Generic Hospital East	Admin [000003 - 000008]	Medical Record	ED
000009 - 000010	Wed 01/02/2008	Generic Hospital East	H&P [000009 - 000010]	Medical Record	ED
000011 - 000012	Wed 01/02/2008	Generic Hospital East	Doctors Orders [000011 - 000012]	Medical Record	ED

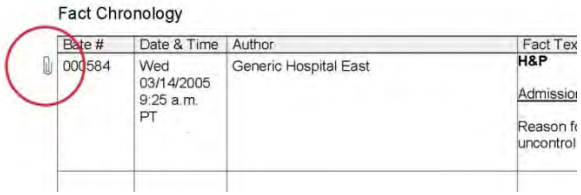
The cited reference material is also embedded and can be accessed through the “Works Cited” section:

Works Cited

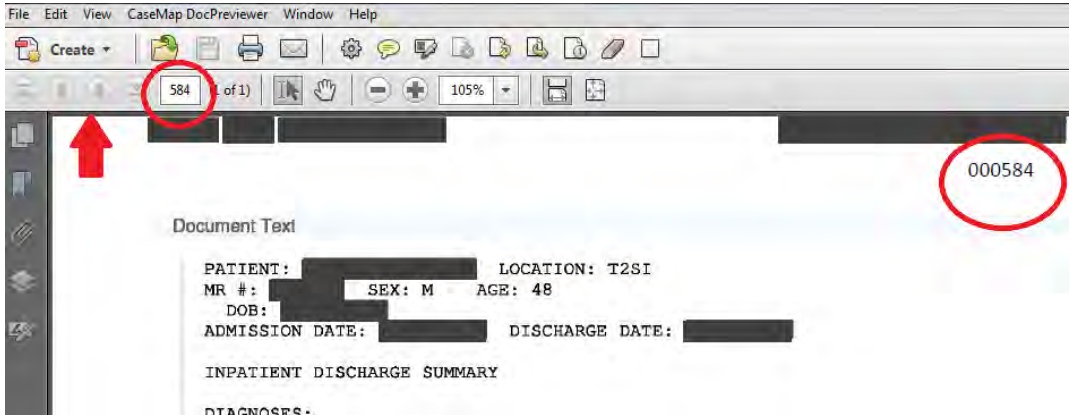
Authority Name	Description	Extract Text	Notes	Linked Issues
Alcohol Health and Research World	Maher, J. (1997). Exploring Alcohol's effects on liver function. Alcohol Health and Research World, 21:1, pp 5-12.	***A large proportion of heavy drinkers develop serious alcoholic liver disease. Susceptibility to alcoholic hepatitis and Cirrhosis appears to be influenced by heredity, gender, diet, and co-occurring liver illness. Most alcoholic liver damage is attributed to Alcohol metabolism. Liver injury may be caused by direct toxicity of metabolic by-products of Alcohol as well as by***	This most advanced form of liver disease is diagnosed in 15 to 30 percent of heavy drinkers.	Liver Disease

Finding fact details in the Fact Chronology:

1. Click the paperclip icon next to the fact you want to view, and the document will open.



2. To find the page you are looking for, use the up and down arrows to navigate to the page number that corresponds to the bate number of the fact. The fact will be on that page.



*To jump directly to the page you are seeking, type the corresponding bate number (without the preceding zeros) into the box next to the arrows.

Case Summary

On July 13th, 2009, James Miller, a 10 month old boy, was found in his crib by his mother's boyfriend to be apneic and pulseless. CPR was started in the home and continued during the transport in a private car to the nearest hospital, which was Standard Healthcare in CA.

Upon arrival to the emergency department, the health care providers took over resuscitation and were promptly rewarded with a pulse. But James's breathing continued to be absent and the staff in the Emergency Department attempted to intubate. It took 40 minutes and 7 attempts before the CRNA was successful at intubating James. The staff failed to use other devices that are actually much easier to insert into the airway (BSOC). They failed to place him on a ventilator to provide adequate respiratory support (BSOC). There is no record of the use of the Broselow tape at Standard (BSOC). The outward breaches in the standard of care is evidence that Standard Healthcare has inadequate resources and training to properly manage an emergent pediatric patient. This is further evidenced by the lack of proper documentation of the vital signs in the emergency department during the intubation attempts (BSOC). The documentation and care delivered at Standard was horrendous and did not stop upon transfer of care to Emergency LifeFlight.

Emergency LifeFlight transported James from Standard to Average in NV. They have a nurse and a paramedic on their helicopter. The transfer time was approximately 50 minutes long. During this time, the nurse only documented that James's oxygen saturations dropped to 78% and then failed to document any vital signs after that time (BSOC). He also failed to document any intervention on his part in regards to the airway and failed intubation (BSOC). However, the emergency room physician at Average documented that the nurse had seen saturations as low as 20% with a good waveform and that his saturations remained between 20% and 70% for 30-40 minutes. Finally, the attending at Average documented the nurse's report that James's saturations were persistently in the 20% range for the final 5 minutes of the flight. (Bate# 1D 02-000010 - 02-000011). The flight nurse had a duty to attempt to correct the issue with the airway, including pulling back the tube or possibly extubating and providing manual BVM respirations. There is no documentation to support that he attempted to intervene on the failed intubation (BSOC). The lack of documentation in the nurses own report is a breach in the standard of care (BSOC) and evidence that the nurse was aware of his grossly negligent care.

Upon arrival at the emergency department in Average, it was discovered that James had an "air leak." The records do not indicate the source of that air leak, but it is most likely due to the use of an ETT that was too small. The doctors reintubated James with a larger tube and that seemed to have resolved the air leak problem but they ignored the multiple radiology reports that the tube was too far down into the lungs and was therefore not oxygenating the left lung (BSOC). The result was a total of 6 1/2 hours where James's left lung was not receiving any or very little oxygen and contributing to his hypoxic state.

From the time that James went into cardiopulmonary arrest on July 13th at approximately 8pm until July 14th at 5:43 am he was severely hypoxic. The prolonged hypoxia and lack of perfusion to the brain caused Hypoxic Ischemic Encephalopathy (HIE) and is the cause behind his current neurological state.

Subdural Hematoma

It is my opinion that the subdural hematoma that is on the CT scan is completely irrelevant and unrelated to the case. The subdural hematoma was very small and did not cause the massive hemorrhaging, cerebral edema and increase intracranial pressure that you would expect to see in a cardiopulmonary arrest. The cause of arrest in children with intracranial bleeds of any kind is the pressure from the bleeding. The pressure causes the blood supply to the brainstem to be cut off and therefore this is a lack of nutrients and oxygen and the brainstem stops functioning. The brainstem is the driving force behind our breathing and heart beat.

The subdural hematoma in James's case was likely asymptomatic, could have been from the injury on July 7th or occurred spontaneously, and was not related to the HIE that James was diagnosed with at Average.

Retinal Hemorrhages

The retinal hemorrhages could have been from any number of things. The literature supports that RH can be from HIE, hypoxia, and CPR. It is generally thought that the hemorrhages are due to an increase in pressure in the brain. In this case, there is no documentation that he ever had an increased ICP. That leaves hypoxia: It is my opinion that he most likely cause of the Retinal Hemorrhages was the prolonged hypoxia at the hands of the healthcare providers.

Other Factors
Sepsis, meningitis and TORCH syndrome all have potential bearing on the case. Please see the issue "Sepsis, history of meningitis, and TORCH syndrome" for more information on how these conditions could have affected James.

Summary of Opinions:
It is my opinion that the persons involved in this case jumped to the conclusion of non-accidental head trauma based solely on the presence of the subdural hematoma and the retinal hemorrhages. While there was one person that apparently reviewed the case for other potential causes they took only the "textbook" differential diagnoses and failed to account for James's history of meningitis, the comment regarding the TORCH syndrome, and the negligent medical care that contributed or potentially caused the HIE. They also failed to notice that the arrest was not likely to have been caused by the small subdural hematoma that James had on CT scan.

This is a complicated case that has many potential causes for the injuries. I accept that child abuse should have been considered initially: However, upon further review of the records, I believe the abuse lies on the hands of the care givers from Standard, Emergency Flight and Average.

There were four main breaches in the standard of care (BSOC) that contributed greatly to James's condition. There were also several minor BSOC's that existed and are reported in this case summary and throughout the fact chronology. From his entrance into the emergency department at Standard it was a domino effect of negligent care from facility to facility. It is unfortunate that the check and balance system that exists between doctors and nurses was not able to catch the errors that started at Standard.

I recommend review by a pediatric intensivist and a pediatric radiologist to corroborate and testify on the findings.

Miller, James

Fact Chronology

Fact Chronology

Bates	Date & Time	Source(s)	Fact Text	Comments
000025 - 000030	Thu 09/11/2008 9:15 p.m. PT	Average Medical Center [%LF%|0]	**Labs** WBC: 14.2 RBC: 4.87 HGB: 17.2 HCT: 51.7 PLT: H 355	All of these lab values are within normal range, indicating that he is not septic at this time. This is highly unusual considering his presentation and the high levels of white blood cells documented to be found in his CSF. It appears that the infection had not gone into the bloodstream yet.
000007	Fri 09/12/2008 3:02 a.m. PT	Average Medical Center [%LF%|0]	**H&P** Admission Diagnosis Bacterial Meningitis History of Present Illness The patient is an approximately two week old Caucasian male infant who presented to Generic Medical center Emergency Department tonight with the 2 to 3 day history of a fever, vomiting, poor feeding, and increasing irritability. Mom was visiting Pocatello from Town A, Nevada where the baby was born. He was initially evaluated by the ER physician who then asked the pediatric resident on-call to come and assess the baby. She called me immediately and recommended full sepsis evaluation. We discussed the plan and she initiated that workup while I prepared to routine to the hospital. Baby was born at term, perhaps one week late to a prima gravida female by spontaneous vaginal delivery in Town A, Nevada. Mom reports no problems of pregnancy, believes that her prenatal labs were unremarkable. To her recollection, she believes her group B strep culture was negative, but other detailed prenatal records are not available to us at this time. No antibiotics were given during labor that she recalls. Mother and baby did well and went home in a couple of days. Baby had fed well and acted normally until early on september 10, shortly after arriving to Pocatello. Baby, at that point, had a low-grade temperature, was difficult to feed and threw up. And over the next 36 hours, had episodes of poor feeding, poor intake, decreased urine	The history of bacterial meningitis is pertinent as it may have contributed to the brain injury and possibly precipitated the subdural hematoma and/or retinal hemorrhages.

Bates	Date & Time	Source(s)	Fact Text	Comments
**	**	**	output, episodes of vomiting and so mother finally presented to the Emergency room for evaluation. Family History At the time of my arrival, the baby had just been transferred to the ICU with body temperature of 99 degrees, variable heart rate occasionally below 100. At the time of dictation temperature is 99.8 degrees rectal. Heart rate is 110, respiratory rate of 36, blood pressure is 76/54 with a mean arterial pressure of 61, 97% in room air. Physical Examination Central: A quiet, ill appearing baby, very irritable if touched, but in no respiratory distress Impression: This is a now 14 day old white male infant with a severe pleocytosis of CSF with hight CSF protein and a low glucose, suggestive of bacterial meningitis. Positive Gram stain for Gram positive for cocci, noted to be diplococci which would be suggestive for pneumococcus, however, presentation and especially age of the child would be more consistent with Group B streptococcus. Because of confusion, we will treat empirically with three antibiotics, vancomycin, ampicillin, and cefotaxime, at appropriate doses for age. Risk of seizures we will load with phenobarbital at 5 mg/kg and then administer 3mg/kg once a day. Dexamethasone is contraindicated in this age group. Repeat lumbar puncture would be indicated at 3 to5 days, and consider neuroimaging at that time at the suggestive of Intensivisit in Salt Lake City. MRI with contrast is recommended. **The baby is in guarded condition, still with some risk of mortality, certainly high risk of neurodevelopmental delay, seizures, ventriculitis, brain abscess, or hearing loss possible**. Mortality and all these issues were discussed at the bed side with mother. She seemed to take the information appropriately. We will continue to follow the child's vital signs, manage fluid status, follow labs and electrolytes and amend to microbial therapy as culture and sensitivity dictates.	**
000020	Sun 09/14/2008 6:11 a.m. PT	Average Medical Center [%LF%|0]	**Labs** 09/14	All of these lab values are within normal range, indicating that he is not

Miller, James

Issue Summaries

Issue Summaries

Issue: 1. July 7-8th

Description	This ER visit is pertinent as it provides the prosecution with evidence that there was no intracranial bleeding approximately 6 days prior to the event. The absence of a subdural hemorrhage on CT does not necessarily preclude the presence of an actual bleed as it is common for these slow vascular bleeds to take a period of time to get big enough to cause symptoms or show on radiology reports. The vomiting that was reported during this visit could be taken as evidence of intracranial bleeding, which warranted the CT scan. However, the story indicates that the vomiting occurred before the fall and was thus unrelated. The possibility of severe injuries occurring from Ground Level Falls exists and has been studied by Dr. Plunkett (Plunkett, 2001). Despite the controversy on this study (please see my notes under "Works Cited") it does provide evidence that such injuries can exist. Specifically, occult subdural hematomas from ground level falls is further supported by Greenes, and Schutzman in 1998. The study also shows the occult subdural hematoma can be completely asymptomatic. **In summary**: I believe there is a strong possibility that this is the time in which the subdural hematoma occurred. The medical records support the theory that the subdural hematoma was sub-acute (recent but not immediate) and very small. It is very likely that the subdural was there for the week prior to the event, was asymptomatic (the symptoms seen were likely from an infectious process) and was actually completely unrelated to the arrest itself. Another possibility is that the subdural hematoma occurred spontaneously from a weakness in his vasculature from the meningitis. Regardless, it was not the cause of the cardiopulmonary arrest. **I believe prosecution will enter the negative CT scan as evidence that the subdural did not occur on this date. The defense should present the evidence that a small subdural can be asymptomatic and the initial CT scan can be negative. The defense should also indicate that the cerebral edema did not occur until after the cardiopulmonary arrest, indicating that the subdural was not the cause of the cerebral edema and is therefore irrelevant to the brain injury**. See Hypoxic Ischemic Encephalopathy Issue for more information on this topic.

Facts bearing on July 7-8th:

Volume	Bates	Date & Time	Source(s)	Fact Text	Comments
1C	000001	Tue 07/07/2009 11:22 p.m. PT	Average Medical Center [%LF%|0]	**ER Service Record** How Brought to Hospital: Car Parents Triage Time: [Blank] Chief Complaint / Onset of Symptoms N/V 30min Nursing Assessment: Fell, Hit head/chin with 1st episode of nausea 0 LOC, Neuro Intact	Triage time was left blank

Continued: Facts bearing on July 7-8th:

Volume	Bates	Date & Time	Source(s)	Fact Text	Comments
**	**	**	**	Past Medical History: Spinal Meningitis @ 1 month, 0 Surg., 1 kidney Vital Signs: Time- 2322, Temp- 98, Pulse- 154, Resp- 30, O2 Sat- 97%.	**
1C	000002 - 000006	Wed 07/08/2009 1:00 a.m. PT	Average Medical Center [%LF%|0]	**Emergency Physician Record** Chief Complaint: Head injury, vomited blood Context: Hit Head Ground Level Fall (Ground Level Fall) ?___ tongue. Small bite. Bleeding from Tongue. Ok now. Mother very Anxious Physical Exam: Bruise on Head Clinical Impression: Head Injury, Bite Tongue	The "vomited blood" is more likely from the tongue bite and not actual blood in the emesis. A ground level fall does not necessarily indicate a CT scan, but the the presence of the bruise and the tongue bite indicates more force than a simple fall. The report of vomiting is a potential sign of an intracranial bleed. This is most likely why the MD ordered a CT scan. This is the age when infants pull to standing (eg coffee tables) and a tongue bite when they release and hit their chin/head is common. So is rolling of the bed. While safety is a parenting role, ground level falls and falls out of bed are a common occurrence at this age and do not signify abuse.
1C	000014	Wed 07/08/2009 1:55 a.m. PT	Average Medical Center [%LF%|0]	**Discharge Instructions Receipt** FINAL DIAGNOSIS Head injury	The signature was not noted with a time. It is likely that this document was prepared in advance of the results of the

Issue Summaries

Issue: 2. Past Medical History

Description	The past medical history for James Miller consists of a 3 week admission for **severe Strep B bacterial meningitis**. This type of infection commonly results in death in infants at this age. The cause is commonly from an infection that is transferred from the mother at the time of delivery, and it is not uncommon for the symptoms in the child to be delayed several weeks. Once the incubation period is over, the infant usually deteriorates rapidly and the presentation that James had was typical: fever, vomiting, irritability. He was also seen a few months prior to the incident in question for bronchitis and an ear infection. It is possible that James had a compromised immune system, which would not only predispose him to infections but also would affect his ability to fight and heal traumatic insults. **The meningitis is supported in the literature to be linked to both subdural hematomas and retinal hemorrhages. It is controversial, however, and expert testimony will be needed to support this theory.** Please see the "Retinal Hemorrhages" and "Sepsis versus Complications from history of meningitis or TORCH syndrome" issues for further information and citations related to the meningitis. **The admission for meningitis at Generic Medical Center triggered a call to Child Protective Services.** This is likely due to the presentation of James at the time of arrival into the emergency department. From the medical records in my possession, it is unclear why CPS was called or why they would have performed a bone scan on this admission. There is also concern that failure to comply with medical advice can lead to worsening infection and therefore severe sepsis from meningitis could occur. However, there is no evidence here to support a claim that the mother was neglecting her child. She reported a "2 to 3 day history of a fever, vomiting, poor feeding, and increasing irritability." In a family with no medical insurance they will commonly put off going to the doctor. Upon discharge from delivery of the baby, the nurses are supposed to educate the mom that any fever over 99 degrees should warrant a return to the hospital. The ER records would show the temperature on admission and possibly indicate that Melinda was treating appropriately with tylenol or motrin. It may also give us more information on the severity of the symptoms prior to admission and upon admission. Strep B meningitis in infants at this age is commonly from a Strep B infection in the mom at the time of delivery. The medical records for the delivery are not in my possession nor are the complete medical records from this visit. **SDT: Full set of medical records from Generic Medical Center for 9/11/08-10/1/08 and SDT: Labor and delivery records for the birth of James.** **Red flag for the defense. The prosecution may call this doctor and have him testify as to why child abuse was a concern here. There is no documentation by the doctor that indicates any other signs of abuse were present. I recommend investigation into this incident.** **In Summary:** The history of meningitis is significant as it may be the actual culprit of the subdural hematomas and the retinal hemorrhages. Please see the Issue: Sepsis versus complications from history of meningitis or TORCH syndrome for more information on the bearing of his medical history on the case.

Facts bearing on Past Medical History:

Volume	Bates	Date & Time	Source(s)	Fact Text	Comments

Continued: Facts bearing on Past Medical History:

Volume	Bates	Date & Time	Source(s)	Fact Text	Comments
1A	000025 - 000030	Thu 09/11/2008 9:15 p.m. PT	Average Medical Center [%LF%|0]	**Labs** WBC: 14.2 RBC: 4.87 HGB: 17.2 HCT: 51.7 PLT: H 355	All of these lab values are within normal range, indicating that he is not septic at this time. This is highly unusual considering his presentation and the high levels of white blood cells documented to be found in his CSF. It appears that the infection had not gone into the bloodstream yet.
1A	000007	Fri 09/12/2008 3:02 a.m. PT	Average Medical Center [%LF%|0]	**H&P** Admission Diagnosis Bacterial Meningitis History of Present Illness The patient is an approximately two week old Caucasian male infant who presented to Generic Medical center Emergency Department tonight with the 2 to 3 day history of a fever, vomiting, poor feeding, and increasing irritability. Mom was visiting Pocatello from Town A, Nevada where the baby was born. He was initially evaluated by the ER physician who then asked the pediatric resident on-call to come and assess the baby. She called me immediately and recommended full sepsis evaluation. We discussed the plan and she initiated that workup while I prepared to routine to the hospital. Baby was born at term, perhaps one week late to a prima gravida female by spontaneous vaginal delivery in Town A, Nevada. Mom reports no problems of pregnancy, believes that her prenatal labs were unremarkable. To her recollection, she believes her group B strep culture was negative, but other detailed prenatal records are not available to us at this time. No antibiotics were given during labor that she recalls. Mother and baby did well and went home in a couple of days. Baby had fed	The history of bacterial meningitis is pertinent as it may have contributed to the brain injury and possibly precipitated the subdural hematoma and/or retinal hemorrhages.

Miller, James

Terms

Terms

Full Name	Role In Case
Advanced Cardiac Life Support	ACLS is the standard of care for resuscitation. It is developed by the American Heart Association and they have a second set of similar guidelines for pediatrics: PALS.
Arterial Blood Gas	Arterial Blood Gas's allow the staff to determine more specifically the respiratory function of the patient.
Bag Valve Mask	The Bag Valve Mask is the device used in resuscitation attempts to provide manual ventilation. The phrases "He was bagged" or "We used a BVM" refer to this device.
Breach in the Standard of Care	
Broselow Tape	This is the standard of care for pediatric emergent care for pre-hospital, emergency department and inpatient facilities. This is a tape that allows the caregiver to lay the child down and accurately "guess" their weight from their height. It also gives drug dosages, Endotracheal Tube sizes and other age/dose specific information for that child. Most emergency departments also carry a "Pedi Cart" for codes that have drawers for the colors indicated (by size) on the tape.
Certified Registered Nurse Anesthetist	A CRNA attempted intubation at Standard Health on July 13th and was the only successful intubation.
Endotracheal Tube	
Ground Level Fall	
Hypoxic Ischemic Encephalopathy	HIE could be a causative factor behind the retinal hemorrhages as well as the neurological damage.
Intracranial Pressure	
IntraOsseus	IntraOsseus's are commonly used in children to administer medications and fluids. It is a needle that is inserted into the bone, and tubing is attached to it much in the same way as an IV.
Pediatric Advanced Life Support	PALS is the standard of care for the resuscitation of pediatric patients. PALS is a modification of Advanced Cardiac Life Support for infants and children.

Miller, James

Medications

Medications

Full Name	Role In Case
Acetaminophen/hydrocodone	**Class**: Opioid Combo **Metabolism**: liver extensively **Cautions**: hepatic impairment, renal impairment, GI obstruction or stricture,
Acetaminophen/oxycodone	**Class**: analgesic **Metabolism**: liver **Cautions**: hepatic impairment, renal impairment, chronic malnutrition
Benadryl	**Class**: Antihistamine **Metabolism**: liver **Cautions**: CNS depressant use, GI obstruction, PUD, poor CYP2D6 metabolizer
Benazepril	**Class**: ACE Inhibitor **Metabolism**: Liver **Cautions**: renal impairment, hypotension, volume impairment,
Citalopram	**Class**: SSRI **Metabolism**: liver, extensively **Black Box Warnings**: Suicidality **Cautions**: hepatic impairment, renal impairment, severe, volume depletion, poor CYP2C19 metabolizer
Diazepam	**Class**: Benzodiazepine **Metabolism**: liver extensively **Cautions**: renal impairment, hepatic impairment mild-moderate,
Meclizine	**Class**: antihistamine, antiemitic, (motion sickness/dizziness) **Metabolism**: unknown **Cautions**: CNS depressant use, GI obstruction, PUD
Olanzepine	**Class**: antispychotic **Metabolism**: liver **Cautions**: hepatic impairment, concurrent hepatotoxic agent use, hypovolemia, dehydration, diabetes, GI/GU obstruction,

Miller, James

Documents

Documents

Bate #	Year	Full Name
000057 - 000218	2009	Emergency Life Flight
000219 - 000342	2009	Standard Medical Center
000343 - 000581	2008	Generic Medical Center
000582 - 000610	2009	Family Health Center
000001 - 000056	2009	Average Medical Center

Miller, James

Works Cited

Works Cited

Authority Name	Description	Notes	Extract Text	Linked Issues
Air & Surface Transport Nurses Association	Air & Surface Transport Nurses Association. (2010). *Position Paper: Advanced Airway Management.* Greenwood Village, CO: ASTNA.	These are the flight nursing standards of care that pertain to advanced airway management. The flight nurse failed to manage the airway appropriately, including manipulating the tube and end tidal capnography.	Advanced Airway Management Position Statement ASTNA believes those registered nurses who perform advanced airway management must have a comprehensive educational and clinical skills program that documents and includes, but is not limited to: 19, 20 o Clinical assessment skills to ascertain when a patient is in need of an advanced airway o Basic airway skills, including basic life saving (BLS) skills of opening and maintaining airway properly while providing effective ventilation **utilizing mask ventilation with ambu bag**. o **Indications for advanced airway management techniques** o **The use of equipment needed to safely monitor a patient requiring intubation including a pulse oximeter, cardiac monitor and end-tidal capnography. End-tidal capnography is also used in the continuous monitoring of endotracheal tube placement in the trachea.** o **Use of alternative or rescue airways when endotracheal intubation cannot be achieved. These include but are not limited to, laryngeal mask airway (LMA), intubating laryngeal mask airways (I-LMA), King airway, and Combitube airway.**	BSOC: Failure to adequately monitor and assess an advanced airway and respond to an inappropriate placement of an endotracheal tube.
Anesthesia and Analgesia	Chen, E., Logman, Z., Glass, P., & Bilfinger, T. (2001). A Case of Tracheal Injury After Emergent Endotracheal Intubation: A Review of the Literature and Causalities. *Anesthesia and Analgesia*, 1270-1.	This article shows that tracheal lacerations from intubation is a known complication and lists the known causes.	Tracheal lacerations are a rare, but serious, complication after orotracheal intubation (1). There are multiple factors leading to this injury. Operator errors (**multiple attempts, inexperienced physicians), equipment selection (inappropriate use of stylets, cuff overinflation, malposition of the tube, improper tube size),** patient actions (abrupt movements, excessive coughing), and anatomic factors (steroid-weakened membranes, chronic obstructive pulmonary	BSOC: Failure to appropriately assess and intervene on a difficult airway., BSOC: Failure to adequately monitor and assess an advanced airway and respond to an inappropriate placement of an endotracheal tube.

Works Cited

Authority Name	Description	Notes	Extract Text	Linked Issues
**	**	**	disease, tracheomalacia) all contribute to this problem (7,9-13).	**
Annals of Emergency Medicine	Lashutka, M., Chandra, A., Murray, H., Phillips, G., & Hiestand, B. (2004). The Relationship of Intraocular Pressure to Intracranial Pressure. *Annals of Emergency Medicine*, 585-591.	This study supports the connection between Retinal Hemorrhage and intracranial pressure. If the intraocular pressure is elevated, the retinal vasculature is very likely to be affected and the blood vessels may burst.	Abnormal intraocular pressure as measured with the handheld tonometer is an excellent indicator of abnormal intracranial pressure in patients with known intracranial pathology.	Retinal Hemorrhages
Annals of Emergency Medicine	Greenes, D., & Schutzman, S. (1998). Occult Intracranial Injury in Infants. *Pediatrics*, 680-686.	Table 2 of this study indicate the 19 study subjects with occult (occult = "hidden" or minute, small, asymptomatic) head injury were ages 3 days to 10 months, with falls as low as two feet, as well as including child abuse victims. The symptoms of the children with the subdural hematoma were all some semblance of "alert, active, playful." This indicates that not only can ground level falls cause small subdural hematomas, but that the small bleeds can be completely asymptomatic.	Conclusion: We found that 19 of 101 ICIs in infants admitted with head trauma were clinically occult. All 19 occult ICIs occurred in infants younger than 12 months of age, and 18 of 19 had skull fractures. None experienced serious neurologic deteriora- tion or required surgical intervention. Physicians cannot depend on the absence of clinical signs of brain injury to exclude ICI in infants younger than 1 year of age. Overall, the 19 patients with occult ICI included 7 (37%) with subdural hematoma.	July 7-8th